



THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE ■

Sustainability Impact Assessment in Support of the Association Agreement Negotiations between the European Union and Mercosur

Draft Final Report • July 2020



This report is commissioned via LSE Consulting which was set up by the London School of Economics and Political Science to enable and facilitate the application of its academic expertise and intellectual resources.

LSE Enterprise Ltd, trading as LSE Consulting, is a wholly owned subsidiary of the London School of Economics and Political Science. The LSE trade mark is used under licence from The London School of Economics and Political Science.

LSE Consulting

LSE Enterprise Ltd
London School of Economics and Political Science

Houghton Street
London, WC2A 2AE

(T) +44 (0)20 7106 1198
(E) consulting@lse.ac.uk
(W) lse.ac.uk/consultancy

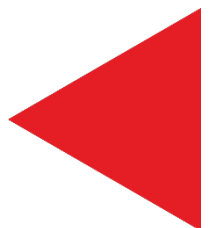


Table of Contents

List of Tables	5
List of Abbreviations	11
Executive Summary	14
1. Introduction	19
1.1. Research Aims and Objectives	19
1.2. Background	20
2. Economic Analysis	22
2.1. Methodology	22
2.2. Literature review	26
2.3. Scenario Results	31
2.4. Policy Recommendations	37
3. Social Analysis	38
3.1. Methodology	38
3.2. Baseline	38
3.3. Analysis	55
3.4. Conclusion	62
3.5. Policy Recommendations	63
4. Environmental Analysis	65
4.1. Methodology	65
4.2. Baseline	65
4.3. Analysis of impact	86
4.4. Conclusion	103
4.5. Policy recommendations	104
5. Human Rights Analysis	106
5.1. Methodology	106
5.2. Baseline	109
5.3. Analysis	156
5.4. Conclusion	170
5.5. Policy Recommendations	172
6. Sectoral Analysis	174
6.1. Qualitative Analysis	174

6.2. Cross-Cutting Issues	175
6.3. Sectoral analysis: Agriculture	177
6.4. Sectoral analysis: Manufacturing	231
6.5. Sectoral analysis: Services	279
7. Consultation Process	325
7.1. Roundtables	325
7.2. Civil Society Dialogue Meetings	327
7.3. Written comments	327
7.4. Questionnaires	331
7.5. Sao Paulo and Buenos Aires Workshops and Consultation Activities	331
8. Policy Recommendations	333
8.1. Recommendations based on the Economic Analysis	333
8.2. Recommendations based on the Social Analysis	333
8.3. Recommendations based on the Environmental Analysis	335
8.4. Recommendations based on the Human Rights Analysis	335
8.5. Recommendations for the Agriculture Sector	338
8.6. Recommendations for the Manufacturing Sector	340
8.7. Recommendations for the Services Sector	341
Bibliography	343
Annex 1. Indicators and Data Sources	356
Annex 2. Roundtable Summaries	359
Annex 3. Civil Society Dialogue Minutes	380

List of Tables

Table 1: Mercosur countries overview	21
Table 2: Sectors included	23
Table 3: Regions	24
Table 4: NTB cuts in EU and Mercosur	26
Table 5: Macroeconomic Results for the Conservative scenario	31
Table 6: Macroeconomic Results for the Ambitious scenario	32
Table 7: Sectoral Output changes in the Conservative Scenario	33
Table 8: EU-Mercosur bilateral trade changes by sector in the conservative scenario	34
Table 9: Sectoral Output changes in the Ambitious Scenario	35
Table 10: EU-Mercosur bilateral trade changes by sector in the ambitious scenario	36
Table 11: Union density and concentration among Mercosur members	48
Table 12: Convention 87 and 98 cases brought to CEACR in Mercosur	50
Table 13: CEACR cases related to forced labour in Mercosur	51
Table 14: CEACR cases related to child labour in Mercosur	53
Table 15: CEACR cases related to discrimination in Mercosur	55
Table 16: Welfare, real wage and price effects on EU and MERCOSUR Members	57
Table 17: Trade-related MEAs signed by the EU and Mercosur	69
Table 18: CO2 Emissions by sector in Mercosur countries and the EU (%)	74
Table 19: Climate change targets in NDC content and laws	76
Table 20: Electricity sources in Mercosur countries and the EU	77
Table 21: Top 10 countries in terms of annual forest cover loss in the period 2010-15 (plus EU)	78
Table 22: Change in CO2 emissions in the two scenarios (long term impact, % change)	86
Table 23: Percentage Change in other GHG emissions in the two scenarios	87
Table 24: Change in total GHG emissions and GDP in the two scenarios (long term impact, % change)	89
Table 25: Percentage of international partnership by co-inventor country (average 2007-2014) – All patents	96
Table 26: Impact of the EU-Mercosur AA on MEA enforcement	97
Table 27: Selected Human Rights	107
Table 28: Identification of sectoral effects and possible human rights linkages	107
Table 29: Human Rights Indicators	108
Table 30: Commitments to the Right to an Adequate Standard of Living	110
Table 31: Right to an Adequate Standard of Living indicators	110
Table 32: Commitments to the Right to Health	120
Table 33: Right to Health indicators	120
Table 34: Commitments to the Rights of Indigenous Peoples	134
Table 35: Commitments to Gender Equality	148
Table 36: Gender Equality Indicators	149
Table 37: Macroeconomic impacts of the AA in the ambitious scenario	169
Table 38: Beef balance in the EU (in thousands of tonnes carcass weight equivalent)	178
Table 39: Beef balance in Mercosur (in thousands of tonnes carcass weight equivalent)	178
Table 40: EU-Mercosur bilateral trade (in billions of Euros)	179
Table 41: Imports of beef products from Mercosur (in millions of Euros)	181
Table 42: Mercosur beef exports to the EU (in millions of Euros)	181
Table 43: MFN tariff applied by the EU on beef products (2016)	182
Table 44: Animal protection regulation in Mercosur countries	184
Table 45: Bovine meat results in the CGE Model	185
Table 46: Land use in Mercosur and the EU (2015) in millions of hectares	187
Table 47: Share of beef in average household consumption in Mercosur	191
Table 48: Least Developed Countries exports of beef (in millions of Euros)	192
Table 49: Balance sheet of dairy products (in thousands of tonnes)	194
Table 50: EU-Mercosur bilateral trade of dairy products (in millions of Euros)	194
Table 51: EU dairy exports to Mercosur (in thousands of Euros)	196
Table 52: Total Mercosur exports of dairy products (including intra-Mercosur, in millions of Euros)	197
Table 53: EU and Mercosur MFN tariffs applied to dairy products in 2016 (%)	198
Table 54: Summary of results in the dairy sector in CGE analysis (million EUR)	201
Table 55: Greenhouse gases emissions in Mercosur and the EU in the production of milk (2012-13)	202
Table 56: EU Sugar Market Balance (Million Tonnes)	207
Table 57: EU Ethanol balance (Million Tonnes)	207
Table 58: Sugar and ethanol production in Brazil (million tonnes)	208
Table 59: Revealed Comparative Advantage of EU and Mercosur in sugar and ethanol	209

Table 60: Share of Mercosur in EU trade	210
Table 61: Top five products imported by EU from Mercosur in the sugar sector	211
Table 62: Top exported products by the EU to Mercosur	211
Table 63: Applied MFN tariffs imposed by Mercosur on sugar and ethanol products	213
Table 64: Share of beverages in total EU-Mercosur trade in 2016	218
Table 65: Top 10 beverage products exported from the EU to Mercosur countries, between 2012 and 2016	219
Table 66: Top 10 beverage products imported by the EU from Mercosur countries, between 2012 and 2016	220
Table 67: EU shares of total beverage imports of Mercosur countries in 2016	221
Table 68: Mercosur countries' shares in total EU beverage imports in 2016	222
Table 69: Mercosur countries' applied MFN tariffs on beverage imports from the EU, by HS 6-digit product, 2016	224
Table 70: EU applied MFN tariffs on beverage imports from Mercosur countries, by HS 6-digit product, 2016	225
Table 71: LDC total and selected LDCs with significant beverage exports to the EU (2012-2016), by product	230
Table 72: EU exports to Mercosur, top 20 most exported T&G products, 2016	234
Table 73: EU imports from Mercosur, top 20 most imported T&G products, 2016	236
Table 74: Top 20 Pharmaceutical and Chemical Exports from the EU to Mercosur	246
Table 75: Top 20 Pharmaceutical and Chemical Imports from Mercosur to the EU	248
Table 76: Extra-EU Exports of SMEs and Large Companies, Pharmaceutical and Chemical	250
Table 77: Extra-EU Imports of SMEs and Large Companies, Pharmaceutical and Chemical	251
Table 78: EU-Mercosur bilateral trade on electronic equipment and machinery (2015-18) (in thousands of Euros)	253
Table 79: Mercosur trade on Machinery and electronic equipment (2015-18) (in millions of Euros)	254
Table 80: Top EU exports to Mercosur average 2015-18 (in thousands of Euros)	256
Table 81: Top EU imports from Mercosur average 2015-18 (in thousands of Euros)	258
Table 82: EU-Mercosur bilateral trade changes in the machinery and electronic equipment and manufactures nec	260
Table 83: Output and total trade changes in the machinery and electronic equipment and manufactures nec	261
Table 84: Labour demand changes in the machinery and electronic equipment and manufactures nec	263
Table 85: Applied tariffs in the automotive industry (selected countries, %, 2016)	266
Table 86: Changes in the Motor Vehicle Sector	277
Table 87: Changes in private consumption	279
Table 88: Composition of EU exports to Mercosur by service type	282
Table 89: Composition of EU imports from Mercosur by service type	282
Table 90: Service Trade Barriers for Selected Service Types	283
Table 91: National composition of GDP, Argentina	284
Table 92: National composition of GDP, Brazil	284
Table 93: Other business services trade between the EU and individual Mercosur countries: EU exports	288
Table 94: Other business services trade between the EU and individual Mercosur countries: EU imports	290
Table 95: CGE-model results in the communication and business services sector in the conservative scenario	293
Table 96: CGE-model results in the communication and business services sector in the ambitious scenario	293
Table 97: Argentina's current commitments under the WTO GATS agreement in business services	294
Table 98: Brazil's current commitments under the WTO GATS agreement in business services	296
Table 99: Uruguay's current commitments under the WTO GATS agreement in business services	299
Table 100: Composition of EU services exports to Mercosur by service type	303
Table 101: Composition of EU services imports from Mercosur by service type	303
Table 102: Service Trade Barriers for Selected Service Types	304
Table 103: National composition of GDP, Argentina	304
Table 104: National composition of GDP, Brazil	305
Table 105: Financial and insurance services trade between the EU and individual Mercosur countries: EU exports	307
Table 106: Financial and insurance services trade between the EU and individual Mercosur countries: EU imports	308
Table 107: CGE-model results in the financial services and insurance sector in the conservative scenario	310
Table 108: CGE-model results in the financial services and insurance sector in the ambitious scenario	310
Table 109: Current commitments under the WTO GTAS agreement, financial services, Argentina	312
Table 110: Current commitments under the WTO GTAS agreement, financial services, Brazil	315
Table 111: Current commitments under the WTO GATS agreement, financial services, Paraguay	318
Table 112: Current commitments under the WTO GTAS agreement, financial services, Uruguay	320
Table 113: Stakeholder Consultation Brussels Roundtables - Findings	325
Table 114: Stakeholder Consultation Partner Country Roundtables - Findings	326
Table 115: Civil Society Dialogue Meetings - Findings	327
Table 116: Online Consultation responses to the Interim Report CSD	328
Table 117: In-country activities - Main Findings	332
Table 118: Selected indicators	356
Table 119: Primary and secondary data sources	357
Table 120: Sectoral Private Consumption changes in the Conservative Scenario	387
Table 121: Sectoral Exports changes in the Conservative Scenario	389

Table 122: Sectoral Imports changes in the Conservative Scenario	390
Table 123: Sectoral Private Consumption changes in the Ambitious Scenario	391
Table 124: Sectoral Exports changes in the Ambitious Scenario	392
Table 125: Sectoral Imports changes in the Ambitious Scenario	393
Table 126: Sectoral Unskilled Employment changes in the Conservative Scenario	394
Table 127: Sectoral Skilled Employment changes in the Conservative Scenario	395
Table 128: Sectoral Unskilled Employment changes in the Ambitious Scenario	396
Table 129: Sectoral Skilled Employment changes in the Ambitious Scenario	397

List of Figures

Figure 1: Map of Mercosur	20
Figure 2: EU and Mercosur unemployment trends (2000-2019)	39
Figure 3: Informal employment and informal sector in Mercosur countries as a percent of employment (%)	40
Figure 4: Number of people living with less than \$1.90 a day (millions, 2011 PPP)	41
Figure 5: Number of people living with less than \$1.90 a day (millions, 2011 PPP)	42
Figure 6: Percentage of people living with less than \$5.50 a day, 2011 PPP	42
Figure 7: Income inequality in Mercosur (Gini coefficient)	43
Figure 8: Brazil: Convergence in Access to Durable Goods by Households (% of Brazilian households)	43
Figure 9: Income convergence between and within Brazilian states and regions	45
Figure 10: Measures of freedom of association and labour rights protection in Mercosur (2019)*	49
Figure 11: EU employment supported by extra-EU exports: number of jobs in millions	56
Figure 12: EPI for Mercosur and the EU	70
Figure 13: EPI score over time	70
Figure 14: Scores in EPI sub-categories. EU and Mercosur countries in 2018	71
Figure 15: Climate Laws, Institutions and Measures Index and GDP per capita	72
Figure 16: Total GHG Emissions and emissions per capita in Mercosur countries and the EU (2015)	73
Figure 17: Total GHG Emissions by type of gas in Mercosur countries and the EU (2015)	73
Figure 18: Levels of CO2 per capita in 2015 (left) and trends in CO2 per capita since 1970 (right)	73
Figure 19: Levels of methane per capita in 2015 (left); trends since 1970 (right)	74
Figure 20: Levels of Nitrous Oxide per capita in 2015 (left) and trends since 1970 (right)	75
Figure 21: Deforestation in the Legal Amazon states (left) and Cerrado (right)	79
Figure 22: Wood production for Brazil (left) & other Mercosur countries (right)	81
Figure 23: Pesticide use by income levels (2013-2014) and over time (1990-2015)	83
Figure 24: Fertiliser use by income levels (2013-2014) and over time (2002-2010)	84
Figure 25: Exposure to PM2.5	85
Figure 26: Waste generation and collection	85
Figure 27: Decomposition of impact on CO2 emissions: conservative scenario (left) and ambitious scenario (right)	87
Figure 28: Decomposition of impact on GHG emissions: methane (left) and nitrous oxide (right)	88
Figure 29: Decomposition of impact on total GHG emissions: conservative scenario and ambitious scenario	89
Figure 30: Patents applications related to climate change mitigation by applicant's country (2005-2015)	96
Figure 31: Poverty Headcount Ratio at \$1.90 a day in Northern EU MS (top left); Eastern EU MS (top right); Western EU MS (bottom left); and Southern EU MS (bottom right)	111
Figure 32: Percentage of population with access to basic sanitation facilities (left) electricity (middle) and information/communication technologies (right) in the EU	112
Figure 33: Percentage of population undernourished (left) lacking access to basic drinking water services (middle) and lacking access to clean cooking technologies (right) in the EU	113
Figure 34: Poverty Headcount Ratio at \$1.90 a day (% of population)	114
Figure 35: Population living in slums (% of urban) (top left); Access to basic sanitation facilities (top right) % of population with access to electricity (bottom left); and information/communication technologies (bottom right)	116
Figure 36: Percentage of population undernourished (left) lacking access to basic drinking water services (middle) and lacking access to clean cooking technologies (right) in Argentina	118
Figure 37: Domestic general government health expenditure (% of GDP) (left) and Universal Health Coverage Index score (right)	121
Figure 38: Nurses and midwives, physicians, and specialist surgeons per 100,000 people (left); Hospital beds per 1,000 people (right)	121
Figure 39: Proportion of population spending more than 10% and more than 25% of household consumption on out of pocket payments	122
Figure 40: Medicine Price Index across EU MS	123
Figure 41: Cause of death (left); mortality rate due to inadequate living conditions per 1000,000 people (right); and prevalence of anemia (right)	123
Figure 42: Prevalence and Incidence of Mental Disorders, and suicide mortality rate per 100,000 people	124
Figure 43: Domestic general government health expenditure (% of GDP) (top left) and Universal Health Coverage Index ranking (top right) Nurses, midwives, physicians, and specialist surgeons per 100,000 people (bottom left); Hospital beds per 100,000 people (bottom right)	125
Figure 44: Proportion of population spending more than 10% and more than 25% of household consumption on out of pocket payments (left) and Risk of impoverishing expenditure for surgical care (right)	127
Figure 45: Medicine Price Index in Argentina and Brazil (top); prevalence and treatment of HIV (bottom left); and rates of immunisation (bottom right)	128

Figure 46: Cause of death (left) and mortality rate due to inadequate living conditions per 100,000 people (middle) and suicide mortality rate per 100,000 people (right)	130
Figure 47: Prevalence of underweight children (left); overweight children (right); anemia among children and women (bottom left); and stunting (bottom right)	131
Figure 48: Map of Indigenous Communities in Argentina (left); Brazil (middle); and Paraguay (right)	137
Figure 49: Square kilometres of newly demarcated land in Brazil	139
Figure 50: Indigenous Occupational Structure by Sector	140
Figure 51: Percentage of population unemployed	141
Figure 52: Infant Mortality Rate	142
Figure 53: Access to Adequate Living Conditions for Indigenous Peoples	143
Figure 54: Rates of Illiteracy among Indigenous Populations	144
Figure 55: Average years of study among Indigenous Populations	145
Figure 56: School Attendance	146
Figure 57: Percentage of Indigenous Population Fluent in traditional Language in Paraguay	147
Figure 58: Gender Inequality Index scores among EU Member States	149
Figure 59: Mortality rate (left); Life expectancy (middle); progression to secondary school (right)	150
Figure 60: Unemployment (top left); % of women in wage employment (top right); % of population in vulnerable employment (bottom left); time spent on unpaid work (bottom right)	151
Figure 61: Employment by Gender and Sector	152
Figure 62: Gender Inequality Index scores among Mercosur partner countries	153
Figure 63: Mortality rate (left); Life expectancy (middle); progression to secondary school (right)	153
Figure 64: Unemployment (top left), % of women in wage employment (top right); % in vulnerable employment (bottom left); % of time spent on unpaid work (bottom right)	154
Figure 65: Percentage of Female Employment (left) and Male Employment (right) by Sector, 2017	156
Figure 66: Share of sugar & ethanol imports in total imports from Mercosur (%)	210
Figure 67: Applied MFN tariffs imposed by the EU in 2016 (AVE)	212
Figure 68: Tariffs on sugar products	212
Figure 69: Tariffs on Ethanol products	212
Figure 70: EU-Mercosur trade in alcoholic & non-alcoholic beverages, 2012-2016	218
Figure 71: EU beverage production in € billions, by beverage type, 2012-2014	222
Figure 72: Beer & wine production (million tonnes) in Mercosur, 2012-2014	223
Figure 73: EU exports of garment and textile to Mercosur by country, 2012-2016	232
Figure 74: EU exports of garment and textile to Mercosur by type, 2012-2016	233
Figure 75: EU imports of garment and textile from Mercosur, 2012-2016	235
Figure 76: EU import of garment and textile from Mercosur by type, 2012-2016	235
Figure 77: EU net export of T&G to Mercosur, 2012-2016	237
Figure 78: Mercosur average applied tariff by country, HS 50-62, 2005-2016	237
Figure 79: Mercosur average applied tariff by HS code, HS 50-62, 2016	238
Figure 80: EU average applied tariff by HS code, HS 50-62, 2015	238
Figure 81: EU and Mercosur average applied tariff, HS 50-62, 2007-2015	239
Figure 82: EU28 Chemical and Pharmaceutical Exports and Imports	244
Figure 83: EU28 Trade in Chemical and Pharmaceutical Products with Mercosur (Total), in € million	245
Figure 84: EU28 Trade in Chemical and Pharmaceutical Products with Mercosur (% of total extra-EU28 chemical and pharmaceutical trade)	245
Figure 85: Automotive Intra-Regional Trade Index in EU-28	267
Figure 86: Automotive Intra-Regional Trade Index in Mercosur	268
Figure 87: EU-28 - Motor Vehicle Production	268
Figure 88: Argentina - Motor Vehicle Production	269
Figure 89: Brazil - Motor Vehicle Production	269
Figure 90: Motor Vehicle Production by Type	270
Figure 91: EU-28 - Motor Vehicle Registrations	270
Figure 92: Argentina - Motor Vehicle Sales	271
Figure 93: Brazil - Motor Vehicle Sales	271
Figure 94: EU-28 External Trade in Motor Vehicles (excluding intra-regional trade), EUR mn	272
Figure 95: Mercosur - External Trade in Motor Vehicles (excluding intra-regional trade), EUR mn	272
Figure 96: EU-28 External Trade in Auto Parts (excluding intra-regional trade), EUR mn	273
Figure 97: Argentina, External & intra-regional Trade in Auto Parts, EUR mn	274
Figure 98: Brazil - External Trade in Auto Parts,* EUR mn	274
Figure 99: Bi-regional Trade of Mercosur and EU-28 in Motor Vehicles, EUR mn	275
Figure 100: EU service exports and imports to/from Mercosur	280
Figure 101: EU service exports to selected countries	280
Figure 102: EU service imports from selected countries	281

Figure 103: Importance of the EU as trading partner for Mercosur (services)	281
Figure 104: Share in total Extra-EU28, exports, other business services, 2015	285
Figure 105: Share in total Extra-EU28 imports by sector, 2015	286
Figure 106: Average annual growth rate of EU services exports, 2010 - 2015	287
Figure 107: Average annual growth rate of EU services imports, 2010 - 2015	287
Figure 108: Services trade restrictiveness (STRI) for professional services in Argentina	295
Figure 109: Services trade restrictiveness (STRI) for professional services in Brazil	297
Figure 110: Brazil's services trade restrictiveness in the business services sector	298
Figure 111: Services trade restrictiveness (STRI) for professional services in Paraguay	298
Figure 112: Services trade restrictiveness (STRI) for professional services in Uruguay	300
Figure 113: Share in total Extra-EU28 exports, financial and insurance services, 2015	305
Figure 114: Share in total Extra-EU28 imports, financial and insurance services, 2015	305
Figure 115: Average annual growth rate of EU exports, 2010 - 2015	306
Figure 116: Average annual growth rate of EU imports, 2010 - 2015	306
Figure 117: Services trade restrictiveness (STRI) for banking services in Argentina	313
Figure 118: Services trade restrictiveness (STRI) for insurance services in Argentina	314
Figure 119: Services trade restrictiveness (STRI) for banking services in Brazil	316
Figure 120: Services trade restrictiveness (STRI) for insurance services in Brazil	317
Figure 121: Services trade restrictiveness (STRI) for banking services in Paraguay	319
Figure 122: Services trade restrictiveness (STRI) for insurance services in Paraguay	319
Figure 123: Services trade restrictiveness (STRI) for Banking services in Uruguay	321
Figure 124: Services trade restrictiveness (STRI) for insurance services in Uruguay	321

List of Abbreviations

AA	Association Agreement
ACP	African, Caribbean and Pacific Countries
ARG	Argentina
AVE	Ad Valorem Equivalents
BEC	Broad Economic Categories
BNDES	Brazilian Development Bank
BRA	Brazil
CAP	Common Automobile Policy
CDE	Constant Difference Elasticity
CEDAW	Convention on the Elimination on all Forms of Discrimination Against Women
CERD	Convention on Elimination of all Forms of Racial Discrimination
CET	Common External Tariff
CETA	EU-Canada Comprehensive and Economic Trade Agreement
CETM	Copenhagen Economic and Trade Model
CGE	Computable General Equilibrium
CLIMI	Climate Laws, Institutions and Measures Index
CLS	Core Labour Standards
CMC	Consejo Mercado Comun
CMPED	Centro Mercosur de Promocion de Estado de Derecho
CO ₂	Carbon Dioxide
CSD	Civil Society Dialogue
CSR	Corporate Social Responsibility
DDA	Doha Development Agenda
DG	Directorate General
DOM	Domestic
EBA	Everything But Arms
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECA	European Consumer Agenda
EFTA	European Free Trade Association
EIDHR	European Instrument for Democracy and Human Rights
EPO	European Patent Office
ESAF	Economic and Social Advisory Forum
EU	European Union
FAO	Food and Agriculture Organization
FBD	Food Borne Illness
FDI	Foreign Direct Investment
FK	Finger-Kreinin
FIDH	International Federation for Human Rights
FMD	Foot-and-Mouth Disease
FTA	Free Trade Agreement
FTIS	Foreign Trade Information System
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GDyn Model	Dynamic GTAP Model
GHG	Green House Gas

GP GC	Global Public Goods and Challenges
GSP	Generalized System of Preferences
GTAP	Global Trade Analysis Project
HR	Human Rights
HRC	Human Rights Council
HR IA	Human Rights Impact Assessment
HS6	Harmonized System at 6 Digits
IA	Impact Assessment
ICCPR	International Covenant on Civil and Political Rights
IEA	International Energy Agency
ICESCR	International Covenant on Economic, Social, and Cultural Rights
ILO	International Labor Organization
INADI	National Institute Against Discrimination, Racism, and Xenophobia
IMF	International Monetary Fund
IPPDH	Instituto de Políticas Públicas en Derechos Humanos
ITUC	International Trade Union Confederation
I2E	Import to Export
JRC	Joint Research Centre
LDC	Least Developed Country
LES	Linear Expenditure System
LMDI	Log Mean Divisia Index
LSE	London School of Economics and Political Science
LULUCF	Land Use, Land Use Change and Forestry
MEA	Multilateral Environmental Agreements
Mercosur	Mercado Común del Sur
MFN	Most Favoured Nation
NAMA	Non-Agricultural Market Access
NGO	Non-Governmental Organization
NTB	Non-Tariff Barriers
NTM	Non-Tariff Measures
NUTS2	Nomenclature of Territorial Units for Statistics Level 2
ODM	Observatorio de la Democracia del Mercosur
OECD	Organization for Economic Cooperation and Development
PCT	Patent Cooperation Treaty
PE	Partial Equilibrium
PRY	Paraguay
RAADH	Reunión de Ministras y Altas Autoridades de DDHH y Cancillerías del Mercosur y Estados Asociados
RAFRO	Reunión de Ministros y Altas Autoridades Sobre los Derechos de los Afrodescendientes
RAPEX	Rapid Exchange of Information System
RAPIM	Reunión de Autoridades Sobre Pueblos Indígenas
RBC	Responsible Business Conduct
RCA	Revealed Comparative Advantage
R&D	Research and Development
RAAM	Reunión de Altas Autoridades de la Mujer
RoW	Rest of World
RTA	Regional Trade Agreements
SADC	South Africa Development Community
SDT	Special Differential Treatment
SIA	Sustainability Impact Assessment

SENAF	National Secretariat of Childhood, Adolescence, and Family
SENASA	Servicio Nacional de Sanidad
SITC	Standard International Trade Classification
SME	Small Medium Enterprise
SPS	Sanitary & Phytosanitary
STRI	Service Trade Restrictiveness Index
TBTs	Technical Barriers to Trade
TEU	Treaty on European Union
TiVA	Trade in Value Added
ToR	Terms of Reference
TPP	Trans-Pacific Partnership
TRQ	Tariff Rate Quotas
UNCTAD	United Nations Conference on Trade and Development
UNDRIP	Declaration on the Rights of Indigenous Peoples
UNEP	United Nations Environmental Program
UNESCAP	UN Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UNAI	United Nations Academic Impact
UNIDO	United Nations Industrial Development Organization
UN UPR	UN Universal Periodic Review
URY	Uruguay
USPTO	United States Patent and Trademark Office
VAT	Value Added Tax
WDI	World Development Index
WIOD	World Input-Output Database
WTO	World Trade Organization
WTO MC	World Trade Organization Ministerial Conference

Executive Summary

The trade relations between the EU and Mercosur are essential for both blocs, given that the EU is the second trading partner for Mercosur and Mercosur the eleventh trading partner for the EU. An inter-regional Framework Cooperation Agreement from 1999 currently forms the basis for EU-Mercosur trade relations. Following negotiations since 2000, in June 2019 the EU and Mercosur reached a political agreement for an Association Agreement including a trade component.

This Sustainability Impact Assessment (SIA) provides an examination of the potential economic, social, human rights and environmental impact of the trade component of an Association Agreement between the EU and Mercosur, specifically Argentina, Brazil, Paraguay and Uruguay. This analysis lays the basis for designing flanking and mitigating measures a number of which are proposed throughout the study.

The report employs the dynamic version of the GTAP Model known as GDyn to study the impacts of two scenarios, one conservative and one more ambitious, with respect to the outcome of the negotiations in terms of tariff and non-tariff measures reductions by both parties. For Mercosur the conservative scenario assumes elimination of tariffs in 90% of the industrial products and 80% in agricultural products. In the ambitious scenario, Mercosur eliminates tariffs in 100% of products. The EU eliminates tariffs in all industrial products in both scenarios, applies partial tariff cuts of 15% in the conservative scenario and 30% in the ambitious scenario in rice, sugar, ruminant meat and other meat sectors. For the cereals and the dairy sector, cuts of 15% are applied in the conservative scenario and cuts of 100% in the ambitious scenario.

Quantitative methods are then combined with qualitative approaches to address social, environmental and human rights impacts of the free trade agreement as well as the specific economic impacts on ten important sectors¹. This qualitative analysis draws on extensive consultation with stakeholders in both regions through workshops, civil society dialogues, questionnaires and interviews.

In the conservative scenario, GDP in the EU expands by 10.9 billion Euros (0.1%) and in Mercosur by 7.4 billion Euros (0.3%) by 2032, in comparison to the modelling baseline without the FTA. In the ambitious scenario, GDP in the EU expands by 15 billion Euros (0.1%) and in Mercosur by 11.4 billion Euros.

EU total exports to the world (extra-EU) expand by 0.4% in the conservative scenario and by 0.6% in the ambitious scenario. In Mercosur, total exports to the world expand by between 0.5% in Paraguay and 4.5% in Brazil in the conservative scenario and by between 0.7% in Uruguay and 6.1% in Brazil in the ambitious scenario. EU imports increase by 0.9% (1.1% in the ambitious scenario). In Mercosur, imports expand between 0.1% in Paraguay and 1.3% in Brazil in the conservative scenario and by between 0.0% in Paraguay and 1.4% in Brazil in the ambitious scenario.

The modelling results provide also some valuable insights for the social analysis. In the conservative scenario, the agreement reduces consumer prices in Mercosur by between 0.4% in Paraguay and 1.5% in Brazil (between 0.5% and 2.1% in the ambitious scenario in the same

¹ The sectors for in-depth analysis were selected in consultation with the EC.

countries). In the EU, they increase by 0.2% (0.3% in the ambitious scenario). Real wages for both skilled and unskilled workers in Mercosur increase slightly in the EU, Argentina, Paraguay and Uruguay and remain the same in Brazil. The increase in real wages for unskilled workers' income suggests a positive impact in terms of poverty reduction, although its effect is small in the conservative scenario and only marginally larger in the ambitious scenario.

Employment reductions in certain manufacturing sectors in Mercosur are offset by increases in the agriculture and food production sectors. The impact on the EU sectoral employment patterns is much less significant.

Labour standards in Mercosur are, in general, in line with those observed in countries at a similar level of development. There are higher levels of informality, which is a product of poor enforcement of and compliance with national legislation that tends to follow international conventions. The chapter about social aspects examines freedom of association, forced labour, child labour and discrimination in the EU and in Mercosur countries and assesses the potential impact of the Agreement on these issues. The trade and sustainable development (TSD) chapter of the Agreement brings an opportunity to engage and cooperate between both parties to help to lock in, or help renew the social achievements of the twenty-first century in the Mercosur region. The SIA includes a discussion of the value added of EU policies on trade and labour linkage and their efficacy.

The environmental chapter addresses issues such as environmental regulations, greenhouse gases, deforestation and pollution. Environmental policies in Mercosur (like in many other developing regions) are, in general, less stringent than in the EU. Yet, Mercosur's current share of global greenhouse gas emissions is a third of the EU's, in large part because Mercosur countries have on average a cleaner energy mix than EU countries. Brazil and Paraguay have lower per capita emissions than the EU, whereas Argentina and Uruguay's emissions per capita are about the same as the EU's.

The quantitative analysis presented in the report predicts diversion of emissions resulting from diversion of production. The overall result is a small decrease in global CO₂ emissions offset by a small increase in emissions of other greenhouse gases. Emissions intensity of economic activity decreases marginally for the world economy as a whole, i.e. world economies produce less greenhouse gas emissions for a given amount of GDP, with a small increase in emissions intensity in Mercosur offset by a small decrease in the EU.

The expansion of animal production (associated to beef production), sugar cane production and other agricultural products in Mercosur seen in the model is small. Consequently, the analysis does not anticipate an increase in the use and contamination of water or an intensification of the use of pesticides.

For the same reason, no significant expansion of the agricultural frontier would be expected as a result of the Agreement according to the modelling results. This seems realistic especially when we look at past and current productivity trends. Deforestation in Brazil has been on the increase since 2012 having previously declined very sharply in the period 2004-2012, while meat production continued to increase. This period 2004-2012 demonstrates that it is possible to increase agricultural and meat production without increasing pressure on forests. But such a positive outcome will be dependent on the choice of flanking policies as set out in the environmental chapter.

The human rights chapter assesses the likely impacts of the free trade agreement on human rights. It covers in detail the right to an adequate standard of living, the right to the enjoyment of the highest attainable standard of physical and mental health, the rights of indigenous people and gender equality. The moderate increases in GDP, income and consumption that the agreement generates in Mercosur in both scenarios can contribute to improving standards of living. The limited increase of agricultural production is not expected to impact indigenous rights substantially and it is not expected to raise further conflicts. Nevertheless, this situation and the consequent risks should be monitored carefully following implementation of the agreement. For the same and additional reasons, the agreement will bring limited benefits to the female workforce in rural areas. However, it may bring benefits to women in urban areas by expanding their participation in the labour force, especially the workforce allocated to the service sector.

The sectoral chapter builds on the modelling results while also drawing on other sources to provide more in-depth analysis of the impacts on ten important sectors:

- In the beef sector, EU imports from Mercosur will increase in both scenarios (30% and 64%, respectively). EU output will fall by 0.7% (conservative) and 1.2% (ambitious). The sectoral analysis examines the expected impact in the beef sector in more detail, taking account of the segmentation of the beef market and of existing patterns of in-quota and out-of-quota trade. The section also assesses the potential impact on animal welfare taking account of current legislation in the countries concerned and the existing framework for EU-Mercosur dialogue and cooperation.
- EU dairy exports to Mercosur increase by 91% (conservative) and 121% (ambitious) as a result of a reduction of high import duties in Mercosur. The recognition of denomination of origin by Mercosur countries may expand export of cheese further. For Mercosur exporters, the agreement expands dairy exports to the EU by 18% (conservative) and 165% (ambitious) but from a low base; and further expansion will depend on more Mercosur exporters improving sanitary conditions, animal welfare and other quality features in production.
- EU exports of beverages to Mercosur expand by 36% (38% in the ambitious scenario) and exports from Mercosur by 28% (35% in the ambitious scenario). In the case of the EU exports this is expected to be concentrated in wine and spirits and it will be primarily attributed to the tariff reduction. In the case of Mercosur, the expansion is likely to be concentrated in wine. Effects on output and consumption in both Mercosur and the EU are very small in both scenarios. The potential impact of the Agreement on fruit juices, which are not covered by the same aggregate as alcoholic beverages and soft drinks in the model, is addressed in the sectoral analysis with reference to historic tariffs and trade flows.
- The agreement will bring an increase of 32% (36% in the ambitious scenario) in the Mercosur exports to the EU of textiles and clothing. At the same time, EU exports to Mercosur will expand by 311% (424% in the ambitious scenario). This is the result of the reduction of very high tariffs in Mercosur on the EU exports. Nevertheless, these changes in the bilateral trade fail to translate into important changes in output and consumption in both EU and Mercosur. Consequently, the social effects associated to employment in a sector of high degree of informality and with a large share of women employed tend to be minimum.

- The reduction of tariffs and non-tariff barriers applied on pharmaceutical and chemical products in both Mercosur and the EU will expand EU exports to Mercosur by 47% and imports by 13% in the conservative scenario. Output in the EU will expand by 0.2%. In Brazil, it remains unchanged in the conservative scenario and increases by 0.2% in the ambitious scenario and in Argentina it contracts by 0.2% in both scenarios. In Brazil, both skilled and unskilled employment fall by 0.5% in both scenarios. In Argentina, they fall by 0.7%-0.9% depending on the scenario. However, the increase in the trade and lower import prices generated by the lower tariffs is likely to benefit other manufacturing sectors and the agricultural sector.
- EU exports to Mercosur of machinery expand by 78% in the conservative scenario and by 100% in the ambitious scenario. EU imports from Mercosur expand by 17% in the conservative scenario and by 22% in the ambitious scenario. In Mercosur, the agreement generates a contraction of production between 1.4% and 3.2% in the conservative scenario (between 1.4% and 5.1% in the ambitious scenario). Both skilled and unskilled employment fall by corresponding amounts. However, this increase in trade is likely to benefit other sectors, both agricultural and industrial, due to improvement in the access to capital goods. EU exports to Mercosur of electronic equipment will expand by 109% in the conservative and 149% in the ambitious scenario. EU imports will expand by 16% (conservative) and 24% (ambitious). In Mercosur, output will increase between 0.4% and 2.1% (conservative) and between 0.8% and 2.6% (ambitious).
- There will be significant increases in trade in vehicles and vehicle parts between the two parties with EU exports increasing 95% and imports by 41% in the conservative scenario. EU exports increase by 114% and imports by 47% in the ambitious scenario. EU will expand its output by 0.5%/0.6% in the conservative/ambitious scenario and Mercosur will contract its output by 1.7%/1.8% (Brazil) and 2.8%/3.2% (Argentina) in both scenarios. The agreement may lead to reform of the current Mercosur Common Automobile Policy which may have additional effects on the sector in the region in a more liberal direction.
- The agreement generates small changes in the trade of business and professional services with EU imports from Mercosur growing by 6.5% in the conservative scenario (by 9.2% in the ambitious one) and exports decreasing by 3.4% in the conservative scenario (and increasing by 1.4% in the ambitious scenario). This is the result of relatively lower barriers to investment and trade in the sector (in both parties). Nevertheless, in both scenarios, the agreement generates increases in output in Mercosur which are associated to the supply of services to other sectors that may see their output expanded by the agreement.
- The financial sector also experiences modest increases in Mercosur exports to the EU in both scenarios and in output in Mercosur. In the EU financial services output contracts marginally in both scenarios. EU financial services exports to Mercosur decrease slightly in the conservative and increase slightly in the ambitious.

There are no significant effects on the outermost regions of the EU or on least developed countries (LDCs). This is the case given the limited impacts on the sugar sector and because Mercosur is not a major exporter of bananas. Although in relative terms the increases in the textiles and apparel trade of Mercosur appear large, in absolute terms they are small.

Consumers may experience benefits as a result of lower prices. In the EU, the impact on consumption tends to be small, although positive in all products. In Mercosur, consumers will experience larger changes notably as regards vehicles consumption, which increases by 1.7%/2.2% in Argentina and 0.6%/0.8% in Brazil in the conservative/ambitious scenario with many other sectors seeing a marginal decline driven in large part by an increase in exports.

Finally, this study formulates recommendations for flanking measures to mitigate any potential risk of negative impact and to maximise potential benefits.

The main recommendations derived from the economic and sectorial analyses are to gradually introduce tariff changes in Mercosur, particularly in economic sectors that are more vulnerable to negative economic impacts (for instance vehicles and machinery). In the same vein, retraining and upskilling programmes are suggested to support the transition of workers between sectors. On the EU side, the use of quotas and partial liberalisation measures should be considered for sensitive agricultural products.

Measures to protect workers (e.g. labour inspection programmes, labour formalisation policies and supporting freedom of association), together with redistributive programmes, should be considered to mitigate social impacts and drive benefit from the FTA. Due diligence measures for businesses at the EU-level would also strengthen potential social benefits.

Recommendations for the environment highlight measures to decrease deforestation and contamination of water resources in Mercosur countries, as well as fulfilling the Paris Agreement commitments and fostering the development of green technology and sharing good practices between parties.

Finally, recommendations for the Human Rights area stress the strengthening of accountability measures and implementation of institutional frameworks that address changes in labour conditions, use of land that affects indigenous peoples, access to health and development of medicine, and gender equality issues.

1. Introduction

1.1. Research Aims and Objectives

The Sustainability Impact Assessment (SIA) provides an examination of the potential economic, social, human rights and environmental impact of the trade component of an Association Agreement between the EU and Mercosur. This analysis lays the basis for designing flanking and mitigating measures a number of which are proposed throughout the study.

Overall, the SIA consists of two complementary components, notably:

- (i) Robust analysis of the economic, social, human rights and environmental impacts, that the association agreement under negotiation could have, in the EU, in the partner countries and in other relevant countries; and
- (ii) Wide consultation process involving stakeholders both in the EU and in the partner countries, which provides opportunities for information-gathering and dissemination results.

The analysis starts with a screening and scoping exercise, and is then followed by overall and sectoral impact analyses which lead to conclusions and recommendations.

The SIA comprises the following elements:

- Overall analysis of the sustainability impacts arising from the negotiations: While a number of key sustainability issues to be analysed in the SIA are cross-cutting and are mainstreamed in the analysis, the identified impacts on small and medium enterprises (SMEs), consumers, Least Developed countries (LDCs), and the EU's outermost regions (OMRs) are summarised in specific sub-sections.
- Economic analysis: Impact of removing tariff and non-tariff measures (NTMs) and wider economic impact of the possible effects of the AA.
- Social analysis: Analysis of the social impact, direct and indirect, of the potential agreement; analysis of the impact of trade opening on employment, working conditions, and distributional impacts, as well as interaction between the envisaged agreement and effective implementation of international conventions *inter alia* Core Labour Standards (CLS) and fundamental Conventions of the International Labour Organisation (ILO).
- Environmental analysis: Detailed analysis of potential environmental impacts, both direct and indirect, of the agreement; analysis of the impact of trade opening on the environment by identifying scale, technology, and product effects, as well as the potential interaction between the AA and multilateral environmental agreements.
- Human rights analysis: Detailed analysis of potential impacts of the trade part of the future AA on HR; analysis of the impact of particular measures in the agreement and their potential impact on the enjoyment of human rights; assess the impact on vulnerable groups and on gender equality.
- Detailed analysis of the specific sectors identified in the inception report.
- Consultation process: the qualitative and quantitative analysis is complemented by detailed input from stakeholders through the consultation process.
- Policy recommendations and accompanying measures.

The scope of the project focuses on the Mercosur-4 (Argentina (ARG), Brazil (BRA), Paraguay (PRY), and Uruguay (URY)). Our analysis uses all relevant data encompassing the period from 2009, when the last SIA was conducted, to the start of the project (September 2017).

1.2. Background

The EU ranks as the second trade in goods partner for Mercosur, while Mercosur ranks as the eleventh trade in goods partner for the EU (Eurostat). In 2018, most exports from the EU to Mercosur were in the machinery and transport equipment, chemicals and manufactured goods sectors. Food and live animals, raw materials as well as mineral fuels and lubricants were the most-featured sectors in EU imports from Mercosur (Eurostat).

In 2015 for Mercosur (Argentina, Brazil, Paraguay and Uruguay), the EU represented nearly 17% of its exports and 19% of its imports in trade in goods.² On the other hand, Mercosur received 2.6% of EU exports and generated 2.7% of the imports. However, this trade takes place primarily under the Most-favoured-nation (MFN) basis where average tariffs applied by Mercosur are 13% and by the EU are 6%.³ There are also significant tariffs peaks in both schedules. Moreover, in addition to the tariff barriers, there are numerous and high non-tariff barriers (NTBs) affecting trade. Multiple regulations exist that affect the trade in services in all provision modes, specially related to the movement of natural persons as well as Foreign Direct Investment (FDI).

Figure 1: Map of Mercosur



² UN Comtrade database.

³ Non-ad valorem duties excluded.

Thus, despite both parties having some defensive concerns, the two sides are expected to gain from an Association Agreement. In agriculture, Mercosur has an interest in improved access for its competitive agriculture sectors where the EU remains defensive. It should be noted, however, that in this area there are also offensive interests on the EU side associated with inter alia dairy, beverages, processed agricultural products and the protection of EU geographical indications, where given the European influence in the region, there are certain conflicts with products from, for example, Spain and Italy. These issues are addressed both in the overall economic analysis of the AA and in the analysis of specific sectors.

On the industrial side, some sectors where the EU industry is competitive are considered defensive by Mercosur countries. The Mercosur manufacturing sector remains heavily protected across the board using tariffs as well as administrative measures to slow down the flow of imports. The car manufacturing sectors in Argentina and Brazil are seen as key in their economic transformation strategies. In fact, the sector is not liberalised within Mercosur and there is a Common Automobile Policy that regulates the trade within the bloc and protect it from foreign competition (Brambilla, 2005; Garriz and Panigo, 2015). However, there is also an important value chain activity involving SMEs and large firms in both countries as well as European firms (i.e. a significant share of the car manufactures are of European origin). Thus, Mercosur is on the one hand vigilant as to how the agreement may affect this sector while also alive to the opportunities that may arise to integrate further into European value chains. Issues pertaining to the sector of car and car parts is dealt with in a separate section of our report. The machinery sector, which also figures prominently in the EU's exports, is also addressed in a separate section.

There is no common services policy in Mercosur, as levels of protection differ between members, beyond some liberalisation existent within the bloc (Quijano, 2009). However, there are barriers, which hinder the provision of foreign services in key sectors (e.g. financial, communications, transportation, etc.) in almost every relevant provision mode. The regulatory frameworks in some sectors tend to be burdensome, affecting the provision and the investments regardless of the origin (Rozemberg and Gayá, 2015; Gayá, 2017). The existing arrangements within Mercosur and possible scope for cooperation with the EU in the area of business services are reviewed in the final sections of this report.

For the EU, the AA presents the opportunity to secure and increase trade and investment with a region with which it has important cultural and economic links. For Mercosur, an agreement with the EU will help to address the relative loss of market access that Mercosur faces (i.e. Mercosur's competitors gaining better market access through FTAs with the EU) as well as the chronic trade diversion, affecting productivity, competitiveness and poverty in Mercosur countries due to intra-Mercosur protection (Chang and Winters, 1999; Bohara et al, 2004).

Table 1: Mercosur countries overview

Country	Population (total)	Surface area (sq. km)	GDP (current US\$)
Brazil	209,469,333	8,515,770	1,885,482,534,238
Argentina	44,494,502	2,780,400	519,871,519,808
Paraguay	6,956,071	406,752	40,496,953,779
Uruguay	3,449,299	176,220	59,596,885,024

Source: World Bank, 2018 World Development Indicators.

<https://databank.worldbank.org/reports.aspx?source=2&country=BRA,ARG,PRY,URY>

2. Economic Analysis

This chapter provides the results for the CGE analysis of the trade aspects of the Association Agreement between the European Union and Mercosur. The chapter first provides a review of the existing literature on EU-Mercosur trade relations as well as EU relations with other Latin American countries, providing contextual analysis. The CGE results feed into all other chapters of the report.

2.1. Methodology

This section provides a description of how the LSE Consulting team reaches the specific objectives of the SIA; an overview of analytical methods to address the tasks and structuring of the work. The analysis provides the potential economic, human rights, social and environmental effects of the trade-related parts of the anticipated association agreement between the EU and Mercosur. The study also covers relevant third countries, in particular LDCs, as well as Turkey which is linked to the EU by a customs union agreement. Each of the sections on economic, sectoral, social, environmental, and human rights analysis outlines the methodology and tools used. Below we expand on our approach to the quantitative analysis to be incorporated across all areas, noting its limitations to account for all deep integration elements (e.g. government procurement). Moreover, we highlight how the different methodological tools link to the aims of the analysis and the components of the work.

2.1.1. CGE Modelling

The CGE analysis carried out by the LSE Consulting team is used to assess the economy-wide effects in the EU, Mercosur and other relevant partners (e.g. LDCs) of the tariff reductions and some deep integration elements. For example, it is possible to assess the effect of some trade costs reductions associated with trade facilitation provisions included in the agreement and/or harmonisation of standards. In addition, the CGE enables us to view - although with limitations - the effects of the agreement on services. Additionally, potential impacts on the services sector are demonstrated through descriptive statistical analysis. CGE helps to assess the FTA's effect on the domestic economies. In addition to trade effects, CGE allows us to quantify the effects on production, consumption, consumer prices and income. The results from the CGE analysis feed into the social, environmental, human rights, and sectoral analysis, as well as cross-cutting issues (LDCs, SMEs and consumers).

We employ the dynamic version of the GTAP Model, which is known as GDyn. As regards closure choices, the labour market is assumed to be in equilibrium, i.e. full employment, where adjustments are made by changes in real wages. Similarly, land supply is fixed and sluggish among sectors and adjustments are by rent, i.e. land use increases or decreases as value. Factor productivity is exogenous. However, when a baseline is updated, the total factor productivity adjusts to GDP.

2.1.2. CGE Baseline Development

Table 2 and Table 3 show the sectoral and regional aggregations we employ in this model, starting from the 57 sectors and 140 regions in Global Trade Analysis Project (GTAP) 9.2 Data Base with 2011 as a base year.

Table 2: Sectors included

Sector number	Sector name	Notes (GTAP sectors)
1	Cereals	2, 3
2	Rice	1, 23
3	Vegetables, fruits, nuts	4
4	Oil seeds, vegetable oils & fats	5, 21
5	Sugar	6, 24
6	Plant & animal fibres and other crops	7, 8, 12, 14
7	Other food products	25
8	Bovine and other ruminant meats	9, 19
9	Other meats (poultry, pig)	20
10	Other animal products	10
11	Beverages and tobacco	26
12	Dairy products	11, 22
13	Wood and paper products	13, 30, 31
14	Coal	15
15	Oil	16
16	Gas	17, 44
17	Minerals	18
18	Textile, apparel, leather	27, 28, 29
19	Chemicals, rubber, plastic	33
20	Petroleum, coal products	32
21	Metal products	35, 36, 37
22	Non-metallic minerals	34
23	Motor vehicles & transport equipment	38, 39
24	Machinery	41
25	Electronic equipment and other manufacture	40, 42
26	Electricity	43
27	Utility (construction, water)	46, 45
28	Transport	48, 49, 50
29	Communication and business service	51, 54,
30	Financial service and insurance	52, 53
31	Recreational and other services	55, 56, 57, 47

Source: GTAP 9 Data Base.

Table 3: Regions

	Region	Observations
1	EU28	
2	Turkey	
3	Brazil	
4	Argentina	
5	Uruguay	
6	Paraguay	
7	Mexico	
8	Central America	
9	Andean	Colombia, Peru, Ecuador
10	Latin America	Except for countries mentioned elsewhere
11	USA	
12	Other high income countries	Canada, Japan, Korea, Australia, New Zealand,
13	LDCs ⁴	
14	China (and Hong Kong)	
15	Other developing countries	
16	Rest of the World (RoW)	

Source: GTAP 9 Data Base. Note: the outcome of the withdrawal of the United Kingdom from the European Union is not included in the baseline and all results treat EU28 as a single region.

The baseline scenario constitutes the situation without an agreement and provides a counterfactual scenario to evaluate the effects of the agreement. The baseline outlines the main policies (economic, social and environmental) expected in both the EU and Mercosur until the year 2032 without the implementation of the EU-Mercosur FTA. With respect to the main policy elements of the baseline scenario, it is difficult to determine whether many of the initiatives currently discussed will be implemented or not. Thus the baseline includes all trade agreements concluded by the EU and Mercosur at the time of the inception of this project (September 2017), i.e. those that were already in force or for which negotiations are finalised for the EU and Mercosur. The GTAP model already includes FTAs up to 2011. Therefore only the FTAs not included in the GTAP model need to be added separately. We exclude agreements with countries whose share in EU overall trade or Mercosur overall trade is below 1% (except for those with Latin American countries) or which cannot for technical reasons be included in the agreed regional aggregation. These criteria result in the following list of agreements to be added:

For Mercosur:

- No FTAs concluded in the relevant period and therefore we do not make any changes herein.

⁴ The following GTAP regions were aggregated as LDCs: Rest of Oceania, Cambodia, Lao PDR, Rest of Southeast Asia (Myanmar and Timor-Leste), Bangladesh, Nepal, Rest of South Asia (Afghanistan, Bhutan and Maldives), Rest of North Africa (Algeria, Libya and Western Sahara), Benin, Ghana, Nigeria, Senegal, Togo, Rest of Western Africa (Cape Verde, Gambia, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Saint Helena, Sierra Leone), Rest of Central Africa (Central African Republic, Chad, Congo, Equatorial Guinea, Gabon and Sao Tome and Principe), South Central Africa (Angola and Democratic Republic of Congo), Kenya, Madagascar, Mauritius, Mozambique, Rwanda, Tanzania, United Republic of Tanzania, Uganda and Zimbabwe.

For the EU:

- Several agreements have been in force since the recent past. FTA with Canada (CETA), Korea, SADC EPA, West Africa EPA, Central America, Colombia, Peru, and Ecuador, which have already been dealt with by other SIAs and studies.

The GTAP Data Base is based on 2011 data and therefore omits many recent policy developments. To avoid shortcomings arising from such omissions, we make the following broad changes to the data set:

- Corrections on tariffs for sugar and beef to ensure that the baseline accurately reflects the various different tariff regimes (e.g. WTO quotas) under which these products enter the EU;
- Export subsidies from EU are removed, since they are erroneously included in GTAP 9 Data Base.

We employ a macroeconomic baseline comprising Gross Domestic Product (GDP), unskilled labour, skilled labour and population developed by the modelling team at DG Trade of the EU. Specifically, the rate of GDP growth is from the IMF, using a constant annual price rate. The rate of population growth is taken from the ILO. The labour force, divided into skilled and unskilled labour, is updated using data from CEPII. Since labour is expressed in terms of value instead than quantity, percentage rates need to be adjusted in order to shock the baseline figures correctly. We make further adjustments within the baseline, for the following:

- Introduction of FTAs signed by EU after 2011 and already in force;
- Taking into account the NAMA custom Union with Turkey;
- Russian import ban and consequences.

In addition, after macro shocks are introduced to update GDP, population and the labour force, a calibration has to be performed. Input-output tables and policies refer to the year of the database, 2011. When the shock is applied, sectoral outputs and trade flows must be checked and calibrated to reflect data for subsequent years.

2.1.3. Policy Scenario

We apply specific assumptions in terms of tariff and NTB reductions in the policy scenario. Full liberalisation for all industrial goods sectors on the EU side is assumed for both the conservative and ambitious scenario. For Mercosur, we assume full liberalisation of 90% of industrial goods in the conservative scenario, 100% in the ambitious scenario.

As regards agricultural goods, for the EU, partial tariff cuts will apply for rice, sugar, ruminant meat, other meat of 15% in the conservative scenario and 30% in the ambitious scenario. For cereals and dairy, a partial tariff cut of 15% will apply in the conservative scenario, whereas 100% cuts will apply in the ambitious scenario. For the remaining products, 100% tariff cuts would apply. For Mercosur, full liberalisation for 80% of tariff lines takes place under the conservative scenario and 100% under the ambitious scenario.

The scenarios also take into account trade cost reductions to non-tariff barriers to goods and services trade. For NTBs, we use the variable 'ams' in GTAP Data Base, which captures import-augmented technological change. The base NTBs for non-agricultural goods is based on existing

estimates by the World Bank⁵. The NTB values available are at Harmonized System at 6 Digits (HS6) level. The following will be assumed:

- EU: No NTB reduction assumed at this stage;
- Mercosur:
 - Conservative: 5% of impact of non-agricultural NTBs eliminated;
 - Ambitious: 10% of impact of non-agricultural NTBs eliminated.

This study does not model NTB cuts in agriculture. The reason is that given the lack of robust AVE estimates on agricultural trade to and from the EU, the available AVE estimates greatly exaggerate the perceived NTBs imposed within the EU in relation to the agricultural sector and would result in strongly (and artificially) negative results. Instead, we carry out a qualitative analysis of agricultural NTBs in the SIA.

Table 4: NTB cuts in EU and Mercosur

Sectors / NTB cuts	Conservative		Ambitious	
	EU	Mercosur	EU	Mercosur
Agriculture	0%	0%	0%	0%
Non-agriculture	0%	5%	0%	10%

Source: Terms of Reference.

Regarding services barriers, the starting point for the approach used in this SIA is the observation that FTA negotiations usually lead to binding of the existing level of liberalisation in services trade (for the cases where this level is more ambitious than the GATS commitments) as opposed to achieving new market access. However the insurance policy effect of binding current levels of liberalisation has in itself a positive effect on services trade. The methodology applied for this and other simulations aims to translate this insurance effect into a liberalisation parameter for CGE modelling. The 3% AVE cut used in the modelling for trade in services is an assumption introduced in an earlier study by Decreux and Fontagné (2011).

2.2. Literature review

In this literature review we discuss key studies which focus on EU FTAs with either Mercosur or other Latin American countries, briefly setting out their broad assumptions and results.

Estrades (2012) examines the EU-Mercosur FTA impact on both economies especially at the household level. The study uses the MIRAGE (Multi Sector, Multi region Computable General Equilibrium) model to calculate the impact on households after the FTA is implemented by looking at the comparable data of Mercosur (especially Uruguay) and EU using GTAP 7 Data Base by looking at parameters like Consumption, Consumer Price Index, Gini Index, Tax etc. The methodology assumes that the only easily mobile factor of production is labour in comparison to the immobile natural resource and land. It includes 4 Mercosur countries, 30 European countries and 30 sectors. It includes one complete EU-Mercosur tariff elimination (2011-2015) scenario, and has three more sensitivity scenarios namely sensitive products in both the regions, sensitive products in Mercosur and sensitive products in EU; in each of the scenarios, the sensitive

⁵ As published in the 2012 update of Kee, Nicita and Olarreaga (2008) *Import Demand Elasticities and Trade Distortions. Review of Economics and Statistics* 90(4), 666-682.

products were exempt from the liberalisation shocks. For the EU, the sensitive products are assumed to be the ones offered by the EU to Mercosur in 2004, while for Mercosur, the authors assume the formula given by Jean et al (2010), which defines the sensitive products based on initial tariffs, share in aggregate imports and tariff cuts proposed. EU sensitive products mostly include food and agricultural commodities. Among the 55 tariff lines proposed herein, 44% are meat products, 24% are dairy products and 10% are cereal products. For Mercosur, they include motor vehicles and parts, beverages and tobacco products and other food products. The paper tries to explain the impact of FTA on a low income country like Uruguay with parameters such as poverty, income, consumption, transfer benefits, inequalities etc.

Due to the FTA, income inequality tends to decrease in the Mercosur countries due to increase in the demand for unskilled labour and wages while the real income increases and poverty tends to decrease. The study, which focusses in detail on Uruguay, assesses the impact on various different categories of Uruguayan household. Almost all (over 99%) of households in Uruguay tend to benefit from the FTA in comparison to the baseline. The FTA affects manufacturing in EU and agriculture in Mercosur countries positively.

Secondly, we look at the results of the previous SIA of the AA between the EU and Mercosur (EC, 2007). The SIA uses CGE and econometric techniques for the trade agreement analysis. The database used is GTAP 6.2 and the baseline is taken as the commodity/services price across the world. The study also considers the full trade agreement hence no barrier to the trade between the two blocs. The methodology takes into considerations major trading commodity/products like grains, vegetables, fruits, chemicals, automobiles, pharmaceuticals etc.

The results from the study, which models full liberalisation without taking account of the partial liberalisation treatment that tends to be applied to sensitive agricultural products, suggest that the Mercosur countries will benefit by \$9 Billion while the EU will benefit by \$4 Billion. Hence the study shows that given the removal of barriers and the effect of full trade liberalisation between the blocs, a sizable amount of the economy can be freed up and both the blocs will benefit. The previous SIA finds relative per capita increase in the income, consumption, GDP and decrease in poverty and inequality especially in Mercosur countries.

The follow up position paper assesses the economic impact of the FTA to be positive both for the EU and for Mercosur countries (EC, 2010). In the EU, the manufacturing and services sectors are predicted to benefit most from an FTA. The EU could reap some benefits from better market access to Mercosur for some vegetable products via an FTA, as well as from a better protection of Geographical Indications. In Mercosur, the economic benefits of an FTA are expected to be felt throughout the whole economy and especially in the agricultural sector. In the EU the only sector where a negative social impact would be felt is agriculture and rural areas where short to medium term social adjustment costs could occur during a transition period and could add to the underlying downward trend in baseline agricultural sector employment in the EU. For Mercosur, the social impacts are expected to be positive over the long term while some adjustment costs on the short term could occur in the manufacturing sector.

The 2007 SIA also suggests that the expansion of agriculture in Mercosur in response to full liberalisation could cause social problems to the "traditional agriculture" and result in the loss of livelihoods for indigenous people. The environmental impact of the FTA in EU countries are not significant. In Mercosur, the 2007 study finds that full trade liberalisation in the agriculture and the forestry sector could result in added pressure and potentially significant adverse impacts on natural resources, forest coverage and biodiversity. The paper recommends developing EU-

Mercosur cooperation on the development of measures to reduce particulate and CO₂ emissions from automobiles focusing particularly on technology development. In services sector, the paper recommends to allow for an orderly adjustment period in financial, retailing and distribution services sectors. This would bring in significant economic benefits to both partners. With regard to investment, the paper noted that increased foreign investment could contribute positively to environmental quality by introducing improved environmental control technology. The downside was that it may put additional pressure on the natural resource stock capital in Mercosur countries. The paper agreed that the FTA could result in significant improvement for trade operators but did not focus on specific measures in different sectors in the context of EU-Mercosur FTA.

A study which combines both GLOBE CGE Model for economy wide impact and CAPRI Model for agricultural impact in the two regions reaches the conclusion that economic losses and adjustment pressures are to be expected in certain EU agricultural goods (Burrell et al. 2011). The scenarios simulated include: EU's offer to Mercosur in 2004, Mercosur request to EU in 2006, Doha agreement 2008, EU's proposal to Doha context and Mercosur proposal to Doha context. The resultant impact shows a small decrease in output in various EU agricultural sectors in the less ambitious scenario with a larger impact in the more ambitious scenarios. EU gains in manufacturing outweigh the loss in the agricultural sector, which leads to total increase in the GDP of the bloc.

In addition to the studies focusing on EU-Mercosur, there have also been several studies on FTAs between EU and other Latin American countries. CEPR (2009) assesses the likely economic, social and environmental impacts of a potential multi-party trade agreement between the European Union, and its member states, and the Andean countries of Colombia, Ecuador, Bolivia and Peru through use of contemporary quantitative and qualitative assessment. The authors employed ICE model which is a multi-regional and multi sectoral CGE deriving the economic impacts of the multi-party trade agreement between EU and Andean countries. The SIA examines two scenarios: modest and ambitious. The modest trade agreement scenario assumes a 90 percent reduction in tariffs in the goods sector, a 50 percent liberalisation of trade in services, and measures to facilitate trade and lower non-tariff barriers corresponding to 1 percent of the value of trade. The ambitious trade agreement scenario implies a 97 percent bilateral tariff reduction for trade in goods, a 75 percent liberalisation of trade in services, and trade facilitation measures corresponding to 3 percent of the value of trade. The model results indicate that all four Andean countries gain in terms of an increase in GDP by 2018. However, the change expressed as a percentage of baseline GDP is small, ranging from 0.7 percent in Peru to 2.1 percent in Bolivia under the 'ambitious' liberalisation scenario and allowing for an increase in fixed capital formation. For the EU27 countries, no change in GDP results from the trade liberalisation scenarios. Among the Andean countries, the increase in real income is expected to be biggest for Colombia, the largest economy studied, and smallest for Bolivia. The relative income gain is expected to be biggest for Bolivia and Ecuador, where real income is expected to increase between 0.5 percent and 2 percent of GDP.

The modelling analysis shows modest income gains for all economies in all settings and scenarios, with the biggest absolute gains occurring in the EU and Colombia, where real incomes are projected to increase by up to €4 billion and €2.8 billion respectively. In relative terms, the expected income gains are estimated to be highest for Bolivia and Ecuador, where real income is expected to increase by between 0.5 and 2 percent of GDP. The impact in the EU is only marginal, at less than 0.1 percent of GDP. The study found that there is no effect in wages for unskilled workers in EU whereas for all Andean countries the effects are very small for the short

term. The long term changes in unskilled wages are also very small with the effects being the highest for Bolivia with a 1.3 percent increase in unskilled workers' wages under the ambitious long term trade agreement scenario. In terms of skilled workers minimal effect was estimated with some negative countries having a negative impact.

The employment effect when studied estimated that only Bolivia and Ecuador will be involved in inter-sectoral shifts in employment leading to adjustment costs. The changes in other Andean countries are small while in EU less than 0.5% of labour is affected. While studying the impact on national trade, it found minimal effects on the EU's global trade flows. On the other hand, the Andean countries, experience changes in both export and import flows. Colombia's trade is affected the most, with approximately 6 percent increase in both exports and imports in the short run, and around 9 - 10 percent increase taking place in the long run. All other Andean countries experience important increases in both exports and imports. The global effects of the FTA is observed where national income effects for Mercosur, USA and the rest of the world are negative, yet positive for the Lesser Developed countries.

Though the EU and Andean trade agreement is not expected to have any significant effect on CO2 emissions, there will be small albeit negative effects on fisheries and forest land use due to the liberalisation. The sectoral effects show that the Andean countries experience more pronounced changes in the output of some of the sectors. There is a significant decline in agricultural products in Ecuador and small increases in the other three Andean countries. The vegetables, fruit and nuts subsector is predicted to increase its output significantly in Colombia (11.2 percent) and Ecuador (8.7 percent), contributing a significant share of total national value added in both countries. A potential EU-Andean trade agreement will have no significant effect on the EU's trade flows; while for the Andean countries, imports and exports are expected to increase by between 3 to 10 percent. Effect on overall employment and wages for both skilled and unskilled labour are predicted to be minor.

The effect of the FTA on poverty and inequality estimates employment in the large-scale formal mining sector to increase but the restrictions on workers' rights will restrain any significant increase in real wages or improvement in working conditions. Similarly, where trade contributes to agriculture intensification, positive effects are expected if job opportunities are created mainly in new large plantations. However, there could be a negative effect if increased trade results in dispossession of land and other natural assets. Such an increased economic performance also in principle should bring in higher public expenditure on health and education but there is limited impact observed on existing levels of education and health due to the EU - Andean trade liberalisation. When EU FDI increases in these regions and facilitates infrastructural investments, there is a possibility of the FTA leading to further deforestation. On a sectoral level positive effects are found on the textiles and leather sectors of Bolivia, Colombia and Peru. Higher output of Colombia's textiles and motor vehicles sectors will also produce positive chain effects on other manufacturing sectors composed mainly of SMEs.

To evaluate the effect of FTAs on services the modelling study estimates NTBs for services trade as part of the experiment baseline definition that involves the estimation of a bilateral gravity equation for services trade, where country importer fixed effects terms are used to estimate potential trade cost reductions linked to service NTBs. The effect is found to be negative on the changes in financial services in all countries except Ecuador. Related insurance services declines in all countries while the impact of construction services are predicted to be positive. The CGE model explicitly involves trade costs, which include both trade and transportation services. Here trade facilitation is modelled as a reduction in the resources needed to supply a market. The

model estimates that trade facilitation offers some benefits, though substantially less than those from basic liberalisation of goods and services trade. The model results show reduced trading costs from standard trade facilitation measures in turn create significant welfare gains.

Francois et al (2012) documents the economic impact assessment of the final agreement between EU and Andean community, as an update of Development Solutions et al (2009); namely Columbia and Peru. The CGE model employed is based on the widely used global CGE model GTAP (Hertel 1997) with added features from Francois, van Meijl and van Tongeren (2005) with a partial equilibrium extension. This framework allows for scale economies and imperfect competition. The basic modelling framework included a partial equilibrium nested with the GTAP framework outlined by Narayanan et al (2010) to cover banana trade. Positive impacts on the GDP of both partner economies (Peru: 0.25 OR 200MEuros; Columbia: 0.4 % or 500M Euros) and small EU gains (0.05% of GDP). The FTAs will lead to EU's increase in export to Columbia and Peru (63% and 48%; 2.5 and 2bn Euros respectively) followed by an increase in imports by 11% and 15%; 390mn and 340mn Euros respectively. Europe's exports of manufactured goods are expected to increase significantly. The CGE calculations project an estimated increase of such exports to Columbia to about 115% while EU exports of manufactured goods to Peru is estimated to increase to 72%. With an exception of 6% increase in Peruvian imports from EU trade in services is estimated to remain largely unchanged. Columbia and Peru are estimated to have a 30% and 20% reduction in tariff revenues respectively. The study used a partial equilibrium analysis for the sensitive sector: banana where the impact on the sector in EU is estimated to shrink by about 1% while it increases by 0.75% in Columbia and 1.22% in Peru.

European firms will be able to export most agricultural, industrial and fishery products duty free to Peru and Colombia. Columbia would be positively affected by deregulation of motor vehicle exports to EU as well as a reduction in trade costs on alcoholic beverages and tobacco. The agreement also provides for more secure market access for services, reductions in non-tariff measures for agricultural and industrial goods, and improved trade facilitation measures. The report follows up on the issues highlighted on the SIA report 2009- focus on wages, employment and labour market adjustment; negligible environmental effects; water pollution due to increase in agriculture and mining production.

Finally, Giordano et al. (2007) using CGE concluded that Andean EU FTA would bring in moderate decrease in poverty and inequality in both partner countries with rural region incomes increasing faster than urban regions. Botero et al. (2004) estimated a considerable increase in creation of jobs in Columbia to up to 270000 and indicated better growth in skilled wages. This study shows that wages for both skilled and unskilled workers increased for all member countries with a negligible increase for EU. Unskilled workers experienced a higher wage increase as compared to skilled workers and this corroborated with simulations done in EU SIA. The estimated impact on poverty through FTA are small in Columbia and insignificant in Peru. The study estimates a transition from small scale to large scale agriculture with a rise in wages and expects an increase in agriculture and food products for EU imports from Columbia and Peru. In manufacturing sector, EU exports to Columbia and Peru expected to increase competitiveness. When seen sector wise, EU exports to Peru in the form of medicaments, cars and coppers are bound to see an increase while in Columbia where levels of protection are more, a tariff fall from 35 to 0 will see an upsurge in relative competitiveness of European cars significantly. In terms of imports from Columbia and Peru only two categories (sugar and maize respectively) had substantive level of trade. Bananas from both regions will benefit from preferential access to EU markets with trigger import volume restrictions.

2.3. Scenario Results

All our results explained in this section are based on relative (percent) changes with respect to the baseline in the year 2032. In other words, for example, a result of 2% GDP implies that the GDP was higher than the 2032 baseline by 2%.

Table 5: Macroeconomic Results for the Conservative scenario

Region	GDP %	GDP EUR bn	Invest	Imports	Exports	Welfare	Real Wages (Skilled)	Real Wages (Unskilled)	Consumer Prices
EU28	0.1	10.9	0.4	0.9	0.4	6.3	0.2	0.2	0.2
Brazil	0.2	4.0	0.7	1.3	4.5	1.4	0.0	0.0	-1.5
Argentina	0.5	3.3	1.4	1.2	1.9	1.5	0.2	0.3	-1.0
Uruguay	0.2	0.1	0.8	0.4	0.8	-0.1	0.2	0.4	-0.6
Paraguay	0.1	0.0	0.3	0.1	0.5	0.0	0.2	0.3	-0.3
Turkey	0.0	0.3	-0.1	0.0	0.1	-0.2	0.0	0.0	0.0
Mexico	0.0	-0.4	-0.1	-0.2	-0.1	0.4	-0.1	-0.1	-0.1
Central America	0.0	-0.1	0.0	0.0	0.0	-0.1	0.1	0.0	0.0
Andean	-0.1	-1.1	-0.5	-0.6	0.2	-0.7	-0.2	-0.2	-0.2
Latin America	-0.1	-0.6	-0.2	-0.2	-0.1	-0.1	0.0	-0.1	0.0
USA	0.0	-3.2	-0.1	-0.1	0.0	-3.0	0.0	0.0	0.0
Other HICs	0.0	-3.5	-0.1	-0.1	0.0	-2.4	0.0	0.0	0.1
LDCs	0.0	-0.8	-0.1	-0.1	0.0	-0.4	0.0	0.0	0.0
China and HK	0.0	-2.4	0.0	-0.1	-0.1	-3.5	0.0	0.0	0.0
Other Dev	0.0	-2.7	0.0	0.0	-0.1	4.0	0.0	0.0	0.1
Rest of World	0.0	1.4	-0.7	-0.6	0.4	0.4	-0.2	-0.2	-0.2

Source: CGE Modelling Results. All numbers are in % changes relative to baseline, except welfare and GDP, which are in 2011 Euros in billions. Originally expressed in US\$ and transform to Euros using 1.392 USD/Euros in 2011.

Table 5 and 6 show the macroeconomic results for conservative and ambitious scenarios, respectively. GDP increases in all of the FTA countries, i.e. EU and Mercosur members. Without an exception, the positive effects in all variables are much stronger in the ambitious scenario, than in the conservative scenario, just as we would expect. The increase in EU GDP is 10.9 Billion Euros (0.1%) in the conservative scenario and 15 Billion Euros (0.1%) in the ambitious scenario. Given that Mercosur economies are smaller, the positive effects on GDP are larger in relative terms: ranging from less than 360 million Euros (0.1%) in Paraguay in the conservative scenario to 4.6 Billion Euros (0.7%) in Argentina in the ambitious scenario.

For the EU, a large part of GDP gains comes from increased consumption of cheaper imports, while a smaller part may come from exports expansion and investment. The increase in exports lead to an increase in consumer prices. However, the real wages of both unskilled and skilled labour increase as well, with the former growing more than the latter, bridging the real wage gap between these two categories. Welfare effects in EU are the strongest, with 6.3 billion Euros in the conservative scenario and 8.6 billion Euros in the ambitious scenario.

Similar explanations may be extended to Mercosur countries, with some exceptions. Despite a strong growth in GDP, investment, imports and exports, consumer prices fall in all Mercosur countries. This is because they have relatively higher tariffs than EU and therefore, a similar

relative reduction in tariffs can lead to greater price reduction in Mercosur than in the EU, so much so that this can offset the demand-driven upward price pressures. Argentina sees stronger investment and GDP effects.

For the countries other than EU and Mercosur, the results are quite mixed. Investment in Turkey is marginally lower. The USA loses slightly in most variables, because Mercosur is an important partner for them, and the bloc's deeper integration with the EU can result in some trade diversion away from the USA to EU. Mexico has a similar tendency for the same reason. Latin American and Andean countries gain in terms of exports, but lose in most other terms. Central America sees a small increase in investment, wages and prices, but fall in everything else. Consumer prices in Other High Income Countries are marginally higher resulting in a small reduction in other variables. Interestingly, the same thing happens in LDCs and in China and other developing countries, for the same reason.

Welfare effects are also mostly positive; however, unlike GDP, welfare results depend a lot on changes in tax revenue. Therefore, tariff reduction has two opposing effects: increased welfare due to lower prices and greater demand, as opposed to decreased welfare due to tariff revenue losses. In the only case where we see a small negative welfare result (Uruguay in Conservative scenario), tariff revenue reduction effects outweigh other welfare gains.

Table 6: Macroeconomic Results for the Ambitious scenario

Region	GDP %	GDP EUR bn	Invest	Imports	Exports	Welfare	Real Wages (Skilled)	Real Wages (Unskilled)	Consumer Prices
EU28	0.1	15.0	0.5	1.1	0.6	8.6	0.3	0.3	0.3
Brazil	0.3	6.5	0.8	1.4	6.1	2.1	0.0	0.0	-2.1
Argentina	0.7	4.6	0.7	4.6	1.6	1.4	2.8	2.1	0.3
Uruguay	0.4	0.3	1.4	0.6	0.7	0.0	0.3	0.8	-0.6
Paraguay	0.1	0.1	0.4	0.0	0.8	0.0	0.2	0.3	-0.5
Turkey	0.0	0.4	-0.1	0.0	0.1	-0.1	0.1	0.0	0.1
Mexico	0.0	-0.5	-0.1	-0.3	-0.1	0.1	-0.1	-0.1	-0.1
Central America	0.0	-0.1	-0.1	-0.1	0.0	-0.1	0.1	0.0	0.0
Andean	-0.2	-1.4	-0.6	-0.7	0.2	-0.9	-0.2	-0.3	-0.2
Latin America	-0.1	-0.9	-0.3	-0.2	-0.2	-0.3	0.0	-0.1	0.0
USA	0.0	-4.5	-0.2	-0.1	0.0	-2.7	0.0	0.0	0.0
Other HICs	0.0	-4.5	-0.1	-0.1	0.0	-2.7	0.0	0.0	0.1
LDCs	-0.1	-0.9	-0.1	-0.1	0.0	-0.8	0.0	0.0	0.0
China and HK	0.0	-3.9	0.0	-0.2	-0.1	-1.2	0.0	0.0	0.0
Other Dev	0.0	-3.8	0.0	0.0	-0.1	0.7	0.1	0.0	0.0
Rest of World	0.0	1.4	-0.5	-0.4	0.3	-0.4	-0.1	-0.2	-0.1

Source: CGE Modelling Results. All numbers are in % changes relative to baseline, except welfare and GDP, which are in 2011 Euros in billions. Originally expressed in US\$ and transform to Euros using 1.392 USD/Euros in 2011.

From Table 7 we may observe that the EU may experience a small decline in output of up to 0.7% in agricultural, food, energy, services and some light manufacturing sectors, but they may gain in other manufacturing sectors. There is a small diversion of output away from EU to Mercosur countries in many of these sectors accompanied by a reallocation effect.

Table 7: Sectoral Output changes in the Conservative Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.3	1.8	0.4	0.2	0.3
Rice	-0.4	1.2	0.6	-0.1	-0.9
Vegetables, fruit, nuts	-0.5	1.9	3.1	2.2	-0.1
Oil seeds, vegetable oils	-0.4	2.3	1.4	0.0	0.1
Sugar	-0.7	1.7	0.9	-0.1	-0.1
Plant and animal fibres	-0.3	1.1	0.5	0.3	-0.2
Processed foods, fish	-0.2	1.5	1.3	1.2	-0.8
Beef and sheep meat	-0.7	1.2	1.3	2.1	0.2
Poultry meat, pork	-0.2	2.4	0.3	-0.4	-0.1
Other animal products	-0.2	1.5	1.3	2.4	-0.1
Beverages and tobacco	0.0	0.2	0.3	-1.4	-0.6
Dairy products	-0.1	-0.2	0.4	-1.5	-0.1
Wood and paper	0.0	0.4	0.1	1.8	-0.9
Coal	0.0	0.2	0.2	0.0	0.0
Oil	0.0	0.1	0.1	0.0	0.0
Gas	-0.6	2.4	1.9	-4.5	-3.4
Minerals	0.0	0.1	0.1	0.0	0.0
Textiles, apparel, leather	-0.1	0.6	0.7	2.2	-0.3
Chemicals, rubber, plastic	0.2	0.0	-0.2	-1.2	-2.0
Petroleum, coal products	0.0	0.1	0.3	-0.3	-0.1
Metal products	0.2	-2.1	-1.1	-4.2	-2.5
Non-metallic minerals	0.2	0.6	0.7	0.1	-0.9
Vehicles, transport equipment	0.5	-1.7	-2.8	-11.5	-2.7
Machinery	0.4	-3.8	-1.9	-1.0	-3.2
Electronic equipment	-0.3	1.6	2.1	1.6	0.4
Electricity	0.0	0.2	0.0	-0.8	0.9
Utilities	0.3	0.6	1.3	0.7	0.3
Transport	0.0	0.3	0.7	0.3	0.0
Telecoms, business services	0.0	0.5	0.8	0.6	0.1
Financial services	-0.1	0.2	0.6	0.2	0.0
Other services	0.0	0.2	0.4	0.0	-0.1

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

See Table 120, Table 121 and Table 122 in Annex 4 for changes in the sectoral private consumption, sectoral exports and imports for the conservative scenario.

Table 8 presents the impact on the bilateral trade in the conservative scenario. The magnitudes of the changes are naturally larger than the changes in the overall trade. The EU sectors that expand their exports the most to Mercosur are industrial products and dairy. Mercosur will expand its exports to the EU in agri-food products. Overall EU exports to Mercosur increase by 52%. Overall EU imports from Mercosur increase by 11%.

Table 8: EU-Mercosur bilateral trade changes by sector in the conservative scenario

Sectors	EU imports from Mercosur	EU exports to Mercosur
Cereals	6.7	3.8
Rice	8.8	47.8
Vegetables, fruit, nuts	40.0	29.0
Oil seeds, vegetable oils	4.5	37.8
Sugar	15.2	37.5
Plant and animal fibres	12.5	20.3
Processed foods, fish	89.8	33.6
Beef and sheep meat	30.0	11.3
Poultry meat, pork	36.7	39.2
Other animal products	23.6	9.7
Beverages and tobacco	36.5	27.7
Dairy products	18.0	90.9
Agri-food	22.8	35.1
Wood and paper	9.6	65.8
Coal	0.4	12.7
Oil	0.2	11.1
Gas	21.2	114.2
Minerals	0.4	3.2
Textiles, apparel, leather	32.4	310.8
Chemicals, rubber, plastic	12.8	47.6
Petroleum, coal products	0.3	5.2
Metal products	17.4	69.3
Non-metallic minerals	10.2	55.7
Vehicles, transport equipment	40.6	95.0
Machinery	17.3	78.4
Electronic equipment	15.7	109.3
Industrial	7.9	74.3
Goods	13.1	72.7
Electricity	2.5	-2.4
Utilities	6.2	-2.8
Transport	3.2	-1.9
Telecoms, business services	6.5	-3.4
Financial services	6.1	-3.6
Other services	5.3	-3.6
Services	4.5	-3.2
TOTAL	10.6	52.0

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

The ambitious scenario results are broadly consistent with the conservative scenario results, except that the magnitudes tend to be higher in the former, as documented in Table 12 below and Table 123, Table 124, and Table 125 in Annex 4.

Table 9: Sectoral Output changes in the Ambitious Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.5	2.4	0.8	-0.2	0.6
Rice	-0.5	1.7	0.8	-0.6	-1.2
Vegetables, fruit, nuts	-0.5	2.2	3.1	2	-0.1
Oil seeds, vegetable oils	-0.5	3.2	1.9	-0.6	0.2
Sugar	-1.0	2.5	1.2	-0.4	0.1
Plant and animal fibres	-0.4	1.3	0.5	0.3	-0.2
Processed foods, fish	-0.3	1.7	1.5	1.0	-1.1
Beef and sheep meat	-1.2	2.0	2.4	4.0	0.6
Poultry meat, pork	-0.3	3.7	0.5	-1.2	-0.1
Other animal products	-0.3	2.2	1.5	3.0	-0.1
Beverages and tobacco	0.0	0.2	0.4	-1.8	-0.7
Dairy products	-0.1	-0.2	0.6	-2.4	-0.1
Wood and paper	0.0	0.6	0.1	1.8	-1.2
Coal	0.0	0.2	0.2	0.0	0.0
Oil	0.0	0.1	0.1	0.0	0.0
Gas	-0.6	-0.1	2.6	-14.7	-9.8
Minerals	0.0	0.1	0.1	0.0	0.0
Textiles, apparel, leather	-0.1	0.9	0.9	1.9	-0.3
Chemicals, rubber, plastic	0.2	0.2	-0.2	-1.9	-2.4
Petroleum, coal products	0.1	0.1	0.4	-0.4	0.2
Metal products	0.2	-2.5	-1.3	-5.4	-3.1
Non-metallic minerals	0.2	0.7	0.8	0.2	-1.1
Vehicles, transport equipment	0.6	-1.8	-3.2	-14.4	-3.3
Machinery	0.5	-5.1	-2.9	-1.4	-4.5
Electronic equipment	-0.4	2.2	2.7	1.8	0.8
Electricity	0.1	0.2	0.0	-1.0	1.0
Utilities	0.4	0.7	1.5	1.2	0.3
Transport	0.0	0.4	0.8	0.4	0.0
Telecoms, business services	0.0	0.7	1.0	0.6	0.1
Financial services	-0.1	0.4	0.7	0.3	-0.1
Other services	0.0	0.3	0.6	0.1	-0.1

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 10: EU-Mercosur bilateral trade changes by sector in the ambitious scenario

Sectors	EU imports from Mercosur	EU exports to Mercosur
Cereals	46.5	5.1
Rice	15.5	61.3
Vegetables, fruit, nuts	40.4	36.8
Oil seeds, vegetable oils	5.9	47.8
Sugar	27.3	47.8
Plant and animal fibres	13.6	25.3
Processed foods, fish	92.8	42.7
Beef and sheep meat	63.7	14.5
Poultry meat, pork	78.8	50.0
Other animal products	23.5	12.2
Beverages and tobacco	38.0	35.4
Dairy products	165.3	120.9
Agri-food	30.7	44.9
Wood and paper	12.1	83.1
Coal	0.4	28.1
Oil	0.1	25.0
Gas	34.4	302.8
Minerals	0.4	4.2
Textiles, apparel, leather	36.5	424.1
Chemicals, rubber, plastic	16.2	60.2
Petroleum, coal products	0.4	9.3
Metal products	22.1	84.9
Non-metallic minerals	12.5	71.7
Vehicles, transport equipment	47.5	114.4
Machinery	24.0	100.5
Electronic equipment	21.6	148.7
Industrial	9.6	94.1
Goods	17.0	92.0
Electricity	4.0	4.3
Utilities	8.6	2.7
Transport	4.5	4.0
Telecoms, business services	9.2	1.4
Financial services	8.5	1.8
Other services	7.3	2.0
Services	6.4	2.1
TOTAL	13.9	67.5

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Based on the results from both conservative and ambitious scenarios, we may observe broadly that the EU gains overall from the FTA with Mercosur. Small decreases in output in most of the non-manufacturing sectors are outweighed by increases in others. The GDP gains in Mercosur countries are larger in relative terms than in the EU, though they are smaller in absolute terms. Non-EU, non-MERCOSUR countries may be slightly negatively affected due to trade diversion.

2.4. Policy Recommendations

- **Mercosur should implement a gradual introduction of the related tariff changes** to give the involved actors enough time to accommodate and mitigate the negative effects in the output of vehicles and machinery.
- **The EU should consider the use of quotas and partial liberalisation to minimise the impact in sectors such as beef, poultry and sugar.** This will allow farmers and producers to reduce their exposure and limit the impact of the agreement.
- **Mercosur members should introduce re-training policies to smooth the transition of workers between sectors.** This would help tackling the structural changes brought by the agreement to Mercosur economies, such as contracting industrial sectors and expanding agriculture (including food production) and services.

3. Social Analysis

3.1. Methodology

Our social analysis builds upon our team's CGE and sectoral analysis as well as additional quantitative and qualitative tools to assess the potential effects of an EU-Mercosur trade agreement on employment and decent work. The analysis assesses the potential impacts on employment (including in the informal economy), decent work, working conditions, as well as distributional impacts (including poverty income inequalities). Furthermore, the interaction between the envisaged agreement and the effective implementation of the international Core Labour Standards and fundamental Conventions of the International Labour Organisation, as well as the realisation of the other strategic objectives of the ILO Decent Work Agenda (employment creation, social protection, rights at work and social dialogue) is investigated. Other Conventions from the ILO and other UN bodies are taken into consideration, where relevant. This SIA also assesses how the potential agreement could contribute to the uptake of internationally agreed principles and guidelines on corporate social responsibility (CSR)/responsible business conduct (RBC).

The quantitative analysis draws on the CGE modelling results. The qualitative analysis first relies on desk research on expert sources, academic literature and specific studies not only on EU trade relations with the Mercosur region and individual Mercosur members, but also on the latter's experience with other trade negotiations to the extent that they shed light on specific social effects of trade liberalisation. Second, to further appraise the potential effects of trade liberalisation on labour markets, this section scrutinises each party's compliance with core ILO conventions, relying mainly on the ILO NORMLEX database. Third, the team outlines each party's approach to the trade-labour linkage. Last, in each section, the social analysis draws from the results of stakeholder consultation in Mercosur and EU countries, and more specifically on the insights from business associations, labour unions, non-governmental organisations (NGOs) and relevant experts from government and academia.

3.2. Baseline

EU trade policy has become one of the main pillars of the EU's external action to promote sustainable development, decent work and core labour standards, whether at the unilateral, bilateral/regional or multilateral levels. At the unilateral (i.e. non-reciprocal) level, EU trade policy has designated the ratification and application of the ILO's eight fundamental conventions on labour rights as a precondition for obtaining GSP+ status.⁶ In its 2015 Trade for All Strategy, the EU reasserted its ambition to "promote an ambitious and innovative sustainable development chapter in all trade and investment agreements", vowing to achieve "far-reaching commitments on all core labour rights" and to ensure "high levels of occupational health and safety and decent working conditions in accordance with the ILO Decent Work Agenda" (EC, 2015a). Combining economic analysis and policy research, this section examines recent socio-economic trends in the Mercosur region to assess the prospects of the EU-Mercosur trade agreement to fulfil the EU's social objectives.

⁶ For more details on GSP, see EU Commission (2020), "Report on the Generalised Scheme of Preferences covering the period 2018-2019", available from: <https://trade.ec.europa.eu/doclib/press/index.cfm?id=2112>

The baseline provides an overview of current socio-economic trends in both Mercosur and EU countries, with a specific focus on current trends in employment and wages, poverty and income inequality (Gini index). In parallel with these economic and political trends in the region, the second focus of this section is on Mercosur and EU countries' adherence to and enforcement of international labour standards (with an emphasis on ILO Core Labour Standards) and the decent work agenda (including social protection, social dialogue and health and safety at work).

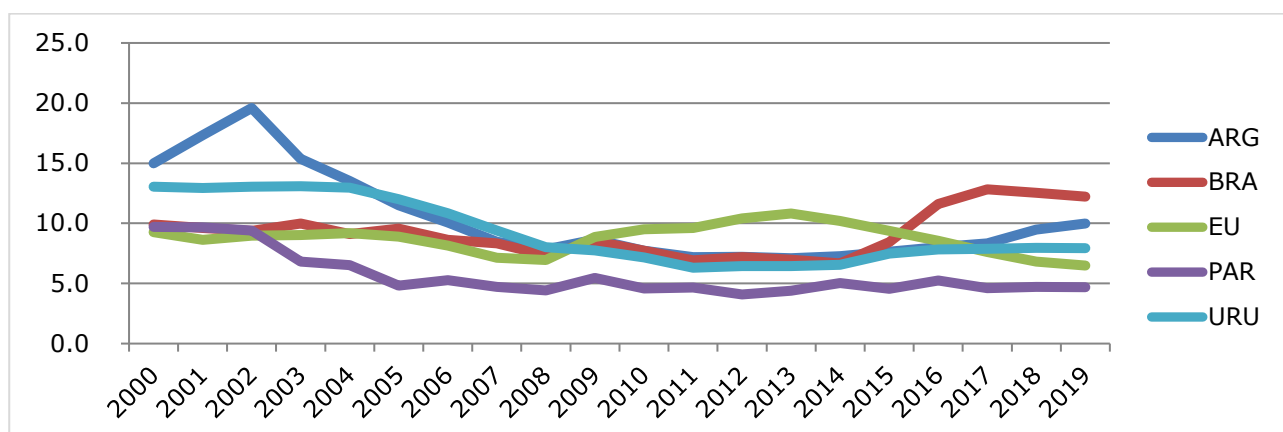
3.2.1. Recent Trends in Employment and Wages

The first decade of the twenty-first century was a period of significant economic development in Latin America, as witnessed by:

- Sustained growth contributing to better labour market performances;
- A notable decline in both absolute and relative poverty;
- A steady reduction of income inequality, as illustrated by the unprecedented drop in the regional Gini coefficient falling from 0.57 to 0.52 between 2000 and 2012 (Alvaredo & Gasparini, 2015); and
- Growing GDP per capita and an expanding middle-class that grew from 23% to 34% within a decade, overtaking for the first time, the number of people living in poverty (Vakis, Rigolini & Lucchetti, 2016).

Overall, Mercosur largely benefitted from the regional economic boom of the 2000s as witnessed by the overall decline in unemployment since the beginning of the twenty-first century. These trends were particularly beneficial to Argentina, gradually recovering from its financial crisis, Uruguay and Brazil before the latter was hit by a severe recession in 2015-2017 (Figure 2). Since spring 2018, Argentina has suffered from a dramatic decline in the value of the peso, surging inflation (close to 30% on a yearly basis in June 2018) and economic slowdown that could soon lead the country to economic recession and compromise its recent socio-economic performance.

Figure 2: EU and Mercosur unemployment trends (2000-2019)



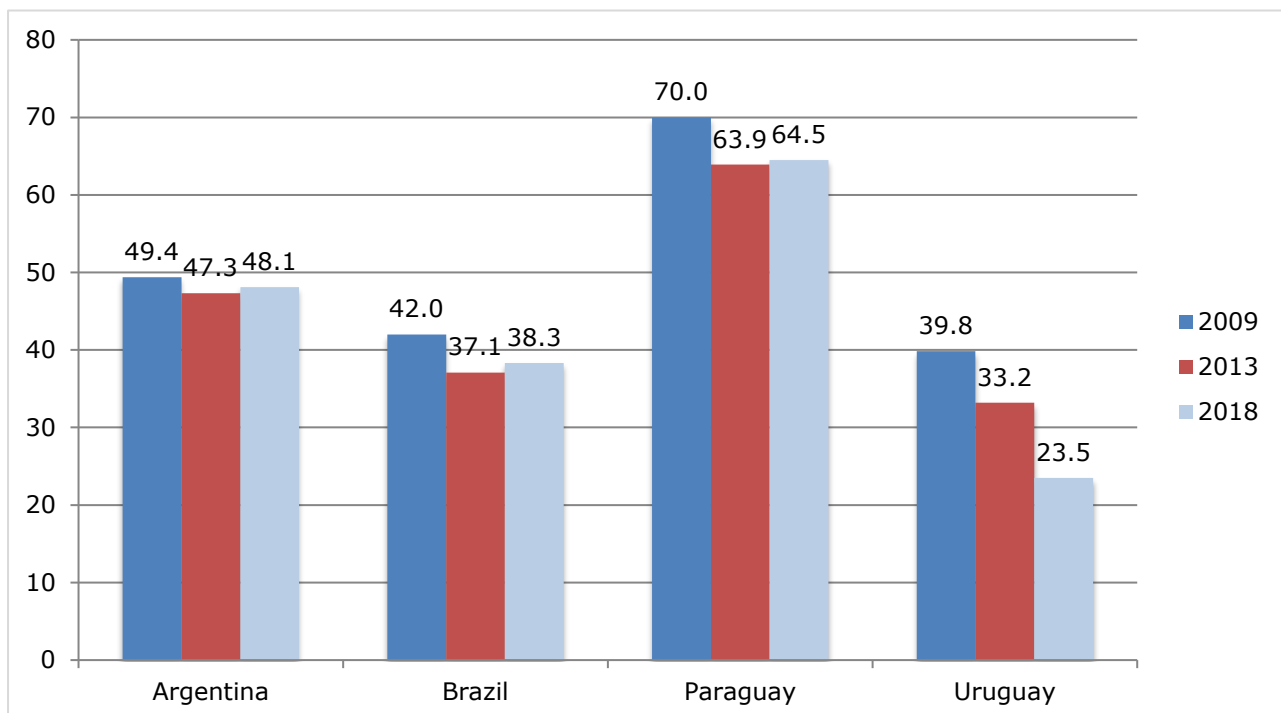
Source: World Bank (modelled ILO estimates); Eurostat.

Meanwhile, the average unemployment rate among the 28 EU members fluctuated between 9 and 11%, peaking at 10.9% in 2013, in the aftermath of the financial-crisis-cum-sovereign-debt-crisis, before gradually falling under 8% in 2017. Of course, average trends on EU labour markets mask large disparities between European countries, some of which like Greece and Spain being severely hit by the financial crisis (with unemployment rate peaking in 2013 at 27.5%

and 26.1% respectively) while others like Germany and Austria proved much more resilient to economic slowdown in Europe (5.2% and 5.4%).

Measures of employment participation and unemployment in Mercosur countries must be contextualised with traditionally high levels of informal employment in the region in both agricultural and non-agricultural sectors. For non-agricultural activities, the share of informal workers in Mercosur varies from one third (Uruguay) to two thirds (Paraguay) of the labour market. Overall, however, the past decade has witnessed a relative decline in informal employment, particularly significant in Uruguay.

Figure 3: Informal employment and informal sector in Mercosur countries as a percent of employment (%)



Source: ILO and World Bank.

The trends are not only the logical result of economic recovery in the aftermath of the 2008-2009 financial crisis but stem from the adoption of policy reforms that have proved particularly effective for salaried workers. For instance, after the convertibility crisis, Argentina adopted a series of labour formalisation policies that included changes in tax administration and policy, labour inspection measures, social protection policies and active labour market reforms. This multipronged approach, along with an improving macro-economic context, allowed informal salaried employment to drop from 49% in 2003 to 33% in 2014 (Betranou and Casanova, 2016). In the short term, Argentina's economic recession (2018-2019) may offset some of these socio-economic achievements. In Uruguay, the combination of counter-cyclical economic policies in the aftermath of the financial crisis and targeted formalisation reforms – among which tax incentives encouraging hiring, policies stimulating investment in production and human capital – enabled the country to reduce informal employment among private sector wage workers by half in less than 10 years - from 36.4% in 2004 to 17.1% in 2012 (ILO, 2014).

In the European Union, the incidence of informal employment varies greatly from one country to another, with some members (e.g. the Baltic states, Sweden) recording fewer than 10% of workers in informal employment while others are closer to or even above half of the workforce

(e.g. Greece, Cyprus).⁷ Under an alternative measure of “undeclared work” using the Labour Input Method (LIM),⁸ the EU average level of labour informality in the private sector stands at 16.4%, with percentages ranging from 7.1 in Germany to 27.3 in Poland.⁹ Since the early 2000s, the EU has been committed to labour formalisation reforms, advocating a balanced mix of prevention (e.g. tax benefits and administrative regulations) and awareness raising, sanctions and law enforcement, and promoting dialogue and cooperation among EU members.¹⁰ EU members have followed these guidelines with mixed results, the incidence of undeclared work remaining primarily driven by broader labour market conditions and poverty.¹¹

Poverty and inequality in the European Union

The number of people living in absolute poverty in the European Union is consistently limited, between 2 to 3 million people between 2004 and 2017 (World Bank). In fact, the EU itself applies only a relative poverty measure to assess its Member States. The limited extent of absolute poverty is also confirmed by the number of people living with less than \$5.50 a day, which was 10.4 million in 2004, slightly increased after the 2008 financial crisis and recovered to reach 8.6 million in 2017 for the whole of the EU (World Bank).

Income inequality in the EU has been stable with a Gini coefficient of approximately 31 from 2004 until 2017 (World Bank).

Figure 4: Number of people living with less than \$1.90 a day (millions, 2011 PPP)

	2004	2009	2014	2017
European Union	2.1	2.2	3.3	2.3

Source: World Bank database Poverty and Equity;

<https://databank.worldbank.org/source/poverty-and-equity/preview/on>

Poverty and inequality in Mercosur

Between 2004 and 2017, both the number and share of people living in absolute poverty declined in Mercosur countries. The number of poor people living with less than \$1.90 per day - the official international poverty line (IPL) established by the World Bank - decreased in the region, despite bouncing back in the aftermath of the 2015-2016 recession in Brazil (Figure 5). When adjusted

⁷ European Commission (2016), “Undeclared Work,” Figure 1 p. 3, available at:

https://ec.europa.eu/info/sites/info/files/file_import/european-semester_thematic-factsheet_undeclared-work_en.pdf

⁸ This includes 1) informal activities, typically cash in hands transactions undertaken by service providers to households or individuals (e.g. gardening, plumbing) where no business records are kept; and 2) hidden and underground activities where the transactions themselves are not against the law, but are unreported to avoid official scrutiny (e.g. envelope wages). See European Commission (2017), “An evaluation of the scale of undeclared work in the European Union and its structural determinants: Estimates using the Labour Input Method,” available at: <https://op.europa.eu/en/publication-detail/-/publication/8c3086e9-04a7-11e8-b8f5-01aa75ed71a1/language-en>

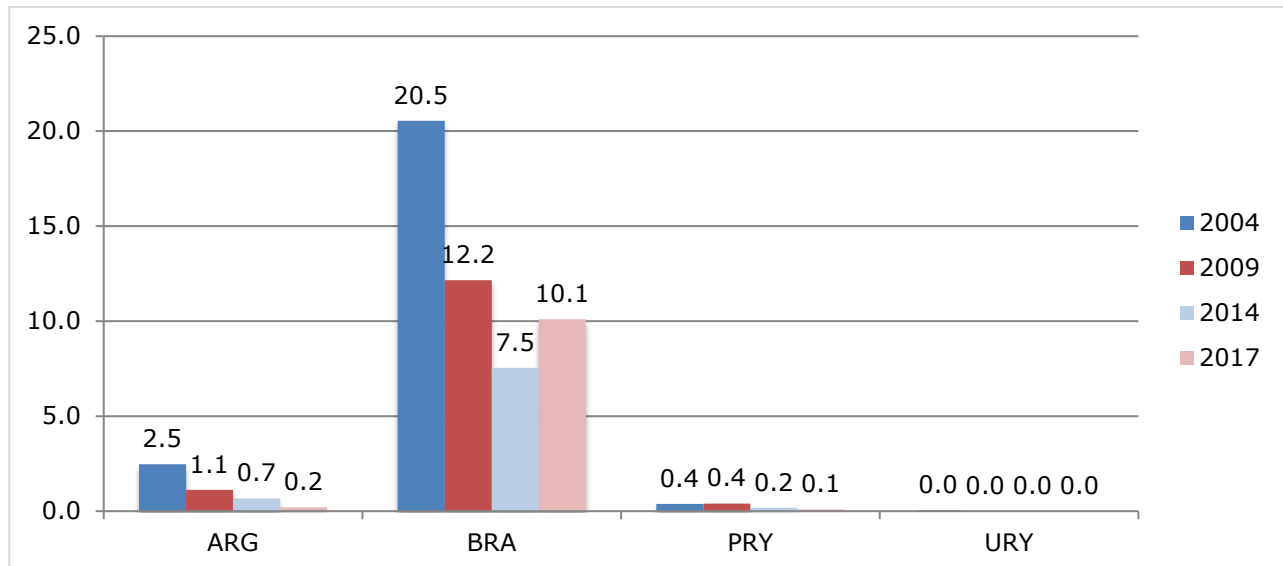
⁹ Ibid. Figure 2 p. 13.

¹⁰ EU Commission’s 2007 declaration on “Stepping up the fight against undeclared work,” the European Commission identified drivers of undeclared work and available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0628:FIN:EN:PDF>; see also EU Decision 2016/344 of the European Parliament and of the Council of 9 March 2016 on establishing a European Platform to enhance cooperation in tackling undeclared work, available at:

¹¹ For a detailed analysis of undeclared work and policies undertaken by individual members, see EU Commission (2013), *Employment and Social Developments Review in Europe 2013*, chapter 4.

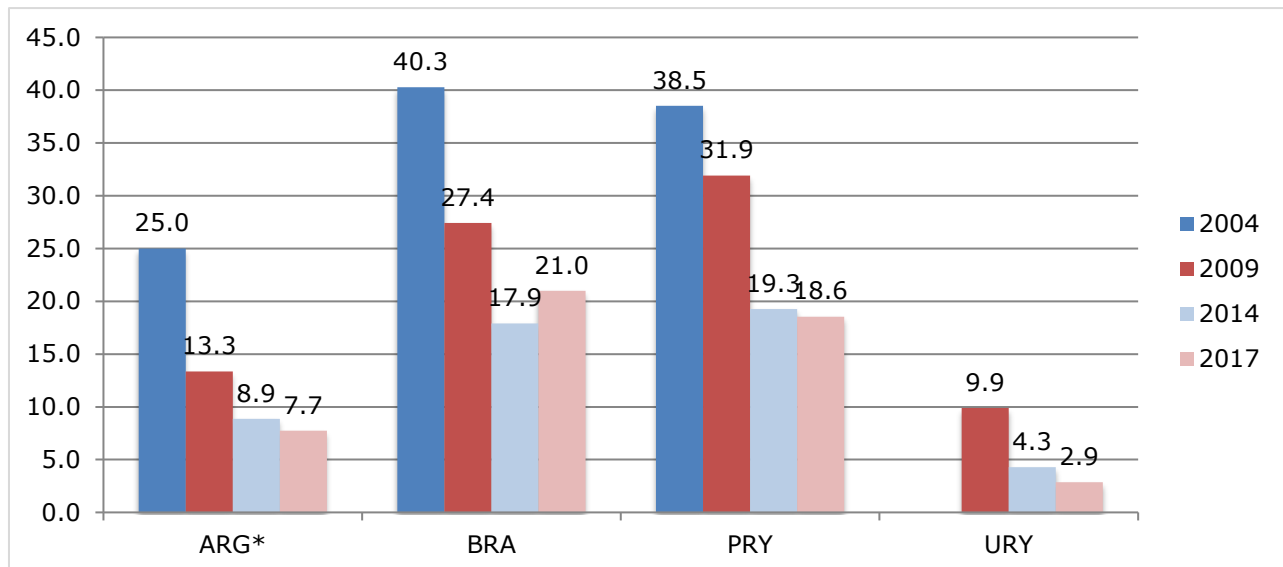
by income levels, other measures of poverty like the \$5.50 poverty threshold reveal similar trends (Figure 6).¹²

Figure 5: Number of people living with less than \$1.90 a day (millions, 2011 PPP)



Source: World Bank.

Figure 6: Percentage of people living with less than \$5.50 a day, 2011 PPP

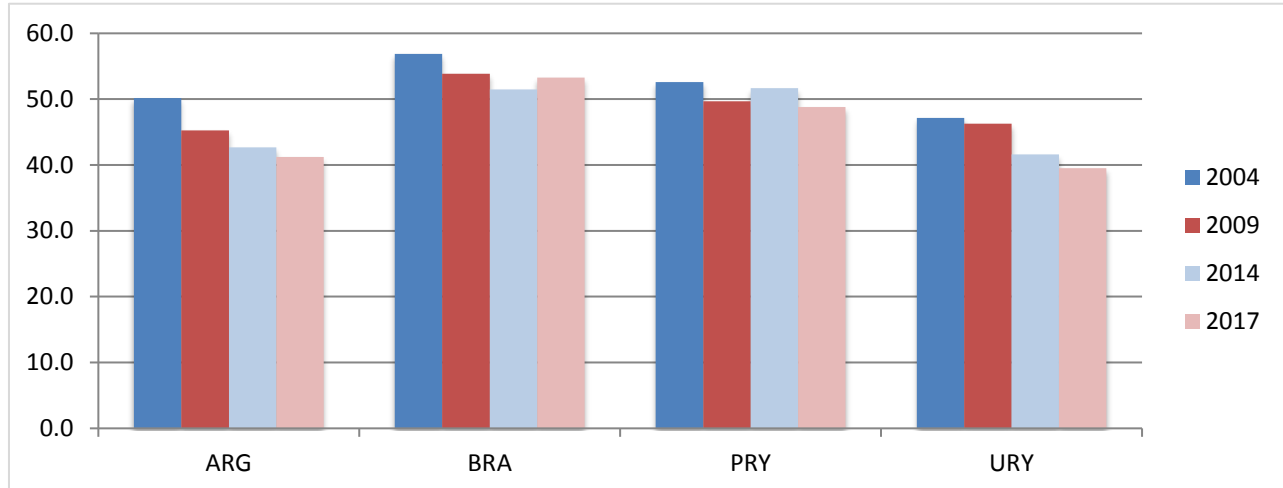


Source: PovCalNet, World Bank. * Urban.

¹² In 2015, the World Bank adjusted its international poverty line (IPL) from \$1.25 to \$1.90. Since 2017, the World Bank also provides two additional measures of poverty adjusting for income levels, at \$3.20 for lower-middle income countries, and \$5.50 for upper-middle income countries. All Mercosur countries are classified as upper-middle income countries, with the exception of Uruguay, a high-income economy. These international poverty thresholds differ from national poverty measures that are relative, i.e. set as 50% of the national median income. For a discussion, see World Bank (2017), "Monitoring Global Poverty. Report of the Commission on Global Poverty," available from: <https://openknowledge.worldbank.org/bitstream/handle/10986/25141/9781464809613.pdf>

The decline of poverty in Mercosur and the concomitant expansion of the middle class are logically reflected in measures of inequality. With the exception of Paraguay, all Mercosur members experienced a remarkable decline in income inequality between 2004 and 2017.

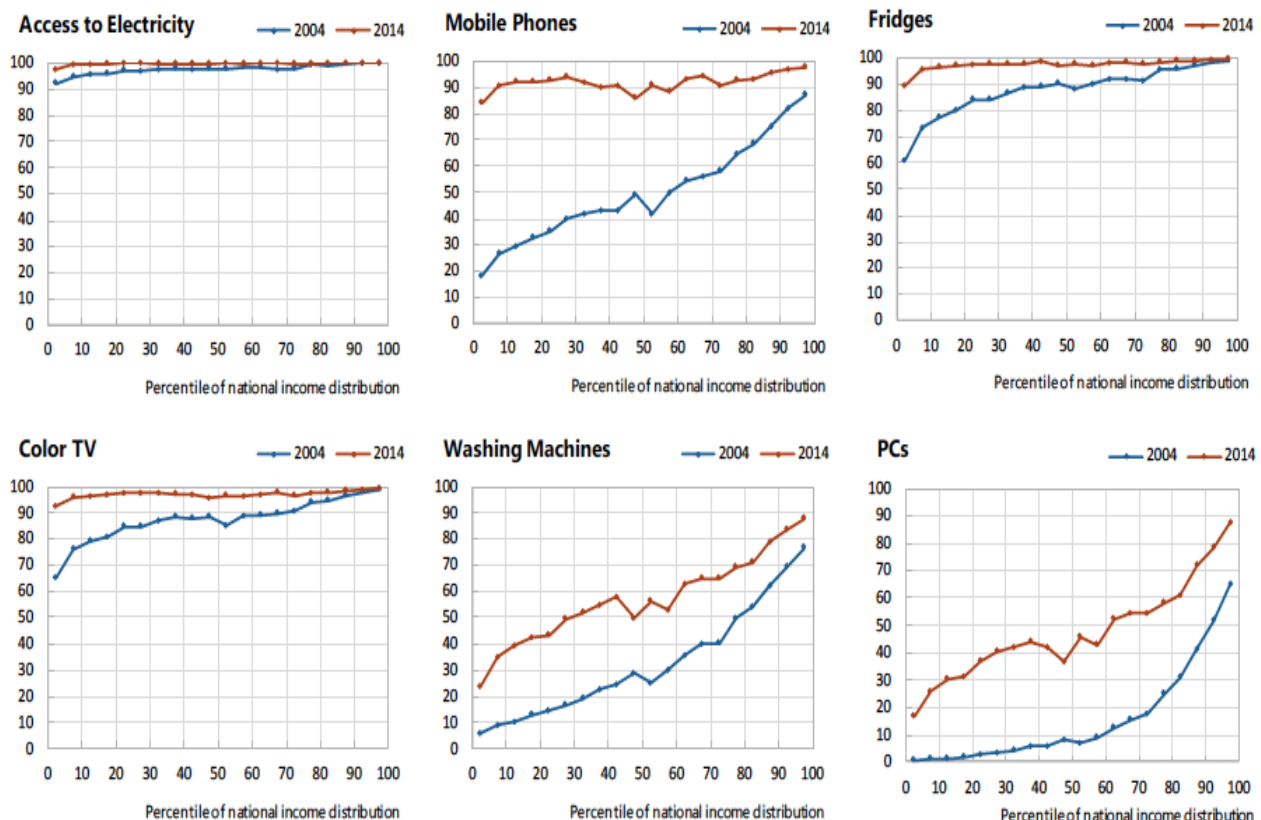
Figure 7: Income inequality in Mercosur (Gini coefficient)



Source: World Bank.

Other indicators corroborate these trends. A recent IMF study of inequality in Brazil reveals that access to durable goods dramatically expanded in the decade that preceded the country's economic and political crisis (2015-2016) (Figure 8).

Figure 8: Brazil: Convergence in Access to Durable Goods by Households (% of Brazilian households)



Source: Góes & Karpowicz (2017) using PNAD and IMF data.

However, these aggregate trends at the national level only provide a partial picture of poverty and inequality in Mercosur countries. First, the incidence of poverty dramatically differs within the regional bloc. At 2.9% (2017), Uruguay has the lowest poverty rate on the Latin American continent– is more than six times as high with 18.6% (World Bank). Second, within each country, geographic disparities can be even more significant, with certain areas being completely excluded from economic growth. A recent study shows, for instance, that the rate of chronic poverty,¹³ estimated at a 20% national average for Brazil, can range from 5% in the Santa Catarina region to up to 40% in Ceará, a ratio close to the high chronic poverty levels of Honduras (Alvaredo & Gasparini, 2015). Third, the depth and persistence of poverty differ between rural and urban areas. While urban areas may provide greater opportunities for social mobility than rural regions, they are also more likely to concentrate larger pockets of poverty. This means that the social analysis cannot be confined to aggregate indicators but must also seek to factor in geographic disparities, whether this pertains to poverty, unemployment or income inequality.

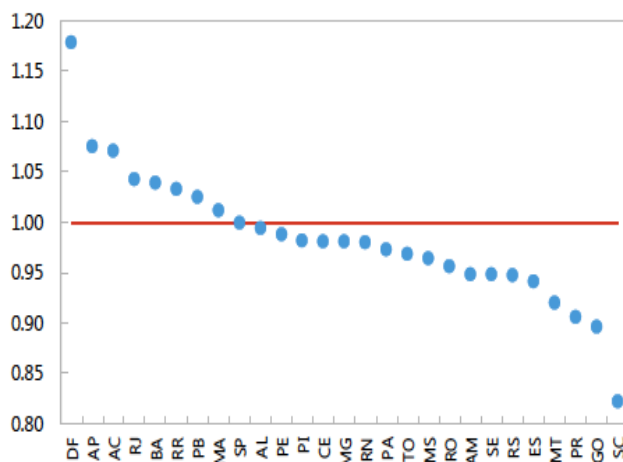
Notwithstanding the persistence of pockets of poverty and social ills affecting most severely certain regions and segments of the population,¹⁴ the combination of vibrant economic growth and targeted social policies played a significant role in reducing regional inequality in the twenty-first century. This is particularly true for Brazil, a complex continental economy that requires closer analysis. Despite wide regional economic disparities, Brazil experienced a notable decline in both intra- and inter-regional inequality between 2004 and 2014, although some of these gains were undermined by the economic recession of 2015-2016. These trends were evident under various measures (e.g. Gini, income distribution by quintile), whether tracing inequality at the state, regional or federal levels (Figure 9). One of the most notable achievements of the 2004-2014 period is the fact that income grew faster in the poorer regions of the North, Northeast, and Midwest (blue, navy, and yellow lines in third chart of Figure 9).

¹³ Using cross-sectional datasets from Dang et al (2014) and Dang & Lanjouw (2015), the authors define a household as chronically poor if it was poor in both 2004 and 2012.

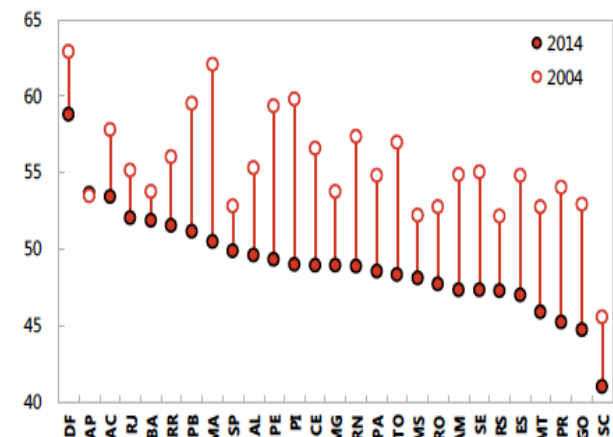
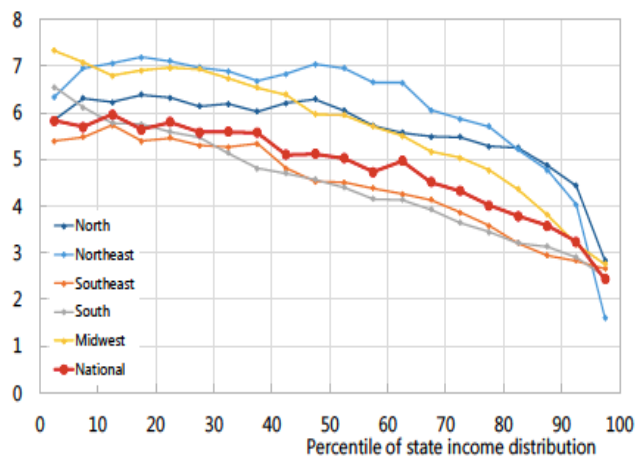
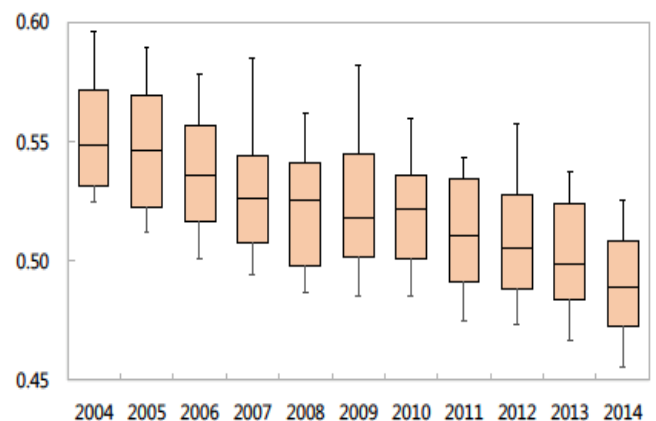
¹⁴ For greater details, see sections on labour rights below and the human rights analysis.

Figure 9: Income convergence between and within Brazilian states and regions**Brazil: Relative Gini Coefficient, by State, 2014**

(State Gini / National Gini ratio)

**Brazil: Gini Coefficient, by State, 2004–2014**

(State-wide Gini coefficient)

**Brazil: Real Income Per Capita Growth, by Region and Percentile, 2004–2014** (Average real income growth per year; average across states per quintile; adjusted for spatial-price differences)**Brazil: Distribution of Within-State Gini Coefficients (2004–2014)**

Source: Góes & Karpowicz (2017) using PNAD and IMF data.

However, Brazil's political and economic crisis of 2015–2016 eroded some of the gains achieved during the previous decade. Not only did unemployment more than double between 2014 and 2017 (reaching a peak of 13.7% in March 2017) but income inequality (Gini) and poverty also climbed back (Skoufias et al 2017). These trends were exacerbated by budget cuts in the Bolsa Família family poverty relief program that had played a central role in rolling back poverty and inequality in the previous decade. Although these negative trends jeopardised Brazil's economic miracle, the country has begun to recover from the economic recession, e.g. with unemployment steadily receding from 13.7% in March 2017 to 11.8% in the third quarter of 2019.

3.2.2. Overview of Core Labour Standards in the EU and Mercosur

In its 1998 Declaration on Fundamental Principles and Rights at Work, the International Labour Organisation (ILO) established four core labour standards that are deemed universal and have since served as a benchmark for the protection of workers' rights: 1) freedom of association and the effective recognition of the right to collective bargaining; 2) the elimination of all forms of

forced or compulsory labour; 3) the effective abolition of child labour; 4) and the elimination of discrimination in respect of employment and occupation. These four core labour standards are protected by the following eight fundamental conventions:

1. Freedom of Association and Protection of the Right to Organise, 1948 (Convention 87)
2. Right to Organise and Collective Bargaining, 1949 (Convention 98)
3. Forced Labour, 1930 (Convention 29)
4. Abolition of Forced Labour, 1957 (Convention 105)
5. Minimum Age, 1973 (Convention 138)
6. Worst Forms of Child Labour, 1999 (Convention 182)
7. Equal Remuneration, 1951 (Convention 100)
8. Discrimination (Employment and Occupation), 1958 (Convention 111)

Since the Declaration on Social Justice for a Fair Globalization in 2008 (the Social Justice Declaration), the ILO has put increasing emphasis on the “governance Conventions”, i.e. conventions considered to be the “most significant from the viewpoint of governance.” These are considered to be “priority instruments” for their importance to the functioning of the international labour system. They include: the Labour Inspection Convention, 1947 (No. 81); the Employment Policy Convention, 1964 (No. 122); the Labour Inspection (Agriculture) Convention, 1969 (No. 129); and the Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144).

EU’s approach to labour standards

All EU member states have ratified the eight ILO fundamental conventions since 2007, as well as the priority convention on labour inspection since 2009. Most of them have also ratified the main social governance conventions (e.g. employment policy and tripartite consultation) while many have ratified other conventions supporting the four strategic objectives of the Decent Work Agenda: employment, social protection, social dialogue and tripartism and fundamental principles and rights at work (ILO, 2018). The EU has progressively intensified its support in its internal and external policies and actions for ILO standards, frameworks and initiatives such as: support for core labour standards (2001, 2012), social dimension of globalisation (2004), decent work (2006), global jobs pact (2009) and social protection floors (2012). Additionally, the EU has played an instrumental role in the development of many ILO initiatives, among which the Maritime Labour Convention (2006) and the joint EU-ILO Tackling Child Labour through Education (TACKLE) program (ILO, 2012). EU Member States are also part of the regular monitoring of the ILO conventions carried out by the ILO monitoring bodies. Finally, the EU promotes international labour standards as part of its trade strategy (see below).

The general convergence of EU and ILO policy goals must not obscure national differences in compliance with ILO standards across the EU. A close analysis of the ILO 2016 report on the “Application of International Labour Standards” and the latest data available (2015) from the NORMLEX information system reveals a wide range of compliance issues among EU member states (ILO, 2016a). Several fundamental labour conventions feature among the most common conventions subject to direct requests from the ILO. In 2015, the conventions subject to the greatest number of cases pertain to freedom of association and the effective recognition of the right to collective bargaining (conventions 87 and 98) and have involved many different EU

member states. In 2015, the conventions subject to the greatest number of cases pertain to freedom of association and the effective recognition of the right to collective bargaining (conventions 87 and 98) and have involved many different EU member states. Direct requests by the ILO were also brought with regard to the effective abolition of child labour (conventions 138 and 182), and the elimination of discrimination in respect of employment and occupation. Beyond core labour standards, the 2006 Maritime Labour Convention has been also frequently subject to compliance issues, as have Governance conventions like Convention 81 Labour Inspection Convention and Convention 129 on Labour Inspection. However, as explained below, the presence of direct requests may not necessarily indicate a significant or pervasive issue with compliance of ILO and may at times signal rising awareness and even progress in a particular field.

Mercosur's approach to labour standards

Mercosur members have been supportive of the International Labour Organisation since its foundations. Their enforcement of international labour standards is conditioned both by individual members' ratification of ILO conventions as well as regional institutions. All Mercosur members have ratified the 8 fundamental Conventions, with the exception of Brazil, which has not ratified convention 87 on Freedom of association and protection of the right to organise (1948). No Mercosur member has ratified all four governance Conventions, with the exception of Uruguay. Other members ratified at least two (Paraguay) or three (Brazil and Argentina) out of these governance conventions, the least ratified convention being – in Mercosur as elsewhere – convention 129 (1969) on Labour Inspection in Agriculture.

3.2.3. Overview of Labour Rights Enforcement in Mercosur Members

The situation of workers' rights in the Mercosur region is one of contrasts. On the one hand, labour movements have traditionally played an important role in Latin American politics, although this influence differs among Mercosur countries. Burgess (2010) defines four types of relations between labour groups and the state across Latin America: labour populism, pluralist welfarism, paternalist dictatorship and conservative oligarchy. Brazil and Argentina are defined as labour populist regimes with strong unions with close links to the state or a political party. Uruguay is classified as pluralist welfarism, characterised by relatively generous social policies, strong rule of law and weak ties between the state and trade unions. Paraguay, despite having democratically elected governments since 1992, has labour relations and a welfare system that are in part conditioned by its previous history of paternalistic dictatorship. The nature of these labour-state relationships has shaped the enforcement – or lack thereof – of workers' rights and the scope of social protection among Mercosur members.

Indeed, officially, Mercosur countries have shown support for the ILO since its foundations and ratified most ILO core conventions. In practice, however, there is a persistent gap between de jure labour standards and de facto labour standards that stems not only from state-labour relations, but also the significant incidence of informal employment in the region, the strong regional disparities among and within Mercosur members, as well as the promotion of labour market flexibilisation policies by international financial institutions.

The following analysis of fundamental labour rights draws on the NORMLEX database to examine recent cases submitted to the ILO Committee of Experts on the Application of Conventions and Recommendations (thereafter CEACR or Committee of Experts). The rest of this section highlights contentious issues in the implementation of ILO standards in Mercosur countries. Arguably, comments and requests provided by the CEACR on issues of compliance may not

always reflect a systemic problem of non-compliance in one country but can also provide guidelines on how to sustain progress achieved in a particular field such as the elimination of child labour. Yet, when put in perspective with other measures of labour rights enforcement, expert sources and stakeholder consultation, they provide an indication of the main challenges of labour rights enforcement in Mercosur countries.

Freedom of association and right to collective bargaining

Unions' rights in Mercosur countries are officially well protected given the important political role played by labour organisations in national and local politics. However, as in most labour standards in the region, their enforcement on the ground depends on the sector and the region under consideration. National labour laws protect both freedom of association and the right to collective bargaining.¹⁵ As mentioned above, all Mercosur members have ratified fundamental conventions 87 and 98, with the exception of Brazil, that has yet to sign convention 87. Up until the 2017 labour reform, Brazilian employees were mandatorily enrolled in a union and organised labour continues to exert strong influence to protect workers' rights. The latter reform has been criticised by Brazil's Unified Workers' Centre for undermining not only union rights and collective bargaining but also for having broader repercussions on working conditions including overtime, holidays as well as part-time work (ILO, 2018). These issues were raised emphatically by Brazilian stakeholders during a consultation held in Brussels.

Using ILO statistics, Table 11 compares the levels of union density and union concentration between Mercosur members, while Figure 10 measures the enforcement of freedom of association and the overall protection of labour rights based on data from the World Justice Project.¹⁶

Table 11: Union density and concentration among Mercosur members

Country	Union density ¹⁷	Union concentration ¹⁸
Argentina	27,7	High
Brazil	18,9	Low
Paraguay	6,7	Low
Uruguay	30.1	High

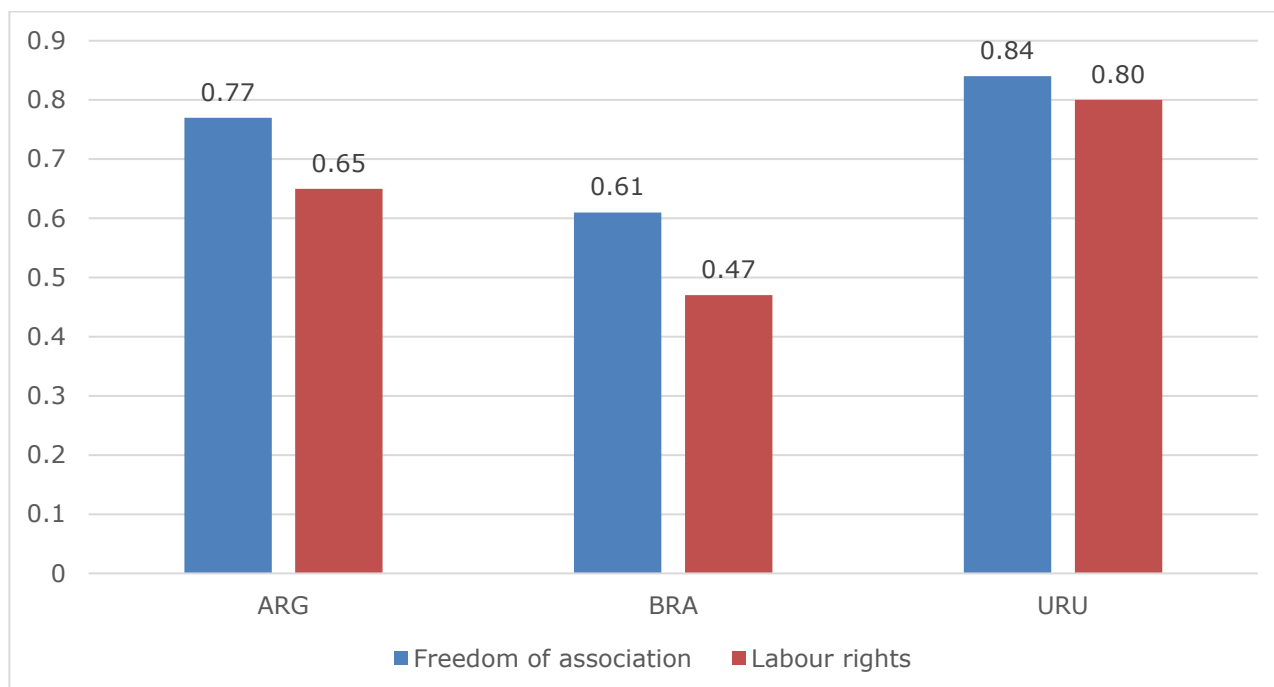
Source: ILOSTAT, Roberts (2014).

¹⁵ A study of ILO National Labour Law country profiles reveals the large of legal scope of labour standards in each Mercosur country with regard to trade union and employers' association regulation, collective bargaining and agreements, workers' representation in companies, dispute settlements, labour courts as well as strikes and lock outs.

¹⁶ The World Justice Project (WJP) provides data on the rule of law. The 2019 edition covers 126 countries and jurisdictions, relying on more than 120,000 household surveys and 3,800 expert surveys to measure how the rule of law is experienced in practical, everyday situations by the general public worldwide. Performance is measured using 44 indicators across eight primary rule of law factors, each of which is scored and ranked globally and against regional and income peers. The two indicators displayed here fall under the Fundamental Rights category and are defined in the following terms: 4.7 Freedom of assembly and association is effectively guaranteed; and 4.8 Fundamental labour rights are effectively guaranteed. For more details, see <https://worldjusticeproject.org/our-work/wjp-rule-law-index>

¹⁷ Latest ILO data: Argentina, 2014; Brazil, 2016; Paraguay, 2015; Uruguay, 2013.

¹⁸ Roberts' defines three types of union concentration in Latin America: 1) "low" union concentration as indicating that less than 40% of union members belong to the largest labor confederation; 2) a "medium" ranking indicating that between 40 and 70 % of union members belong to the largest confederation; 3) and a "high" ranking for over 70%.

Figure 10: Measures of freedom of association and labour rights protection in Mercosur (2019)*

Source: World Justice Project, 2020. * Dataset does not include Paraguay. Note: Score nearer to 1.0 corresponds to stronger adherence to the rule of law, score nearer to 0.0 corresponds to weaker adherence.

At the regional level, data from World Justice Project reveals a contrasted picture among Mercosur countries. With regard to freedom of association and under a broad measure of labour rights¹⁹, Uruguay and Argentina perform better than most Latin American and Caribbean countries, while Brazil obtains lower scores than the regional average.

The fact that Mercosur workers are officially free to organise and that unions play a non-negligible role both in national politics and collective bargaining doesn't mean that workers in all sectors are always represented or protected, nor that union rights are fully enforced. In fact, several reports have documented workers' rights violations across Mercosur countries. Table 12 draws on the NORMLEX database to review cases submitted to the ILO Committee of Experts on the Application of Conventions and Recommendations (thereafter CEACR or Committee of Experts) that reflect contentious issues in the implementation of ILO standards in Mercosur countries. Cases related to unions' rights are among the most common complaints brought to the CEACR.

¹⁹ This includes core labour standards other than freedom of association, i.e. including the right to collective bargaining, the prohibition of forced and child labor, and the elimination of discrimination.

Table 12: Convention 87 and 98 cases brought to CEACR in Mercosur²⁰

ILO Core Labour standards	Examples of cases reviewed by ILO Committee of Experts ²¹
Freedom of association and the effective recognition of the right to collective bargaining (conventions 87 and 98)	<ul style="list-style-type: none"> ▪ State measures infringing upon freedom of association (A), right to strike (A), trade union election (A) ▪ Investigation of killings of trade union leaders (B) ▪ Inadequate protection of collective bargaining (A, B) ▪ Inadequate protection against anti-union discrimination (A, B)

Source: ILO Normlex, 2018.

Table 12 illustrates the gap between de jure and de facto labour standards in Mercosur countries by revealing the wide extent of unions' rights violations, ranging from political reforms undermining freedom of association to anti-union persecution and murders of union leaders. Workers' rights violations have recently been raised in the ILO Committee of Experts in relation to all Mercosur members with the exception of Uruguay, where infringements upon workers' rights are both rarer and more benign. Indeed, Uruguay ranks first in the region in the World Justice Project Rule of Law Index.

Elimination of all forms of forced and compulsory labour

While both national labour laws and ILO commitments (ratification of conventions 29 and 105) have made forced labour illegal in all Mercosur countries, this phenomenon has endured in various forms in the region including agricultural forced labour under conditions of debt bondage in the Brazilian Amazon region, cattle ranchers in Paraguay's Chaco region, or domestic workers throughout the region.²² Indigenous populations, internal migrants (often victims of human trafficking), blacks or *mestizos* (mixed-raced), women and children are the most vulnerable to these practices. A combination of geographic and socio-economic factors have contributed to the persistence of forced labour. These include, among others, a weak state presence in remote areas, low investment in education resulting in poor literacy and numeracy levels, poverty, unequal land distribution as well as the lack of identity documents that render victims invisible to national authorities (International Labour Office, 2005; Costa, 2009).

²⁰ Cases are selected according to three criteria: 1) relevance to core labour standards; 2) nature of ILO comments (direct requests, as opposed to simple observation); 3) recency of the case (four years maximum).

²¹ A = Argentina; B = Brazil; P = Paraguay; U = Uruguay.

²² The definition of slave labour in Brazil (*trabalho escravo*) is close to the ILO's notion of forced labour but goes beyond it to include unacceptable or degrading working conditions. For convenience purposes, the term forced labour is used to cover both meanings in this section.

Table 13: CEACR cases related to forced labour in Mercosur²³

ILO Core Labour standards	Examples of cases reviewed by ILO Committee of Experts
Elimination of all forms of forced or compulsory labour (conventions 29 and 105)	<ul style="list-style-type: none"> ▪ Work of prisoners for private enterprises (A) ▪ Exploitation and debt bondage of indigenous populations (P) ▪ Implementation of policies designed to eliminate forced or compulsory labour (B, P) ▪ Work imposed on non-convicted detainees (P) ▪ Implementation of policies to combat human trafficking and exploitation (A)

Source: ILO Normlex, 2018.

Table 13 sets out the types of cases related to compulsory labour in Mercosur countries. Latin American governments have responded to these cases, often with assistance from international organisations like the ILO. Brazil has arguably adopted some of the boldest reforms to combat forced labour over more than two decades. These efforts began with the creation in 1995 of an interministerial body to coordinate action against forced labour and have since included: the creation of the National Commission to Eradicate Slave Labour (CONATRAE), in charge of coordinating the First and Second National Plans to eradicate forced labour; the establishment of labour courts in regions concentrating cases of compulsory labour²⁴ the drawing up of the “Dirty List” of companies employing forced labour; the monitoring of companies’ supply chains and the creation of the Special Mobile Inspection Group (GEFM). Between 1995 and 2008, the latter has rescued more than 30,000 forced workers. This progress dovetails with the process of labour formalisation discussed above and confirm that the conjunction of favourable economic conditions and targeted political reforms can yield substantive socio-economic results.

Like Brazil, Paraguay has a history of cases of forced labour, and more specifically debt bondage and exploitation of indigenous populations (especially in the Chaco region). In 2017, the CEACR estimated that least 8,000 workers were victims of forced labour in the Chaco region. Forced labour in Paraguay has been taken up by the ILO’s Committee of experts for 20 years, in parallel with efforts undertaken by the United Nations Permanent Forum on Indigenous issues, the Special Rapporteur on the rights of indigenous peoples and the ITUC for at least 20 years. In November 2016, the Paraguayan government adopted a new National Strategy for the Prevention of Forced Labour for 2016-2020, designed to coordinate key government agencies to combat compulsory labour. Benefitting from ILO technical assistance, this program also aims to strengthen the labour inspectorate for the prevention and eradication of forced labour, by improving inspectors’ training, increasing their number and expanding their geographical distribution. The success of this program will hinge upon the political will of the government of

²³ Cases are selected according to three criteria: 1) relevance to core labour standards; 2) nature of ILO comments (direct requests); 3) recency of the case (four years maximum).

²⁴ These programs consist of awareness campaigns, new sanctions against offenders, new measures aimed at increasing the release of forced labour victims through the intervention of mobile police units etc. International Labour Office, *ibid*.

Paraguay to seriously tackle this decades-old issue.²⁵ Other measures in the region include targeted programmes like Argentina's long efforts to combat human trafficking such as its national programme to combat trafficking in persons, as well as policies designed to combat discrimination against indigenous populations.²⁶

Despite its long commitment to the prohibition of forced labour, the European Union is not immune to this phenomenon. A 2012 ILO report estimated the total number of victims of forced labour in the EU at 880,000, with cases primarily concentrated in sexual exploitation (30%), domestic work, agriculture, manufacturing and construction²⁷. In 2015, the European Council decided to recommend that EU Member States ratify the ILO's new Protocol to the Forced Labour convention. Under this Protocol (P29), countries reassert their commitment to 1) prevent the use of forced labour, especially in the context of human trafficking; 2) improve the protection of victims; and 3) provide access to compensation. Countries ratifying P29 are required to develop a national policy and plan of action, while the protocol also enhances international cooperation. In early 2020, 17 EU members had ratified P29. There is a specific reference to this Protocol in Article 4.5 of the Trade and Sustainable Development Chapter. In parallel, the European Union has also devoted attention and resources to fighting human trafficking, most notably through its "EU Strategy towards the Eradication of Trafficking in Human Beings 2012-2016" and its 2011 Anti-Trafficking Directive – the latter also contributing to the protection of victims, the development of gender-specific approaches to human trafficking among member states, and the strengthening of international cooperation.

Effective abolition of child labour

Like forced labour, the situation of child labour in Mercosur members is subject to wide regional disparities and contingent upon socio-economic factors like poverty, weak government presence and in low investment in education. The problem of child labour and the various political responses adopted by Mercosur governments are also linked with other human and labour rights issues such as forced labour, human trafficking and the situation of indigenous populations, some of which are discussed in the human rights analysis. Mirroring progress in poverty reduction and labour market formalisation, the conjunction of favourable socio-economic trends and targeted policy reforms have yielded tangible results and should continue to do so in the upcoming years absent political or economic reversals. Table 14 lists cases related to child labour in Mercosur countries. Analysis of CEACR comments over the past five years reveals not only persisting challenges regarding the regulation of child or youth employment but also marked interest in the policies and programs that Brazil, Argentina, Paraguay or Uruguay have developed over the past decade.

²⁵ This paragraph draws from the Normlex database and more specifically, Discussion: 2017, Publication: 106th ILC session (2017), Forced Labour Convention, 1930 (No. 29) – Paraguay, available at:

http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3330959

²⁶ On indigenous populations, see the human rights analysis.

²⁷ ILO (2012), "Forced Labour: The EU Dimension," available from: https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-brussels/documents/genericdocument/wcms_184976.pdf

More recent ILO publications consider Europe as a whole and combine it with Central Asia, bringing the estimated number of forced workers to 2.6 million. However, countries with the highest levels of forced labour per capita are primarily located "at the EU's doorstep" (ILO, 2012) in the Central and South Eastern Europe. ILO (2017), "2017 Global Estimates of Modern Slavery and Child Labour. Regional brief for Europe and Central Asia," available from https://www.ilo.org/wcmsp5/groups/public/@ed_norm/@ipecc/documents/publication/wcms_597874.pdf

Table 14: CEACR cases related to child labour in Mercosur²⁸

ILO Core Labour standards	Examples of cases reviewed by ILO Committee of Experts
Effective abolition of child labour (conventions 138 and 182)	<ul style="list-style-type: none"> ▪ Hazardous types of work (B, P, U) ▪ Work performed in streets and public spaces (B) ▪ Labour inspection (P) ▪ Implementation of policies to eliminate child labour (B, A)

Source: ILO Normlex, 2018.

Brazil has adopted a series of reforms since the 1990s that have contributed to the decline of child labour. This includes legislation banning work for anyone under 16 (1990 State and Adolescent State (ECA)); conditional cash transfers like the Child Labour Eradication Programme (PETI) and Bolsa Família (which absorbed PETI's cash transfers) that encourage families to take their children out of work and keep them in school. Combined with other measures to eradicate forced labour, these policies have achieved significant progress over the past two decades, although child labour (especially in the Nordeste) remains a persistent challenge to policy makers to this day.

Likewise, over the past decade, Argentina has adopted several programs to protect child rights and better enforce conventions 138 and 182. In 2015, it adopted its third National Plan for the Prevention and Elimination of Child Labour (2016-2020). The previous quadrennial plan (2011-2015) helped develop a national information system compiling statistical data on child labour and promoted technical cooperation between national (CONAETI) and provincial (COPRETI) agencies working on the eradication of child labour. The Government also recently adopted legislation to make education compulsory from age 4 and raised the national minimum age to 16 for agricultural and domestic work. These are only some of the initiatives adopted to eradicate child labour in Argentina.²⁹ This multi-faceted program has led to significant progress over the past fifteen years. According to a recent ILO-UNICEF report, between 2004 and 2014, the number of children engaged in work between the ages of 5 and 13 years fell by 66% and by 38% for adolescents of 14 and 15 (ILO-UNICEF, n.d.).

Paraguay has adopted a similar plan for the Prevention and Elimination of Child Labour and the Protection of Young Workers (2010-15) that includes similar measures such as data collection, conditional cash transfers (TEKOPORÃ), targeted programs for the reduction of child labour on the streets (ABRAZO). Uruguay's own National Committee for the Elimination of Child Labour (CETI) adopted a plan of action for the elimination of child labour in waste collection (2011-15). These examples show that the eradication of child labour is a cause that all Mercosur members have embraced. Although there is still room for progress in certain regions and specific sectors of the informal economy, the improving trends of the past decade and a half provide hope for future progress in this realm.

The EU has minimum requirements in place for the protection of young workers (under 18 years of age) and their health and safety at work through the EU Directive 94/33/EC on the Protection of Young People at Work. The employment of young people must be strictly controlled and protected and includes provisions on permitted working hours, rest periods, etc. It stipulates

²⁸ Cases are selected according to three criteria: 1) relevance to core labour standards; 2) nature of ILO comments (direct requests, as opposed to simple observation); 3) recency of the case (four years maximum).

²⁹ For more details, see DOL: https://www.dol.gov/sites/default/files/images/ilab/child-labor/Argentina_0.pdf

certain types of employment which are not allowed to be carried out by young people, such as that which exceeds their mental or physical capacities and if it involves harmful exposure to dangerous substances. The Directive also prohibits the employment of children (under the age of 15 or still in full-time compulsory education). Given its links with human trafficking, child labour has, like forced labour, been the focus of the EU's aforementioned anti-trafficking initiatives (i.e. "EU Strategy towards the Eradication of Trafficking in Human Beings 2012-2016" and its 2011 Anti-Trafficking Directive). Other international efforts include the ILO's International Program on the Elimination of Child Labour (IPEC) in Romania and Bulgaria. Since 2003, both countries have participated in ILO-IPEC programs designed to combat trafficking of children and eliminate worst forms of child labour.³⁰

Elimination of discrimination in respect of employment and occupation

Like many other social indicators and labour standards in Latin America, many traditional forms of discrimination such as gender, race, or social origin have receded over the past decade, including in Mercosur countries. This is partly due to national policies and international assistance related explicitly or implicitly to conventions 100 and 111. Table 15 presents the ILO Committee of Experts' comments and requests to Mercosur countries over the past five years (2012-2017).

In Europe, discrimination at work continues to be taken seriously by EU member states' policies as illustrated by the development of some of the broadest and most effective policies to combat discrimination. Anti-discrimination and gender equity reforms have been adopted at both national levels (e.g. France, Germany, Ireland, Denmark etc.) and at the supranational level, e.g. within the framework of the "Strategic Engagement for Gender Equality". The Commission's 2010-2015 strategy for equality between women and men prioritised five key areas for action: 1) equal economic independence for women and men; 2) equal pay for work of equal value; 3) equality in decision-making; 4) dignity, integrity and ending gender-based violence; and 5) promoting gender equality beyond the EU. The 2015 report from the EU Commission underlined the progress accomplished during the 2010-2015 plan (rising employment rate among women, increasing participation in economic decision-making) and reasserted the relevance of its priorities for the 2016-2019 period (EC, 2015b). Despite these reforms, different forms of discrimination persist, with gender-related discrimination being subject to the greatest number of direct requests by the ILO CEACR.

³⁰ For more details on IPEC programs, see: <https://www.ilo.org/ipec/Regionsandcountries/europe-and-central-asia/lang--en/index.htm>

Table 15: CEACR cases related to discrimination in Mercosur³¹

ILO Core Labour standards	Examples of cases reviewed by ILO Committee of Experts
Elimination of discrimination in respect of employment and occupation (conventions 100 and 111)	<ul style="list-style-type: none"> ▪ Occupational segregation and gender pay gap (P) ▪ Discrimination on sex and sexual orientation; sexual harassment (P, B, U) ▪ Measures related to protection against discrimination and equality (A, U) ▪ Indigenous peoples (A) ▪ Domestic workers (A, U) ▪ Workers with disabilities (A, U) ▪ Measures related to equality of opportunity and treatment irrespective of race, colour and ethnicity (B, U) ▪ Wage gap legislation (U)

Source: ILO Normlex, 2018.

Overall, progress has been uneven across the Mercosur region, with discrimination against indigenous people, young black men and women persisting in various forms.³² For instance, the CEACR notes Brazil's important strides in combating discrimination since the early 2000s, most notably with the creation of a Special Secretariat for Policies to Promote Racial Equality (SEPPIR) with ministerial rank. The CEACR notes Uruguay and Argentina's efforts to eliminate racial discrimination through national programs (e.g. affirmative action measures for citizens of African descent in Uruguay) but points to uneven progress, encouraging Argentina to step up its anti-discrimination programs. With regard to gender issues, the ILO Committee of Experts also identifies wage differentials as one of the most persistent forms of inequality between men and women in Paraguay, similarly exhorting the Paraguayan government to adopt concrete measures to raise awareness on this issue and enforce the application of the principle of equal remuneration, while improving women's access to a broad range of employment opportunities. Women's rights, as well as indigenous rights, are discussed in greater details in the human rights section.

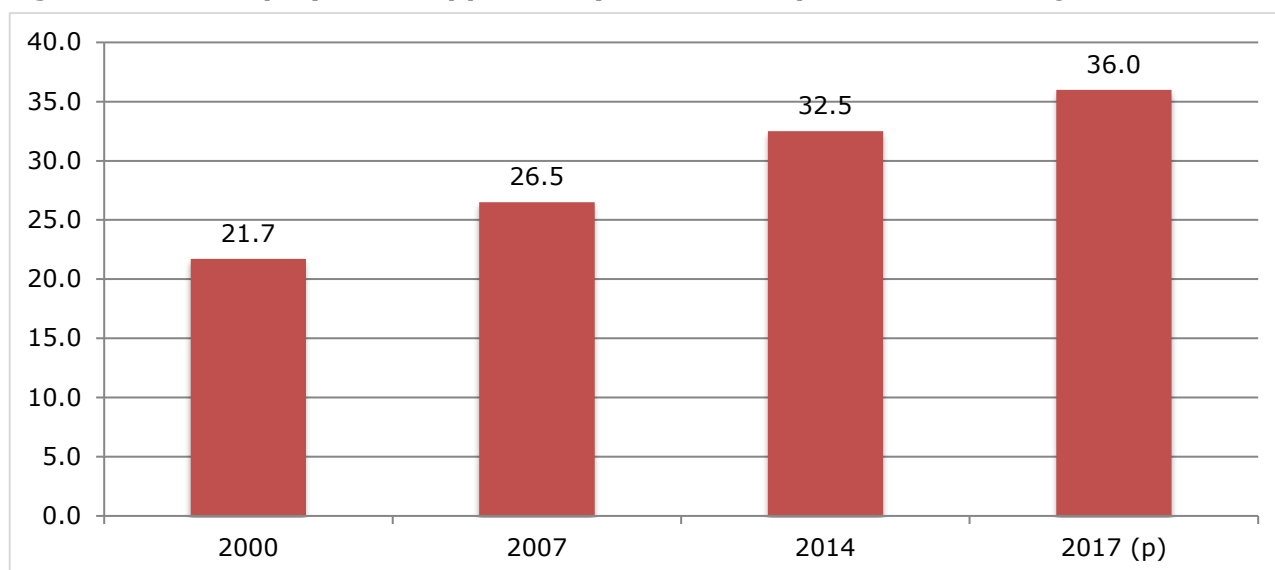
3.3. Analysis

3.3.1. Wages, income inequality and employment effects

Tapping external sources of growth has become a crucial pillar of the EU's strategy to boost job creation and prop up incomes. The Commission's focus on external trade as a key element of employment policy stems from the growing significance of export-related jobs for European labour markets. According to the Commission's own estimates, the number of jobs supported by extra-EU exports of goods and services has increased by two thirds (66%) since the beginning of the twenty-first century, rising from 21.7 to 36 million jobs in 2017.

³¹ Cases are selected according to three criteria: 1) relevance to core labour standards; 2) nature of ILO comments (direct requests, as opposed to simple observation); 3) recency of the case (four years maximum).

³² Women's rights and the conditions of indigenous peoples are dealt with more specifically in the human rights section.

Figure 11: EU employment supported by extra-EU exports: number of jobs in millions

Source: Arto et al., 2018. (p) = projected.

Manufacturing still represents close to 54% all jobs supported by extra-EU exports although the share of services exports has steadily increased (Arto et al., 2018). As mentioned in the descriptive trade statistics, EU merchandise exports to Mercosur are dominated by manufacturing goods, including machinery (29%), vehicles and parts (17%). Still, the recent decline of EU-Mercosur trade in goods, as well as the growing significance of China in Mercosur's external trade mean that a further increase of export-related jobs cannot be taken for granted. However, the rapid increase of EU services exports to Argentina over the past few years – a 36% increase between 2010 and 2015 – shows that there is considerable potential for job creation in what some have described as the “sleeping giant” of the EU economy (Hamilton and Quinlan, 2015). This is confirmed by the services sector's increasing share of jobs supported by EU exports, which increased from 38% to 42% between 2000 and 2017.³³

The trend toward the growing scale of services exports does not mean, however, that services should be fully dissociated from manufacturing and agricultural exports. In effect, 40% of all employment supported by the primary and secondary sectors correspond to “mode 5 services”³⁴ (a ratio that varies from 19 to 62% depending on the sector) (Rueda-Cantuche & Sousa, 2016). Whether they are affiliated with the services or manufacturing sector, export-related jobs are known for being high-skilled and better paid than average wages.³⁵

Employment and income effects are key to assessing whether the trade agreement will reach the most vulnerable sectors of the respective societies. We used a CGE model to calculate changes in the level of employment by sector in each country. This can be also assessed further by distinguishing between different types of employment (unskilled, skilled) and different types of households.

³³ European Commission, 2018. New report provides further evidence of link between trade and jobs – MEMO. <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1947>.

³⁴ Mode 5 services are labelled as products and, therefore, subject to GATT rules. For more details, see Cernat and Kutlina-Dimitrova, 2014.

³⁵ Using data from 164,000 workers, a study by the US International Trade Commission reveals that contrary to what people might expect, the wage earnings premium is not only greater for blue-collar workers than for white collars but also more significant in the manufacturing sector than in the services industry. See Riker, 2015.

Table 16 summarises some broad social effects of the EU-Mercosur FTA, from our CGE analysis. Welfare effects are significant for the EU, Brazil and Argentina, while they are essentially neutral for Uruguay and Paraguay. On the other hand, we see that unskilled labour wages tend to increase more in real terms than skilled labour wages, such that poorer people who are primarily unskilled may have their incomes catching up with those of the richer skilled people. Furthermore, consumer prices fall in all Mercosur members, which is again a positive development for poorer people in particular. The rise in prices in the EU is a result of greater demand and is in tune with the real wage increases. All the effects discussed here hold in both conservative and ambitious scenarios, but the effects of the latter are stronger than those of the former. Therefore, in terms of real wages and income distribution, we can clearly say that the modelling predicts that the EU-Mercosur FTA can have positive social effects in the EU and in Mercosur countries.

Among the sectors most significantly impacted in Mercosur countries (changes above 2%), the greatest employment gains are to be expected in the cereals (especially for Brazil), vegetables, fruits and nuts (Brazil, Argentina, Uruguay), oil seeds, vegetable oils and fats (Brazil), bovine (Brazil, Argentina, Uruguay), other meat, gas (Brazil, Argentina), agricultural sectors. Job losses are seen in some manufacturing sectors such as metal products, motor and transport, machinery sectors (all Mercosur countries in each case).

The impact on EU employment is proportionally much less significant given the bigger size of European labour markets. All sectors report employment changes under 1% under both scenarios, with only the sugar and beef sectors reporting job losses between 1.1 and 1.5% in the ambitious scenario. As pointed out by stakeholders during consultations, these figures do not take into account the cumulative effects of trade liberalisation on the agricultural sector, which is beyond the scope of the present study³⁶.

Table 16: Welfare, real wage and price effects on EU and MERCOSUR Members

Region	Conservative Scenario				Ambitious Scenario			
	Welfare (EUR billion)	Real Wages (Skilled)	Real Wages (Unskilled)	Consumer Prices	Welfare (EUR billion)	Real Wages (Skilled)	Real Wages (Unskilled)	Consumer Prices
EU28	6.3	0.2	0.2	0.2	8.6	0.3	0.3	0.3
Brazil	1.4	0.0	0.0	-1.5	2.1	0.0	0.0	-2.1
Argentina	1.5	0.2	0.3	-1.0	2.1	0.3	0.4	-1.4
Uruguay	-0.1	0.2	0.4	-0.6	0.0	0.3	0.8	-0.6
Paraguay	0.0	0.2	0.3	-0.4	0.0	0.2	0.3	-0.5

Source: CGE Modelling Results.

All values in this table are provided as percentage changes, except for welfare which is provided in EUR billion.

See Table 126, Table 127, Table 128, and Table 129 in Annex 4 for changes in sectoral unskilled and skilled employment in the conservative and ambitious scenarios.

³⁶ For a discussion, see P. Boulanger et al. (2016), "Cumulative economic impact of future trade agreements on EU agriculture", JRC Science of Policy Report, European Commission, available from : https://publications.jrc.ec.europa.eu/repository/bitstream/JRC103602/lb-na-28206-en-n_full_report_final.pdf
The question of cumulative effects is also raised in the conclusion of the study conducted for the European Parliament (2018), "Finding the right balance across EU FTAs: benefits and risks for EU economic sectors," available from: [https://www.europarl.europa.eu/RegData/etudes/STUD/2018/603881/EXPO_STU\(2018\)603881_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2018/603881/EXPO_STU(2018)603881_EN.pdf)

3.3.2. Expected scope of Mercosur-EU FTA and potential impact on core labour standards

The EU's approach to the trade-labour linkage

In the trade policy sphere, the EU has given increasing prominence to the promotion of international labour standards. The current trade and sustainable development chapter builds upon previous FTAs. As part of the EU-Mercosur AA, trading partners:

- commit to “respect, promote and effectively implement” core labour standards as defined by Fundamental ILO Conventions;
- reassert their right to regulate labour issues and commit to uphold their social standards;
- commit to promote decent work as provided by the Declaration on Social Justice for a Fair Globalization of 2008; and
- recognise the importance of responsible supply chains and supports the dissemination of good practices e.g. through international collaboration.

The EU has long relied on consultation and persuasion for enforcement, with the notable exception of the EU's CARIFORUM economic partnership agreement that, at least on paper, allows for economic sanctions. This means that unlike in U.S. and Canadian RTAs, failure to enforce labour provisions could not result in trade sanctions (ILO 2016).

The TSD chapter will establish institutional procedures to:

- monitor the implementation of the agreement through civil society mechanisms such as Domestic Advisory Groups;
- review alleged violations of the agreement (Panel of Experts); and
- conduct an assessment of the FTA, including by incorporating feedback from stakeholders.

Depending on the political will of EU and Mercosur countries, as well as the assistance provided by civil society stakeholders (e.g. Trade unions, non-profit organisations, SMEs, business associations) and external experts (e.g. ILO), these institutional mechanisms could very well encourage trading partners as well as businesses through RBC/CSR initiatives to build upon the social progress achieved in the Mercosur region. Yet, at the same, the persistence of labour rights violations and the limited evidence on the effectiveness of labour provisions in trade agreements means that the protection of workers' rights will require sustained commitment both in the EU and Mercosur. The need to strengthen the enforcement of the TSD chapter – for both labour and environmental standards – was a recurrent concern raised by civil society stakeholders throughout consultations in Brussels and Mercosur countries. Thus, our environmental analysis includes a detailed discussion of the implementation of TSD provisions with policy recommendations that are equally relevant to the enforcement of labour standards.

Mercosur's approach to the trade-labour linkage

Despite Mercosur's official commitment to the protection of international labour standards at the national and regional levels, its trade agreements have hitherto provided little scope for the trade-labour linkage. Indeed, none of the trade agreements signed by Mercosur as a trading bloc contains any labour chapter. This should not be interpreted as a lack of concern for the enforcement of labour standards. However, this means that the prospect of an EU-Mercosur

Association Agreement offers great opportunities to strengthen the links between trade integration and labour protection through the inclusion of a chapter on sustainable trade and development.

3.3.3. Potential impact on core labour standards

This section provides an overview of the potential impact of the EU-Mercosur AA on core labour standards focusing primarily on three aspects: the impact on the right of association and collective bargaining, forced/child labour and discrimination of employment. The potential effects of the EU-Mercosur AA are discussed in the light of recent policy reforms adopted in the Mercosur region.

Freedom of association and right to collective bargaining

As previously mentioned, cases relating to freedom of association and the effective recognition of the right to collective bargaining are among the most common occurrences among those reviewed by the CEACR. Thus, despite the EU and Mercosur countries' adherence to conventions 87 and 98 (with the exception of Brazil that has yet to ratify convention 87), there are still many cases in Mercosur and across the EU, where infringement of freedom of association and the right to collective bargaining is being reported.

The contrasted experience of union density trends in Argentina and Brazil within a context of increased trade openness shows the tenuous causal link between increased import competition (especially from China) and union density. While Argentina's union membership dropped from 37% to 28% between 2005 and 2014, Brazil's unionisation rate showed greater resilience, sliding down from 18.9% in 2005 to 16.2% in 2013, before climbing back to 18.9% in 2016 (ILOSTAT).

Our analysis of the EU-Mercosur AA's aggregate and sectoral impacts shows that these are not projected to be significant enough to prompt a set of labour reforms in Mercosur countries or the EU. This means that the impact that the EU-Mercosur AA might have on worker rights may depend more on the content and implementation of the TSD chapter than on structural changes related to the economic impact of the agreement.

Because protecting freedom of association, collective bargaining and the right to strike can face considerable obstacles to enforcement, the success of the Agreement's provisions on labour will depend on civil society inclusion in monitoring, sustained resource allocation and feedback loop mechanisms. First, evidence shows that transnational cooperation among trade unions can lead to knowledge transfer and resource aggregation (Gordon, Gordon and Turner, 2000). To overcome monitoring and enforcement problems, the support of transnational alliances and international institutions could bring new visibility to cases of anti-union practices, as reflected by the cooperation between North American unions under the North American Agreement on Labour Cooperation. Yet, as the limited results of NAFTA's labour side agreement reveal, awareness is only one step toward effective enforcement of unions' rights. Indeed, transnational exchanges and international cooperation by themselves cannot solve all problems and must go hand in hand with national policies designed to improve enforcement. Second, cooperation with the private sector, e.g. through targeted certification programs, can help raise awareness about corporate social responsibility and help businesses become drivers of social progress through responsible business conducts. Third, monitoring and labour inspection programs must be funded adequately to allow sustained participation of labour organisations. Both Brazil's success in rolling back forced labour and Argentina's achievements in labour formalisation prove that labour inspection can play a crucial role in protecting workers' rights, a lesson that would likely

apply to freedom of association and collective bargaining. Policy experiments in the region have shown that the ILO can be a crucial partner in Latin America, not only as a source of international law protecting workers' rights through ILO conventions, but also as an on-the-ground actor participating in the very enforcement of labour provisions by measuring policy outcomes, partnering with employers and workers association.

Forced labour and child labour

The enforcement of national and international labour standards in Mercosur is strongly linked with one defining feature of the labour market in Mercosur countries: the multi-faceted nature of informal employment. This is particularly relevant for cases of child labour and forced labour which, unlike other forms of workers' rights violations, are concentrated in the informal economy.

Additionally, any attempt to measure the impact of a trade agreement on Mercosur economies needs to take stock of the duality of employment and the potential effects that informal employment might have on labour mobility and wages. However, this requires overcoming two main challenges.³⁷ The first issue lies in the conventional exclusion of agricultural jobs from measures of informality, providing only a partial picture of informal employment. The second is linked to the complex nexus between trade liberalisation and informal employment.

Since the notion of the informal economy emerged in the 1970s, many studies have attempted to understand whether increased trade leads to expansion or contraction of informal employment. A 2009 joint report by the WTO and ILO dedicated to globalisation and informal employment in developing countries showed that tariff cuts tended to be associated with higher informal employment (Bacchetta, Ernst and Bustamante, 2009). This process can operate in two ways: 1) firms exposed to increased foreign competition can reduce labour costs by subcontracting tasks to establishments in the informal sectors; 2) alternatively, they can resort to laying off workers who, in the absence of better opportunities may seek employment in the informal sector (Goldberg and Pavcnik, 2003). An extensive literature review conducted by the Organization for Economic Cooperation and Development (OECD) in 2011 concludes that this relationship is "complex and context-specific," i.e. contingent upon the specificities of each economy. Common determinants shaping the trade-informality nexus include labour market rigidity, capital mobility, and level of economic development, heterogeneity of the informal workforce, technological intensity and cultural norms. Adding to this complexity is the wide range of mechanisms structuring labour market outcomes, as well as the differentiation between short-term and long-term labour market adjustments – an expansion being more common in the short run but potentially followed by long-term contraction (OECD, 2013).

Likewise, the literature on trade liberalisation and informality in Latin American economies provides conflicting findings that are primarily contingent on research design and unit of analysis. Examining trade reforms in Colombia and Brazil in the 1980s and 1990s, Goldberg and Pavcnik (2003) find no evidence that trade liberalisation leads to increased informal employment in the case of Brazil, and weak evidence in the case of Colombia, emphasizing the role of labour market institutions in shaping trade effects. The evidence in Paz (2014) on the Brazilian case is more mixed: while a domestic reduction in import tariffs may lead to greater informality, cuts in

³⁷ For a discussion of statistical challenges, see ILO, 2013, esp. section 2.1 on "Measurement of the Informal Economy" and INE Chile, 2018.

foreign tariffs (akin to reciprocal trade agreements) can reduce informal employment, although these effects are contingent on workers' education levels.³⁸ By contrast, a recent study by Dix-Carneiro & Kovak (2017) focusing on regional and worker-level impact of trade finds large effects on informality, especially in the long run (1991-2010). The authors' combination of longitudinal and regional (as opposed to industry) data allows them to show that the informal sector eventually absorbed a significant portion of trade-displaced workers after many years of unemployment (Dix-Carneiro & Kovak, 2017).

In the light of this conflicting evidence and the more confined regional scope of tariff liberalisation, the effects of the EU-Mercosur AA on informality remain uncertain. For the purpose of the present analysis, the lessons to be drawn are that the potential impact of the EU-Mercosur AA on informal employment, child labour and forced labour will be shaped less by sectoral factors than regional disparities, and labour market institutions, and therefore policy reforms undertaken to address labour informality. The record of many Latin American countries over the past decade shows that trade openness can be compatible with stronger enforcement of labour standards provided there is political will and allocated resources (whether domestic funding or foreign aid).

The diversity of child labour cases in the EU and Mercosur countries (due to sectoral composition, cultural traditions etc.) and the more consensual nature of the fight against forced and child labour show that there is ample scope for international cooperation and policy dissemination. The example of Brazil, which can claim considerable success in the fight against both child and forced labour, shows the potential benefits of international cooperation. Indeed, Peru and Brazil have promoted exchange of experience between their labour inspectorates to better combat forced labour (Costa, 2009). Another example of policy collaboration was Brazil's participation in the "compendium of good practices on addressing child labour in agriculture," a program coordinated by ILO International Programme on the Elimination of Child Labour (IPEC) and sponsored by the US Department of Labour that gathered six other developing and emerging countries (the Dominican Republic, Indonesia, the Philippines, Tanzania, Thailand and Nicaragua) (IPEC, 2014).

This type of targeted collaboration between civil society organisations, national governments and an international organisation is compatible with the EU's civil society mechanisms and the Domestic Advisory Groups (DAGs), yet has the advantage of focusing on specific objectives with greater potential for achieving policy outcomes.

Elimination of discrimination in respect of employment and occupation

The baseline discussed both old and new forms of discrimination at work in Mercosur members, but underlined a series of proactive measures adopted to promote gender equity, indigenous peoples' rights and racial equality. These efforts are in line with aforementioned initiatives undertaken by the European Union to tackle traditional and non-traditional types of discrimination. The proliferation of legislation designed to measure and address gender-, race- and disability-based discrimination over the past few years provides great potential for international cooperation both at the ILO and under the cooperative mechanisms of the trade and sustainable development chapter. Here again, robust stakeholder consultation mechanisms

³⁸ The importance of education levels on labour adjustments to trade liberalization in Brazil is also underlined in Menezes-Filho and Muendler, 2011.

optimising civil society inclusion are all the more crucial since women, but also ethnic minorities and disabled populations remain underrepresented in both economic and political decision-making.³⁹

Beyond rule-making channels and cooperative mechanisms, the EU-Mercosur AA may also impact the gender pay gap through trade effects. First, as female graduates outnumber male graduates in both Mercosur and the EU,⁴⁰ women skilled workers are becoming more likely to reap more benefits from trade liberalisation between two advanced economies (European Parliament, 2015). This scenario is, however, conditioned on sustained progress in women's participation in economic decision-making. Second, EU and Mercosur multinational corporations may provide new hiring opportunities for educated women. Third, trade and investment integration is conducive to changes in management practices, including gender equity and diversity policies. This is another area where responsible business conducts, encouraged by public authorities, can play a critical role. Indeed, increased competition between advanced economies, far from encouraging a regulatory race-to-the-bottom, can encourage companies to adopt gender equity measures as they compete for skilled workforce. As mentioned in the baseline section, given that salaries in exporting sectors are on average higher than in other sectors, an EU-Mercosur AA may contribute – albeit indirectly and marginally – to reduce the gender pay gap.⁴¹

3.4. Conclusion

Using qualitative and quantitative tools, our analysis shows that socio-economic effects cannot be dissociated from the policy context in which trade liberalisation takes place. All else being equal, the CGE modelling predicts that the EU-Mercosur AA will have the following aggregate effects on its trading partners:

- Significant positive welfare effects on the EU, Brazil and Argentina, but neutral welfare effects for Uruguay and Paraguay;
- Minor gains in wages for both unskilled and skilled workers in both EU and Mercosur countries ranging between 0.2% and 0.4% in the conservative scenario and 0.2% and 0.8% in the ambitious scenario – with the exception of Brazil where wages remain constant in both scenarios for both categories of workers. Under both scenarios, wage gains are expected to be more significant for unskilled labour than skilled labour, except in the EU case, where gains are equivalent;
- A decline in prices in Mercosur members and a relatively small increase in prices in the EU resulting from increasing demand;
- Sectors expected to record the greatest employment gains in Mercosur include the cereals, vegetables, fruits and nuts, bovine, other meat, other animal products and gas sectors while potential job losses can be anticipated for the metal products, motor vehicles and transport equipment and machinery sectors;

³⁹ A successful example of a sectoral trade agreement improving workers' conditions was the Cambodia-US Textile Bilateral Agreement which, thanks to a combination of pre-ratification requirements, legislative reforms, non-state actor participation, monitoring activities and economic incentives and disincentives, contributed to reduce the gender wage gap in the textile sector. See ILO, 2016b.

⁴⁰ This is also true in all Mercosur countries, as revealed by the World Bank's Gender Data Portal.

⁴¹ For a broader discussion on the complex links between trade and investment liberalization and the gender wage gap, see Aguayo-Tellez, 2011.

- The impact on the EU employment is proportionally much less significant given the size of European labour markets, with most sectors expected to record employment changes under 1% under both scenarios.

The sectoral dynamics anticipated under the EU-Mercosur AA are expected to have limited direct effects on labour standards in a strict sense. The impact on core labour standards will in part depend on the impact of the Agreement on the size of the informal sector. The EU-Mercosur AA can become an opportunity to design institutional mechanisms that could lock in, or help renew the notable social achievements of the twenty-first century in the Mercosur region. These institutional mechanisms could also encourage RBC/CSR initiatives to build on social progress. Examples of successful policies in the region abound and can be emulated within the framework of the TSD chapter designed to reinforce labour and environmental standards. The environmental analysis provides policy recommendations on how to improve enforcement of the TSD chapter so as to maximise the social impact of the agreement.

3.5. Policy Recommendations

The record of Mercosur countries over the past decade shows that trade openness can be compatible with stronger enforcement of labour standards provided there is political will and adequate resources (whether domestic funding or foreign aid). The following recommendations are designed to help trading parties maximise the positive impact of the agreement and mitigate its potential risks.

- **Mercosur countries, particularly Brazil, should maintain their support for anti-poverty and redistributive programs** with a view to reducing inequality and mitigating the potential losses incurring from increased competition in the manufacturing sector. Countries in general should maintain a strong commitment to eliminate poverty.
- **Mercosur countries should design effective adjustment programs and strengthen retraining and upskilling programmes** to facilitate labour mobility for workers in the most impacted industrial sectors, such as machinery.
- **Mercosur countries, especially Brazil and Argentina, should strengthen the enforcement of labour laws to protect freedom of association and the right to collective bargaining.** In congruence with parties' commitment to the ILO fundamental conventions laid out in the TSD chapter, Brazil should ratify ILO Convention 87 on Freedom of Association and Protection of the Right to Organise Convention with a view to strengthening international cooperation, bringing visibility to cases of anti-union practices, and helping to overcome monitoring and enforcement problems, given the crucial role played by the ILO in enforcing commitments on labour standards and measuring policy outcomes.
- **Mercosur countries should reinforce labour inspection programs** to capitalise on their notable achievements in the region, including Brazil's success in rolling back forced labour through CONATRAE and the Special Mobile Inspection Group (GEFM), as well Argentina's significant progress in labour formalisation.
- **Mercosur countries should provide sufficient support for prevention programs to eliminate all forms of child labour** (e.g. Paraguay's National Strategy for the Prevention of Forced Labour and Argentina's National Plan for the Prevention and Elimination of Child Labour).

- **The EU could encourage and support monitoring and enforcement programs to tackle child labour with the collaboration of Mercosur government and local society groups** to carry out the European Commission President Ursula von der Leyen's "zero-tolerance approach to child labour" in EU trade policy.⁴²
- **The EU should adopt EU-wide due diligence measures and promote Responsible Business Conducts/Corporate Social Responsibility to strengthen labour rights.** European companies should be held accountable for monitoring responsible value chains, with a particular focus on child labour, forced labour and the elimination of discrimination at work.⁴³ Particular attention should be devoted to increasing women's participation in decision-making, an area where the WTO's new Trade and Gender Focal Point – created after the Buenos Aires Declaration on Trade and Women's Economic Empowerment – could provide valuable technical assistance.
- **Mercosur countries should consolidate labour formalisation policies that have proved successful in the region and replicate best practices.** These include tax incentives encouraging hiring, labour inspection measures, social protection policies and active labour market reforms.
- **The EU should maximise the positive effects of the EU-Mercosur AA's TSD chapter in line with the new Commission's commitment to the enforcement of labour provisions in trade agreements.**⁴⁴ To achieve this, the following measures are suggested:
 - **a more assertive use of dispute settlement** e.g. in response to concerns over violations of freedom of association;
 - **more open public accountability mechanisms** that feed into dispute resolution. Here, the parties would benefit from clarifying the relations between Domestic Advisory Groups and bilateral institutions like the subcommittee on trade and sustainable development;
 - **targeted and effective ex-post monitoring processes** that are essential to the implementation of the TSD chapter and the protection of core labour standards. Here, the TSD subcommittee could play a structuring role to identify, coordinate and monitor core programs implemented on a two or three-year period in collaboration with international bodies and civil society stakeholders.⁴⁵

⁴² See Ursula von der Leyen (2019), "Mission Letter to Trade Commissioner Phil Hogan," available from: https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-phil-hogan-2019_en.pdf

⁴³ The Netherlands' 2019 "Child Labour Due Diligence Law" is an example of such measures. Delphine Moralis (2019), "A child labour free Europe: How the new Commission can make it happen" Euractiv, available from: <https://www.euractiv.com/section/global-europe/opinion/a-child-labour-free-europe-how-the-new-commission-can-make-it-happen/>

⁴⁴ See Ursula von der Leyen (2019), "Mission Letter to Trade Commissioner Phil Hogan," available from: https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-phil-hogan-2019_en.pdf

⁴⁵ The environmental section of this report offers a more detailed discussion of enforcement of TSD provisions.

4. Environmental Analysis

4.1. Methodology

The environmental analysis will focus on the following environmental topics: climate change (Greenhouse Gas (GHG) emissions); energy use; land use; forestry; air pollution; waste production; ecosystems and biodiversity; and trade in environmental goods and services. A parallel analysis will be conducted for all Mercosur countries although some countries might receive greater attention when considering certain issues that are of particular importance for the country.

This section is divided into two parts. The first part provides a baseline of the different areas of analysis using relevant indicators and a background on the EU-Mercosur environmental relationship. The second part consists of the quantitative and qualitative analysis of the environmental impact of an EU-Mercosur AA.

The topics of climate change (GHG emissions), energy use as well as resource use and efficiency, including land and forest, are analysed in greater depth from a quantitative perspective, while the topics of MEA compliance, and the TSD chapter are studied mainly from a qualitative perspective. The quantitative analysis is based, in part, on the CGE modelling, and uses the emission intensity factors in the GTAP database and the Emission Database for Global Atmospheric Research (EDGAR). In addition, we construct relevant statistics and gather complementary qualitative information from a variety of internationally recognised sources.

4.2. Baseline

4.2.1. Background: the EU-Mercosur environmental relationship

The EU's approach to sustainability in trade policymaking

In the trade policy sphere, the EU has long shown commitment to environmental protection: first, by deploying a broad range of trade policy tools incorporating sustainability objectives; and second, by showing consideration for trade-environment linkages at different stages of the policy process. At the unilateral (i.e. non-reciprocal) level, EU trade policy has designated compliance with MEAs as eligibility criteria for obtaining GSP status⁴⁶. At the multilateral level, it has been actively involved in the work of the WTO Committee on Trade and Environment and a driving force behind the Environmental Goods Agreement, whose negotiations are currently on hold. More recently, the EU has also been a leading advocate for banning harmful fisheries subsidies contributing to unsustainable fishing. In bilateral and plurilateral trade negotiations, the EU has developed a template to incorporate social and environmental objectives within each trade agreement under its trade and sustainable development chapter. Developed within the EU-Korea FTA, this approach has considerably raised the visibility of social and environmental issues in EU FTAs and has served as a basis for subsequent negotiations (e.g. Colombia-Peru, CETA, and

⁴⁶ MEAs subject to eligibility under GSP+ include the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973), the Montreal Protocol on Substances that Deplete the Ozone Layer (1987), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989), the Convention on Biological Diversity (1992), the United Nations Framework Convention on Climate Change (1992), the Cartagena Protocol on Biosafety (2000), the Stockholm Convention on persistent Organic Pollutants (2001), and the Kyoto Protocol to the United Nations Framework Convention on Climate Change (1998). The list is available in the Annex VIII of Regulation (EU) No 978/2012 of 31 October 2012: http://trade.ec.europa.eu/doclib/docs/2013/december/tradoc_152024.pdf

Vietnam). Typically, under the provisions contained in the EU's trade and sustainable development chapter, the trading partners:

- reaffirm their "right to regulate" to protect the environment;
- emphasise their commitment to uphold their environmental laws and effectively implement the multilateral environmental agreements (MEAs) to which they are party;
- stress their support for climate action within the framework of the UN Framework Convention on Climate Change;
- commit to promote long-term conservation and management measures and sustainable exploitation of marine living resources;
- agree to share information and experience in a wide range of policy spheres (carbon emissions, deforestation, renewable energy, biodiversity etc.); and
- commit to reviewing, monitoring and assessing the impact of the implementation of the FTA; establish a Specialised committee on Trade and Sustainable Development responsible for the implementation of the chapter with the help of Domestic Advisory Groups.⁴⁷

If sustainability objectives are embedded in many aspects of EU trade policy, some trade policy tools are also built-in in several environmental measures, whether they be trade restrictions allowed under MEAs (pertaining to biodiversity, ozone layer depletion etc.), Timber Regulation or issues related to Illegal Unreported and Unregulated (IUU) fishing.⁴⁸ Finally, the EU's environmental concerns are not designed to be confined to the sustainable trade and development chapter of trade negotiating texts. In its "Trade for All" strategy, the EU expressed its will to incorporate sustainable development considerations "in all relevant areas of FTAs" such as energy, raw materials or public procurement provisions (EC, 2015a). The present SIA reflects this cross-cutting approach.

Mercosur's approach to the trade-environment linkage

Mercosur's approach to the trade-environment linkage has significantly changed since its creation. While the preamble of the 1991 Treaty of Asuncion stated that Mercosur members seek the achievement of a common market, "believing that this objective must be achieved by making optimum use of available resources, preserving the environment (...)"⁴⁹, environmental issues did not feature in any of the 24 articles of Mercosur's founding treaty. Soon after the treaty was adopted, Mercosur members began to develop institutional mechanisms to address the trade-environment nexus (Powell, 2008).

The Canela Declaration of 1992 gave birth to the Reunión Especializada en Medio Ambiente (REMA), a working group in charge of analysing environmental policies in Mercosur members,

⁴⁷ The current list draws from the EU-Korea FTA: <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L:2011:127:FULL&from=EN> ; and the agreed text of the Vietnam Free Trade Agreement (2016): http://trade.ec.europa.eu/doclib/docs/2016/february/tradoc_154229.pdf

⁴⁸ DG Environment, "Environment and Trade and External Relations," available at: http://ec.europa.eu/environment/integration/trade_en.htm.

⁴⁹ Treaty Establishing a Common Market between the Argentine Republic, the Federal Republic of Brazil, the Republic of Paraguay and the Eastern Republic of Uruguay, Preamble: http://www.sice.oas.org/trade/mrcsr/TreatyAsun_e.asp#Preamble

before it was replaced with Working Sub-Group #6 (WSG6) on the environment in 1995. The next milestone was the signature of the Mercosur Framework Agreement on the Environment in 2001, which reasserted all Mercosur members' commitment to environmental protection and fostered cooperation to improve the enforcement of environmental laws at both national and international levels. In addition, Mercosur members have adopted a series of regional environmental agreements since the mid-1990s whose scope ranges from regulation on dangerous goods, pollutant emission on heavily vehicles to cooperation on environmental emergencies, sustainable consumption and production, etc. Even if these regional initiatives are non-binding, they nonetheless show the trade-environment linkage has gained considerable prominence since the creation of Mercosur (Giupponi, 2017).⁵⁰

These measures on behalf of the trade-environment linkage within Mercosur contrast with the more limited steps undertaken in external trade negotiations. The different trade agreements negotiated by Mercosur as a regional bloc have hitherto not included a chapter dedicated to environmental protection or sustainable development. Nor have individual Mercosur members negotiated provisions pertaining to the trade-environment nexus in bilateral trade agreements. This should not be interpreted as a lack of concern for environmental externalities to the extent that Mercosur members have signed or ratified a wide range of MEAs, as shown in the section. However, this means that the prospect of an EU-Mercosur AA offers great opportunities to strengthen the links between trade integration and environmental protection through the inclusion of a chapter on trade and sustainable development.

Multilateral environmental agreements

Most environmental problems are inherently transnational or global and as such require international cooperation. To deal with the challenges of building a sustainable world economy, the EU and Mercosur countries have collaborated through the negotiations, conclusion and ratification of MEAs. By providing a transparent and authoritative regulatory framework for environmental protection, MEAs not only ensure that sustainability issues find global solutions, but they in turn help create a predictable environment that is essential to the development of international trade. This explains why references to MEAs have become increasingly common in free trade agreements as illustrated by the EU's inclusion of sustainable trade and development chapters in recent FTAs.⁵¹

In its 7th Environment Action Programme to 2020, the EU re-emphasised its support for MEAs and drew a link between its environmental objectives and the principles of the United Nations Conference on Sustainable Development ('Rio + 20'). As of November 2017, the EU was a contracting party or a signatory of nearly 50 MEAs⁵² negotiated either under the aegis of the United Nations, or at the regional level and sub-regional levels (e.g. concerning transboundary rivers like the 1999 New Rhine Convention). Likewise, Mercosur members have committed to a large number of international environmental agreements, whether at the regional level (as

⁵⁰ The texts of Mercosur trade agreements are available on the directory of the Organization of American States: http://www.sice.oas.org/agreements_e.asp.

⁵¹ Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet.' Text with EEA relevance. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D1386&from=EN> (thereafter 7th Environment Action Programme).

⁵² The full list of MEAs is available at: http://ec.europa.eu/environment/international_issues/pdf/agreements_en.pdf.

shown in the previous section) or under the aegis of the United Nations, where they have ratified most of the main MEAs.

Out of a total of 250 MEAs dealing with various environmental issues in the world, the WTO's Committee on Trade and the Environment has recorded nearly 20 agreements that are directly related to trade, as evidenced by the inclusion of provisions to control trade in order to prevent damage to the environment⁵³. As Table 17 shows, these MEAs have largely been ratified by EU and Mercosur members and fall into 4 categories: 1) nature and biodiversity; 2) climate change; 3) waste and 4) chemicals. Each of these categories are discussed either directly or indirectly throughout this section. Thus, our analysis of the potential synergies, frictions or conflicts between the EU-Mercosur AA and MEAs will rely on the quantitative and qualitative analysis in the present section as well as capitalise on the findings from other chapters. Combining this evidence with the WTO Matrix of trade-related MEAs, this section will analyse the extent to which the EU-Mercosur AA might improve or undermine a trading partner's ability to meet its MEA obligations as well as the incentives or disincentives certain trade effects might produce to ratify new MEAs.

The potential implications for the implementation of MEAs pertaining to nature and biodiversity will draw from our discussion of natural resources (including forestry and fishing), agriculture and the environment (or more specifically pesticide and fertiliser use) as well as the sectoral analysis of agricultural goods, chemicals and pharmaceuticals. It will be complemented with an analysis of deforestation. MEAs concerned with climate change, and more specifically the implementation of the Paris agreement will logically build upon the analysis of environmental regulation, waste (for methane emissions), CO₂ and other GHG emissions and power generation, as well as deforestation.

⁵³ **World Trade Organization, "The Doha mandate on multilateral environmental agreements (MEAs)":**
https://www.wto.org/english/tratop_e/envir_e/envir_neg_meae.htm.

Table 17: Trade-related MEAs signed by the EU and Mercosur

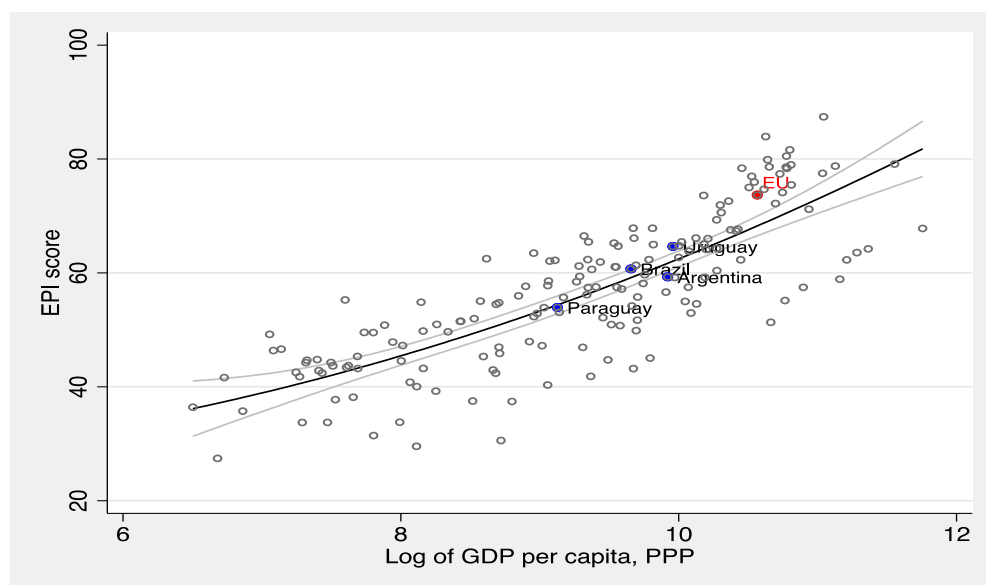
Category	Multilateral Environmental Agreements	EU	ARG	BRA	PRY	URY
Nature and biodiversity	<u>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</u>	x	x	x	x	x
	<u>Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)</u>	x	x	x		x
	<u>International Convention for the Conservation of Atlantic Tunas (ICCAT)</u>	x		x		x
	<u>United Nations Fish Stocks Agreement (UNFSA)</u>	x		x		x
	<u>Agreement on Port State Measures to prevent, deter and eliminate illegal, unreported, and unregulated fishing (PSMA)</u>	x				x
	<u>International Tropical Timber Agreement (ITTA)</u>	x		x		
	<u>International Plant Protection Convention (IPPC)</u>	x	x	x	x	x
	<u>Convention on Biological Diversity (CBD)</u>	x	x	x	x	x
	<u>CBD : Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization</u>	x	x			x
	<u>CBD: Cartagena Protocol on Biosafety</u>	x		x	x	x
Climate change	Vienna Convention for the Protection of the Ozone layer	x	x	x	x	x
	Montreal Protocol on Substances that Deplete the Ozone Layer	x	x	x	x	x
	UN Framework Convention on Climate Change (UNFCCC)	x	x	x	x	x
	UNFCCC: Kyoto Protocol	x	x	x	x	x
	Paris Agreement	x	x	x	x	x
Waste	<u>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</u>	x	x	x	x	x
Chemicals	<u>Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade</u>	x	x	x	x	x
	<u>Stockholm Convention on Persistent Organic Pollutants</u>	x	x	x	x	x
	<u>Minamata Convention on Mercury</u>	x	x	x		x

Source: <https://www.informea.org/>; WTO MEA Matrix 2017.

4.2.2. Overall environmental performance

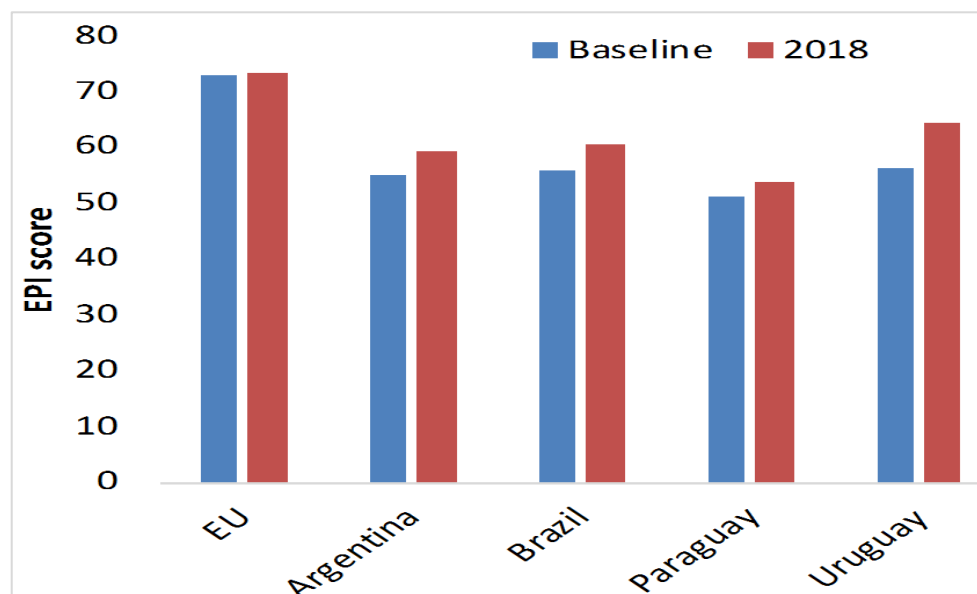
In this section we benchmark the environmental performance of Mercosur countries against the EU and globally using the Environmental Performance Index (EPI)⁵⁴. The EPI index assesses a country's overall performance through six main aspects: water resources, fisheries, biodiversity, forest, climate and energy. The overall EPI scores of all Mercosur countries are below the European average, yet their performance is very much in line with that of countries with similar income levels (Figure 12). In 2018 Uruguay ranked 47th worldwide followed by Brazil in 69th and Argentina in 74th position. Paraguay ranked 105th.

Figure 12: EPI for Mercosur and the EU



Source: EPI 2018.

Figure 13: EPI score over time

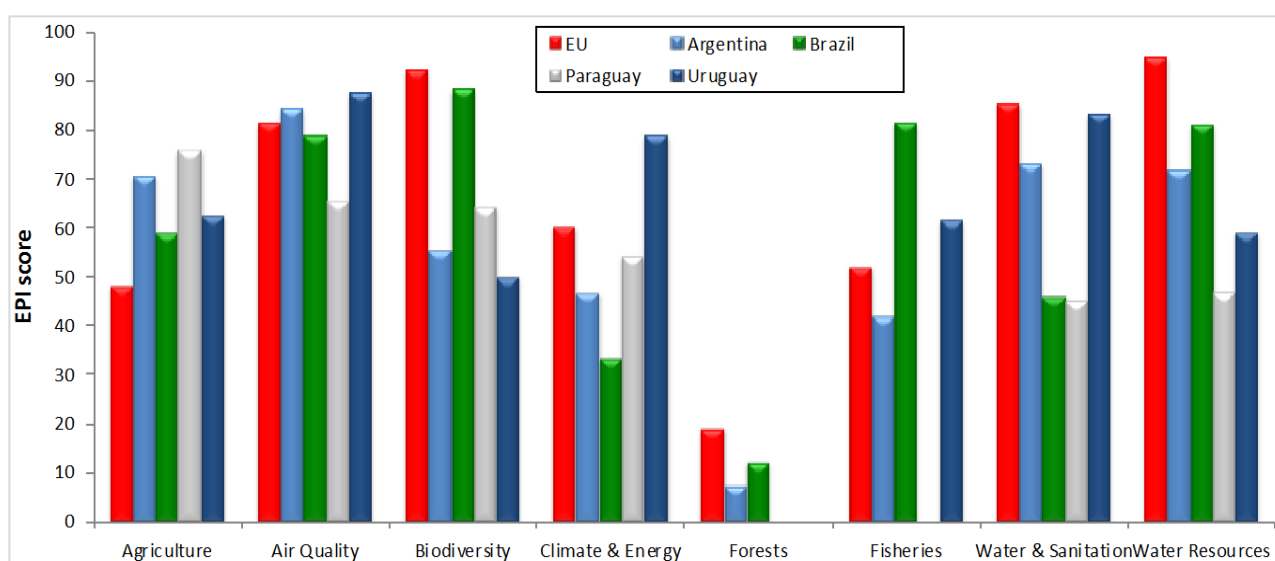


Source: EPI 2018. The baseline refers to data from approximately ten years prior to 2018.

⁵⁴ The index is provided by Yale Centre for Environmental Law & Policy (YCELP) and the Centre for International Earth Science Information Network (CIESIN) at Columbia University. See Hsu et al, 2016.

When we consider the overall performance over time (Figure 13), all Mercosur countries show some improvements in scores over the last 10 years. The largest improvement in score and ranking was experienced by Uruguay that went from 72nd about 10 years ago to 47th in 2018. Figure 14 reports the scores in the nine EPI sub-categories for Mercosur countries and the EU. All Mercosur countries perform better than EU averages in terms of agriculture. This sub-index score is based on a measure of sustainable nitrogen management that combines a measure of nitrogen use efficiency with crop yield to measure the environmental performance of agricultural production. On the other hand, Mercosur countries perform poorly in the biodiversity sub-index, with the exception of Brazil, whose score is close to that of the EU. Paraguay and Brazil show a relative low score in the water and sanitation sub-index, which combines a measures of health risk due to poor access to sanitation and drinking water.

Figure 14: Scores in EPI sub-categories. EU and Mercosur countries in 2018



Source: EPI 2018. Fishery score omitted for Paraguay because it is a landlocked country.

4.2.3. GHG regulation

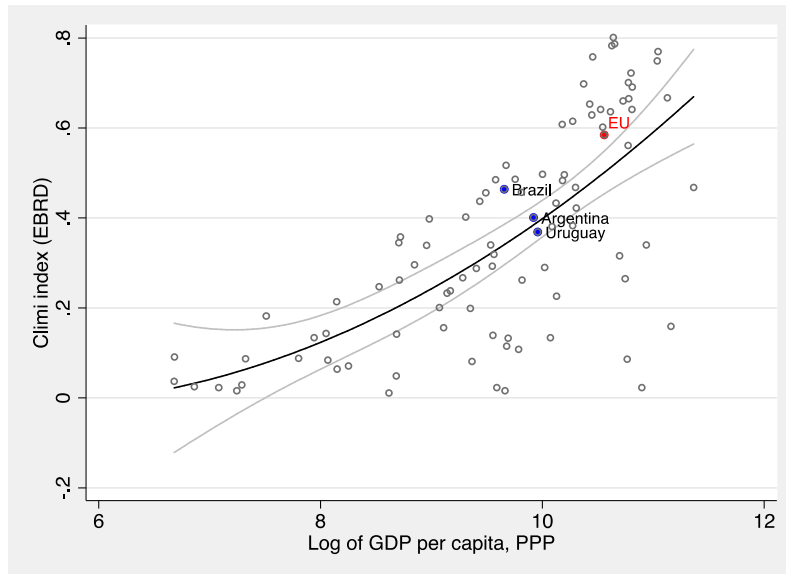
This section provides an overview of the state of GHG regulation in Mercosur countries from a comparative perspective with the EU and countries of similar income levels using available comparable indexes.⁵⁵ The OECD Stringency of environmental policies Index, which is primarily related to climate and air pollution, covers only Brazil among Mercosur countries. Brazil showed the lowest index score among OECD countries plus BRICS and Indonesia in 2012. On the other hand, in 2019 Brazil score 22th out of 60 countries in the Climate Change Performance Index⁵⁶ produced by German Watch. While performing very well in terms of renewable energy, it falls behind in terms of energy use and climate policy. Argentina ranks 34th overall showing poor performance in terms of GHG emission trends and developments in terms of renewable energy. Another comparable measure that provides wider coverage is the Climate Laws, Institutions and Measures Index (CLIMI) provided by the EBRD in 2011. The index follows the framework earlier

⁵⁵ There are various indexes that measure and rank the relative policy performances of governments and they mostly refer to climate-related policies. However, their coverage is not comprehensive. Moreover, they sometimes provide differing results, as in the case of Brazil's relative performance in the indices described below.

⁵⁶ See <https://germanwatch.org/en/download/20503.pdf>.

provided in Dasgupta et al. (1995).⁵⁷ The index refers to 2010 and its correlation with GDP per capita is shown in Figure 15. Argentina and Uruguay show a similar performance, in terms of environmental regulation, to countries with similar levels of income, while Brazil is among the top performers within upper middle-income countries. Unfortunately, Paraguay does not feature in any of the available indices.

Figure 15: Climate Laws, Institutions and Measures Index and GDP per capita



Source: CLIMI 2011 by EBRD; GDP per capita is obtained from the World Development Indicators of the World Bank. The plot shows a quadratic fit of the relationship between GDP per capita (PPP) and the climi index together with the 95% confidence interval. EU score is given by the simple average all. GDP per capita is included since it allows to both compare Mercosur countries with the EU and with other similar countries given that disparity in income levels. There is no data for Paraguay.

4.2.4. GHG emissions

In this section, we describe the trends in levels of CO₂ emissions and of the most important types of GHGs by the EU and Mercosur countries. The EU in 2015 contributed to about 9.5% of global GHG emissions (about 4500 Mton of Co₂ equivalent, (Figure 16) while Mercosur countries reached about 3.5% all together (about 1700 Mton of Co₂ equivalent). EU per capita emissions are similar to those of Argentina (8.9 tonnes of CO₂ equivalent per person) (Figure 16). Uruguay shows higher emissions per capita (11.6 tonnes) while Brazil and Paraguay both lie below EU levels with 6.0 tonnes per person. EU GHG emissions are dominated by CO₂ emissions (80%), which are mainly produced through fuel combustion and industrial processing (Figure 17). Mercosur countries show a larger share of methane (CH₄) and nitrous oxide (N₂O) that are mainly related to agricultural activities, waste management and energy use, in particular in Uruguay and Paraguay.

⁵⁷ The index builds on the UN country reports, as well as on the National Communications to the United Nations Framework Convention on Climate Change (UNFCCC), which includes information of climate adaptation and mitigation measures adopted by national governments. It comprises four main areas: international cooperation; domestic climate framework; sectoral, fiscal or regulatory measures or targets; cross-sectoral fiscal or regulatory measures.

Figure 16: Total GHG Emissions and emissions per capita in Mercosur countries and the EU (2015)

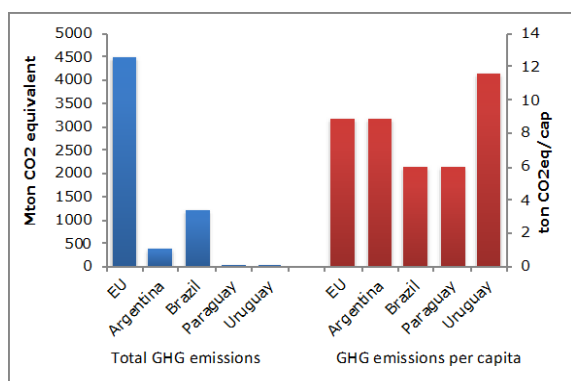
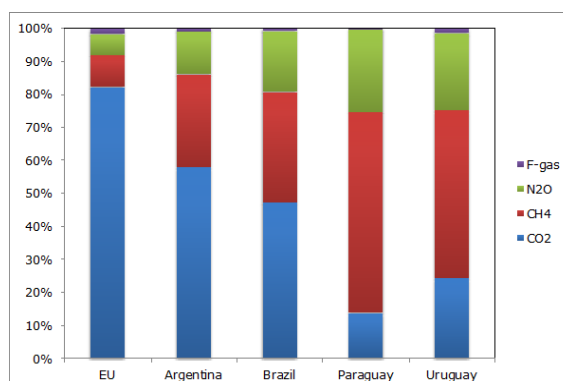


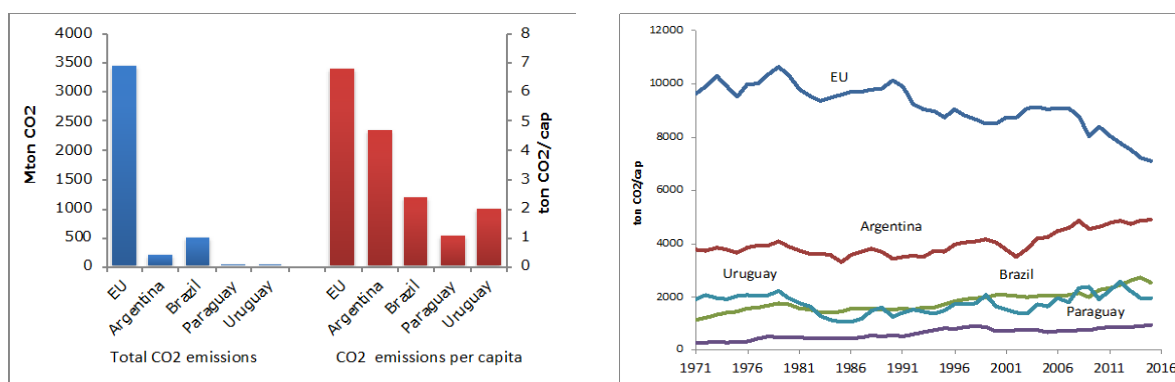
Figure 17: Total GHG Emissions by type of gas in Mercosur countries and the EU (2015)



Source: Author's calculations based on data from EDGAR and CAIT Climate Data Explorer. 2015. Washington, DC: World Resources Institute. Data show GHG emissions excluding Land-Use Change and Forestry.

In terms of CO₂ emissions, the EU accounts for 9.7% of global CO₂ emissions (in 2018) while Mercosur countries contribute to 2.0% of global CO₂ emissions (Figure 18). While the EU shows a decreasing trend in CO₂ per capita, Mercosur countries have experienced moderate increases in CO₂ emissions since the beginning of 2000.

Figure 18: Levels of CO2 per capita in 2015 (left) and trends in CO2 per capita since 1970 (right)



Source: Author's calculations from the EDGAR (v50_CH4_1970_20153) and World Bank Development Indicators (population).

The shares of CO₂ emissions by sectors in 2018 are reported in Table 18, together with the growth in sectorial emissions since 2010. While the power generation sector dominates emissions in the EU (36% of total emissions) and Argentina (35%), the large share of renewables results in relatively lower emissions in the energy sectors of the other Mercosur countries. While in the EU, emissions from power generation, as for most of the other sectors, have experienced a decline, Argentina's CO₂ emissions from energy production increased on average by 2.3% annually from 2010 to 2018.

Table 18: CO2 Emissions by sector in Mercosur countries and the EU (%)

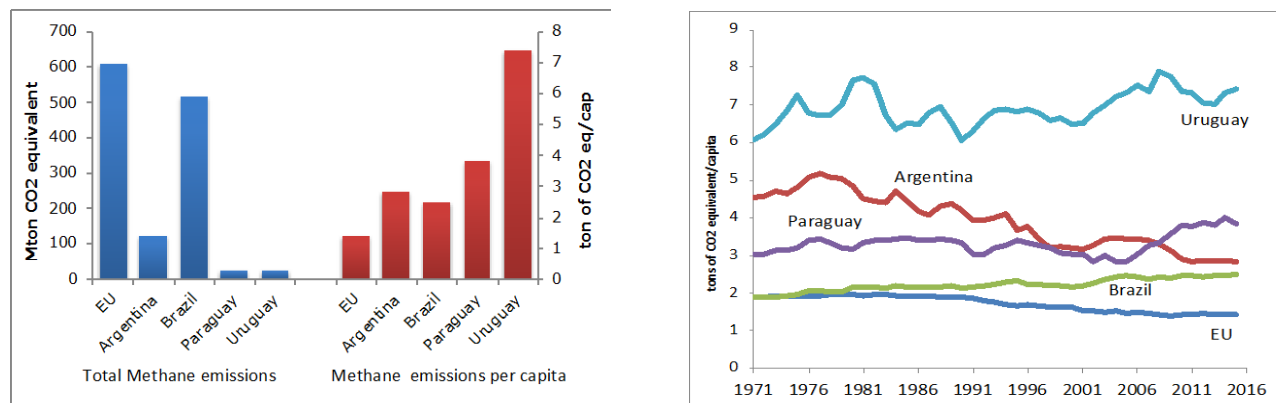
Country	Measure	Manufacturing / Construction	Power generation	Residential / Commercial	Transport	Waste
EU	Growth	-1.1	-2.7	-2.1	0.1	-0.6
	Share	18	36	18	27	0
ARG	Growth	0.1	2.3	1.0	0.1	1.6
	Share	22	36	19	21	0
BRA	Growth	-0.3	4.1	-0.2	2.4	1.2
	Share	31	19	8	41	0
PRY	Growth	7.1		1.9	4.8	-20.5
	Share	12	0	3	85	0
URY	Growth	4.5	-4.3	-1.2	2.4	0.5
	Share	19	12	15	55	0

Source: Author's calculations from the EDGAR – CO2 Emissions by countries and sector database. The sector share of CO2 emissions refer to 2018, while the growth in CO2 emissions by sector is computed as the compound annual growth rate (CAGR) between 2010 and 2018.

In both Brazil and Paraguay, land use, land-use change and forestry (LULUCF), has been a key contributor to CO2 emissions. About 55% of Brazil's CO2 emissions stemmed from LULUCF in 2010, and about 70% in Paraguay. While Brazil's emissions from LULUCF decreased over the 2005-2010 period, thanks to a steady decline in deforestation, emissions from most other sectors rose steadily, (by 31% in the manufacturing and construction sector).⁵⁸

The EU contributes 6.8% of global methane emissions, which corresponds to the contribution of all Mercosur countries all together (Figure 19, left panel). Figure 19 (right panel) shows that, Brazil's methane emissions were pretty stable from the 1970s up to 2000 where they experienced a large increase and remained stable afterwards. On the other hand, methane emissions have decreased steadily in the EU, Argentina and, only more recently, in Uruguay. Paraguay after a decline in methane emissions per capita during the 1990s, has experienced a sharp increase since 2006. Methane and nitrous oxide emissions are largely produced by the agricultural and livestock sectors.

Figure 19: Levels of methane per capita in 2015 (left); trends since 1970 (right)

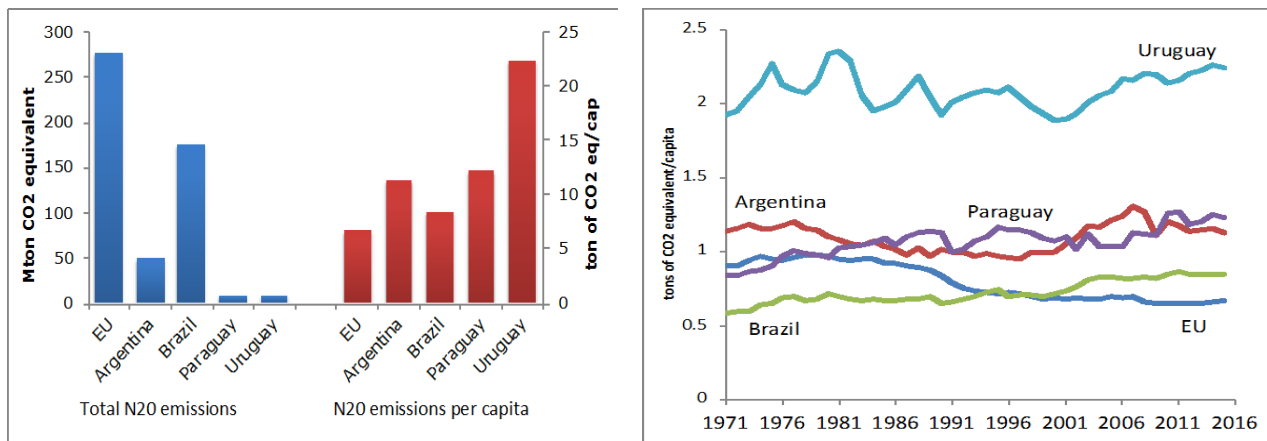


Source: Author's calculations from the EDGAR (v50_CH4_1970_20153) and World Bank Development Indicators (population).

⁵⁸ The EDGAR database does not provide data on LULUCF after 2010.

Figure 20 displays similar statistics for Nitrous Oxide (N₂O), the third most important GHG gas. The EU contributes to 11.0% of global nitrous oxide emissions while Mercosur countries contribute all together to the 9.6%. Uruguay displays significantly higher level of emissions per capita, while Paraguay and Argentina and Brazil are closer to EU levels, although still higher. While the EU has been experiencing a steady decline in emissions per capita for the last three decades, Mercosur countries have experienced increasing levels of nitrous oxide emissions per capita in the last decade. Nitrous oxide emissions are mainly derived from fertilised agricultural soils and livestock manure. Indeed, more than 90% of Argentina's nitrous oxide emissions, for example, are produced by the agricultural sector.

Figure 20: Levels of Nitrous Oxide per capita in 2015 (left) and trends since 1970 (right)



Source: Author's calculations from the EDGAR (v50_N2O_1970_2015) and World Bank Development Indicators (population).

With regard to Mercosur countries' commitment to reduce CO₂ emissions⁵⁹, Brazil was one of the few developing countries to put forward absolute emission reduction targets in their INDC and one of the very few to indicate an absolute target of 37% reduction below 2005 levels by 2025 (Table 19)⁶⁰. Argentina is one of few countries to have increased its level of ambition since the adoption of the Paris Agreement. However, emissions from all sectors are still projected to grow significantly in Argentina under the current targets. Argentina has committed to not exceed 483Mt CO₂e by 2030, which is 25% above 2015 levels. Uruguay has committed to reduce per capita emissions by 29% by 2025 with specific targets for the beef sector in terms of both methane and N₂O emissions (59% and 52% per unit of GDP from 1990 levels, respectively without international support). Finally, Paraguay has committed to reduce emissions by 20% with respect to 2030 projected levels, partially conditional on international support.

⁵⁹ See Climate Action Tracker, 2015.

⁶⁰ It is worth noting that 2005 was a year with particularly high emissions in Brazil, which makes Brazil's pledge slightly less ambitious (Climate Action Tracker, 2015).

Table 19: Climate change targets in NDC content and laws

	EU	Brazil	Argentina	Uruguay	Paraguay
Overall target	At least 40% domestic reduction in GHG emissions by 2030 compared to 1990.	37% reduction in GHG emissions by 2025 and 43% by 2030 compared to 2005.	Not exceed a net emission of 483 (unconditional) million tCO ₂ eq by the year 2030; conditional measures, if jointly implemented could bring emissions to 369 million tCO ₂ eq for 2030.	29 % reduction in CO ₂ emissions intensity per GDP unit by 2025 from 1990 level. 59% reduction in CH ₄ emissions intensity per GDP unit by 2025 from 1990 level. 52% reduction in N ₂ O emissions intensity per GDP unit by 2025 from 1990 level.	10% (unconditional) to 20% (conditional) reduction in GHG emissions by 2030 relative to projected emissions.
LULUCF		12 million ha reforestation by 2030. Zero illegal deforestation by 2030. Enhancing sustainable native forest management.	Develop a National Forest Monitoring System and a Safeguards Information System. National Forestry and Climate Change Action Plan. To develop conservation and use plans for forested areas to improve carbon sequestration in the Chaco and Selva Misionera Areas, and increase afforestation.	(Non-binding) Avoid CO ₂ emissions from SOC in 45% of the grasslands area by 2030. 5% increase in the native forests area of year 2012 (892.458) by 2025. At least maintenance of 100% of the amount of forest plantations effective area under management of year 2015 (763.070 ha) by 2025. Avoid CO ₂ emissions from SOC in 30% of the grasslands area (3.000.000 ha) by 2025.	
Energy	Several targets in laws: http://climate-laws.org/cclow/geographies/59/climate_targets_Energy	45% renewables in the energy mix by 2030; 23% renewables in the power supply by 2030. 18% sustainable biofuels in the energy mix by 2030. 10% efficiency gains in the power supply.	8% share of renewable sources in electric generation by 2017, 12% by 2019, 16% by 2021, 18% by 2023 and 20% by 2025. Law 27191 on Renewable Energy.	25% increase in the shade and shelter forest plantations area of year 2012, including silvopastoral systems (97.338 ha) by 2025. Avoid CO ₂ emissions from SOC in 100% of the peatlands area of year 2016 (8.366 ha) by 2025.	Decrease in 20% the share of fossil fuels in annual total energy use by 2030 against a 2013 baseline. 20% reduction in fossil fuel consumption.
Agriculture		15 million ha restoration of degraded pasturelands by 2030; 5 million ha integrated cropland-livestock-forestry systems by 2030	National Agriculture and Climate Change Action Plan (PANByCC)	38% reduction in N ₂ O emissions intensity per kg of beef cattle measured in live weight by 2025 from 1990 level.	

Source: <https://climate-laws.org/cclow> and OECD (2019) for Argentina.

4.2.5. Power generation

Mercosur countries adopt, on average, a cleaner energy mix than EU countries with the exception of Argentina. While the EU derived about 29% of electricity from renewable sources, in 2014 Brazil's share stood at 73%, Uruguay's at 91% and Paraguay derives almost all its electricity from hydropower (Table 20). Argentina obtains 32% of its electricity from renewable sources and relies on fossil fuels more heavily than the EU. The contribution of oil to electricity generation in Argentina went from 7% in 1995 to 14% in 2014. Indeed, the energy sector has become the main single contributor to CO₂ emissions. In Argentina, energy prices are subsidised and constitute a disincentive for private and public entities to improve efficiency and invest in cleaner sources of energy (World Bank, 2016).

Table 20: Electricity sources in Mercosur countries and the EU

Country/region	Source	1995	2005	2014	2014
EU	Hydroelectric	12.2	9.5	11.9	29%
	Renewable sources	1.1	4.5	16.6	
	Nuclear	32.4	30.3	27.7	28%
	Natural gas	9.9	20.3	14.5	43%
	Oil	8.5	4.3	1.8	
	Coal	35.7	30.3	26.6	
Argentina	Hydroelectric	40.0	32.2	29.0	32%
	Renewable sources	0.2	1.3	2.5	
	Nuclear	10.5	6.5	4.1	4%
	Natural gas	39.6	52.4	47.7	64%
	Oil	6.8	5.4	13.8	
	Coal	2.8	2.1	2.9	
Brazil	Hydroelectric	92.1	83.7	63.2	73%
	Renewable sources	2.0	3.4	9.9	
	Nuclear	0.9	2.4	2.6	3%
	Natural gas	0.2	4.7	13.7	24%
	Oil	2.7	2.9	6.0	
	Coal	2.0	2.7	4.5	
Paraguay	Hydroelectric	99.7	100.0	100.0	100%
	Renewable sources	0.1	0.0	0.0	
	Nuclear	0.0	0.0	0.0	0%
	Natural gas	0.0	0.0	0.0	0%
	Oil	0.3	0.0	0.0	
	Coal	0.0	0.0	0.0	
Uruguay	Hydroelectric	92.8	87.0	74.2	91%
	Renewable sources	0.7	0.5	16.8	
	Nuclear	0.0	0.0	0.0	0%
	Natural gas	0.0	0.0	0.0	9%
	Oil	6.5	12.5	9.1	
	Coal	0.0	0.0	0.0	

Source: Author's calculations from the World Development Indicators – World Bank. The last column refers to 2014 and report the overall percentage of fossil-fuel based energy sources (in grey), renewable sources (in green) and nuclear power (beige).

Despite the clean energy mix, both Brazil and Uruguay have increased their use of fossil fuels (natural gas and oil for Brazil, and oil only for Uruguay) in the last two decades. Hydropower is still a major energy source, but its expansion is constrained by location restrictions: most currently available potential is located in remote areas of the Amazon. Nevertheless, according to the 2022 Energy Expansion Plan of Brazil, the hydropower sector is expected to expand as it received most of the public environment-related lending in 2008-14 (from the Brazilian Development Bank (BNDES) (OECD, 2015).

4.2.6. Forests

Among Mercosur countries, Brazil and Paraguay are abundant in forest resources. About 58% of the territory of Brazil is covered by forest, and 38% of Paraguay (FAO database). Forests in the EU account for about 40% of land area, with large differences across member states. Argentina, Brazil and Paraguay feature among the top 10 countries reporting the greatest loss of forest area during the period 2010–2015, while in the EU the area of land covered by forests has been growing over time (Table 21).

Table 21: Top 10 countries in terms of annual forest cover loss in the period 2010-15 (plus EU)

Global Ranking	Country/Region	Total Forest in 2015	Annual forest cover loss (2010-15)	Annualised % loss (2010-15)
1	Brazil	493,538	984	0.20
2	Indonesia	91,010	684	0.74
3	Myanmar	29,041	546	1.78
4	Nigeria	6,993	410	5.01
5	Tanzania	46,060	372	0.79
6	Paraguay	15,323	325	2.00
7	Zimbabwe	14,062	312	2.08
8	Congo DR	152,578	311	0.20
9	Argentina	27,112	297	1.06
10	Bolivia	54,764	289	0.52
-	EU	158,414	-367	-0.23

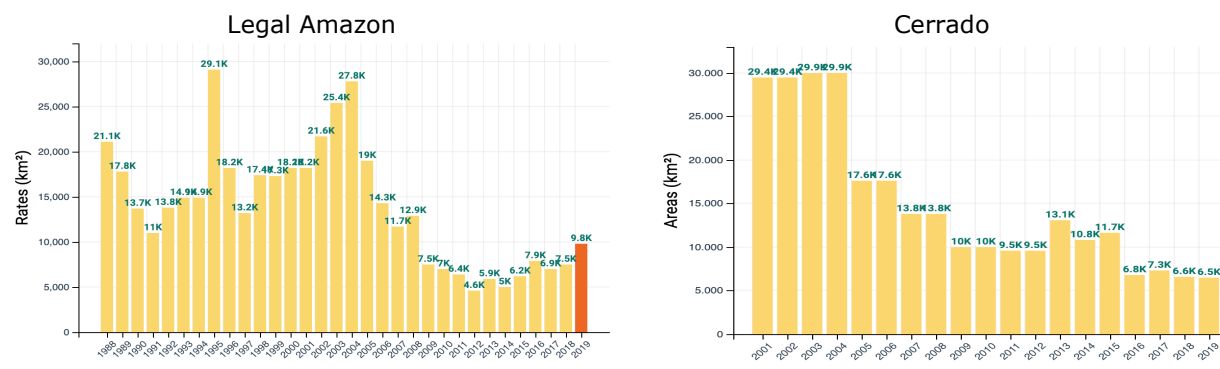
Source: FAO Global Forest Resources Assessments. Negative sign indicates afforestation. Data are in thousand hectares.

Satellite data from the Brazilian National Institute for Space Research (INPE) are presented in Figure 21 and cover the Brazil's Legal Amazon (BLA)⁶¹ and the Cerrado. For the BLA, data show a sharp decrease in deforestation between 2004 and 2012. Deforestation decreased from 28,000 square kilometres in 2003 to a lowest of about 5,000 square kilometres in 2012. Indeed in 2016, Brazil ranked first in terms of forest within protected areas (FAO, 2016⁶²). Figure 21 (left panel), however, also shows a slow resurgence of deforestation between 2012 and 2018, followed by a more significant increase in 2019 (+29.5%). Observed deforestation in 2019 was higher than the annual deforestation rate recorded for any year during the last decade but remained lower than any year during the 1988-2008 period.

⁶¹ The Brazil's Legal Amazon (BLA) contains the nine Brazilian states in the Amazon basin. It covers also part of the Cerrado (37%) and Pantanal (40%) ecoregions. BLA was created in 1948 by the Brazilian government based on studies aimed at promoting the economic and social development of the Amazon region.

⁶² FAO (2016) Global Forest Resources Assessments 2015, How are the world's forests changing? FAO, Rome.

Figure 21: Deforestation in the Legal Amazon states (left) and Cerrado (right)



Source: TerraBrasilis part of the National Institute for Space Research (INPE). Brazil's legal Amazon states include: the states of Acre, Amapá, Amazonas, Pará, Rondônia, Roraima and Tocantins, as well as part of Mato Grosso and most of Maranhão. The area covers the Amazon, and part of the Cerrado and Pantanal ecoregions.

According to the Global Fire Emissions Database, which compiles data from the NASA earth observatory, the 2019 summer recorded higher fire count and intensity than in previous years. The fire activity is also being largely linked to human activity rather than natural causes. It is, however, not yet possible to establish whether this more intense fire activity constitutes the beginning of an upward trajectory in forest fires or just an exceptional event.

The Brazilian Cerrado is one of most biologically rich areas of the savannah eco-region. It has been recorded that the Cerrado has lost more than half of its original extent due to cattle ranching and the production of industrial crops.⁶³ Yet, deforestation rates have been decreasing rapidly since 2004, and have remained relatively low since 2016, compared to the 2001-2015 period (Figure 21, right panel).

In Brazil, the decline in deforestation observed between 2004 and 2012 was largely attributed to the adoption of appropriate policy initiatives, voluntary arrangements and market-based initiatives that aimed at decreasing the demand for new deforestation and increasing the risks to those engaged in deforestation⁶⁴. An overview of the relevant initiatives that contributed to the decrease is provided in Nepstad et al. (2014)⁶⁵, and include for example, the 2004 Detection of Deforestation in Real Time (DETER) system, and the 2006 Forest Code. More recently, however, Brazil's substantial progress in fighting against deforestation in the first decade of the twenty-first century, has been partly undermined by disinvestment in Brazil's ministry of the

⁶³ Kennedy, C. M., Hawthorne, P. L., Miteva, D. A., Baumgarten, L., Sochi, K., Matsumoto, M., ... & Develey, P. F. (2016). Optimizing land use decision-making to sustain Brazilian agricultural profits, biodiversity and ecosystem services. *Biological Conservation*, 204, 221-230.

⁶⁴ A recent paper by Burgess et al. (2019) documents the impact of changes in the Brazilian regulatory environment by exploiting high resolution satellite data and a using an empirical research design that aims at establishing causal links by exploiting discontinuities in deforestation at national borders. The authors find that in 2006, just after Brazil introduced policies to reduce deforestation, deforestation indeed decreased. However, from 2014, Brazilian deforestation rates increased due to a combination of worse economic conditions and deteriorating commitment to environmental regulation, e.g. the amnesty for small properties introduced in 2012 with the New Forest code.

⁶⁵ Nepstad, D., McGrath, D., Stickler, C., Alencar, A., Azevedo, A., Swette, B., ... & Armijo, E. (2014). Slowing Amazon deforestation through public policy and interventions in beef and soy supply chains. *science*, 344(6188), 1118-1123; see also L. Tacconi, Rafael J. Rodrigues & A. Maryudi (2019), "Law Enforcement and Deforestation: Lessons for Indonesia from Brazil," *Forest Policy and Economics* 108

environment, Ibama, as illustrated by staff reductions and the more recent loosening of environmental enforcement.⁶⁶

Various domestic policies have been adopted in other Mercosur countries to protect forests. Argentina, for example, adopted the Native Forest Law in 2007 and a Zero Deforestation Law was adopted in 2012 in Paraguay (Hsu et al, 2016).

Yet, Mercosur countries exhibit large differences in terms of environmental regulatory stringency among jurisdictions that have decentralised power to control land use. Evidence from the Gran Chaco in Argentina and Paraguay, and Chiquitano in Brazil shows that lower deforestation regulations and enforcement in these regions have attracted investments by companies that tend to clear more forest, mostly for cattle ranching (de Waroux et al. 2016).⁶⁷

With regard to wood production, the EU produced about 800 million tons of wood in 2018 compared to 200 million tonnes in Brazil (Figure 22, left panel). Brazil is a large producer and consumer of timber: in 2014, the forestry sector accounted for 1.1% of GDP and 1.3% of total Brazilian exports, 4.3% including wood pulp. Wood production has only slightly increased over the last decade mainly due to an increase in the production of wood pulp (Figure 22, left panel). In 2016, Brazil was the fifteenth largest exporter of wood, accounting for 2% of global wood exports (COMTRADE). However, international trade in roundwood logs from natural tropical forest has been banned progressively since 1980 and most of the Brazilian exports come from planted forests (FAO, 2018). Unlike other Mercosur countries,⁶⁸ Brazil has ratified the International Tropical Timber Agreement, an MEA designed to promote sustainable management of tropical forests⁶⁹. The EU accounts for about 10% of Brazil's wood exports.⁷⁰ In Argentina and Paraguay the production of wood products has been stable over time while it has more than doubled in Uruguay due to an expansion of wood pulp (Figure 22, right panel).

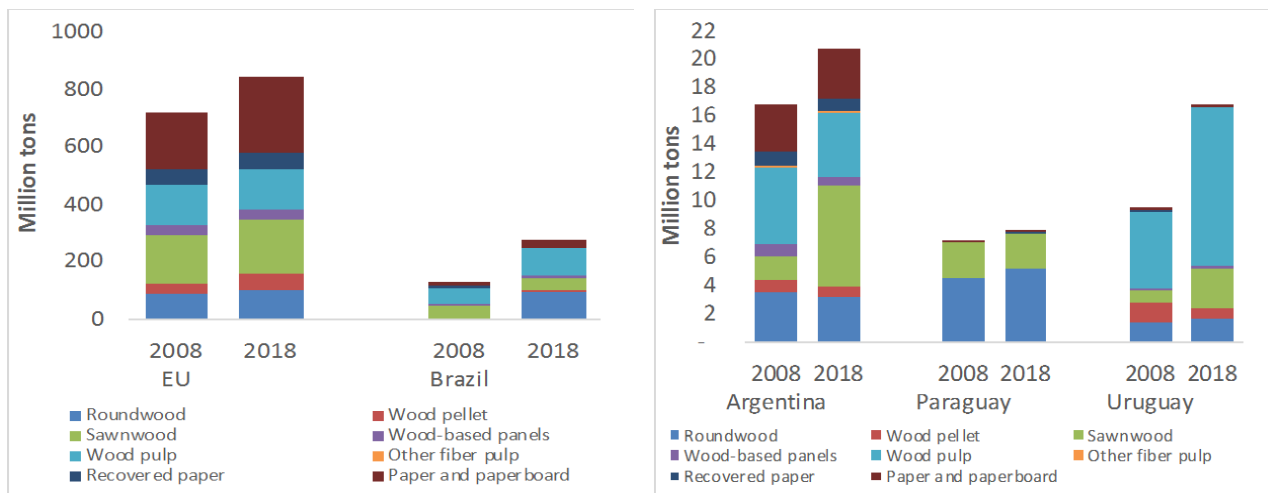
⁶⁶ See analysis for discussion of environmental deregulation. Ibama's work force of field agents is reported to have decreased by 44% (from more than 1300 to 730 in 2019) over the past decade. Ernesto Londoño and Letícia Casado (2019), *The New York Times*, available from: <https://www.nytimes.com/2019/08/28/world/americas/amazon-fires-brazil.html>. The *Folha de Sao Paulo* (one of Brazil's most respected news source) estimated these cuts at 55%. See Fabiano Maisonnave, "Em document, chefes de fiscalização do Ibama alteram para risco de apagão", *Folha de Sao Paulo*, December 27, 2019, available from: <https://www1.folha.uol.com.br/ambiente/2019/12/em-documento-chefes-de-fiscalizacao-do-ibama-alertam-para-risco-de-apagao.shtml>

⁶⁷ de Waroux, Y. L. P., Garrett, R. D., Heilmayr, R., & Lambin, E. F. (2016). Land-use policies and corporate investments in agriculture in the Gran Chaco and Chiquitano. *Proceedings of the National Academy of Sciences*, 113(15), 4021-4026

⁶⁸ Paraguay signed but has not ratified the agreement.

⁶⁹ See the ITTO's latest report (2018) for examples of sustainable forest management projects conducted in Brazil: https://www.ito.int/annual_report/

⁷⁰ Brazil's tropical roundwood production is mainly concentrated in the northern states of Pará, Amazonas and Mato Grosso, with the plantation estates located in the non-tropical south and southeast regions of the country. ITTO (2018), "Biennial review and assessment of the world timber situation 2017-2018", available from [file:///Users/utilisateur/Downloads/Biennial review 2017%E2%80%932018.pdf](file:///Users/utilisateur/Downloads/Biennial%20review%202017%E2%80%932018.pdf)

Figure 22: Wood production for Brazil (left) & other Mercosur countries (right)

Source: Authors' elaboration from FAOSTAT. All productions have been converted into million tonnes. Countries are in two separate graphs because of the large difference in the scale of wood production.

4.2.7. Fisheries

The EU represents the largest single market for fish and fish products. On the other hand, per capita consumption of fish is low in Mercosur countries and most fish production is exported. According to FAO, seven fish species⁷¹ in the Southwest Atlantic area are considered to be over-exploited or depleted (3 only moderately), seven fish species⁷² are considered overexploited or depleted in the Northeast Atlantic area and eleven in the Mediterranean area.⁷³

In the EU, fishing fleets are managed through the Common Fisheries Policy, which also includes rule for aquaculture. The policy involves inputs and output controls.⁷⁴ Aquaculture accounts for about 20% of fish production. Strategic guidelines have been set up to increase production and the competitiveness of the aquaculture sector and a number of campaigns have been launched to promote its sustainability.⁷⁵

Both Brazil and Argentina have implemented policies to encourage the rise in aquaculture. In Brazil aquaculture increased by almost 400% over 2000-13, accounting for over 60% of total fish production in 2013 (OECD, 2015).⁷⁶ In Argentina, aquaculture production is growing but it is not yet economically relevant as the sector is mostly made up of small farmers that incorporate fish farming as an additional productive option to improve the profitability of the field⁷⁷. In

⁷¹ These include: the Argentine Hake *Merluccius*, the Southern Blue Whiting, the Argentina Croaker, the Whitemouth Croaker, the Striped Weakfish, the Brazilian Sardinella and Other shrimps.

⁷² These include: the Atlantic salmon, the European plaice, the Atlantic cod, the Blue whiting, the Haddock, the Pollock, and the Whiting.

⁷³ These include: the Azov Sea Sprat, the Pontic Shad, the European Hake, the Red Mullet, the European Anchovy, the Sardinellas, the Albacore, the Atlantic Bluefin Tuna, the Swordfish, the European Sprat, the Atlantic Bonito and the Striped venus. Note that this area is shared with non-EU countries.

⁷⁴ Inputs control include rules on access to waters, fishing effort controls and technical measures. Output controls mainly consist of limiting the amount of fish from a particular fisher. https://ec.europa.eu/fisheries/cfp/fishing_rules_en.

⁷⁵ https://ec.europa.eu/fisheries/cfp/aquaculture_en

⁷⁶ OECD (2015)

⁷⁷ <http://www.fao.org/fishery/facp/ARG/es>

Uruguay, aquaculture is in its infancy, yet there is a growing interest in boosting the fishing and aquaculture sector.⁷⁸

Aquaculture production can contribute to reduce pressure on natural fishery resources but can also have negative impacts on biodiversity and ecosystems, in particular if alien species are introduced. In the EU, the Regulation on the use of alien and locally absent species in aquaculture aims at ensuring the adequate protection of aquatic habitats from the risks associated with the use of non-native species. In Brazil, while the aquaculture sector saw initially the introduction of international species such as shrimp and tilapia, it has shifted to an increasing share of native species, which are also largely intended for the domestic market (Pincinato and Asche, 2016).⁷⁹

The EU is already cooperating with Brazil and Argentina (as well as other countries in the Atlantic Ocean) to build an All Atlantic Ocean Research Community to promote the sustainable management of the Atlantic Ocean. Key areas of cooperation involve, among others, a responsible and sustainable fisheries management and aquaculture development, and the treatment of emerging pollutants.

4.2.8. Agriculture and the environment

According to the OECD (2008), agriculture's use of inputs is a major driving force leading to pressure on the environment (OECD, 2010). The choice and quantity of farm inputs can affect the state of the environment with regard to rates of soil erosion, water quality and ultimately the aquatic ecosystems (Parris, 2011). In this section we focus on water, fertilisers (nitrogen) and pesticides use in agriculture and compare the performance of Mercosur countries with that of the EU and of other countries of similar income levels.

In Brazil, the agriculture sector consumes more than 60% of water resources (OECD, 2015a) and the use of water in agriculture has increased considerably, by 40% from 2006 to 2010. In Paraguay, agriculture water withdrawal accounts for 78% of total water use and it has grown by 400% between 2000 and 2012. Argentina has increased its water use in agriculture by 30% between 2000 and 2011 (FAO Aquastat). In the EU, member states are required to price water in a way that ensures full cost recovery and incentivise the efficient use of water. Water charges tend to be low in most Mercosur countries. In Brazil, in the four states where some water charges exist, they are usually too low to stimulate efficient resource use.⁸⁰ At the moment, Rio de Janeiro is the only state where water use is charged universally. Argentina has implemented a system of water charges, although several provinces charge a low tariff that does not cover the full cost of recovery and maintenance of the water system. In Uruguay water charges exist and are lower for residential users than for other users (commercial and industrial). Since July 2016, the introduction of agricultural usage charges and contamination fees has been discussed as part of the preparation for the National Water Plan (UNEP, 2018⁸¹).

⁷⁸ <http://www.fao.org/fishery/facp/URY/es>

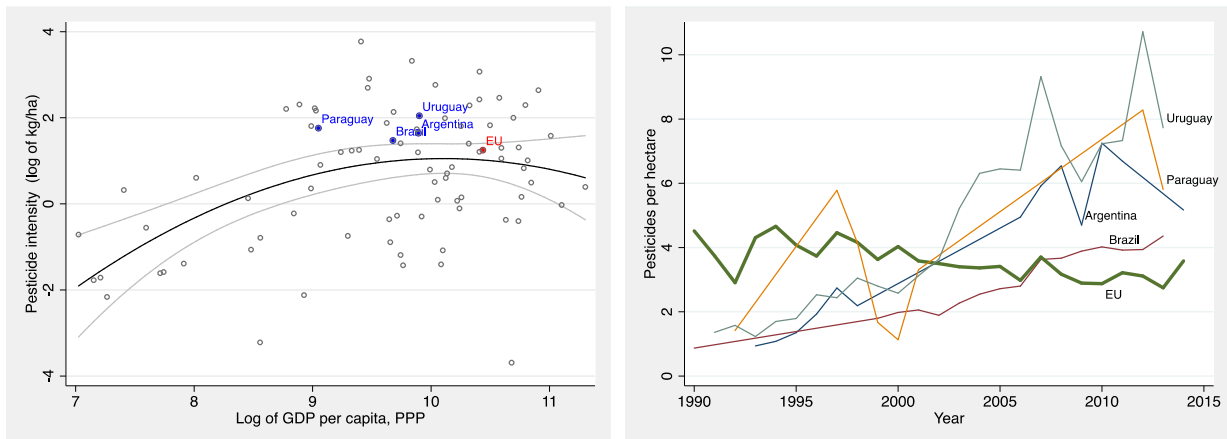
⁷⁹ Pincinato, R. B. M., & Asche, F. (2016). *The development of Brazilian aquaculture: Introduced and native species*. *Aquaculture Economics & Management*, 20(3), 312-323.

⁸⁰ OECD (2015b) *Water Resources governance in Brazil*, OECD Studies of Water, OECD Paris.

⁸¹ UNEP (2018) *Achieving Sustainable Development Goals on Socially Inclusive and Sustainable Water through Fiscal and Pricing Reforms in Uruguay*, UNEP, prepared by Miguel Carriquiry, Matías Piaggio, Felipe Bertamini, Gabriela Pérez Quesada, and Guillermo Sena

In terms of pesticide use, Figure 23 (left panel) shows that Mercosur countries' average pesticide intensity (kg per hectare) is above that of countries of similar income levels and above the EU average. While differences in levels are partly explained by agronomic and climatic conditions, e.g. countries with warm and wet climate tend to use more pesticides (Ghimire and Woodward, 2013),⁸² trends are more likely driven by changes in agricultural practices and pesticide restrictions.

Figure 23: Pesticide use by income levels (2013-2014) and over time (1990-2015)



Source: Data on pesticides are from FAOStat. GDP per capita, PPP is from the World Bank World Development indicators (2010). Figure on the left shows the amount of pesticides use per hectare of land (in log). Data refers to 2013 or 2014 depending on availability. The plot on the right refers to the amount in kg of pesticides use per hectare of land (in log) over time.

While the use of pesticides has been decreasing in the EU (Figure 23, right panel), it has been increasing across all Mercosur countries. Brazil recently overtook the EU in terms of pesticide intensity while other Mercosur countries did so around the turn of the century. While the import of hazardous pesticides has been decreasing steadily (FAOStat), the use of unauthorised pesticides remains high across Mercosur countries (OECD, 2015).

In Brazil, MAPA, ANVISA and IBAMA are the main pesticide implementation agencies to supervise and manage pesticides. Pesticides can only be produced, handled, imported, exported, marketed and used if previously approved by the three federal government bodies. Pesticide licences, however, do not require periodic reviews or renewals and are granted indefinitely.⁸³ A draft bill is being currently discussed by congress (PL 6299/02⁸⁴) and proposes new rules for the approval of pesticides including integrating all evaluations under the Ministry of Agriculture, while still involving the three agencies. The bill has been criticised by some environmental organisations.

In Mercosur countries, implicit subsidies exist for pesticides and fertilisers. In Brazil, for example, fertilisers and pesticides are exempt from some federal and state taxes (OECD, 2015a). This has contributed to their growing use. In addition, an increase in the use of pesticides is associated with the practice of minimum-tillage and no-tillage farming, when this is not employed appropriately following the principles of conservation agriculture. The practice of minimum-tillage and no-tillage farming is common across Mercosur countries (Peiretti and Dumanski, 2014)

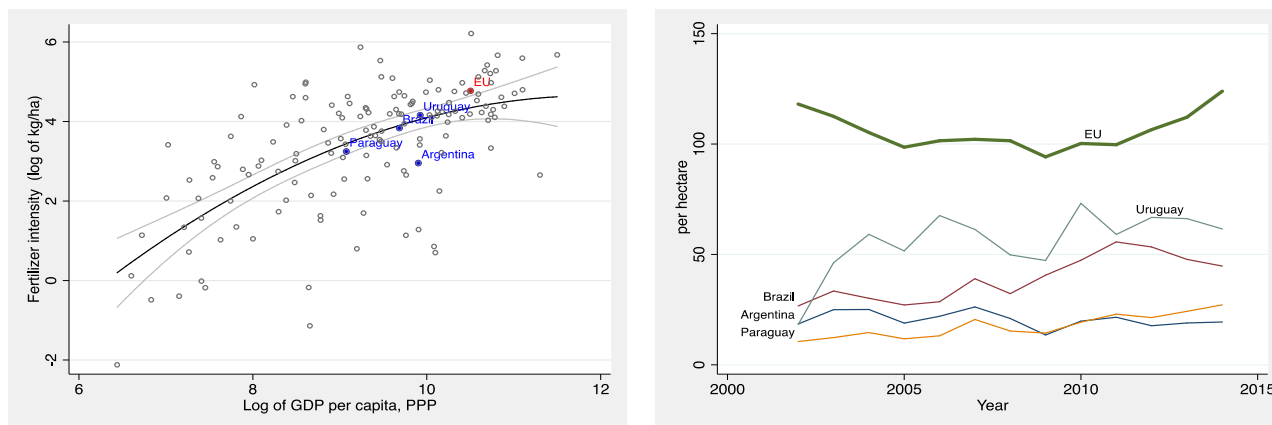
⁸² Ghimire, N., & Woodward, R. T. (2013). Under-and over-use of pesticides: An international analysis. *Ecological Economics*, 89, 73-81.

⁸³ <http://portal.anvisa.gov.br/pesticidas>

⁸⁴ <https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=46249>

and that helps preserve carbon in the soil, yet it is also associated with higher pesticide use due to a higher presence of weeds.

Figure 24: Fertiliser use by income levels (2013-2014) and over time (2002-2010)



Source: Data on fertilisers are from FAOStat. GDP per capita, PPP is from the World Bank World Development indicators (2010).

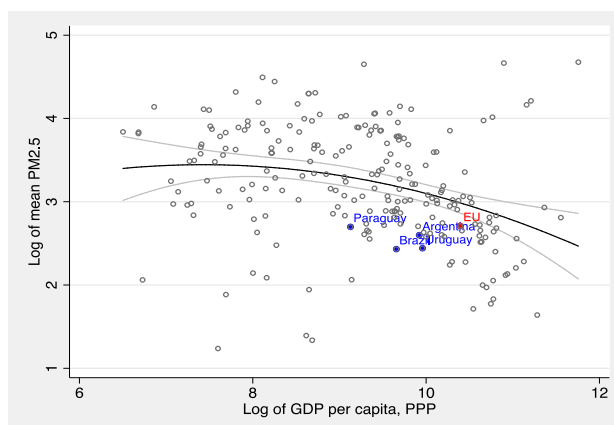
The opposite, instead, is observed for the use of fertilisers (nitrogen), in particular for Argentina that shows very low levels of fertilisers intensity. The use of fertilisers is below EU levels in all four Mercosur countries. Additionally, FAO data shows a more significant increase of fertiliser use in the EU over the 2010-2014 period than in Mercosur countries.

4.2.9. Air pollution

All Mercosur countries have worse scores than the EU in terms of air quality in the Environmental Performance Index. Figure 25, left panel, displays two different measures of exposure to particulate matter (PM2.5), mean annual exposure and the percentage of population exposed to level above WHO guidelines. While displaying higher levels of air pollution than average EU levels, the trend in Argentina is downwards, as opposed to the EU. Brazil has experienced a notable improvement, going from 75% of the population exposed to unsafe levels of PM2.5 in 2005 to 56% in 2015. A significant improvement in terms of average exposure has also been experienced by Paraguay, although the entire population is still considered exposed to unsafe levels of PM2.5. Uruguay shows the lowest levels of mean exposure in the group and a similar percentage of people exposed to excessive levels of PM2.5 to the EU. When compared to countries of similar income levels (Figure 25, right panel), Mercosur countries score pretty well, showing mean exposure to PM2.5 below those of most countries of similar income levels.

Figure 25: Exposure to PM2.5

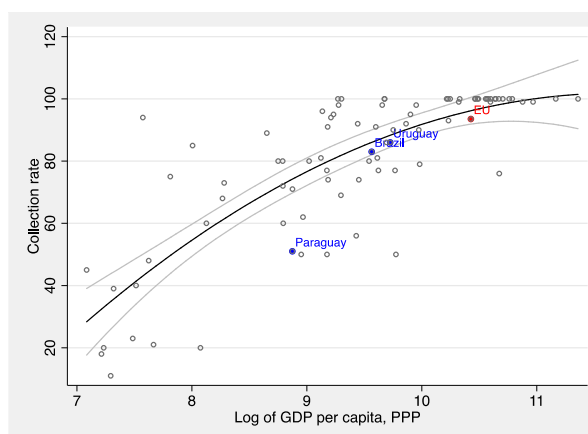
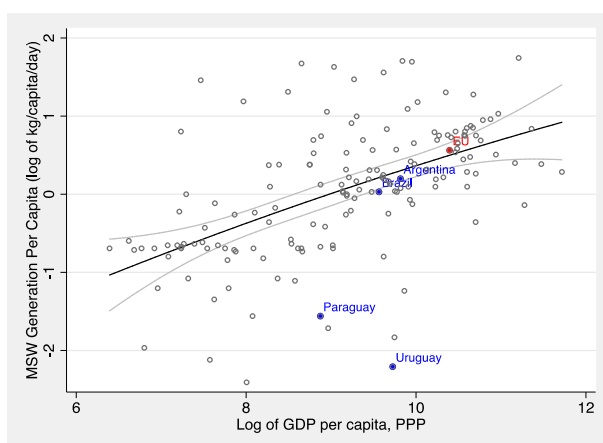
Country	Mean exposure		% above WHO guideline	
	2005	2015	2005	2015
EU	14.3	15.3	84.5	85.5
Argentina	14.9	13.4	98.4	97.3
Brazil	13.8	11.4	75.3	55.8
Paraguay	23.3	14.9	100	100
Uruguay	11.9	11.5	88.9	85.9



Source: World Bank World Development Indicators. Mean exposure is measured in micrograms m³. The second column of the table indicates the percentage of the population exposed to levels of PM_{2.5} above WHO guidelines. The plot on the right shows a quadratic fit of the relationship between GDP per capita (PPP) and the PM_{2.5} together with the 95% confidence interval.

4.2.10. Waste

Solid waste can be an important source of methane and, if not appropriately managed can pollute air and water, with significant health impacts on the local population. Data on the generation, collection, treatment and disposal of solid waste for Mercosur countries are limited and hence need to be interpreted with caution. In general, Mercosur countries show heterogeneous performance in terms of waste generation and collection. Paraguay and Uruguay show substantially lower levels of waste generation per capita than countries of similar income levels (Figure 26, left panel). In contrast, both Brazil and Argentina are in line with the average performance of other upper middle-income countries. In terms of waste collection, Brazil and Uruguay collect about 83-86% of the waste, in line with other upper middle-income countries, while Paraguay performs well below with a collection rate of 51% (Figure 26, right panel)

Figure 26: Waste generation and collection

Source: What a waste. A Global review of solid waste managements (Hoornweg and Bhada-Tata, 2012). GDP per capita, PPP is from the World Bank World Development indicators (2010). Figure on the left shows the amount of solid waste generated per capita per day (in log). The plot on the right refers to collection rates that are available for fewer countries. For some countries, collection data refer only to urban areas. No data is available for Argentina. The plots show a quadratic fit of the relationship between GDP per capita (PPP) and the two variables together with the 95% confidence interval.

According to OECD (2015), in Brazil, there is a lack of hazardous waste landfills. Moreover, many municipalities tolerate the illegal practice of disposing of hazardous waste in municipal landfills. Empirical research on Argentina and Uruguay shows that lead from toxic waste continues to pose a significant public health risk (Caravanos et al. 2016). Recycling is very limited across Mercosur countries. Recovery is dominated by waste pickers (*catadores* in Portuguese; *cartoneros* in Spanish), who earn their living by collecting recyclables and selling them to private recycling companies. Waste pickers contribute to waste separation for recycling, for example of aluminium cans and PET.

4.3. Analysis of impact

4.3.1. Impact on GHG emissions

According to the CGE modelling the AA is expected to increase CO₂ emissions in the EU by 0.03% in the long run under the conservative scenario (Table 22). The largest impact among Mercosur countries is for Argentina (0.51% increase in CO₂ emissions). However, it is important to note that Argentina's overall contribution to global CO₂ emissions is low compared to that of the EU. Both Uruguay and Paraguay are expected to experience a small decline in CO₂ emissions. Globally, the AA is expected to have a negligible impact on CO₂ emissions also considering that the estimated changes do not reflect possible positive future changes in energy efficiency and technology.

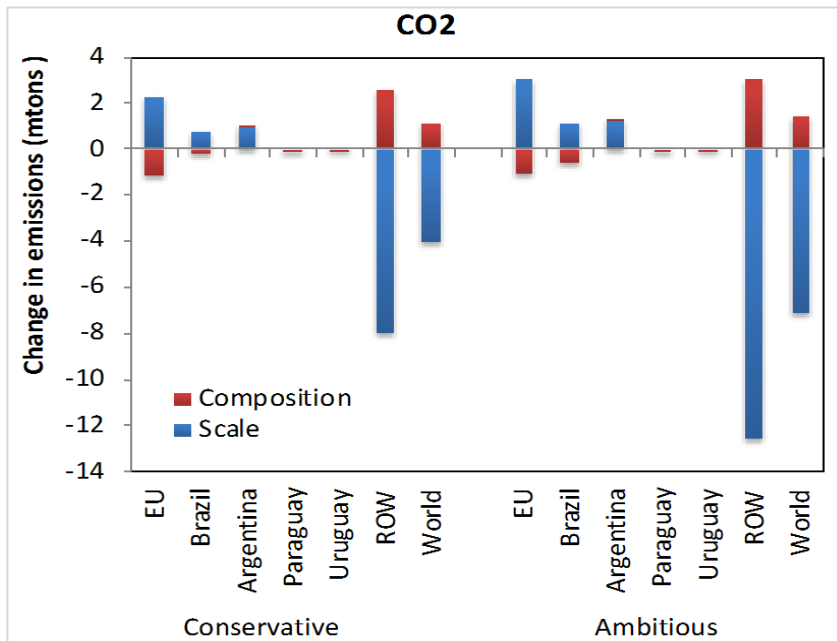
Table 22: Change in CO₂ emissions in the two scenarios (long term impact, % change)

	EU	Brazil	Argentina	Paraguay	Uruguay	ROW	World
Conservative scenario	0.03	0.16	0.51	-0.04	-0.14	-0.01	0.00
Ambitious scenario	0.05	0.18	0.69	-0.12	-0.23	-0.02	-0.01
Total Emissions (2032 baseline)	3,987	326	185	6	11	53,017	57,532

Source: CGE Modelling Results based on GTAP emission factors. Percentage changes with respect to the 2032 baseline. Emissions are in millions of tonnes.

Figure 27 reports the results of the LMDI decomposition of the impact on CO₂ emissions for both scenarios. Effects are expressed in absolute changes. The figure shows that, under both scenarios, the increase in emissions due to an increase in the scale of production is partially mitigated by a negative composition effect. A negative composition effect suggests that the AA is likely to induce, in the long term, a reallocation towards lower emission intensive sectors. The only exception is Argentina where, however, the impact is negligible.

Figure 27: Decomposition of impact on CO2 emissions: conservative scenario (left) and ambitious scenario (right)



Source: CGE modelling based on GTAP emission factors. Plots show percentage changes with respect to the 2032 baseline. Decomposition has been obtained using a Log Mean Divisia Index (LMDI). Graph shows absolute changes in tonnes of Co2.

Based on the CGE modelling results and emission intensities from EDGAR, the AA is expected to reduce methane emissions in the EU by -0.12% in the long term under the conservative scenario (Table 23), nitrous oxide emissions are also expected to decrease by -0.21%. In percentage terms, the effects on methane emissions in Mercosur countries are around 0.6 to 0.9%, with the exception of Paraguay where the effect is much lower (0.07%). The impacts on nitrous oxide among Mercosur countries range from 1.5% in Brazil to 0.4% in Uruguay. Effects are again very small for Paraguay (0.08%). Globally, the AA is expected to have a very small impact on both types GHG emissions (Table 23).

Table 23: Percentage Change in other GHG emissions in the two scenarios

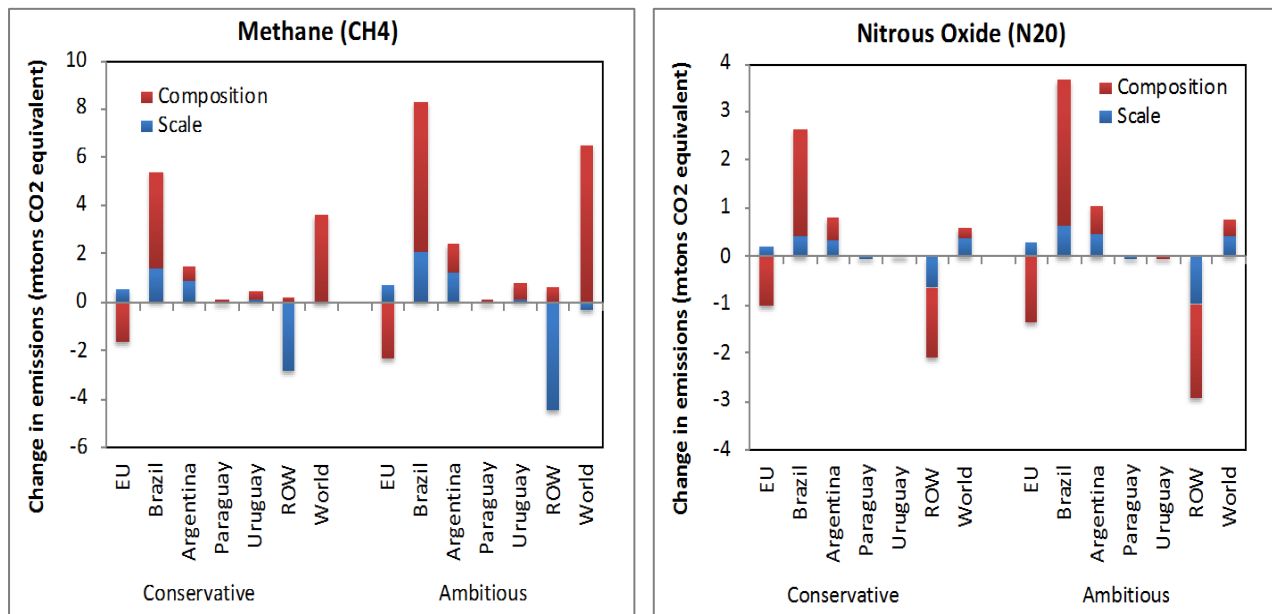
Methane (CH4)	EU	Brazil	Argentina	Paraguay	Uruguay	ROW	World
Conservative scenario	-0.12	0.93	0.84	0.07	0.65	-0.01	0.02
Ambitious scenario	-0.17	1.42	1.36	0.17	1.20	-0.02	0.03
Total Emissions (2032 baseline)	948	585	176	41	66	18,764	20,579
Nitrous Oxide (N2O)	EU	Brazil	Argentina	Paraguay	Uruguay	ROW	World
Conservative scenario	-0.21	1.54	1.17	0.08	0.41	-0.05	0.01
Ambitious scenario	-0.28	2.11	1.54	0.23	0.13	-0.07	0.02
Total Emissions (2032 baseline)	378	172	69	9	13	4,125	4,767

Source: CGE modelling % emission intensities from EDGAR. % changes with respect to the 2032 baseline. Total emission are in Mtons of Co2 equivalent.

Figure 28 reports the results of the Log Mean Divisia (LMDI) decomposition of the impact on the two other types of GHG emissions for both scenarios. Effects are expressed in percentage changes. Results differ between gases and scenarios reflecting the impact of sector reallocations. For methane emissions in Mercosur countries, under both scenarios and across all parties, scale

effects due to the expansionary effect of the AA are amplified by a relocation towards more methane intensive sectors (composition effect). The latter effect is particularly evident under the most ambitious scenario and mostly driven by the expansion of animal production. For nitrous oxide, expansionary effects (scale effects) are also amplified by a positive composition effect, which suggests a reallocation towards higher nitrous oxide intensive sectors, mostly agricultural products. For the EU, negative composition effects are instead larger than the positive scale effects, for both gases, explaining the negative overall expected decline in emissions.

Figure 28: Decomposition of impact on GHG emissions: methane (left) and nitrous oxide (right)



Source: CGE modelling based and emissions from EDGAR. Plots show absolute changes with respect to the 2032 baseline in Mtons of Co2 equivalent. Decomposition has been obtained using a Log Mean Divisia Index (LMDI). In order to match CGE results to EDGAR data, sectors were aggregated; hence we expect these estimates to carry a wider margin of error.

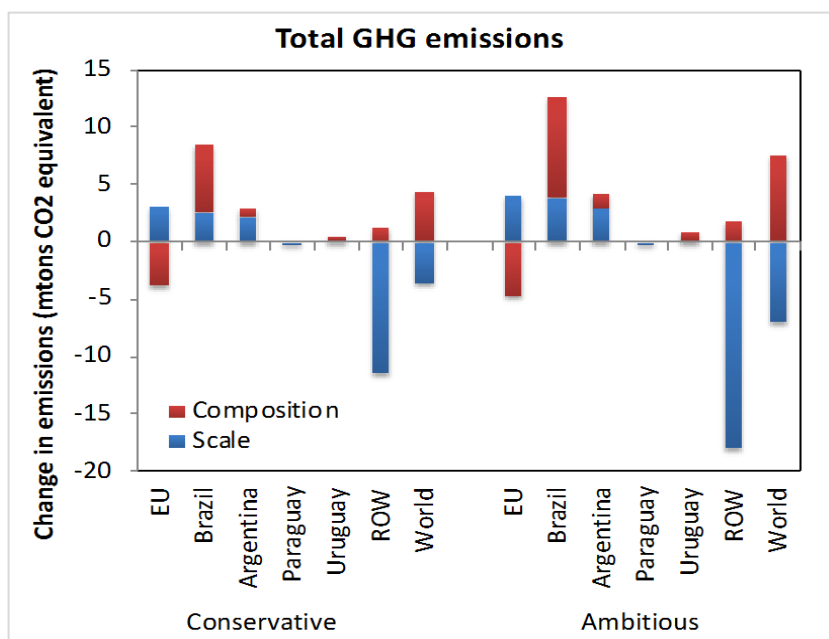
Table 24 shows the aggregated effect on GHG emissions. The overall moderate increase in GHG emissions in Mercosur countries is compensated by a decrease in emissions in the EU and the rest of the world leading to a negligible global effect of the AA on total GHG emissions. Comparing the projected changes in GDP with those in GHG emissions, results indicate a reduction in emission intensity of GDP in the EU and Paraguay (in the latter the impact is almost emission-neutral under the ambitious scenario). In Brazil, Uruguay and to a lesser extent Argentina, the Agreement increases the overall emission intensity of GDP. Overall, the AA is expected to marginally reduce the emission intensity of world GDP. The decomposition in Figure 29 shows once again the positive composition effect in Mercosur countries due to the induced relocation towards GHG emission intensive sectors. Scale effects are also positive with the exception of Paraguay and the rest of the world.

Table 24: Change in total GHG emissions and GDP in the two scenarios (long term impact, % change)

GHG Emissions	EU	Brazil	Argentina	Paraguay	Uruguay	ROW	World
Conservative scenario	-0.02	0.79	0.67	0.06	0.52	-0.01	0.00
Ambitious scenario	-0.01	1.15	0.99	0.14	0.87	-0.02	0.00
Total GHG Emissions (2032 baseline GTAP)	5,313	1,083	430	56	90	75,906	82,878
GDP	EU	Brazil	Argentina	Paraguay	Uruguay	ROW	World
Conservative scenario	0.06	0.19	0.51	0.08	0.24	-0.02	0.01
Ambitious scenario	0.08	0.30	0.71	0.15	0.44	-0.02	0.01

Source: CGE modelling and emission intensities from EDGAR. Table shows percentage changes with respect to the 2032 baseline. Total GHG emissions are in Mton of CO₂ equivalent. GHG emissions include CO₂, CH₄ and N₂O only. Minor differences in the aggregated effects are due to the use of a less refined sector classification, which was required in order to match output data with CH₄ and N₂O data from EDGAR.

Figure 29: Decomposition of impact on total GHG emissions: conservative scenario and ambitious scenario



Source: CGE modelling based on GTAP emission factors. Decomposition has been obtained using a Log Mean Divisia Index (LMDI). Graph shows absolute changes in emissions (Mtons of CO₂ equivalent). GHG emissions include CO₂, CH₄ and N₂O only.

From a strictly quantitative perspective based on sectoral analysis, the small increase in overall GHG emissions in Mercosur countries resulting from the AA is expected to have a limited impact on trading partners' ability to meet their commitments to the Paris Agreement, which include among others a commitment to reduce emissions by 43% by 2030 for Brazil, a commitment to not exceed 483 Mton CO₂eq by 2030 for Argentina, a 29% reduction in emission intensity of GDP by 2025 for Uruguay and a 10% reduction in GHG emissions by 2030 for Paraguay⁸⁵. It is also worth recalling that the effects described above do not reflect the possible future uptake of green technology (see for example Section 4.3.6 on the impact of the AA on trade in environmental goods and services) and the potential expansion of the renewable energy sector. In this regard, an analysis of the implications of a possible expansion of the biofuel sector, is provided in section 6.1.3.

4.3.2. Impact on land use and deforestation

In this section we explore the implications, in terms of land use and deforestation, of the expected expansion of relevant agricultural sectors. Based on the overview presented in the baseline and the analysis presented below, we expect the repercussions of the EU-Mercosur AA on land use and deforestation to depend less on scale or composition effects in the agricultural sector than on countries' commitment to preserve a regulatory framework that reduces the rate of deforestation related to farming activities.

We begin by focusing on Brazil, whose case raised particular concerns among stakeholders, including the European beef industry, as well as environmental and animal welfare NGOs, and also because its experience is particularly instructive. Agricultural lands account for about 23% of Brazil's total surface area, divided between (low productive) meadows and pastures (75%) and croplands (25%) (FAOSTAT). Historically, the majority of cleared forest land has ended up in cattle pasture as crop production is mostly located away from forest area (Global Forest Atlas).⁸⁶ Evidence suggests that most of the deforested area is used for low-efficiency cattle ranching (Zu Ermgassen et al. 2018)⁸⁷, i.e. less than one cow per hectare. Hence, there is great scope for expanding production by intensifying beef production in these areas without inducing deforestation (Cohn et al. 2014).⁸⁸ Indeed, the reduction in deforestation observed since 2004 was achieved despite high beef prices and increasing beef production, which in previous years had pushed deforestation upward. This suggests that policies and enforcement actions had led to the decoupling of beef production from deforestation (Boucher et al. 2013).⁸⁹ Indeed, Burgess et al. (2019) show that during the period of stricter enforcement and monitoring (2002-2012), the effort to cope with illegal deforestation was effective in reducing forest loss in particular in areas closer to economic and market pressure.⁹⁰ The beef moratorium in 2009, for example, was found to produce some positive, although limited effects. A study by Gibbs et al. (2016)⁹¹

⁸⁵ This issue is further discussed in section 4.3.7.

⁸⁶ <https://globalforestatlas.yale.edu/amazon/land-use>

⁸⁷ Zu Ermgassen, E. K., Alcântara, M. P. D., Balmford, A., Barioni, L., Neto, F. B., Bettarello, M. M. & Gonçalves, E. T. (2018). Results from on-the-ground efforts to promote sustainable cattle ranching in the Brazilian Amazon. *Sustainability*, 10(4), 1301.

⁸⁸ Cohn, A. S., Mosnier, A., Havlík, P., Valin, H., Herrero, M., Schmid, E., ... & Obersteiner, M. (2014). Cattle ranching intensification in Brazil can reduce global greenhouse gas emissions by sparing land from deforestation. *Proceedings of the National Academy of Sciences*, 111(20), 7236-7241.

⁸⁹ Boucher, D., Roquemore, S., & Fitzhugh, E. (2013). Brazil's success in reducing deforestation. *Tropical Conservation Science*, 6(3), 426-445.

⁹⁰ Burgess, R., Costa, F., & Olken, B. A. (2019). The Brazilian Amazon's Double Reversal of Fortune.

⁹¹ Gibbs, H. K., Munger, J., L'Roe, J., Barreto, P., Pereira, R., Christie, M., ... & Walker, N. F. (2016). Did ranchers and slaughterhouses respond to zero-deforestation agreements in the Brazilian Amazon?. *Conservation Letters*, 9(1), 32-42.

shows that the agreement induced slaughterhouses to avoid purchasing from properties with deforestation. Another study by Alix-Garcia and Gibbs (2017)⁹² shows that the moratorium led to some avoided deforestation on properties that registered early in the programme, which was, however, offset by leakages in the supply chain. Other policies that contributed to the slowdown in deforestation include the creation of indigenous reserves and the 2006 Forest Code.

A similar analysis can be applied in relation to any expansion of the oil seeds sector. Brazil has substantial physical potential for increasing soy production by converting existing degraded pasturelands into crop fields. Again, historical data indicates that deforestation was on a declining path until 2012 while soy production, the most profitable Amazon land use, continued to grow and soy prices were at record high (Nepstad et al. 2014 and Boucher et al. 2013). Particularly relevant was the Soy Moratorium, a 2006 voluntary agreement between Brazilian agribusiness companies to stop purchasing soy from areas in the Amazon that were deforested after July 2008. The agreement was renewed indefinitely in 2016. The moratorium has been found to have contributed to reducing deforestation and increasing agricultural productivity (Kasten, 2017).⁹³

In Brazil, sugarcane accounts for less than 9 million hectares, largely located in São Paulo, which is about only 4.4% of total agricultural land (CONAB). It is also estimated that there are over 40 million hectares of pastureland suitable for the production of sugarcane.⁹⁴ A recent paper by Jaiswal et al. (2017) shows how Brazilian sugarcane ethanol can be increased substantially without threatening forests under conservation and, at the same time, accounting for future land demanded for food and animal feed.⁹⁵ These findings are confirmed by de Oliveira Bordonal et al (2018).⁹⁶

In general, evidence for Brazil points towards great scope for expanding agriculture through intensification and increased productivity without inducing deforestation. As shown in Arias et al. (2017) although agricultural productivity growth in Brazil has accelerated, there are still large differences in productivity across farmers and regions, and considerable production gains can be achieved if agricultural productivity were to grow faster. There is also evidence from the states of Goiás and Mato Grosso that export-oriented farmers were able to increase their agricultural production by intensifying the existing agricultural lands rather than clearing new land. In a fraction of the vast Cerrado plain, double-cropping, as opposed to single cropping has started to take place.⁹⁷ This intensified regime has the potential to expand to other cultivated land areas. The improvement in productivity in the Cerrado has often been cited as an example of success of how to employ state-of-the-art agricultural technology to expand agricultural and pasture land without deforestation. This best-case scenario is, however, contingent upon Brazil's commitment to its Paris agreement pledges with regard to forest preservation. Brazil, however,

⁹² Alix-Garcia, J., & Gibbs, H. K. (2017). Forest conservation effects of Brazil's zero deforestation cattle agreements undermined by leakage. *Global Environmental Change*, 47, 201-217.

⁹³ Kastens, J. H., Brown, J. C., Coutinho, A. C., Bishop, C. R., & Esquerdo, J. C. D. (2017). Soy moratorium impacts on soybean and deforestation dynamics in Mato Grosso, Brazil. *PloS one*, 12(4), e0176168.

⁹⁴ Assunção, J., & Chiavari, J. (2015). Towards efficient land use in Brazil. *Climate Policy Initiative*, Sept.

⁹⁵ Jaiswal, D., De Souza, A.P., Larsen, S., LeBauer, D.S., Miguez, F.E., Sparovek, G., Bollero, G., Buckeridge, M.S. and Long, S.P., 2017. Brazilian sugarcane ethanol as an expandable green alternative to crude oil use. *Nature Climate Change*, 7(11), p.788.

⁹⁶ de Oliveira Bordonal, R., Carvalho, J.L.N., Lal, R., de Figueiredo, E.B., de Oliveira, B.G. and La Scala, N., 2018. Sustainability of sugarcane production in Brazil. A review. *Agronomy for Sustainable Development*, 38(2), p.13.

⁹⁷ Spera, S. (2017). Agricultural intensification can preserve the Brazilian Cerrado: Applying lessons from Mato Grosso and Goiás to Brazil's last agricultural frontier. *Tropical Conservation Science*, 10.

has recently opted for rolling back restrictions on sugarcane production in forest areas. On November 5, 2019, it signed a decree revoking a 10-year-old zoning regulation that limited the cultivation of sugarcane to areas outside the Amazon.⁹⁸ In November 2019, the farm group Aprosoja started a campaign to end the Soy Moratorium. The campaign received strong opposition from European companies and investors.⁹⁹ Recent efforts to impose budget cuts on Ibama's anti-deforestation efforts have exacerbated chronic problems of understaffing, which have made the work of field agents in certain regions increasingly challenging.¹⁰⁰

Argentina's deforestation rates have slowed down in recent years but remain high with respect to the regional and global trends. Conversion from forest to cropland and grassland contributed to 35% of total GHG emissions from agriculture activities in 2014 (OECD, 2019).¹⁰¹ Cattle ranching has been associated in the past to forest degradation due to grazing or overgrazing by cattle within the forest (FAO, 2019).¹⁰² Recently, Argentina has shown commitment to develop a participatory national strategy to reduce emissions from deforestation within the UNFCCC REDD+ mechanism.¹⁰³ However, if successfully implemented, the National Action Plan on Forests and Climate Change (PANByCC) will reduce deforestation and forest vulnerability and degradation. Uruguay has low forest cover (10%) and natural forest cover has increased over the past years. 75% of Uruguay's territory is made of grassland for extensive grazing, hence, there is scope for expanding cattle production without adding pressure on land use. In Paraguay, the conversion of forest area to pastureland, in particular in the Chaco area, and soybean production has been one of the major causes of deforestation.¹⁰⁴ An expansion of the bovine sector will not necessarily put pressure on land resources if a strong commitment to sustainable management of forests is in place in the country in question. Brazil's experience in the early twenty-first century (see section 4.2.6) shows that increased production and trade expansion are compatible with declining deforestation rates provided that sustainable forest policies are put in place.

Overall, while there are concerns about the more recent trends in deforestation in Brazil and Argentina, examples of successful agriculture intensification and the positive trend in productivity growth show opportunities to limit possible negative effects by converting existing meadows and pasturelands and by promoting productivity catch-ups across farmers and regions. Beyond productivity gains, the enforcement (or lack thereof) of regulatory rules protecting forest areas will largely overshadow the minor effects of the EU-Mercosur AA. Brazil's experience during the first decades of 2000 shows that it is possible to decouple beef, soy and maize production from deforestation by adopting appropriate regulation and monitoring measures. Mercosur

⁹⁸ The text of the decree is available from : http://www.planalto.gov.br/ccivil_03/_Ato2019-2022/2019/Decreto/D10084.htm

⁹⁹ Brazil urged to renew limits on Amazon soya production, *Financial Times*, retrieved on 03 March 2020, <https://www.ft.com/content/c554f32a-1521-11ea-9ee4-11f260415385>

¹⁰⁰ Ernesto Londoño and Leticia Casado (2019), *The New York Times*, available from: <https://www.nytimes.com/2019/08/28/world/americas/amazon-fires-brazil.html> See also Fabiano Maisonnave, "Em document, chefes de fiscalização do Ibama alteram para risco de apagão", *Folha de Sao Paulo*, December 27, 2019, available from: <https://www1.folha.uol.com.br/ambiente/2019/12/em-documento-chefes-de-fiscalizacao-do-ibama-alertam-para-risco-de-apagao.shtml>

¹⁰¹ OECD (2019) *Agricultural policies in Argentina*, Trade and agriculture directorate, Committee for Agriculture, OECD.

¹⁰² <http://www.fao.org/redd/news/detail/en/c/1183543/>

¹⁰³ The UNFCCC, through the REDD+ mechanism, calls for signatory parties to develop a national strategy to reduce emissions from deforestation and forest degradation that includes concrete actions and measures. <https://www.un-redd.org/post/2019/02/18/argentina-s-redd-national-strategy-combining-a-participatory-process-with-sound-technical>

¹⁰⁴ World Resources Insitute (WRI) <http://www.wri.org/blog/2017/11/closing-data-gaps-eliminate-deforestation-and-land-disputes-beef-supply-chains-paraguay>

countries, with the exception of Paraguay, have committed to reduce GHG emissions by adopting forest related targets and policies, e.g. 12m hectares of reforestation by 2030, end of illegal logging, compensating any legal logging and strengthening the forest code in Brazil, the implementation of a National Forest Monitoring system in Argentina and a 5% increase in native forest area in Uruguay. The AA includes a commitment to the effective implementation of the Paris Agreement and hence has the potential to strengthen such pledges as is further discussed in Section 4.3.8.

4.3.3. Impact on water resources and the ecosystem

Water is a key agricultural input. The possible expansion of some agricultural sectors, and some manufacturing sectors, can increase pressure on water resources. According to Ran et al. (2013)¹⁰⁵ the impact of agriculture and livestock production on water-related ecosystem services can be separated into three categories: 1) withdrawal of water for irrigation of feed and other crops with effects on downstream aquatic ecosystem, 2) change in land cover that alter the partitioning and functioning of ecosystems and 3) land-use management practices with implications for erosion and pollutant runoffs. In this section we discuss the three main concerns regarding the potential impact of the AA on water resources: water scarcity, water pollution and the implications for related ecosystems.

Among the positively affected sectors, sugarcane, rice and nuts are among the most demanding in terms of water requirements.¹⁰⁶ In addition, about 99% of the water consumed by the livestock sector goes to producing animal feed and fodder (Ran et al. 2013). A move towards a more intensive meat production could also be accompanied by an increase use of cropland for feed production and to induce an increase in water demanded by the sector. On the other hand, it has been also shown, for the case of Uruguay (Ran et al. 2013), that it is not the intensification per se that threatens the provisioning of ecosystem services as a certain degree of intensification may actually increase water productivity.

Concerns exist also for the water used for livestock drinking and servicing. This water returns to the environment in the form of liquid manure, slurry and wastewater. The production of animal wastes in particular in the context of intensive production can put pressure on the surrounding ecosystem and can result in the pollution of surface waters and groundwater (Mateo-Sagasta et al (2017)).¹⁰⁷ In addition, a move towards intensive animal agriculture could be associated with the production of ammonia emissions, which can affect surface waters and support harmful algal growth and also lead to the decline of aquatic species.

Any intensification of agricultural production could lead to an increase in the use of fertilisers and pesticides with implications for land conservation and water quality. This is of particular concern in Mercosur countries where implicit subsidies exist for pesticides and fertilisers as described above.

Overall, the possible expansion of some agricultural sectors poses some moderate concerns regarding the use of water and of pesticides and fertilisers and associated pollution issues if

¹⁰⁵ Ran, Y., Deutsch, L., Lannerstad, M., & Heinke, J. (2013). *Rapidly intensified beef production in Uruguay: Impacts on water-related ecosystem services*. *Aquatic Procedia*, 1, 77-87.

¹⁰⁶ FAO (1986) *Irrigation Water Management: Irrigation Water Needs*
<http://www.fao.org/docrep/s2022e/s2022e02.htm>

¹⁰⁷ Mateo-Sagasta, J., Zadeh, S. M., Turrall, H., & Burke, J. (2017). *Water pollution from agriculture: a global review. Executive summary*. Rome, Italy: FAO Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Research Program on Water, Land and Ecosystems (WLE).

appropriate management practices are not put in place. This is particularly true given the recent increase in the use of pesticides and the absence of price incentives to encourage an efficient use of water in agriculture.

4.3.4. Impact on air pollution

Brazil, Paraguay and Uruguay's rely heavily on hydroelectric and renewable energy; hence air pollution is primarily originated from industrial and mobile sources. Adequate air pollution monitoring is not often in place in Mercosur countries. In Brazil, for example, states are in charge of air quality regulation and monitoring, but only 12 states had some type of monitoring system installed in 2012 (OECD, 2015). Hence, the effects of an expansion of the manufacturing and transport sectors on air quality are explored below.

In Mercosur countries, the positive effects of the AA on manufacturing sectors are confined to few industries¹⁰⁸. These are not particularly concerning in terms of air pollution, with the exception of the pulp and paper sector in Uruguay (which is expected to expand by 1.8% in the most ambitious scenario this includes also the wood sector), and the non-metal mineral sector in Brazil and Argentina (expected to increase by 0.7% and 0.8%, respectively). The non-metallic mineral sector is a major contributor of NOX and to a lesser extent of SO₂. These are also the major pollutants associated to the pulp and paper sector. On the other hand, however, other heavily polluting sectors are expected to experience a decline or a very small increase in all Mercosur countries; these are the chemical sector, important source of NOX and SO₂, and the metal sector, the latter being a major producer of carbon monoxide (CO). Given these opposing effects, we do not expect the AA to produce a concerning increase in air pollution from industrial production, although some negative localised effects might be possible.

In, Argentina energy production, however, is more heavily dependent on fossil fuels, which are associated with the production of air pollutant such as particulate matter, SO₂ and NOX. Yet, the simulated impact of the AA on electricity use is negative, which largely alleviates this concern.

According to the CGE results, the transport sector is expected to experience a small positive impact in Mercosur countries (around 0.3% in the conservative scenario for Brazil and Uruguay (0.4% in the ambitious), and 0.6% (0.8% in the ambitious) in Argentina), with the exception of Paraguay where the impact is expected to be negative. Expansionary effects in certain agricultural sectors are likely to be accompanied by an expansion of transportation. The fields of Mato Grosso, for example, are 2,000km away from the main soybean port at Paranaguá. The Brazilian transportation network consists mainly of road links, so an increase in transportation can potentially have negative effects on local air pollution from increased road transport. Nevertheless, while the number of vehicles in use more than doubled in the last decade, emissions of particulate matter (PM) decreased significantly thanks to stricter vehicle emission standards and widespread use of ethanol in cars (OECD, 2015).¹⁰⁹ Moreover, addressing air pollution has become a priority in Brazil. In 2013, the state of São Paulo established the "New Standards for Air Quality" that identifies states that do not comply with new standards as well as the priority sectors. This suggests that the expansion of the transport sector might not necessarily lead to more air pollution, in particular if ethanol replaces other fuels and pollution

¹⁰⁸ These are: other food products, electrical equipment, textile, and non-metallic mineral in Brazil and the textile, wood and paper, electrical equipment, and other food products in Uruguay. In Paraguay the electrical equipment sector is the only to expect a small significant expansion. In Argentina, it is only the electrical equipment and non-mineral sectors.

¹⁰⁹ Ethanol fuelled cars produce less CO, NOX and possibly PM₁₀ than gasoline, but results in greater emission of aldehydes and higher ground-level ozone.

standards continue to improve as shown in the last decade. In Argentina, instead, the expansion of the transport sector poses some limited concerns as freight transport is dominated by road transport and vehicles tend to be old.

4.3.5. Impact on waste

In this section we explore the possible impact of the AA on waste production and management. We expect the AA to have only limited impact on waste generation in Mercosur countries. Besides the potential effects of an increase in animal waste, described above, the effects on industrial waste are expected to be small since most manufacturing sectors are projected to experience small or even negative effects. The only exception is Uruguay where the textile and leather, and the wood and paper sectors are expected to grow by less than 2% in the most ambitious scenario. These are sectors that tend to be relatively waste intensive. Yet, most hazardous waste is usually generated by the chemical, metallurgical and automotive sectors, which are expected to mostly contract in Mercosur countries.

Municipal solid waste production can be expected to increase in line with the expected impact on GDP. The largest effect being in Argentina where the AA is expected to increase GDP by 0.7% in the most ambitious scenario, followed by Brazil (0.3%) and Uruguay (0.4%). The expected impact on Paraguay is, instead, smaller (0.1%). The population in Argentina, Brazil and Uruguay is highly urbanised and collection coverage is very high (from 90% in Brazil to 99% in Argentina, source: Terraza et al. 2015).¹¹⁰ Yet, a high percentage of solid waste is estimated to be disposed of inadequately (from 86% in Uruguay to 35% in Argentina, source: Terraza et al. 2015). The waste industry in these countries, however, has seen some positive developments in the last decade. Argentina and Brazil have proclaimed a national legal framework with specific waste management laws. In particular, in 2010 the Brazilian National Congress approved the National Law on Solid Waste that prohibits the use of uncontrolled dump sites and obligates local governments to develop solid waste treatment plans and recycling goals. In Uruguay, for example, waste recyclers have been recognised by national law and are given stable salaries and social protection. Overall, we do not envisage concerns regarding the impact of the AA on waste both because of the limited impact on waste-intensive industrial sectors and the positive developments in terms of solid waste management shown by Mercosur countries in recent years.

4.3.6. Impact on trade in environmental goods and services

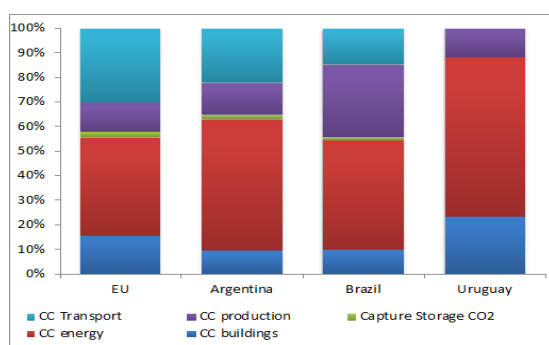
Environmental goods and services encompass environmental activities aimed at environmental protection (EP), e.g. protection of ambient air and climate, wastewater management, waste management, and resource management (RM), e.g. management of energy resources, minerals and other RM activities. Lower NTBs on environmental goods and services can contribute to increase access to such goods with notably important consequences for the environment (OECD, 2005).¹¹¹ In particular, increased access can yield positive environmental benefits in terms of improved resource-use efficiency and pollution prevention. Increased trade in these goods and services can increase competition and induce greater innovation.

¹¹⁰ Grau, J., Terraza, H., Rodríguez Velosa, D. M., Rihm, A., & Sturzenegger, G. (2015). *Solid Waste Management in Latin America and the Caribbean*. IDB, IADB

¹¹¹ OECD (2005) *Trade that Benefits the Environment and Development: Opening Markets for Environmental Goods and Services*, OECD, Paris, ISBN Number: 926403577X

There are some important complementarities between the different parties in terms of environmental endowments and green technologies. According to the Top Markets Series on Environmental technology by the US Trade administration, Brazil's strongest environmental technology segment in 2016 was in waste and recycling technologies.¹¹² The EU market output of the environmental goods and services sector is, instead, dominated by energy-related technology for the exploitation of renewable sources (e.g. wind and solar power), followed by waste management and wastewater management technologies. Mercosur countries constitute a fertile territory to develop alternative energy technology given the region natural endowment and the proactive interventions of certain administrations over the past two decades, in particular in Brazil and Uruguay. Interesting similarities can be observed when considering climate change related technologies. Figure 30 shows the share of patents applications by type of technology filed by each party, with the exception of Paraguay due to lack of data. Brazil is the largest contributor of climate change related patents among Mercosur countries with about 24 patents per million people, followed by Uruguay (12) and Argentina (10) during the last 10 years. This is much lower than what is recorded in Europe (more than 1200 patents per million people). In both Mercosur and EU countries, energy attracts the largest share of patents. These technologies are indeed the most closely related to profitability and stringent regulation. Yet, Mercosur countries are still less mature in terms of new technological development in the area of green technologies and could benefit greatly from the transfer of knowledge and technology and from partnerships with European innovators as there is scope for a substantial catch-up effect in Mercosur countries.

Figure 30: Patents applications related to climate change mitigation by applicant's country (accumulated 2005-2015)



Source: OECD Stat, no data available for Paraguay.

Table 25: Percentage of international partnership by co-inventor country (average 2007-2014) – All patents

%	Argentina	Brazil	EU	Uruguay
Argentina	-	5	34	0.7
Brazil	1.3	-	46	0.03
EU	0.2	0.9	-	0.03
Uruguay	4.6	0.8	38.8	-

Source: OECD Stat, no data available for Paraguay.

Indeed, EU and Mercosur countries have already developed some partnerships for the development of joint patents that are likely to be further expanded. Table 25 shows that about 45% of Brazil's patents (now referring to technology in general) developed through international partnerships have been joint projects with EU countries. Similarly, in Argentina and Uruguay the cooperation in patents with the EU represent 34% and 38% of total international partnerships. This suggests that the AA has the potential to further boost international cooperation in green R&D given the existing strong links in developing joint patents.

¹¹² International Trade Administration (2016) Top Markets Report Environmental Technologies Country Case Study: Brazil.

4.3.7. Potential impact on MEA enforcement in Mercosur countries

Table 26: Impact of the EU-Mercosur AA on MEA enforcement

Category of MEAs	Trade-related MEAs	Potential impacts of the AA	Recommendations to mitigate risks and optimise benefits
Nature and biodiversity	ITTA, IPPC, CBD	Biodiversity and water: potential increase in fertilisers and pesticides use in Mercosur countries could contribute to water scarcity and water pollution affecting the aquatic ecosystems	Adopt efficient and democratic policies to promote sustainable water use
	ITTA, CITES, IPPC, CBD	Forestry: expansion of beef and agriculture production in Mercosur could generate risks for forests and biodiversity if countries were to loosen their environmental regulation Increased cooperation through TSD provisions (article 8 on Trade and Sustainable Management of Forests) could encourage Argentina and Paraguay to ratify ITTA, and help Mercosur countries monitor forest preservation	Increase efficiency and productivity in agricultural production and maintain strict enforcement of environmental regulation Ensure participation of civil society stakeholders in ex-post monitoring programs with adequate funding to maximise the benefits of bilateral dialogue
	ICCAT, UNFSA, PSMA	Fisheries: rise of aquaculture could limit over-exploitation of fish stocks, partly offset by risks for biodiversity Increased cooperation through TSD provisions (article 9 on Trade and Sustainable Management of Fisheries and Aquaculture) could improve tracking of sea food production and encourage Argentina and Paraguay to ratify ICCAT, UNFSA, PSMA	Build upon recent bilateral cooperation to promote responsible and sustainable fisheries management and aquaculture development, and improve the treatment of emerging pollutants

Climate change and ozone depletion	Vienna Convention and Montreal Protocol, UNFCCC, Paris Agreement	<p>GHG: minor reduction in EU's methane and nitrous oxide offset by minor increase in Mercosur countries, leading to minor global increase in both types of GHG emissions</p> <p>Forestry: expansion of beef and agricultural production in Mercosur could generate risks of forest clearing if countries were to loosen environmental regulation</p> <p>Transport: Increase in road transportation could lead to higher emission levels</p> <p>Environmental goods and services: complementarities in technology are expected to boost trade in environmental goods as well as technology transfers, building upon current R&D partnerships. This could lead to better protection of ambient air and climate, including in the EU.</p> <p>Renewed commitment to "effectively implement" UNFCCC and Paris Agreement under the TSD chapter (art. 5), as well as the Montreal Protocol</p>	<p>Maintain strict enforcement of forest preservation in accordance with Paris agreement's pledges</p> <p>Increase efficiency in agricultural production and maintain strict enforcement of environmental regulation</p> <p>Build upon progress in emission standards and continue to substitute ethanol for fuel</p> <p>Ensure participation of civil society stakeholders in ex-post monitoring programs with adequate funding to maximise the benefits of bilateral dialogue</p>
Waste	Basel Convention	<p>Small decline in certain manufacturing sectors (chemical, metal products, motor vehicles) could limit industrial waste, while being slightly offset by minor gains in other industries</p> <p>Increased trade in environmental goods as well as technology transfers could lead to better waste management practices (including hazardous waste) in Mercosur</p>	<p>Establish a clear framework for cooperation on "the sound management of chemicals and waste" (art. 13k) in collaborate with civil society and business stakeholders</p>
Chemicals	Rotterdam Convention, Stockholm Convention, Minamata	<p>Anticipated increase of fertilisers and pesticides from Mercosur could generate new risks for animal and human health</p>	<p>Phase-out hidden subsidies for pesticides and fertilisers and engage in a comprehensive reassessment of fertilisers and pesticides</p>

Source: <https://www.informea.org/>; WTO MEA Matrix 2017.

This analysis builds upon the environmental analysis to assess the impact of the Modernised AA on the enforcement of MEAs, categorised in four environmental realms. Given the diffuse effects of the AA on EU-Mercosur trade, the two trading partners' compliance with MEAs are unlikely to be radically disrupted by purely economic factors. Instead, Mercosur countries' ability to meet their obligations under MEAs, or to make commitments in new policy spheres (e.g. fisheries) will depend first, on the commitment of individual trading partners to maintain and enforce their own regulatory framework, and second, on the ways in which the TSD chapter is interpreted and implemented. The next section discusses its potential for strengthening environmental protection.

4.3.8. TSD approach in the EU-Mercosur AA

As mentioned above, the TSD chapter of the EU-Mercosur AA builds upon the institutional framework established since the Korea-EU FTA and expanded in subsequent trade negotiations (CETA, EU-Vietnam, Mexico) making the EU a driving force for institutionalizing trade-environment linkages at the regional and global levels. These linkages cover a wide range of environmental issues, including climate change, biodiversity, the sustainable management of forests, of fisheries and aquaculture, and of supply chains, making explicit references to MEAs, protocols and amendments.

While the literature on the links between trade and GHG emissions is well established, assessing the impact of environmental provisions in trade agreements is a relatively more recent field (albeit rapidly proliferating), especially for EU trade agreements, given the limited hindsight on the EU's TSD model.¹¹³ There is, however, a rich literature on the enforceability of labour provisions in trade agreements, which provides crucial insights into the challenges and stakes of the trade-environment linkage in EU trade agreements.

These questions fit more broadly into the European Commission's efforts to effectively implement the respective TSD chapters of its trade agreements. While they are common traits to all bilateral trade partnerships, numerous studies have also pointed to the importance of designing sustainable trade strategies that are tailored to the specificities of each trading partners.¹¹⁴ Drawing from this postulate, the rest of this section discusses the potential impact of the TSD chapter on the environment, focusing on a question central to both of policymakers and stakeholders: enforcement.¹¹⁵

A recent review of the literature conducted by the OECD (and funded by the EU) outlined four ways in which Parties to a trade agreement can monitor progress in the implementation of a trade agreement: dialogue, dispute settlement, public accountability mechanisms and ex-post monitoring and review.¹¹⁶ The text of the EU-Mercosur's TSD chapter and the Commission's previous experience in this field provide clues as to its enforceability and potential impact on trade-environment linkages.

¹¹³ Clive George & Shunta Yamaguchi (2018), "Assessing Implementation of Environmental Provisions in Regional Trade Agreements," *OECD Trade and Environment Working Papers* 2018/01, available from: <https://doi.org/10.1787/18166881>

¹¹⁴ European Commission (2017), "Trade and Sustainable Development (TSD) chapters in EU Free Trade Agreements (FTAs)", available from: https://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155686.pdf James Harrison et al. (2019), "Governing Labour Standards through Free Trade Agreements: Limits of the European Union's Trade and Sustainable Development Chapters," *Journal of Common Market Studies* 57. (2), pp. 260–277.

¹¹⁵ European Commission (2017), *ibid.* pp. 3–4.

¹¹⁶ Clive George & Shunta Yamaguchi (2018), *op. cit.*

Dialogue

Dialogue and cooperation are central to the EU's approach to trade and environment. As in previous trade agreements, the EU-Mercosur AA's TSD chapter outlines specific institutional mechanisms for bilateral cooperation, the most important of which is the Sub-committee on Trade and Sustainable Development, composed of senior officials, or their delegates from each Party. The main functions of the TSD sub-committee are: 1) to facilitate and monitor the implementation of the TSD chapter, including cooperation activities; 2) to participate in the dispute resolution process; and 3) to help coordinate civil society mechanisms. In addition to facilitating government-to-government dialogue, the EU cooperative approach can be expected to provide new opportunities for information sharing and skill transfers among civil society stakeholders as part of its Domestic Advisory Groups and Joint Forum, provided the parties can address some of the shortcomings associated with these fora.¹¹⁷ Although by no means sufficient to enforcement, these institutional instruments are preconditions for the effective implementation of environmental provisions. The potentialities of these different forms of dialogue to improve cooperation in the environmental realm are difficult to quantify but must be weighed against the absence of such mechanisms under the baseline scenario.

Dispute settlement

In its trade agreements, the EU favours a cooperative approach to dispute resolution in the environmental realm. In case of disagreement over the implementation of the TSD chapter, a party may request consultations with its trading partner, and may seek advice from relevant multilateral environmental organisations, domestic advisory groups under civil society mechanisms or any expert or body it deems appropriate. If consultations fail to bring the two parties to an agreement, one of the parties may request the establishment of a Panel of Experts designated by the TSD subcommittee. The Panel of Experts must issue a public report laying out the facts, the applicability of the relevant provisions and the rationale behind it, as well as recommendations for the parties to resolve the dispute. The TSD Subcommittee is in charge of monitoring the follow-up of the report and its recommendations.

One concern about the dispute resolution mechanism that was repeatedly raised during the consultant's outreach to civil society stakeholders pertains to the TSD chapter's separate dispute settlement mechanism from the rest of the agreement. As in previous EU trade agreements, disputes related to environmental protection (and labour standards) cannot ultimately be subject to temporary trade remedies as is the case for other chapters. Additionally, EU trade agreements do not specify what might occur if one trading partner were to ignore the recommendations of the panel of experts. While the institutional mechanisms established under the TSD chapter ensure sustained dialogue and cooperation among parties, they also make the potential impact of environmental provisions in the EU-Mercosur AA uncertain, insofar as they remain contingent upon implementation in good faith of all parties. The decentralisation of environmental regulation in countries like Brazil can increase this uncertainty.¹¹⁸

¹¹⁷ See discussion below.

¹¹⁸ On this question, see Marcus Walsh-Fühling (2018), "The Brazilian Federal Government's Role in the Prioritization of EU Foreign Direct Investment and its Environmental Agenda," *Brasilian Political Science Review* 12 (3), available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1981-38212018000300203&lng=en&tlng=en

Whether the EU should subject environmental and labour provisions to sanctions under a model similar to the United States (withdrawing of trade concessions) or Canada (fines)¹¹⁹ has been a central question of the debates on enforcement among trade officials, stakeholders and scholars.¹²⁰ The objective here is not to revisit this discussion but to examine what additional measures could help parties maximise the impact of the TSD chapter on the enforcement of environmental standards under the current cooperative approach, building upon the reflection undertaken by EU institutions (i.e. the Commission, Parliament and EESC). To date, the only precedent related to the enforcement of TSD provisions in EU trade agreements is the ongoing dispute over the enforcement of labour provisions under the EU-Korea trade agreement. This means that there is great scope for “assertively using”¹²¹ the dispute settlement process to limit negative externalities and maximise the positive externalities of the EU-Mercosur AA on the environment. While the EU has limited hindsight over the use of its dispute settlement mechanism with regard to TSD provisions, it can already learn from other models like the US and Canada as applied to both environmental and labour provisions. Three lessons are worth taking into consideration with regard to dispute resolution. First, one of the main lessons from the US-Guatemala case on the violation of labour rights is that the burden of evidence brought in a dispute must not be confined to issues “adversely affecting trade” but rather more broadly interpreted as trade-related. Second, bearing in mind the complexity of cases and the time they might require to collect information, parties should aim at minimizing the length of the dispute resolution process so as to maintain trust with stakeholders. Here again, the prolonged proceedings of the Guatemala case (2010-2017) concluding with a dismissal of the case brought by labour unions has discredited the US sanction-based model.¹²² Third, the credibility and success of dispute resolution mechanisms strongly depend on the participation of civil society stakeholders,¹²³ a point to which we turn next.

Public accountability mechanisms

Over the past decade, the European Commission has developed a wide array of measures designed to engage with civil society stakeholders on trade policy, by providing information on negotiating rounds, conducting impact assessments (including a civil society dialogue) and ensuring cooperation over the implementation of agreements (Domestic Advisory Groups). Whereas the current dispute resolution mechanism allows input from trade policy stakeholders at the consultation stage, the initiation of a dispute is restricted to governments and does not allow for direct submissions from civil society organisations.

The EU’s experience with previous FTAs has shown that beyond their benefits for transnational dialogue, the Domestic Advisory Groups have, in the words of the Commission, “not been able

¹¹⁹ This is the case with the new North American Free Trade Agreement, but was admittedly not the case with CETA, which saw a convergence of the Canadian and European approaches. For a discussion, see Michéa, Frédérique. (2015). “Clauses sociales : vers une convergence des modèles ? Le chapitre ‘Commerce et travail’ de l’AECG.” in Christian Deblock, Joël Lebullenger & Stéphane Paquin, *Un nouveau pont sur l’Atlantique : L’accord économique et commercial global entre l’Union européenne et le Canada*. Presses de l’Université du Québec, pp. 347-368.

¹²⁰ The European Commission recently reviewed the question in its reflection paper on the TSD chapter. For a summary of academic debates, see Harrison et al. (2019).

¹²¹ See European Commission (2017), *ibid*, p. 6.

¹²² While violations of labour rights were confirmed, they were not found to be done “in a manner affecting trade.”

¹²³ This point is raised by the Commission as one of the options that could strengthen the current TSD approach: “enhancing transparency of the complaints mechanism, clarifying the steps to respond better to stakeholder’s inputs.” European Commission (2017), *ibid*.

to work to their full potential,”¹²⁴ a diagnosis confirmed by the academic literature.¹²⁵ A recent comparative analysis of the implementation of the TSD chapter in three FTAs (Cariforum EPA, EU-Korea and EU-Moldova trade agreements) pointed to the limited impact of civil society mechanisms (including DAGs) on the implementation of the agreement, a problem due, not only to capacity constraints, but also to a lack of clarity on the relations between civil society mechanisms and trade officials.¹²⁶ This means that despite the notable efforts undertaken by the European Commission over the past decade to include stakeholders from all parties in the trade policy process, there is still scope to develop more meaningful engagement between civil society actors and government actors. As noted in a recent OECD study, “public accountability mechanisms such as submissions/complaints and access to remedies are a powerful means of achieving effective enforcement of environmental legislation such as to protect biodiversity and ecosystems, to sustainably manage natural resources and the environment, and to conduct environmental assessments.”¹²⁷ One example of such mechanisms is NAFTA’s Commission on Environmental Cooperation (CEC), which allows citizen submissions on enforcement matters provided they satisfy a number of criteria and factors.¹²⁸ In other words, strengthening public accountability mechanisms in the current EU-Mercosur AA could maximise its positive impact on the enforcement of environmental regulation. Policy options include: strengthening the role of DAGs by allowing them to bring up complaints to the TSD subcommittee; and clarifying the role of the CSM during the dispute resolution process, e.g. its relation with the panel of experts.

Ex-post monitoring and review

Last, but not least, the impact of the enforcement of TSD provisions on environmental protection will depend on ex-post monitoring and review, a crucial question that is often overshadowed by debates on the use of sanctions. Yet, a recent survey of practitioners and experts of the trade-environment linkage conducted by the OECD reveals that monitoring programs undertaken with the collaboration of civil society stakeholders and international organisations are frequently cited as some of the most effective ways to ensure enforcement of environmental provisions in trade agreements. The report concludes that “follow-up action between the Parties and public participation to enhance environmental governance were identified as common elements for successful enforcement of environmental legislation such as to protect biodiversity and ecosystems, to sustainably manage natural resources and the environment, and to conduct environmental assessments. Moreover, clearly specified institutional mechanisms were indicated as a major factor in ensuring successful implementation of environmental provisions in RTAs.”¹²⁹ A 2017 ILO report of the effective impact of labour provisions in trade agreements reached similar conclusions, underlining the importance of stakeholder involvement.¹³⁰ Effective

¹²⁴ European Commission (2017) p. 5.

¹²⁵ See e.g. Harrison et al. (2019); Lotte Drieghe et al. (forthcoming), “Participation of Civil Society in EU Trade Policy Making: How Inclusive is Inclusion?”, *New Political Economy*.

¹²⁶ *Ibid.*

¹²⁷ George & Yamaguchi (2018) p. 23.

¹²⁸ NAFTA’s Commission for Environmental Cooperation: <http://www.cec.org/about-us/public-engagement-and-transparency/about-submissions-enforcement-matters>

¹²⁹ Clive George & Shunta Yamaguchi (2018), “Assessing Implementation of Environmental Provisions in Regional Trade Agreements,” OECD Trade and Environment Working Papers 2018/01, available from: <https://doi.org/10.1787/18166881>

¹³⁰ Based on case study analysis, the assessment report finds that there are common factors related to positive outcomes. These factors include legal reforms, monitoring and capacity-building – all supported by stakeholder involvement, in such modalities as consultative forums and dialogue. Where stakeholder involvement is concerned, there have been effective synergies between different approaches. In particular, labour advocates have combined legal, political, economic, dialogue and monitoring mechanisms in an endeavour to tackle various issues. Additional cross-border coalitions of stakeholders have been effective in facilitating implementation efforts, and also in enhancing the overall credibility of dialogue forums.

ILO, 2017 : https://www.ilo.org/wcmsp5/groups/public/---dqreports/---inst/documents/publication/wcms_564702.pdf

monitoring processes cannot only build trust in institutional mechanisms but also generate long-term “network effects” that are central to the EU’s cooperative approach to TSD issues and that have also proved effective in other contexts.

The main challenge lies in identifying environmental risks that require the greatest attention and funding action programs tailored to the most urgent needs of the parties. This increased focus in the enforcement of TSD provisions is not intended to marginalise less visible issues but to address urgent issues related to the trade-environment nexus and rebuild trust in civil society mechanisms, thereby encouraging sustained engagement with trade policy stakeholders. The TSD subcommittee, with the assistance of DAGs, would be a logical venue to identify and monitor key programs, possibly deployed over a two- or three-year period, whereas its annual or bi-annual reports could offer interim or final assessments of targeted programs.

Adequate funding is a logical prerequisite for effective monitoring programs. However, the collaborative approach favoured by the EU to TSD provisions can be conducive to synergies with civil society, state actors and multilateral institutions. First, insofar as strengthening multilateral institutions is often presented as a key objective of the EU’s approach to trade and environmental (and labour) governance, joint programs with international bodies like UNEP or FAO can capitalise on their experience with local governments and stakeholders on specific environmental issues.¹³¹ Second, given their experience with stakeholder engagement, EU delegations in Mercosur countries could provide both financial and logistical support in deploying monitoring programs. The official support of multilateral bodies and the EU delegation could help address the operational challenges faced both by environmental agencies and NGOs in enforcing environmental laws (e.g. forest conservation). Finally, research institutions like universities could also provide assistance in monitoring programs. One of the most important prerequisites to maximise the impact of the EU-Mercosur TSD chapter is to shift the current TSD approach to a multi-faceted model of enforcement that complements the benefits of dialogue with a more assertive use of dispute settlement, more open public accountability mechanisms, as well as targeted and effective ex-post monitoring processes.

4.4. Conclusion

Overall, the baseline analysis reveals that environmental policies in Mercosur countries are less stringent than in the EU, yet they are well in line with other countries of similar income levels. Brazil, in particular, outperforms other Mercosur and upper middle-income countries in terms of adoption of climate change policies. Mercosur countries contribute to about 3.5% of global GHG emissions, compared to 9.5% of the EU, and adopt, on average, a cleaner energy mix than EU countries, with the sole exception of Argentina. Regarding air pollution, Mercosur countries show lower levels of pollutants than the EU and countries of similar income levels. Deforestation remains a concern in Mercosur countries, with the exception of Uruguay. While the situation improved during the first part of the twenty-first century, recent trends suggest a resurgence of deforestation. From 2004 in Brazil, the introduction of a series of policies to reduce and monitor deforestation led to a decrease in deforestation rates. However, from 2014, Brazilian deforestation rates began to rise due to a combination of worse economic conditions and deteriorating commitments to environmental regulation and enforcement.

The analysis of the environmental impacts of the AA agreement shows a negligible impact on global GHG emissions. It also highlights two areas of moderate concern. First, the expected

¹³¹ EU, 2017, *ibid*.

expansion of the agricultural and animal sectors poses some moderate concerns regarding the increased use and contamination of water resources, if appropriate management practices are not in place, given the observed rise in the use of pesticides and the absence of adequate price incentives to encourage an efficient use of pesticides, fertilisers and water in agriculture. Second, we also envisage some moderate concerns in terms of the impact of the AA on deforestation, in particular in Brazil, if the policy environment that allowed past reductions in deforestation is not maintained and any expansion of the agriculture and animal sectors are met by an increase in forest clearing instead of by increases in productivity and the conversion of existing low-efficiency meadows and pasturelands. On the other hand, we expect some positive effects since the AA is likely to strengthen the parties' commitments in the Paris Agreement, to contribute to increasing trade in environmental goods and services and stimulate international cooperation for the development of green technology and the protection of natural resources, e.g. fisheries. The effects of the agreement on MEA compliance depend on the sector and the issue under consideration, but overall, the AA is expected to have limited direct effects on countries' abilities to meet their environmental obligations. Thus, MEA compliance will be contingent upon countries' commitment to environmental regulation as well as the impact of TSD provisions and the efforts undertaken by the parties to enforce them.

4.5. Policy recommendations

- **Mercosur countries should convert existing degraded pasturelands into land destined to sustainable agriculture** to prevent the clearing and degradation of forest land to achieve the expected expansion of agricultural production.
- **Mercosur countries should aim at closing up the gaps in agricultural productivity that is observed across regions.** This can be achieved by increasing efficiency in sustainable agricultural production, partly by following the successful examples of land transformation achieved in certain regions, e.g. the Cerrado.
- **Brazil should improve anti-deforestation policies and law enforcement activities** to detect illegal logging, and expand monitoring along the supply chain. Brazil should renew the policy environment that allowed the decrease in deforestation observed up to 2012. Successful measures that have worked in the past include the "Soy Moratorium" as well as the broader anti-deforestation policies undertaken by the Ministry of the Environment in the first decade of the twenty-first century. Brazil should encourage private sector operators to extend the Soy Moratorium to the Cerrado and to improve the effectiveness of the Beef Moratorium by, for example, expanding monitoring to all properties in the supply chain. The government should reinvest in Ibama to replenish its workforce and reassert its authority over inspections. The government should also make use of the available information on illegal logging, regularly collected using satellite imagery, to target law enforcement activities.
- **Argentina should aim at an effective implementation of the proposed National Action Plan on Forests and Climate Change (PANByCC) objectives** to decrease deforestation and prevent agriculture-related forest degradation.
- **Paraguay should maintain the commitment to sustainable forest management,** for example, by increasing the enforcement of the Zero Deforestation Law across all regions.

- **Mercosur countries should aim at achieving greater harmonisation of deforestation regulations and monitoring across regions** to prevent shifting deforestation towards weaker regulated and monitored areas.
- **Mercosur and the EU should fulfil their Paris Agreement commitments** and achieve their GHG emissions targets as detailed by their Nationally Determined Contributions.
- **Mercosur countries should engage in a comprehensive reassessment of fertilisers and pesticides** (as well as related subsidies and tax exemptions) to limit possible harmful effects on human and animal health and the local ecosystem from agriculture, and establish a monitoring programme for pesticide residues in waterways and air.
- **Mercosur countries should design smart and democratic pricing systems** to encourage a more efficient use of water in agriculture and preserve natural resources and biodiversity.
- **Mercosur and the EU should promote cooperation in the development and transfer of green technology.** Some local content requirements for green technology are adopted in Mercosur countries. In the wind sector in Brazil, for example, local content requirements are imposed in order to access subsidised loans from the Brazil's National Development Bank. Local content requirements in the wind industry are also used in Argentina and Uruguay (Kuntze and Moerenhout, 2013)¹³². While these measures can promote green growth, they can also limit competition and raises costs in the sector. Hence, their removal is likely to favour greater transfer of green technology.
- **The EU, Brazil and Argentina should continue engaging in the All Atlantic Ocean Research Community** to promote the sustainable management of the Atlantic Ocean. Uruguay should also join this international research community.
- **Mercosur countries should consider giving the right priority to the circular economy and waste management and disposal** in a way that is safe for human health and the environment. They should also continue on the path of solid waste management optimisation.
- **Mercosur and the EU should adopt a multi-faceted approach to the enforcement of TSD provisions** by complementing the benefits of dialogue with an assertive use of dispute settlement, more open public accountability mechanisms, as well as targeted and effective ex-post monitoring processes that capitalise on the expertise and experience of local stakeholders, governments and multilateral bodies. Civil society mechanisms should be reinforced to build trust in TSD enforcement and facilitate each party's compliance with MEAs.

¹³² Kuntze, Jan-Christoph, and Tom Moerenhout. "Local Content Requirements and the Renewable Energy Industry-A Good Match?." (2013).

5. Human Rights Analysis

Trade agreements can have positive and negative, prospective and actual, impacts on the enjoyment of human rights. These are increasingly discussed in the literature, as are the nature and effects of human rights provisions in international cooperation and trade agreements, particularly those negotiated by the EU, the United States, and Canada. This chapter explores the human rights impact of the trade part of the EU-Mercosur AA, both in EU Member States and Mercosur countries. It does so against the background of the general principle that “the conclusion of any trade agreement does not impose obligations inconsistent with their pre-existing international treaty obligations, including those to respect, protect and fulfil human rights”.¹³³

The chapter is structured as follows:

1. Methodology (para 1.1): The assessment has been carried on the basis of the European Commission’s Guidelines on conducting *analysis of human rights impact in impact assessments for trade- related policy initiatives* as well as the Better Regulation Guidelines and accompanying Toolbox;
2. Baseline (para 1.2): For the EU, Argentina, Brazil, Paraguay, and Uruguay respectively, we first provide a summary of the legislative and institutional framework regarding existing human rights’ commitments. The framework is then followed by a concise literature review of current human rights records of each Mercosur partner country to establish a background and identify any country-specific issues. We identify relevant indicators and provide a baseline scenario in preparation for the analysis.
3. Analysis (para 1.3): Drawing on previous studies on the impact of FTAs on the selected human rights, we consider the specific context in the Mercosur partner countries and in the EU to identify possible impacts of the trade part of the AA.
4. The chapter concludes with a summary (para 1.4) outlining possible positive and negative impacts on human rights as well as possible risks for those rights that might be most affected. Para 1.4 also describes which mechanisms impacts may take place through and para 1.5 contains policy recommendations for measures to amplify benefits or flanking measures to mitigate risks.

5.1. Methodology

This chapter’s analysis of impacts on human rights builds and expands on the quantitative and qualitative analysis conducted for the rest of the tasks in the study to identify the possible impacts on the EU and Mercosur partner countries. Since the commencement of the project, the task was divided into three phases: 1) Screening; 2) Scoping; and 3) Analysis. The screening phase consisted of an extensive literature review and a wide-reaching stakeholder consultation strategy. Both tasks were implemented with the intention of identifying which sectors might be most affected and which populations are most vulnerable to such impacts. As a result of the literature review, and with preliminary contributions from the consultation activities, the team identified the possible impacts of the potential trade measures which form part of the agreement. Stakeholders expressed widespread concern relating to impacts of impoverishment in Mercosur, effects on health through increasing costs of medicine and trade of unhealthy foods. They also

¹³³ De Schutter, 2011. *Guiding Principles on HRIA 2011*. At II.2; p.6.

underlined the importance of highlighting how the Association Agreement might lead to adverse impacts for Indigenous peoples and women in the region. These results, along with the initial screening, based on human rights commitments, stakeholder consultation results, and recent developments in the EU and Mercosur countries—as per Universal Periodic Reviews (UN UPRs) and other official records—resulted in a selection of four human rights to be assessed in detail for potential impacts.

Table 27: Selected Human Rights

Selected Human Right of Concern
Right to an Adequate Standard of Living
Right to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health
Rights of Indigenous Peoples
Gender Equality

Source: Author's elaboration.

While human rights issues vary throughout the EU members and Mercosur partner countries, the identified trends in Table 28 demonstrate that certain human rights issues stand out across the four Mercosur partner countries.

Table 28: Identification of sectoral effects and possible human rights linkages

Trade Measure	Possible Sectoral Effects	Possible Impacts affecting HRs	Implicated HR Instruments
National Treatment; Market Access; Trade in Goods	Increased Agricultural Exports from Mercosur Increased Natural Resource Exports from Mercosur	Increased Land Conflicts; increase in cost of medicines; Increase in NCDs	International Convention on the Elimination of all Forms of Racial Discrimination; International Covenant on Economic, Social, and Cultural Rights; Declaration on the rights of Indigenous Peoples
Establishment	Increased Natural Resource Extraction Formalisation of Work Environments	Water Use Conflicts Improved work conditions Infrastructure Development	International Covenant on Economic, Social, and Cultural Rights; Declaration on the rights of Indigenous Peoples
Trade in Services	Formalisation of Work Environments	Improved work conditions; Increase in scope and quality of healthcare	International Covenant on Economic, Social, and Cultural Rights; Convention on the Elimination of all Forms of Discrimination Against Women

Source: Author's elaboration.

While it is important to recognise the significance of all human rights, the focus of the analysis has been on the four human rights seen as those with most relevance in a trade context.

The screening process identified the measures to be assessed with regard to possible human rights issues in line with Question 4 of the Better Regulation Guidelines. Specifically, the selection of the four rights were guided by the following criteria:

1. Linkages with identified trade measures of potential impact
2. Clear impact pathway: direct vs indirect impacts.
3. Context: relevant crosscutting or general human rights issues that may cause concern or benefits in relation to an FTA.

The findings, and subsequent selection of the four rights above, derive from the extensive literature review of past FTA effects and current concerns in partner countries—confirmed by both existing records as well as stakeholder contributions. While a trade agreement may have the capacity to influence the achievement of some human rights, it is rather limited in its contribution to the achievement of others. In this light, this study assessed four human rights that trade agreements may have the ability to directly and indirectly impact through trade measures. The Right to an Adequate Standard of Living, Right to Health, Gender Equality, and Rights of Indigenous Peoples all have the potential to be impacted by changes in incentive structures that derive from tariff reductions, market access, and establishment. Furthermore, the need to narrow the areas of focus follows rigorous methodology set out by past HRIA's (Walker, 2018; Dommen, 2020). By narrowing in on selected issues for detailed analyses, impact assessments can provide policy makers with clear evidence-based recommendations in the face of complex issues and data limitations (Dommen, 2020).

The chapter follows a common approach in both establishing the initial baseline of the four rights across all partner Mercosur and EU countries, as well as undertaking the analysis. Human rights indicators are commonly divided into three categories: 1) Structural Indicators; 2) Process Indicators; and 3) Outcome indicators (OHCHR, n.d.)¹³⁴. Structural indicators refer to the legal commitments in each of the regions of analysis while process indicators measure the various efforts implemented by the regional and national governing bodies to meet such commitments. Outcome indicators then measure the actual enjoyment of the particular rights in question. In other words, outcome indicators measure the results of the legal commitments given, and implementation actions undertaken. The three indicator categories are introduced in order to establish the status-quo and provide the baseline. Thereafter, the analysis assesses outcome indicators responses to past policies to interpret the possible implications of the EU-Mercosur AA.

Table 29: Human Rights Indicators

Indicator Type	Indicator
Right to an Adequate Standard of Living	
Structural Indicators	Status on international commitments including CESCR; Regional commitments; Constitutional declarations
Process Indicators	National programmes and policies
Outcome Indicators	Financial resources; Hunger; Access to food; Access to water Shelter; Living conditions; Basic amenities; Clothing; Clean air; Roads; Utilities networks; Public space; Access to internet/phone; Access to transport; Schooling resources; Education expenditure

¹³⁴ https://www.ohchr.org/Documents/Publications/Human_rights_indicators_en.pdf

Right to Enjoyment of the Highest Attainable Standard of Mental & Physical Health	
Structural Indicators	Status on international commitments including CDESCR; Regional commitments; Constitutional declarations
Process Indicators	National programmes and policies
Outcome Indicators	Prevalence of disease; Risk of impoverishing expenditure; Healthcare workforce; Hospital resources; Prevalence of mental health disorders;
Rights of Indigenous Peoples	
Structural Indicators	Status on international commitments including UNDRIP; Regional commitments; Constitutional declarations
Process Indicators	National programmes and policies
Outcome Indicators	Property/Land Rights; Employment; Infant mortality rate; Adequate housing; Access to water; Access to sanitation; literacy rates; average years of study; school attendance; Language/Culture;
Gender Equality	
Structural Indicators	Status on international commitments including CEDAW; Regional commitments; Constitutional declarations
Process Indicators	National programmes and policies
Outcome Indicators	Unemployment; wage employment; vulnerable employment; unpaid domestic work

Source: Author's elaboration.

5.2. Baseline

5.2.1. Right to an Adequate Standard of Living

The Right to an Adequate Standard of Living is enshrined by the International Covenant on Economic, Social and Cultural Rights (ICESCR) – to which all EU member states and all four Mercosur partner states are party. The Committee on Economic, Social and Cultural Rights has issued several General Comments explaining the components of the Right to an Adequate Standard of Living, which includes the right to adequate housing (General Comments 4 and 7), the right to food (General Comment 12), the right to water (General Comment 15), the right to social security (General Comment 19), as well as the right to hospitals and mental health services. The General Comments elaborate on the criteria, which need to be taken into consideration for this right to be fulfilled.

In an attempt to measure progress towards achieving the right to an adequate standard of living, numerous indicators have been developed in existing literature. The Multidimensional poverty index (MPI) focuses on households and includes education, health and six living conditions, the Social Progress Index (SPI) is a collective, national metric broad in scope, and the Individual Deprivation Measure (IDM) places a greater focus on gender disparities covering a broad range of social and economic disparities (see section 1.2.4). More recently, Dr Narasimha Rao and Jihoon Min (2017) developed the Decent Living Standard (DLS), which measures the necessary elements of both physical and social well-being. While the DLS is not as comprehensive as the IDM or the SPI in developing non-material dimensions, it goes beyond poverty indicators included by most indices by focusing on means. As such, indicators defined by the DLS are of particular relevance in a trade context for their emphasis on material living conditions.

The Right to an Adequate Standard of Living is quite broad in scope, and thus inherently includes the right to live a healthy life, and the right to food. However, as this study finds it important to cover the Right to Health on its own, indicators regarding access to health clinics, physicians, and healthcare expenditure, will be discussed in section 1.2.2. on the Right to Health. Further, this section will discuss hunger and access to food as an element of decent living standards, but a more detailed discussion on nutrition, health, and food safety will also be developed under section 1.2.2.

Structural Indicators

The Right to an Adequate Standard of Living is enshrined by several international, regional, and national instruments that EU member states and Mercosur partner states are party to.

Table 30: Commitments to the Right to an Adequate Standard of Living

International Commitments
ICESCR
Declaration on the Right to Development (Article 8)
Universal Declaration on the Eradication of Hunger and Malnutrition
Rome Declaration of the World Food Summit
Agenda 21
Habitat Agenda
EU Regional Commitments
EU Charter of Fundamental Rights
Mercosur Regional Commitments
ICESCR
Inter-American Court of Human Rights
Protocol of San Salvador

Source: Author's elaboration.

Process & Outcome Indicators

In order to establish a baseline regarding the Right to an Adequate Standard of Living, we draw from existing literature, and follow the OHCHR toolkits on key aspects of the Right to Adequate Housing¹³⁵, the Right to Water and Sanitation¹³⁶, and the Right to Food¹³⁷ to provide a brief overview of baseline conditions across EU member states and the four partner Mercosur countries. We follow the decent living standards model to provide a brief overview of physical and social wellbeing conditions in the negotiating parties (Table 31).

Table 31: Right to an Adequate Standard of Living indicators

Physical wellbeing Indicators	Social wellbeing Indicators
Financial resources; shelter; living conditions; basic amenities; hunger; access to food;	Phone; access to internet; Education expenditure

Source: Author's elaboration.

¹³⁵ <https://www.ohchr.org/EN/Issues/Housing/toolkit/Pages/RighttoAdequateHousingToolkitIssues.aspx>

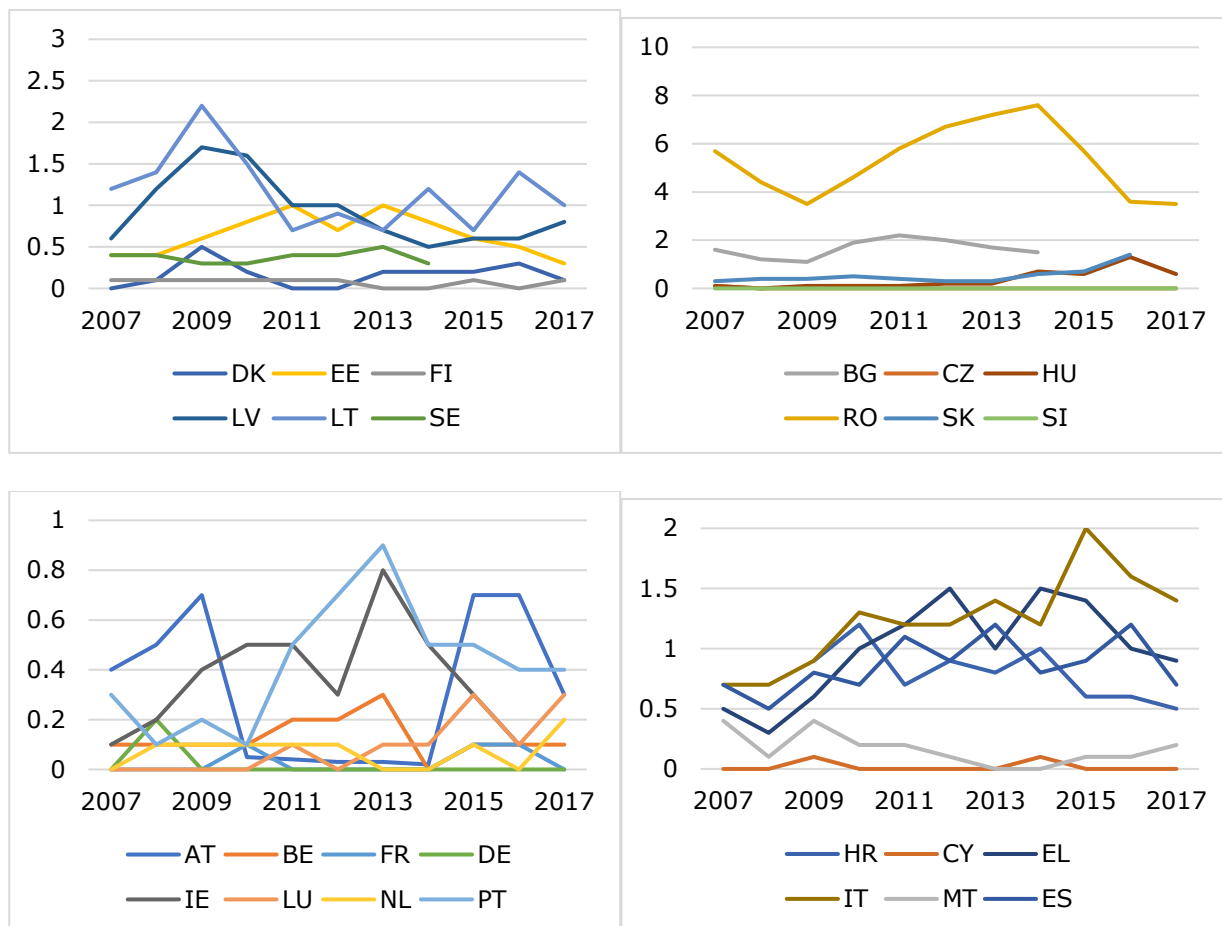
¹³⁶ <https://www.ohchr.org/en/issues/escr/pages/water.aspx>

¹³⁷ <https://www.ohchr.org/EN/Issues/ESCR/Pages/Food.aspx>

European Union

The EU has a long history of prioritizing social policies at the centre of its activities. The European Pillar of Social Rights covers 20 principles across 3 areas: 1) equal opportunities and access to the labour market; 2) fair working conditions; and 3) social protection and inclusion. National governments, key stakeholders, and the EU institutions jointly commit to uphold the right to an adequate standard of living by working to implement the Active Inclusion Strategy through the Social Investment Package. The programmes aim to provide EU citizens with adequate income support, skill development for employment, and affordable housing¹³⁸. The past decade has witnessed somewhat stable trends in the poverty headcount ratio. While country specific ratios may have jumped a percentage point or so in specific years, all member states, with the exception of Romania, have sustained the population of those in poverty to less than 3%.

Figure 31: Poverty Headcount Ratio at \$1.90 a day in Northern EU MS (top left); Eastern EU MS (top right); Western EU MS (bottom left); and Southern EU MS (bottom right)



Source: World Bank Data

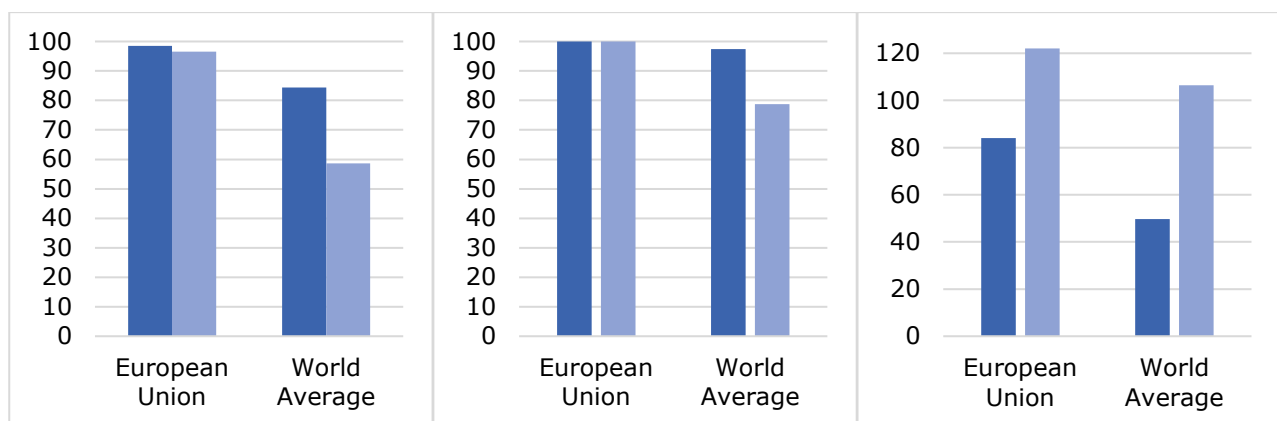
While the majority of trends continue in a downward path, a few EU member states, including Latvia, Slovakia, Lithuania, and Malta risk increasing rates of poverty post 2016. However, fluctuations are minimal and not representative of the larger trend which confirms a decrease in

¹³⁸ <https://ec.europa.eu/social/main.jsp?catId=751&langId=en>

the past decade. The Right to an Adequate Standard of Living guarantees rights holders with durable homes resilient to climate and infectious disease risks. As an element of SDG 11.1, safe shelter is a universally accepted standard of decent living conditions, however, the specific definition of safe shelter remains ambiguous across duty bearers. UN Habitat defines access to sufficiently spacious and durable housing as a top priority in reducing slums in urban areas. In order for shelter to be considered adequate, a basic level of living conditions must be met which include minimum floor space; electrical lighting; accessible water supply; safe waste disposal; and safe heating/cooling equipment in necessary conditions.

Article 34 and 31 of the EU Charter of Fundamental Rights and Article 16 and 19 of the European Social Charter enshrine the right to an adequate standard of living and the right to housing. The charter provides a reporting mechanism for collective complaints. Furthermore, various components of the right to an adequate standard of living, are protected through litigation via the European Court of Human Rights (ECHR) which has ruled on the right to housing in more than 100 cases.

Figure 32: Percentage of population with access to basic sanitation facilities (left) electricity (middle) and information/communication technologies (right) in the EU



Source: World Bank Data

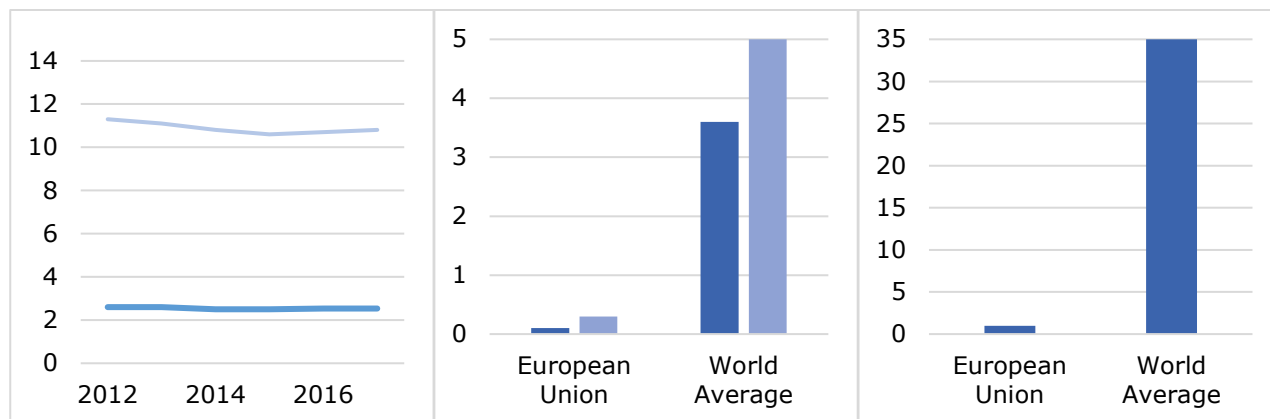
Access to basic amenities in EU member states does not seem to be of concern as 96-100% of the population has access to adequate sanitation facilities, 100% of the population has access to electricity, and about 80% of the population has access to internet and personal telecommunication services. However, the most common barrier in the enjoyment of an adequate standard of living in the EU regards overcrowding. According to Eurostat, 15.7% of the EU-28 population lived in an overcrowded household in 2017. The prevalence of overcrowding ranged from less than 5% to more than 40% in Eastern European countries. In addition, in the same year, about 13.3 % of Europeans reported their homes to have a leaking roof, damp or rotting walls, floors, and frames.¹³⁹

Amenities for cold storage and adequate cooking technologies are essential for decent living conditions for their critical role in access to food. Cold storage and clean cooking facilities are

¹³⁹ https://ec.europa.eu/eurostat/statistics-explained/index.php/Living_conditions_in_Europe_-_housing_quality#Housing_conditions

imperative in avoiding risks of spoiled food and discomfort related to the time spent preparing and purchasing food items.

Figure 33: Percentage of population undernourished (left) lacking access to basic drinking water services (middle) and lacking access to clean cooking technologies (right) in the EU



Source: World Bank Data

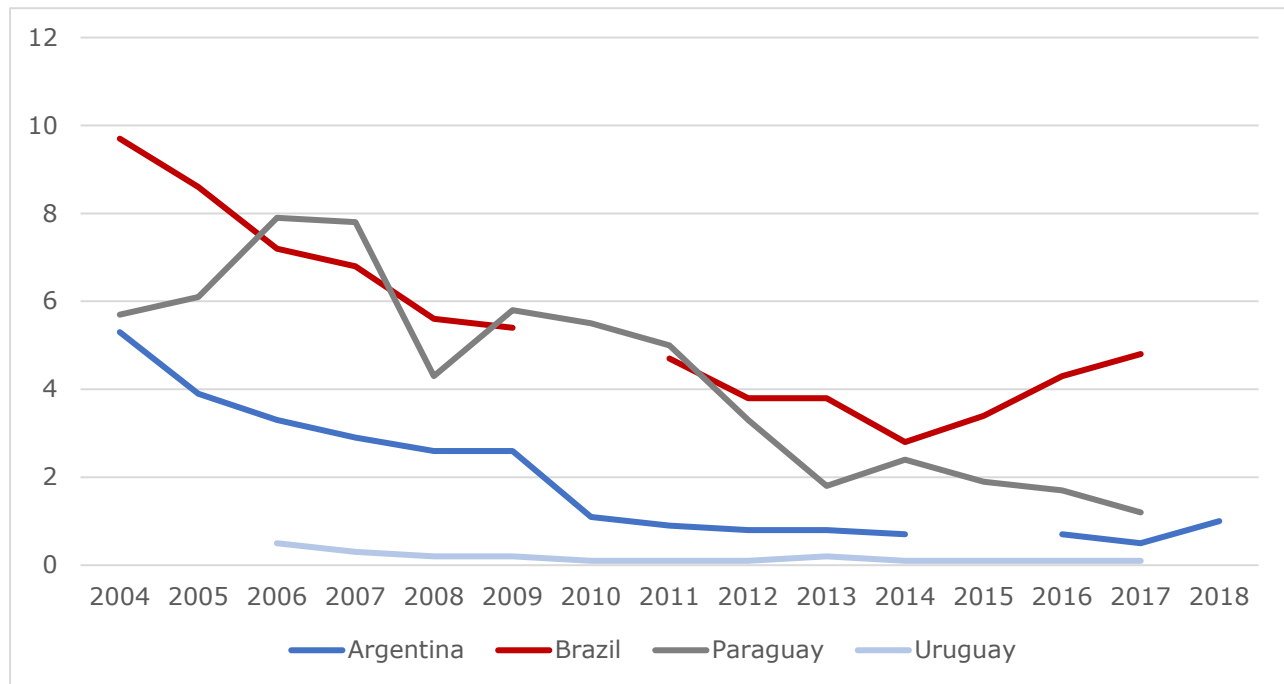
On the surface, food poverty in EU member states does not seem to be of great concern as only 2.5% of the population is undernourished, less than 1% lacks access to basic drinking water, and less than 2% lack access to adequate cooking technologies. However, the percentage of undernourished means 12.8 million people do not have access to sufficient food resources in the European Union. Between 2010 and 2015, the number of people turning to food banks and soup kitchens has doubled and reached one and a half million in Germany alone (Paritätischen Gesamtverbandes). The situation is similar in France, where, according to the Institut National de la Recherche Agronomique (INRA), 6 million people are in a situation of food poverty. Support systems in the EU are challenged by stigmatisation. A percentage of those suffering food poverty are only recently facing financial constraints and live slightly above the poverty line. As such, they are usually less comfortable with requesting assistance.

Mercosur

The National Social Security Administration of **Argentina** implements numerous public social programs aimed at providing constituents with an adequate standard of living. Those who earn less than 4,800 pesos (US\$1,230) monthly, receive financial support when starting a family. Those searching for work are also eligible for unemployment insurance for up to 6 months. In order to motivate school attendance, the administration implemented a poverty relief program called the Universal Childhood Entitlement, which provides 180 pesos (US\$46) a month per child in exchange of proof that they are enrolled in school. In 2002, a Program for Unemployed Heads of Households was implemented where about 2 million beneficiaries received 150 pesos (US\$50) for part-time work.

While the past decade has witnessed dramatic decreases in Argentina's poverty rate, trends have changed course since 2016. Figure 34 below demonstrates the percentage of those living with \$1.90 a day rose by half a percentage point from 2017 to 2018 in all four Mercosur partner states.

Figure 34: Poverty Headcount Ratio at \$1.90 a day (% of population)



Source: World Bank Data.

However, if we consider the poverty line to be at \$5.50 per day, the percentage of those living in poverty grew from 7.7% to 9.6% between 2017 and 2018. Finally, when considering the national poverty line, the situation worsens. The percentage of those in poverty grew from 25.7% in 2017 to 32% in 2018 and 35.4% in 2019 – resting at the highest officially recorded level since 2001, and defining 15.8 million Argentinians as among the poor (INDEC, 2019). Some of the country's most vulnerable populations, namely children and the elderly, suffer disproportionately as levels of poverty among those aged under 15 reached 52.6% and among retired seniors - 10.4% (INDEC, 2019).

Since the late 1990s, different **Brazilian** administrations have increasingly addressed the issue of poverty. The government implemented three ambitious programs, the *Fome Zero* (Zero Hunger) Program, *Brasil Sem Miséria* (Brazil without Poverty) Program, and the Bolsa Familia Program, which consisted of multiple conditional cash transfer programs and had tremendous poverty reduction impacts and allowed Brazil to achieve the MDGs of reducing extreme poverty between 2003 and 2014 (Figure 34) During this period, more than 29 million people were lifted out of poverty as the income level of the poorest 40% of the increased by an average of 7.1% (World Bank, 2019)¹⁴⁰.

However, suffering from an economic crisis, poverty rate trends in **Brazil** changed course after 2014, and continue to increase. The economic crisis was a result of falling commodity prices and the country's limited ability to carry out necessary fiscal reforms at all levels of government,

¹⁴⁰ <https://www.worldbank.org/en/country/brazil/overview>

thus undermining consumer and investor confidence. In the face of depressed economic activity, extreme poverty rates reached 4.8% in 2017 (Figure 34). However, if we consider Brazil's official definition of the poverty line at \$5.50 per day, those living in poverty reached almost 55 million Brazilians in 2017—or 26.5% of the population (World Bank, 2019).

Since the early 2000's **Paraguay** has experienced substantial poverty reduction. Although Paraguay does not have a strong standardised welfare system, the country has promoted poverty reduction programmes in rural areas including the national cash transfer programme, Tekopora and Tenondera, a second which allows poor families to engage in productive and economic interventions. The last decade demonstrates that poverty rates in Paraguay have dramatically fallen.

While Figure 34 confirms that only 1.2% of the population lives under the \$1.90 poverty line, 17% of **Paraguayans** live in poverty under the \$5.5 a day line. While Paraguay is the least urbanised country in South America—with 40% of the population living in rural areas—neither is markedly defined by higher rates of poverty. Rates are evenly split between rural and urban areas, and since 2003, improvements have taken place in both. However, while rates of poverty have decreased, they remain high at 17%, and the country's weak tax system leads to a substantially lack of social safety nets (World Bank, 2019).

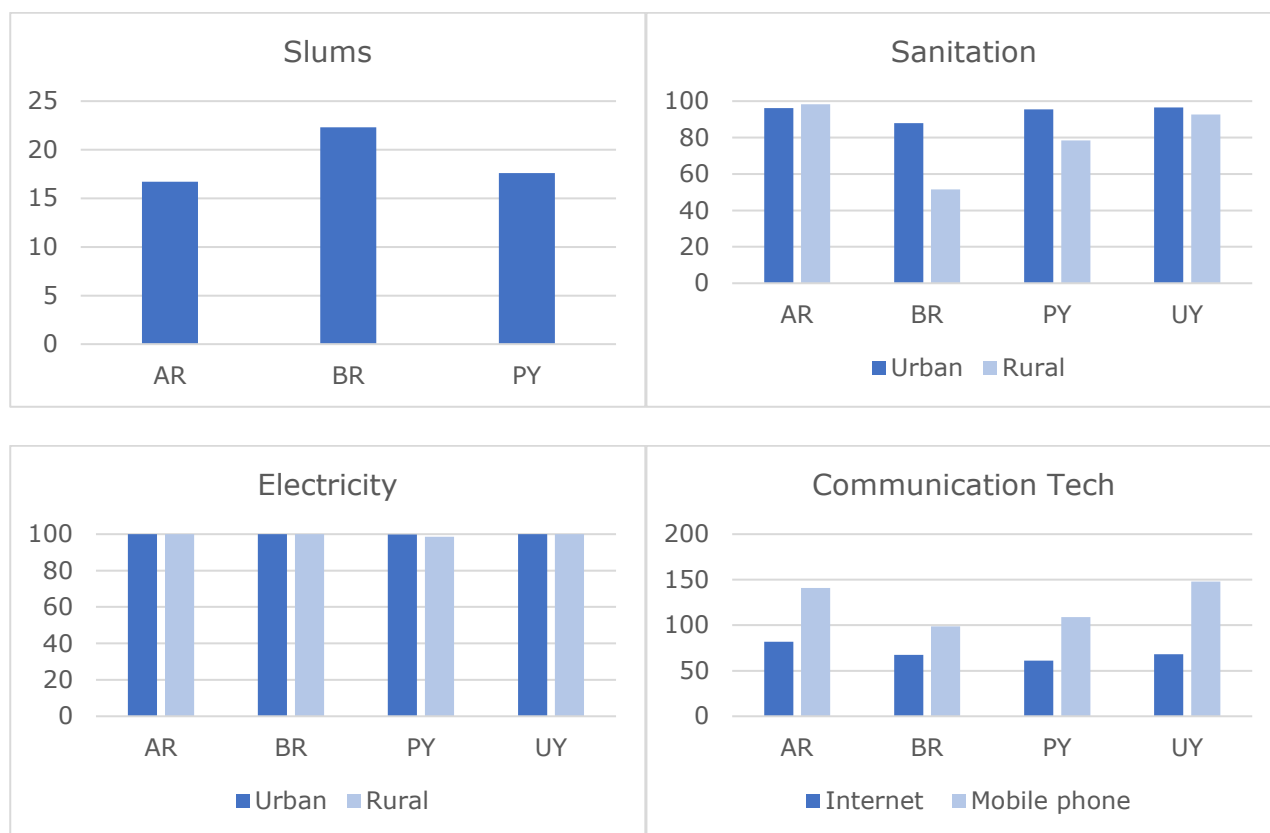
Uruguay is highlighted in Latin America for its high income per capita, and low levels of poverty. Uruguay is classified as having “very high human development” by the UNDP Human Development Index and is ranked 44th on the Social Progress Index. Inclusive social policies have focused on expanding program coverage. According to the World Bank (2019), almost 90% of the Uruguayan population aged 65 or more is covered by the pension system¹⁴¹. Alongside Argentina and Brazil, this is one of the highest percentages in the region. According to the World Bank, moderate poverty fell from 32.5% in 2006 to 8.1% in 2018, while extreme poverty practically disappeared in the same period (Figure 34).

While income levels among the poorest 40% of the **Uruguayan** population increased faster than the average income levels, significant disparities remain. Children (17.2%) and those of afro-descendant backgrounds (17.4) based in the North of the country suffer disproportionately. However, according to the Human Opportunity Index, Uruguay has managed provide a high level of access to basic services such as education, running water, electricity and sanitation. In fact, Uruguay's highest scores on the Social Progress Index were linked to essential amenities for adequate living conditions including water and sanitation, shelter, electricity, and access to information/communication¹⁴².

¹⁴¹ <https://www.worldbank.org/en/country/uruguay/overview>

¹⁴² <https://www.socialprogress.org/?code=URY>

Figure 35: Population living in slums (% of urban) (top left); Access to basic sanitation facilities (top right) % of population with access to electricity (bottom left); and information/communication technologies (bottom right)



Source: World Bank Data

Different **Uruguayan** governments throughout the last decade have worked to implement programmes in areas such as infrastructure and sanitation which has translated into 12,300 new water connections in 12 cities and three water treatment plants in Minas, Treinta y Tres and Durazno, supplying 60,000 people with clean water.

While poverty in **Argentina** can be found in both urban and rural areas of the country, the majority of those living in poverty are concentrated in urban populations outside of the capital. Among the urban, Figure 35 demonstrates that about 17% of Argentina's population lives in slums, despite the efforts of Argentina's Provincial Housing Institutes in facilitating access to affordable housing. Such living conditions, often characterised by overcrowding, can lead to a number of health risks, as well as less visible emotional stresses from lack of privacy and personal freedom. According to World Bank data, access to adequate sanitation facilities ranges from 96.2% to 98.3% in Argentina and does not seem to be of concern. In fact, the figures are particularly interesting as disparities in access to such facilities are often defined by lack of infrastructure in rural areas. However, Figure 35 demonstrates that Argentina's rural areas enjoy greater access, and that as such, the barrier may be more so defined by poverty and urban slums.

In **Brazil**, over 50 million Brazilians live in inadequate housing (BorgenProject, 2018). The public Minha Casa, Minha Vida, (My House, My Life) Program provides subsidised housing for families that earn up to the equivalent of 10 minimum wage salaries. However, almost a quarter of Brazil's urban population continues to live in slums (Figure 35). According to Habitat for

Humanity, slums are often defined by limited or no access to basic resources including sanitation and electricity (Habitat for Humanity, 2019).

Beyond **Brazil's** well-known favelas, the country's rural areas are also subject to poverty and a lack of quality housing. While 88% of Brazil's urban population has access to adequate sanitation facilities, there are serious concerns regarding Brazil's rural population as only about half has access. Ensuring access to adequate sanitation is not only fundamental for human dignity and privacy, but is one of the principal mechanisms for protecting the quality of drinking water supplies and resources (General Comment 15, para. 29). However, the provision of adequate housing and basic amenities may require the presence of backbone infrastructure. Existence of such infrastructure in Brazil's rural areas depends on location, sector, and prevailing norms. Brazil's centralised grid provides electricity access at a national scale, but water and sanitation are under the jurisdiction of the municipalities. It cannot be confirmed whether the differences in provision explain the disparities in access, but Figure 35 demonstrates that while access to sanitation facilities in rural areas is a challenge, access to electricity is not. However, access to information and communication tools is lower than the country's regional counterparts.

Brazil's centralised grid provides electricity access at a national scale, but water and sanitation are under the jurisdiction of the municipalities. It cannot be confirmed whether the differences in provision explain the disparities in access, but Figure 35 demonstrates that while access to sanitation facilities in rural areas is a challenge, access to electricity is not. However, access to information and communication tools is lower than the country's regional counterparts.

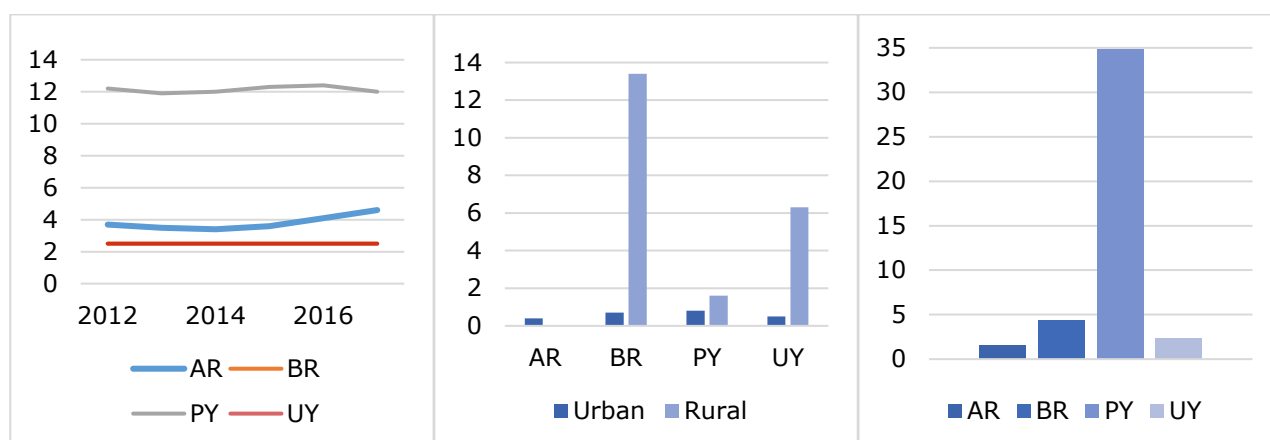
In **Paraguay**, lack of such safety nets accompanied by lack of access to soft credit and migration from rural to urban areas lead to unsafe and overcrowded housing situations in the country. States must monitor levels of homelessness and invest in programmes to increase access to adequate housing under their commitments to the ICESCR. Cooperation in achieving the 2030 Sustainable Development Goals also calls on states to prioritise delivering access to housing, basic services, and upgrading slums.

World Bank Data demonstrates that almost 18% of urban **Paraguayans** live in slums, and about 22% of those in rural areas lack adequate access to sanitation facilities. However, according to an Inter-American Development Bank report, these figures underestimate the reality as numbers of those living in inadequate housing are in fact thought to be closer to 39% in urban areas and 50% in rural areas (ADB, 2019). Difficulties in measurement are exacerbated by the volatility of adequate housing. While Paraguay's yearly floods keep thousands seasonally homeless on the outskirts of Asuncion, the country does not currently implement affordable housing programs.

While the **Argentinian** constitution does not explicitly guarantee the right to adequate food, the country is committed to this right via its commitment to the Protocol of San Salvador. Argentina's food security strategy since 2006 has focused on limiting the exportation of raw materials (grains, beef, milk, etc.) to reduce their costs for locals. However, thus far, such strategies have not proven effective, and in fact, have caused the production of certain raw materials to decrease and final food product prices to increase as a consequence. After a 10-day fact finding mission in 2018, the UN special rapporteur on the Right to Food, asserted that Argentina's economic crisis has greatly impacted the access to food for millions of people who continue to live in food poverty (OHCHR, 2018)¹⁴³.

¹⁴³ <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=23590&LangID=E>

Figure 36: Percentage of population undernourished (left) lacking access to basic drinking water services (middle) and lacking access to clean cooking technologies (right) in Argentina



Source: World Bank Data; To be noted that Brazil and Paraguay reflect identical values.

The rapporteur found increasing numbers of **Argentinian** children being forced to rely entirely on school feeding programs to relieve hunger and increasing attendance at soup kitchens. A study by Pontificia Universidad Catolica Argentina found that 12.3% of households had to reduce their share of food involuntarily in 2015, while the National Statistics Institute highlighted that the last two years saw a 27% increase in food prices in Buenos Aires.

The **Brazilian** constitutions explicitly guarantees the right to adequate food, work, housing, and security, which have benefited from significant achievements in hunger and poverty reduction—widely considered to be the results of pro-poor policies introduced during the presidency of Luiz Inácio Lula da Silva. Recognizing that hunger is a multi-sectoral challenge, *Fome Zero* initiatives increase access to food for the poorest people while simultaneously supporting small family farmers. *Fome Zero* has three main programmes: 1) Bolsa Familia, which is the world's largest conditional cash transfer programme; 2) The *Alimentação Escolar* programme which provides 47 million free school meals every day; and 3) The *Fortalecimento da Agricultura Familiar* pillar which is intended to strengthen and stimulate small-scale and family-based agriculture.

As regards the right to water, Figure 36 demonstrates that the situation is concerning for **Brazil's** rural population. While Brazil possesses 12% of the world's reserve of available freshwater, access to basic drinking services has yet to peak over 90% accessibility for its rural populations. According to the US Agency of International Development (USAID), expansion of large soy and sugar cane plantations has put Brazil's section of the Pantanal wetland, one of the world's largest wetlands and significant source of clean drinking water, under pressure (USAID, 2011). Particularly, the industrialised south and southeast, with a population of nearly 60%, face difficulties regarding water pollution and availability. While the country is increasingly investing in private sector partnerships to increase water and sanitation infrastructure in poverty-ridden areas, those most vulnerable continue to struggle with affordability (USAID, 2011).

A disproportionately high percentage of **Paraguayans** suffer malnourishment as 12% of the population remains in a state of hunger. Paraguay has a uniquely export-oriented food system where 94 percent of the country's agricultural land is employed for export-destined production, while only six percent is devoted to domestic food production. However, efforts to reallocate

resources are constrained as Paraguay is markedly unequal. It is estimated that 60-80% of the land in Paraguay is owned by the wealthiest 3%.

Amenities for cold storage and adequate cooking technologies are essential for decent living conditions for their critical role in access to food. Cold storage and clean cooking facilities are imperative in avoiding risks of spoiled food and discomfort related to the time spent preparing and purchasing food items. Women usually bear this burden, in addition to the tasks of collecting water and cooking fuel. The extent of discomfort is contingent on a number of factors, including climate and diet, but also access to markets. About 35% of **Paraguayans** lack clean cooking technologies harming members of 668,736 households (CleanCookingAlliance, 2019)¹⁴⁴.

Similarly to Argentina, the **Uruguayan** constitution does not explicitly guarantee the right to adequate food. However, the country is committed to the right to adequate food via its commitment to the Protocol of San Salvador. Undernourishment and access to clean cooking technologies does not appear to be of concern with undernourishment levels at 2.5% of the population and lack of cooking technologies at 2.3%. In fact, Uruguay is one of 17 countries to score below five on the 2019 Global Hunger Index indicating that it suffers from a low level of hunger.

However, lack of access to basic drinking water services in **Uruguay's** rural areas is alarming at 6.3% of the population. Article 47 of Uruguay's Constitution recognises that water and sanitation as a human right. While the country has a National Water Policy there is currently no formal mechanism to coordinate the work of different organisations with responsibilities in the field of water, sanitation and hygiene. However, instances of coordination between the Ministries of Housing and Planning, and the Services Regulatory Unit of Energy and Water exist for the provision of drinking-water networks. Initiatives with the specific aim of reducing disparities of access levels include financing plans to channel efficiently and to make water more affordable for vulnerable groups.

5.2.2. Right to the Enjoyment of the Highest Attainable Standard of Mental and Physical Health

There are considerable overlaps in key aspects of the Right to an Adequate Standard of Living and the Right to the Enjoyment of the Highest Attainable Standard of Mental and Physical Health including access to the determinants of health such as safe drinking water and sanitation; food and nutrition; and housing. However, the Right to Health also contains certain entitlements highlighting a country's obligations to provide access to an adequate system of health protection; prevention, and treatment and control of disease. Further, while this section will continue the conversation on food, it will expand upon the discussion in section 1.2.1 by adopting a health; nutrition; and safety approach. In this light, we provide an overview of the current situation in the negotiating parties below.

Structural Indicators

The ICESCR is the central instrument protecting the right to the highest standard of physical and mental health. Article 12 defines the right as *"an inclusive right extending not only to timely and appropriate health care but also to the underlying determinants of health, such as access to safe*

¹⁴⁴ <https://www.cleancookingalliance.org/country-profiles/108-paraguay.html>

and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions, and access to health-related education and information...". All EU member states and four Mercosur partner states have ratified the ICESCR. However, the negotiating parties have also committed to numerous other international instruments as well as regional and national agreements guaranteeing them as duty bearers in the enjoyment of the right to health.

Table 32: Commitments to the Right to Health

International Instruments
Universal Declaration of Human Rights
International Convention on the Elimination of all Forms of Racial Discrimination
Convention on the Rights of the Child
Convention on the Elimination of all forms of Discrimination against Women
International Convention on the Protection of the Rights of all Migrant Workers
Convention on the Rights of Persons with Disabilities
European Union Member States
EU Charter of Fundamental Rights
Mercosur Partner States
Argentinian Constitution of 1994
Article 6 and 196 of the Brazilian Constitution
Article 68 of the Paraguayan Constitution
Uruguay's Constitution

Process & Outcome Indicators

In order to establish a baseline regarding the Right to Health, we draw from existing literature, and follow the OHCHR toolkit on key aspects of the right to health to provide a brief overview of baseline conditions across EU member states and the four partner Mercosur countries (Table 33).¹⁴⁵

Table 33: Right to Health indicators

Key toolbox elements	Indicators
Accessibility	Financial affordability; access to medicine; nutrition; electronic health care tech
Availability	Health care expenditure; Health clinics; physicians; brain drain indicators; Universal health coverage index
Participation	Stakeholder consultation mechanisms in health policy
Acceptability / good quality	Gender and culture considerations; trained health professionals; adequate sanitation; robust phytosanitary measures; safe drinking water

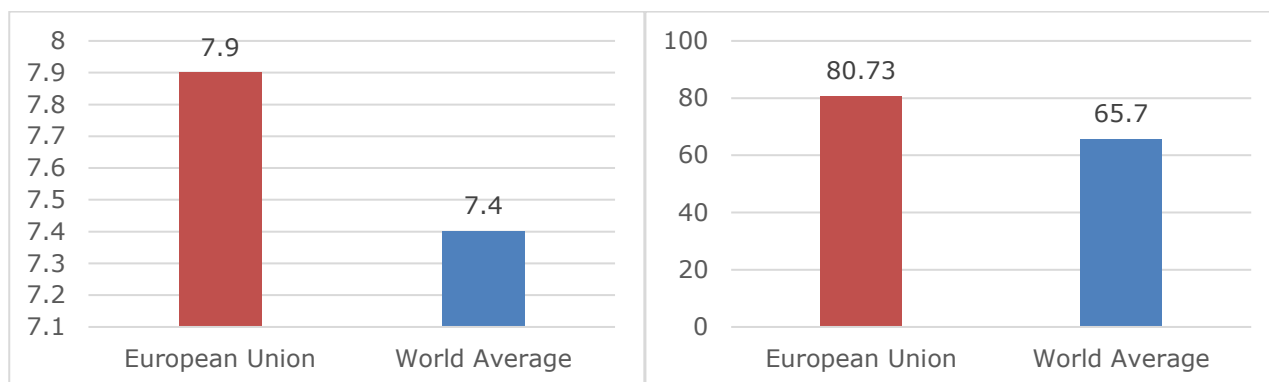
Source: Author's elaboration.

¹⁴⁵ <https://www.ohchr.org/EN/Issues/ESCR/Pages/Health.aspx>

European Union

While healthcare in the EU is provided at the national level through a wide range of systems, most EU Member States have universal health care as well as a system of competing private health insurance companies. All EU countries provide EU citizens medical treatment when visiting other participating European countries.

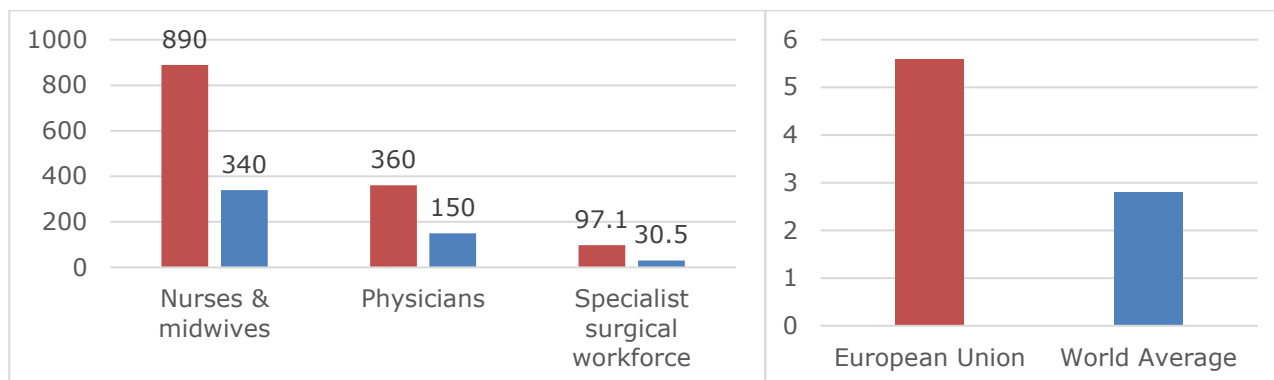
Figure 37: Domestic general government health expenditure (% of GDP) (left) and Universal Health Coverage Index score (right)



Source: World Bank Data

The average domestic expenditure on health among EU member states is half a percentage point higher than the average domestic expenditure globally. The high expenditures are possibly explanatory of the EU's average score on the WHO Universal Health Coverage index. On average, EU member states score 80.7—placing it 15 percentage points above the world average. The score is presented on a scale of 0 to 100 and is defined by the extent of coverage for essential health services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases, service capacity and access. A score of 81 demonstrates that an adequate level of availability of health services are in place throughout the EU and that they are, on average, adequately accessible. This is also reflected by the above average availability of healthcare workers and hospital beds in the region (Figure 38). In fact, the EU has 200% more beds than the global average, and its health labour force contracts 260% more nurses and midwives than the global average, 240% more physicians, and a specialist surgical workforce 318% larger than the global average.

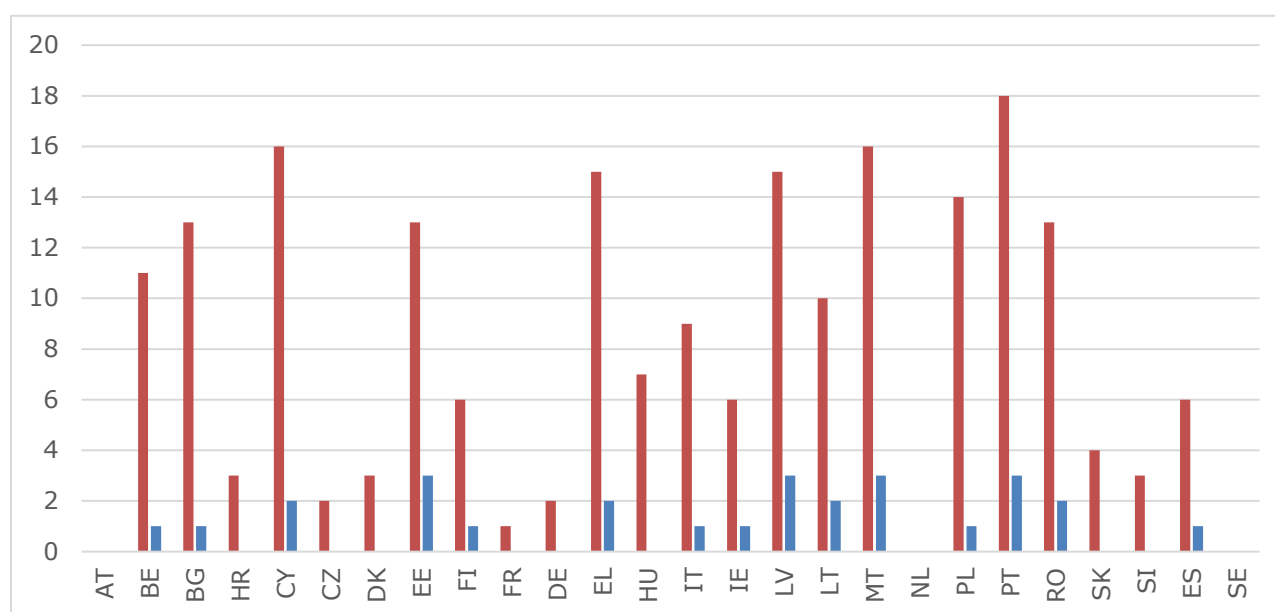
Figure 38: Nurses and midwives, physicians, and specialist surgeons per 100,000 people (left); Hospital beds per 1,000 people (right)



Source: World Bank Data

EU member states are unique in their ability to meet adequate availability standards as a consequence of the brain drain phenomena—namely, the emigration of highly trained or qualified workers from one country or region to another. Growing competition for talent and the limited remuneration in certain regions make it attractive for their skilled healthcare workers to emigrate to the EU (Botezat & Ramos, 2020)¹⁴⁶. In regards to accessibility, health systems across member states differ, somewhat vary, but most have strong financial protection systems for users of health services. While 1-18% of individuals across EU member states use more than 10% of their household income on out-of-pocket payments (OOPs), only 3% or less spend more than 25% of their income on OOPs (Figure 39). According to World Bank data, out of pocket payments in the EU do not risk increasing the poverty gap at the USD \$3.20 line.

Figure 39: Proportion of population spending more than 10% and more than 25% of household consumption on out of pocket payments



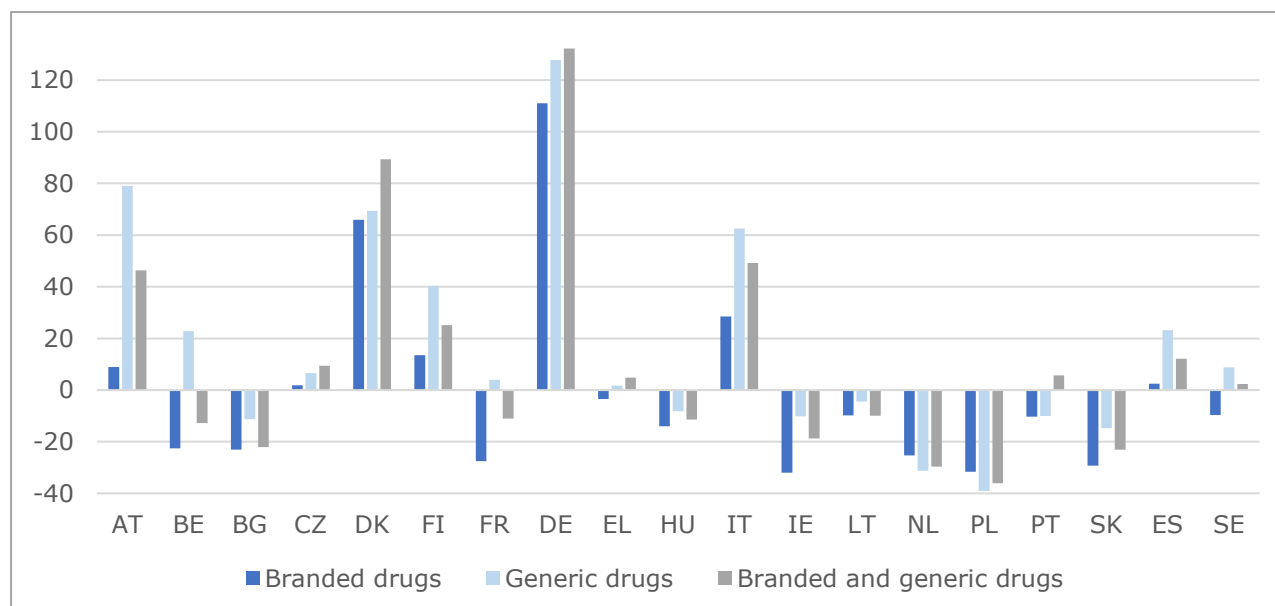
Source: World Bank Data

However, being pushed into poverty as a consequence of healthcare expenditure is dependent on the measure of poverty. According to the World Health Organisation (WHO), out-of-pocket payments, particularly for medicines, continue to be unaffordable for many in the EU. Between 1% and 9% of households in the EU are pushed into poverty as a consequence of OOPs, and up to 17% experience catastrophic health spending—especially among the poorest quintile of the population. One of the most significant determinants of disparities in access to healthcare is the price of medicine.

¹⁴⁶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6961279/>

Figure 40 presents how far the price of medicine in each EU member state deviates from the mean.

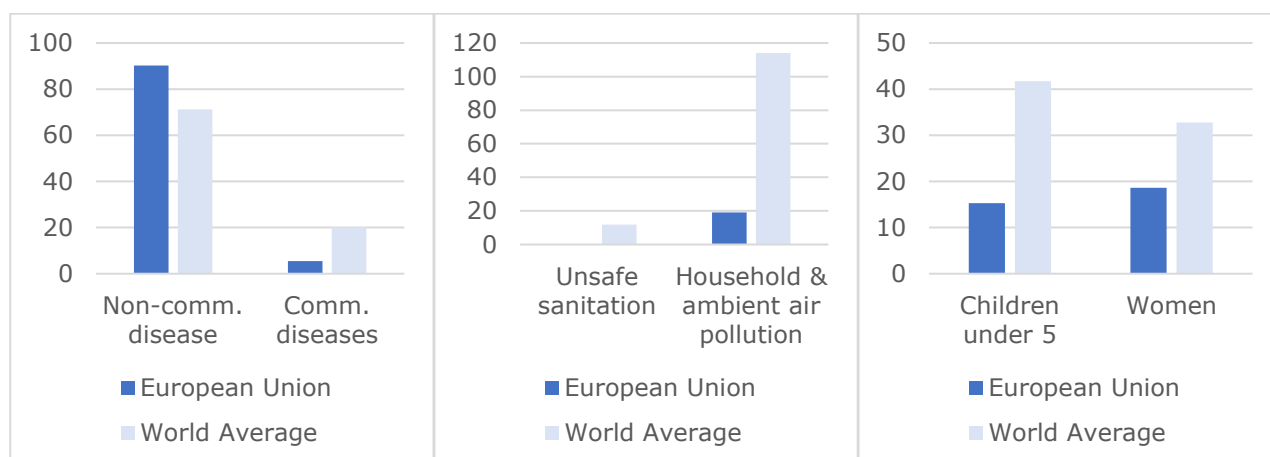
Figure 40: Medicine Price Index across EU MS



Source: MedBelle

The data demonstrates that the prices of branded and generic drugs in Poland, the Netherlands, and Ireland are the lowest in comparison to the global average. The medicines assessed included mostly treatments for non-communicable diseases including epilepsy, anxiety, cardiovascular disease, chronic pulmonary diseases, bacterial infections, diabetes, high blood pressure, and bowel diseases among others. Considering the disproportionate effect of NCDs in comparison to communicable diseases in the EU, the price of such medicines is a determining factor of accessibility to necessary treatment (Figure 41).

Figure 41: Cause of death (left); mortality rate due to inadequate living conditions per 1000,000 people (right); and prevalence of anemia (right)

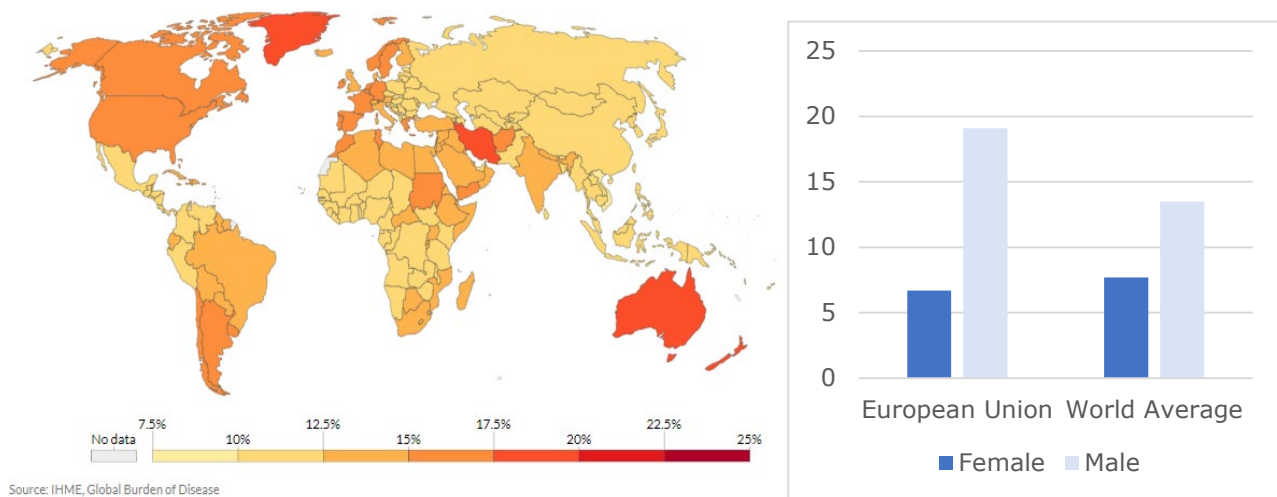


Source: World Bank Data

As discussed in section 1.2.1, housing in both urban (99%) and rural (98%) areas of the EU have adequate access to sanitation facilities and clean drinking water and 98.7% have access to

clean cooking technology. As such, it is unsurprising that the mortality rate as a consequence of unsafe sanitation, as well as household and ambient air pollution, are 11.5 and 94.9 percentage points lower than the global average respectively. Additionally, section 1.2.1 demonstrated that levels of undernourishment across the EU have remained at a constant 2.5% in the last years—representing 12.8 million. While hunger in the EU is no longer considered to be of concern, malnutrition continues to be. In fact, the World Health Organization suggests that 30-70% of adults and 33% of children are either overweight or obese in the EU. Causes range from increases in urban living, excessive fast food marketing and lifestyle pressures which limit opportunities for physical activity. Over 33% of adults in the EU do not engage in sufficient levels of exercise—especially in high-income countries and for women. A decrease in physical activity can also act as underlying factor in the increase of mental health problems, such as depression and anxiety, in the EU.

Figure 42: Prevalence and Incidence of Mental Disorders (left), and suicide mortality rate per 100,000 people (right)



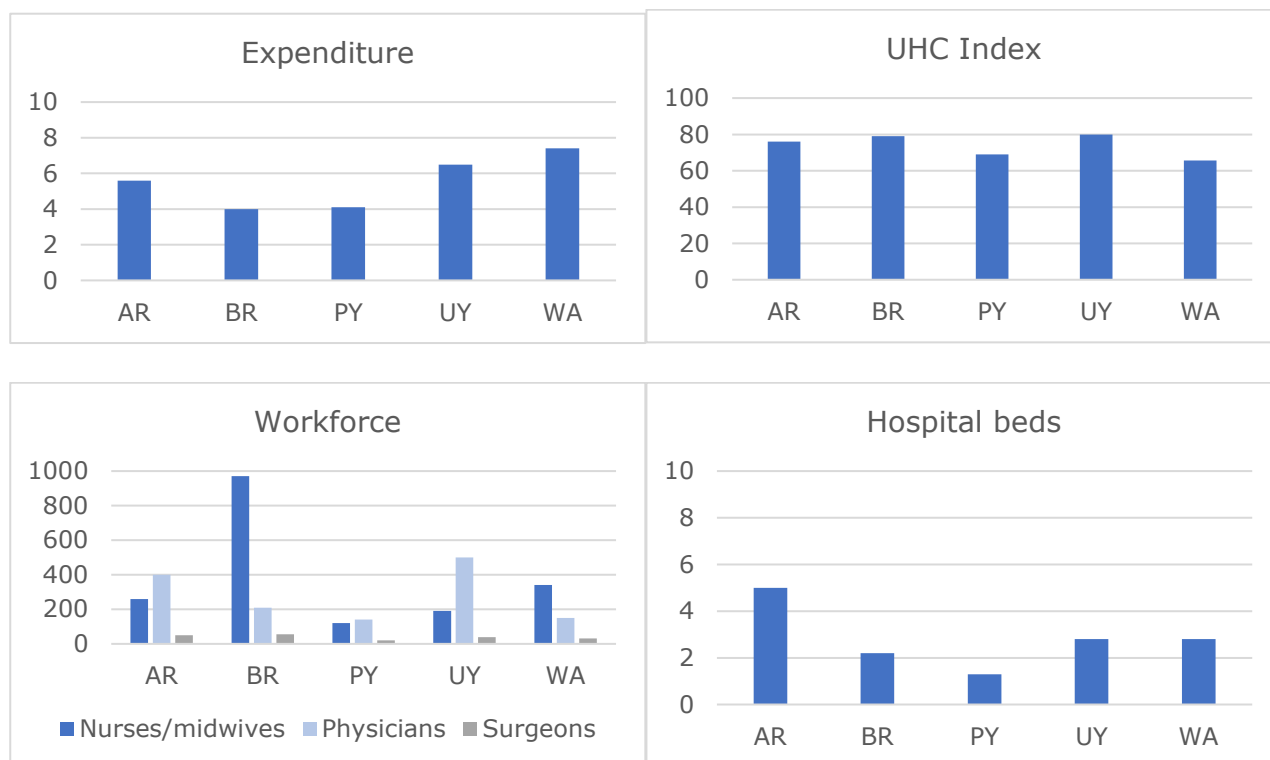
Source: IHME, Global Burden of Disease

While the lowest share of the population with mental health challenges resides in Central Europe (11.87%), at least a tenth of all populations suffer from mental health challenges. In regards to incidence, or the measured risk of further developing mental health disorders, IHME demonstrates that risks are low. However, there are significant challenges in measuring incidence for mental health, as the determinants and severity of mental health disorders are complex and are attributed to a number of causal factors.

Mercosur

Argentina's health care system provides for a universal health care system, but those employed in the formal sector are also required to register with a health insurance scheme.

Figure 43: Domestic general government health expenditure (% of GDP) (top left) and Universal Health Coverage Index ranking (top right) Nurses, midwives, physicians, and specialist surgeons per 100,000 people (bottom left); Hospital beds per 100,000 people (bottom right)



Source: World Bank Data; (WA stands for World Average)

While domestic expenditure on health in **Argentina** is 1.8 percentage points lower than the global average, the country's health system still received a high score of 76 on the WHO Universal Health Coverage index—about 11 percentage points above the world average. A score of 76 demonstrates that the country is more or less on par with coverage standards in the EU, providing an adequate level of availability and accessibility of health services. Argentina's workforce of nurses and midwives lags behind the global average, but this is presumably compensated for by having more than two times the global average of physicians, almost twice as many specialist surgeons, and almost doubling the average availability of hospital beds (Figure 43).

Despite **Argentina's** adequate health care workforce, the country reflects vast disparities in the distribution of availability. Rural and low-income areas do not benefit from the same level of availability as they are not attractive enough to draw sufficient healthcare workers. While programs to efficiently allocate the workforce used do exist, a growing number of physicians choose to work privately or in specialty positions to remain in affluent urban areas. A 2015 study surveyed the willingness of medical students to work in low-resource underprivileged areas after graduation and found that only 21% showed a strong willingness to work in a deprived area, with a majority of them being women. Additionally, less than 7% of respondents considered that

national public health authorities adequately facilitate the distribution of physicians in poorer districts (Borracci et al., 2015)¹⁴⁷.

In **Brazil**, the National Healthcare System, known as the Unified Health System (SUS), provides services for all permanent residents and foreigners in Brazilian territory free of charge. While domestic expenditure on health in Brazil is substantially lower than the global average, the country's health system still received a high score of 79 on the WHO Universal Health Coverage index—about 13 percentage points above the world average and higher than that of Argentina. A score of 79 should signify the country to reflect the same availability and accessibility as that of the EU. Brazil healthcare workforce does in fact reflect almost three times the global average of nurses and midwives. The system has 140% the global average of physicians at its disposal and almost twice as many specialist surgeons. However, the number of hospital beds lags behind the global average at only 2.2 beds per 100,000 people.

The distribution of **Brazil's** available workforce varies, with the lowest number of physicians found in the state of Maranhão (the poorest state) to the highest in the Federal District (the wealthiest state). Distribution within states is also unequal where some municipalities in the north and north-east states have no physicians—forcing patients to travel longer distances for care. Similarly to Argentina, rural regions have difficulties in recruiting and retaining health workers because of lower career prospects, poor working conditions and poor primary care facilities (Pacheco Santos et al., 2016)¹⁴⁸.

While **Paraguay** provides a state funded health care system, the country also has private health insurance options available as healthcare—especially outside of Asuncion—is not up to the standard of many European countries. Domestic expenditure on health in Paraguay is just over half of the global average, and the country's health system received a score of 69 on the WHO Universal Health Coverage index—just above the world average, but lower than any of the other negotiating parties. In fact, Paraguay's resources lag behind the world average in all four availability indicators (Figure 43). The workforce has at its disposal a workforce of nurses and midwives a third of the size than average, has less than 150 physicians and less than 21 specialist surgeons per 100,000 people. Finally, the country can only provide 1 bed per 100,000 people, placing the population at great risk in the case of a large outbreak.

Historically, the development of human resources for health (HRH) in **Paraguay** was not given high priority, resulting in an inadequate availability of health workers. Much like Argentina and Brazil, Paraguay's rural areas are also challenged by an uneven distribution of health workers favoring the urban capital. While 70% of the country's population lives outside of the capital, lack of adequate infrastructure and incentives to work in rural areas has kept 70% of health workers in Asuncion. Further, Paraguay's health labour force suffers losses from the brain drain phenomena as health workers migrate to neighboring countries. Opportunities in Paraguay's health sector are subject to poor working conditions and precarious employment contracts. Absence of research opportunities, lack of adequate training for career development, and weak quality control of practices has led professionals to seek opportunities elsewhere (Global Health Workforce Alliance, 2019)¹⁴⁹.

¹⁴⁷ <https://www.rrh.org.au/journal/article/3485>

¹⁴⁸ <https://www.who.int/bulletin/volumes/95/2/16-178236/en/>

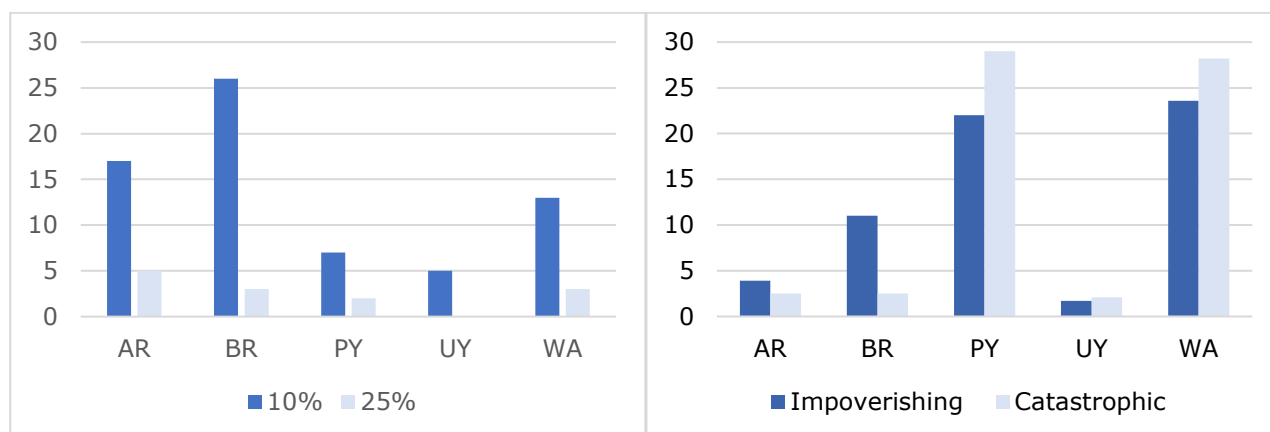
¹⁴⁹ <https://www.who.int/workforcealliance/countries/pry/en/>

Uruguay likewise provides free health care to its residents through two main avenues. The public health system provides services for those either unemployed or in informal employment while FONASA, created by the Frente Amplio government in 2007, entitles all employees and pensioners to health care outside of the public health system. While management and care changed from a curative social welfare model to a preventive model, funding incentives have not been sufficient and progress has been slow in assigning users to providers.

While domestic expenditure on health in **Uruguay** is lower than the global average, the country's health system still received a score of 80 on the WHO Universal Health Coverage index—the highest among its Mercosur counterparts, and almost the same score as the EU. A score of 80 demonstrates that the country is more or less on par with coverage standards in the EU, providing an adequate level of availability and accessibility of health services. However, Uruguay's workforce of nurses and midwives lags behind the global average, but, much like the situation in Argentina, this is presumably compensated for by having more than three times the global average of physicians (Figure 43).

In regards to accessibility, **Argentina's** financial protection system is of potential concern as 17% spend more than 10% of their household income on OOPs and 5% of the population spends more than 25%. The proportion of those spending more than 10% of their income is four percentage points higher than the global average while the proportion of those spending more than 25% is two percentage points higher. However, the percentage of those at risk of impoverishing expenditure for surgical care is significantly lower than the global average of 23.6% remaining at 3.9%.

Figure 44: Proportion of population spending more than 10% and more than 25% of household consumption on out of pocket payments (left) and Risk of impoverishing expenditure for surgical care (right)



Source: World Bank Data; (WA stands for World Average)

Further, **Brazil's** financial protection system also exacerbates accessibility challenges as a quarter of the population spends more than 10% of their household income on OOPs and 3% spend more than 25% of their income. However, the percentage of those at risk of impoverishing expenditure for surgical care is about half of the global average.

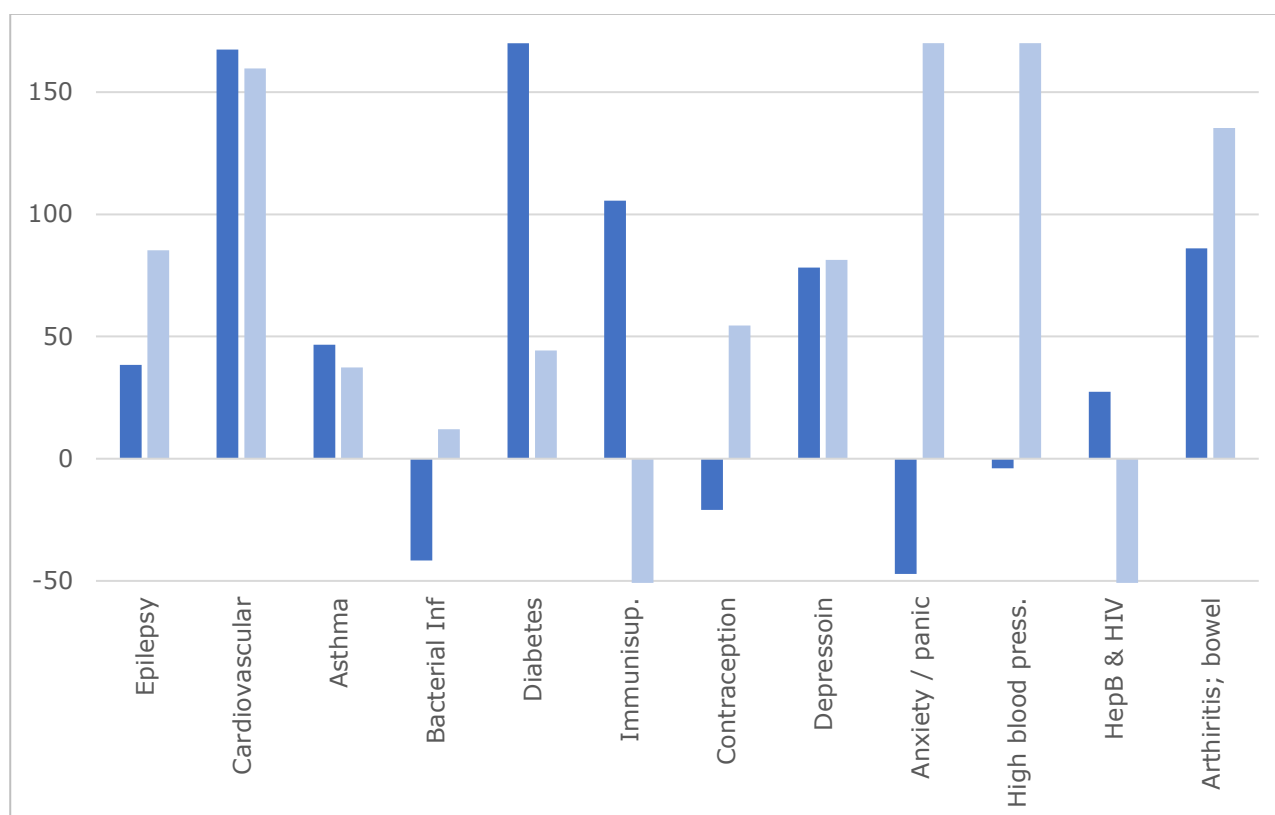
Alongside availability challenges, issues of accessibility contribute to difficulties in achieving the Right to Health in **Paraguay**. Of particular concern is Paraguay's risk of impoverishing and catastrophic expenditure for adequate surgical care. More than a quarter of the population is at risk of catastrophic expenditure while the available surgical workforce is not capable of providing

more than 21 staff per 100,000 patients. During his 2015 visit, the Special Rapporteur on the Right to Health identified numerous challenges related to structural factors that obstruct accessibility to adequate health (OHCHR, 2015)¹⁵⁰. These factors are associated with the country's institutional weakness and lack of a robust tax structure which keeps it from earmarking the necessary public investment to increase access to health services.

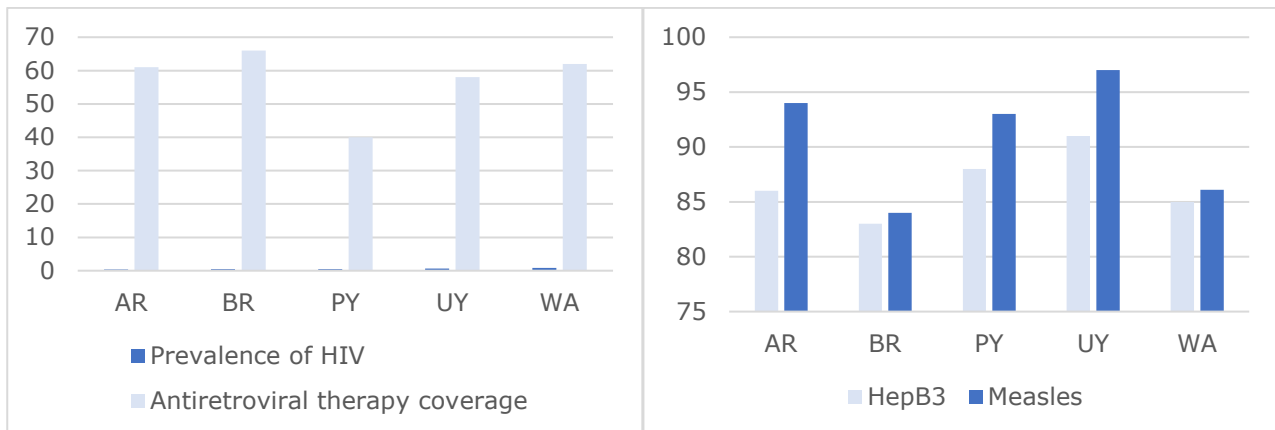
Uruguay reflects a high level of accessibility to its health system as only 5% of the population spends more than 10% of their household income on OOPs and no one spends more than 25%. Additionally, the percentage of those at risk of impoverishing or catastrophic expenditure for surgical care does not surpass 2% of the population. The National Health Fund (FONASA) is a central part of Uruguay's Integrated Health System's funding model. It involves three mandatory contributors -1) those insured, who pay based on income, 2) employers contribute in proportion to wages paid, and the 3) government supplements these. This allows the country to keep OOPs low by providing the population with a Comprehensive Health Care Plan (PIAS).

In an attempt to keep medicines accessible, **Argentina** marginalizes the role of patents in determining the cost of medicines and reduces the impact of patenting decisions on fair and efficient access to healthcare. From 2002 Argentina's patent office's examination guidelines have barred patents on most forms of secondary pharmaceutical patents. Argentina also allows parallel imports, compulsory licensing and other TRIPS flexibilities. Since 2017, 70% of the country's domestic market is supplied from locally produced medicines.

Figure 45: Medicine Price Index in Argentina and Brazil (top); prevalence and treatment of HIV (bottom left); and rates of immunisation (bottom right)



¹⁵⁰ <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=16566&LangID=E>



Source: World Bank Data; MedBelle (WA stands for World Average)

However, Figure 45 demonstrates that prices for most medicines in **Argentina** are in fact higher than the median price around the world, with medicine for cardiovascular disease deviating by 167% and for diabetes by 170%. Medicine to treat anxiety disorders is found to be 47.2% less expensive than the global median, although the opposite is true for depression.

This is particularly concerning for men in Argentina as the country's suicide rate is above the global average (Figure 46). According to the Institute for Health Metrics and Evaluation (IHME), the prevalence of diagnosed mental health disorders across all negotiating parties is rather high (above 10% in all) and the highest concentration in Argentina and Uruguay (~15.75%). However, considering the prevalence of non-communicable diseases in Argentina, the high prices for diabetes and cardiovascular treatments are concerning (Figure 45).

Brazil is one of the world's only countries to provide universally free access to AIDS treatment, leading to a 40% reduction in mortality and a 70% reduction in morbidity by 2004. Furthermore, resources became available for other treatment as hospitalisations reduced by 80%. However, access to medicines became a challenge for Brazilians after the country did not make use of the 10-year transition period granted by the WTO after the implementation of TRIPS in 1994. The ten year delay was meant to provide developing countries with an opportunity for domestic pharmaceutical companies to develop their R&D to compete with transnational drug companies. However, Brazil decided to reject the ten year grace period, and already adopted legislation in line with TRIPS only two years into the possible ten. According to civil society, Brazil went further than the requirements of the TRIPS agreement and failed to adopt the flexibilities it provided (Chaves et al., 2008)¹⁵¹. Since then, the greatest challenge to the accessibility of the health system has been the increase in the price of foreign medicines Figure 45.

Figure 45 demonstrates that all medicines in **Brazil** are more expensive than the median price—and that these price deviations can range from 12.04% more for bacterial infections to 174% more to treat anxiety disorders. Similarly, medicines for cardiovascular treatments are 160% more expensive than the median price, and as medical guidelines are increasingly updated, the treatment of non-communicable diseases (NCDs) faces price challenges.

¹⁵¹ <https://sur.conectas.org/wp-content/uploads/2017/11/sur8-eng-gabriela-marcela-renata.pdf>

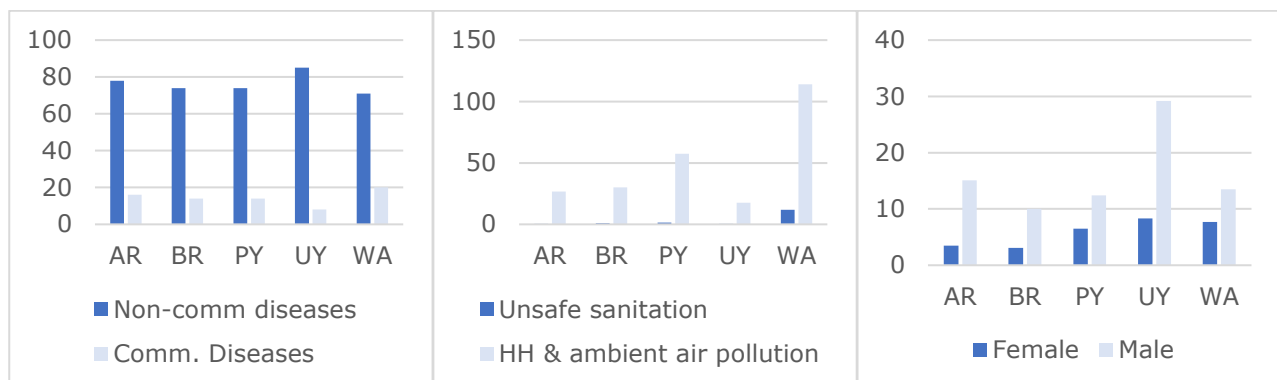
Despite **Paraguay's** health system's numerous accessibility challenges, the Special Rapporteur congratulated the country for working with family health units in rural areas to expand access to primary health care, and for the implementation of successful vaccination campaigns¹⁵². Paraguay's rate of immunisation for both Hepatitis B and Measles have seen vast improvements in the last decade with 88% of the population immune to Hepatitis B and 93% immune to measles. However, while immunisation of both diseases is above the world average, access to antiretroviral therapy for those living with HIV is below average in Paraguay.

As an element of **Uruguay's** Comprehensive Health Care Plan, the country makes certain vaccination mandatory—currently providing 13 vaccines for free. It has thus far covered 96% of the population, and led to significant decreases in prevalence in both Measles and Hepatitis B (Figure 45). Adopting a further detailed recognition of the right to health, Uruguay's constitution requires the state to provide the means for prevention and treatment for vulnerable persons, and national legislation guarantees the right to access quality-medicine. However, while only half a percentage point of Uruguay's population lives with HIV (almost 2000 people), only about half receive antiretroviral therapy coverage. In fact, while Uruguay is the only of the four Mercosur countries to adopt legislation guaranteeing the right to access quality medicine, it is also the only of the four countries to fall below the global average for antiretroviral therapy coverage (62% of those living with HIV) (Figure 45). According to the Pan American Health Organisation, this is due to the difficulties in monitoring and identifying carriers of the disease—many are unaware they have it (PAHO, n.d.)¹⁵³.

However, the leading cause of death across all four Mercosur partner countries are non-communicable diseases (Figure 46). According to the World Health Organization (WHO), NCDs are the greatest cause of death in the world, killing more than 36 million people each year, of which nearly 80% take place in low- and middle-income countries.

As discussed in section 1.2.1, housing in both urban (96.2%) and rural (98.3%) areas of **Argentina** have adequate access to sanitation facilities and clean drinking water and 98.6% have access to clean cooking technology. While the rates of adequacy are lower than those of the EU, the implicated mortality rates are still 11.4 and 87.7 percentage points lower than the global average for unsafe sanitation and air pollution respectively.

Figure 46: Cause of death (left) and mortality rate due to inadequate living conditions per 100,000 people (middle) and suicide mortality rate per 100,000 people (right)



Source: World Bank Data

¹⁵² <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=16566&LangID=E>

¹⁵³ <https://www.paho.org/salud-en-las-americanas-2017/?p=4314>

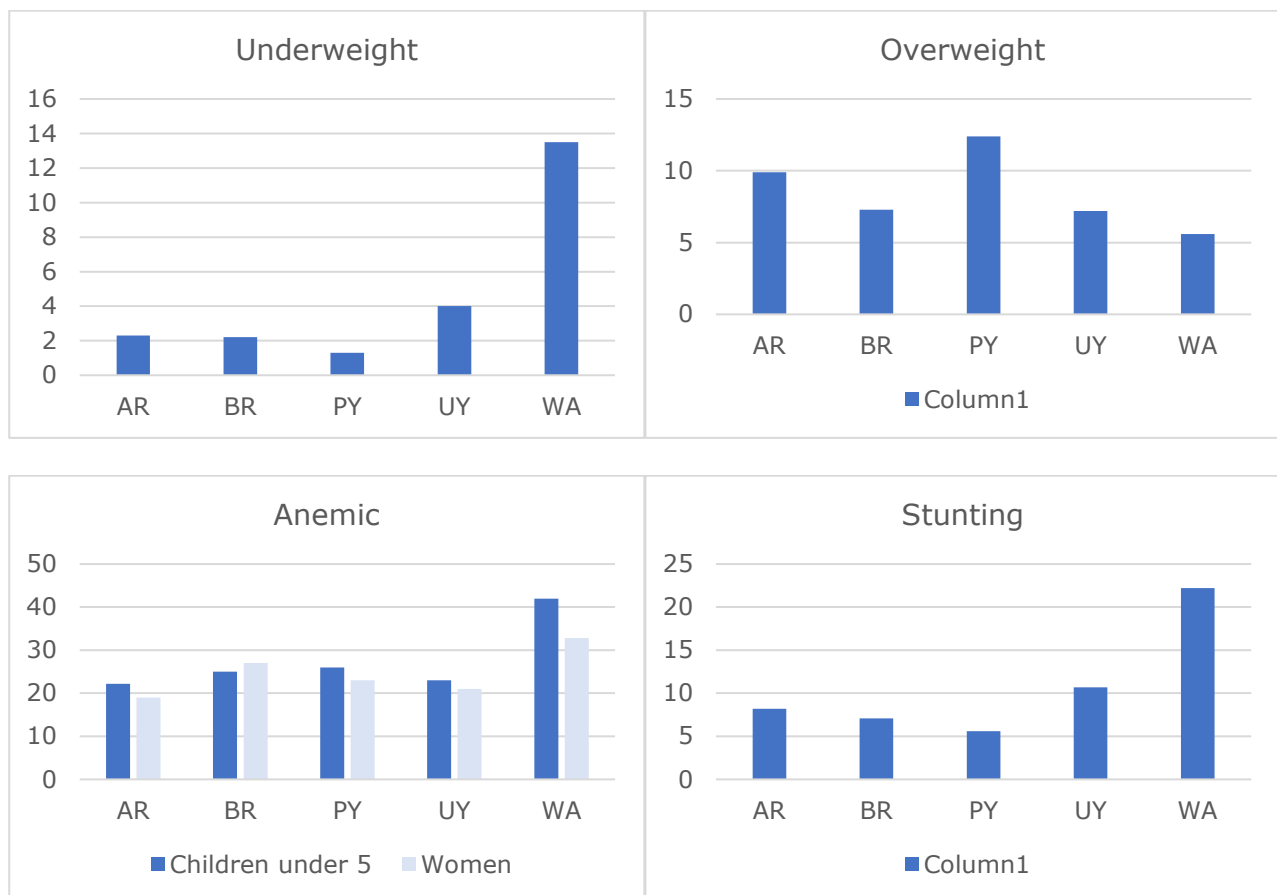
While 88% of **Brazilian** urban housing has access to adequate sanitation facilities and 99.3% have access to clean drinking water, conditions for rural Brazil were concerning as 52% lack sanitation and 13.4 lack access to drinking water. However, while the rates are concerning, the implicated mortality rates only reflect a tenth of the global average.

Additionally, while unresolved issues remain in **Paraguay** regarding communicable, maternal, neonatal and nutritional diseases, the rate of death by non-communicable diseases continues to grow. Disparities among the country's rural population are evident as only 78% has access to adequate sanitation facilities. Additionally, as more than a third of the population does not have access to clean cooking technology, the implicated mortality rates from household & ambient air pollution in Paraguay are the highest among the negotiating parties (Figure 46).

Finally, **Uruguay's** leading cause of death is breast and lung cancer. While the population enjoys quite high levels of basic sanitation and clean water services, more than a third of the population does not have access to clean cooking technology. However, of greater concern is Uruguay's suicide rate—particularly for men. Along with Argentina, Uruguay has one of the highest rates of mental disorders among the negotiating parties.

Perhaps related, section 1.2.1 demonstrated that levels of undernourishment in **Argentina** have increased in the last years with poor diets and obesity becoming a concern—especially among children (Figure 47).

Figure 47: Prevalence of underweight children (left); overweight children (right); anemia among children and women (bottom left); and stunting (bottom right)



Source: World Bank Data

Figure 47 reflects that **Argentina** is well-below the global average in all indicators of malnutrition, with the exception of prevalence of overweight children where the country is 4.3 percentage points above the global average. Changes in food availability throughout the last decades have shifted diets from foods high in cereals and complex carbohydrates towards energy-dense, nutrient-poor diets with greater amounts of meat, fats, sweeteners and processed foods. This so-called “nutrition transition” disproportionately affects low and middle income countries—and commonly among those in South and Central America. Argentina is facing different transitions among different socioeconomic groups within the country, but a 2019 study linked most profiles to obesity burden in adults, also evident in Figure 47 (Tumas et al, 2019)¹⁵⁴. Argentina is well-below the global average in all indicators of malnutrition, with the exception of prevalence of overweight children where the country is 4.3 percentage points above the global average.

However, the importance of food in the assessment of the Right to Health spans beyond access to proper nutrition, and critically includes adequate mechanisms to ensure the safety of a country’s food supply. According to the Global Health Security Index, **Argentina** has national regulations and plans that account for the surveillance and control of multiple zoonotic pathogens of public health concern. In terms of surveillance, Law No. 15,465 of 1960 established compulsory notification for zoonoses in Argentina. The country has a mandatory national mechanism for livestock owners to report on disease surveillance and notify the central government as soon as a disease is suspected or identified. The OIE’s 2014 PVS Evaluation Report for Argentina noted that the national reporting system worked well for suspected animal diseases, but that information from inspections of slaughterhouses was not consistently sent to SENASA’s National System for Epidemiological Surveillance (SNVE). This was largely the result of Argentina’s reliance on nongovernment “establishment” personnel for post-mortem inspections.

In 2016, the European Commission conducted an audit of **Argentina’s** food safety inspection system for products of animal origin to determine whether standards remain acceptable for exportation to the European Union. The report confirms that Argentina’s food safety inspection system does have the organisational structure to provide ultimate control, supervision, and enforcement of regulatory requirements (EC, 2016). However, improvements were recommended for the country’s compliance verification system and to ensure the reliability of information collected through its cattle database system (EC, 2016).¹⁵⁵

While levels of undernourishment in **Brazil** have dropped to a low of 2.5% in the last years, the nutrition transition and Brazil’s challenges with the “double-burden” of malnutrition are also a growing challenge. Many developing countries experience malnourishment among the poor, and obesity among their middle and higher income citizens simultaneously. In fact, this is possible at multiple levels—country, state, household, as well as individual, and it plagues Latin American countries. Figure 47 reflects that Brazil is well-below the global average in all indicators of malnutrition, with the exception of prevalence of overweight children where the country is 1.7 percentage points above the global average.

In regards to food safety, and its position as one of the top producers of beef in the world, **Brazil** has a robust health and inspection system for zoonotic diseases and foodborne illness. According to the Global Health Security Index, there are currently 277 Zoonotic Disease Surveillance Units

¹⁵⁴ <https://www.ncbi.nlm.nih.gov/pubmed/30859931>

¹⁵⁵ https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3746

across the country that operate locally under the Health Surveillance Secretary. These units work collaboratively with the Farming Vigilance Units of the Ministry of Agriculture for issues related to farming, such as animal health. Under Normative Instruction 50, it is mandatory for livestock owners or veterinarians to report on possible disease. According to official data, 13,163 foodborne disease (FBD) outbreaks were reported in the country between 2000-2018, involving 247,570 cases and 195 deaths. However, homes were found to be the main site of FBD occurrence (45.6%) pointing to the need for greater information infrastructure on food safety.

In 2017, the European Commission conducted an audit of **Brazil's** health inspection system for food of animal origin and confirmed it complies with health standards necessary to export to the EU (EC, 2017). However, a follow up audit in 2018 found a number of issues with the health inspection system of Brazil's poultry which jeopardises its export eligibility status (EC, 2018)¹⁵⁶.

Of greater concern is **Paraguay's** proportion of undernourished at 12% of the population. Figure 47 reflects that Paraguay's two pressing challenges regarding malnutrition are the rate of overweight children at 12.4% and the rate of children with anemia which is almost at a quarter of the population. In fact, when observing the adult population in Paraguay, rates of those who are overweight more than double. With 30% of adults obese, Paraguay has the second highest prevalence of obesity after El Salvador. Obesity has become a major health challenge in Latin America where 54-70% of the population is overweight and 19% is obese (The Lancet, n.d.).

In regards to food safety, **Paraguay's** National Programme for the Control of Zoonoses is guided by several resolutions emphasising the promotion, prevention, surveillance and control of zoonotic diseases through the improvement of animal health. Although Paraguay's national mechanism makes the reporting of most diseases voluntary through the Network of Epidemiological Surveillance, the National Service for Animal Quality and Health (SENACSA) makes it mandatory by law to monitor and report on "diseases of obligatory notice". A 2019 audit by the European Commission concluded that Paraguay's legal framework is comprised of all necessary elements and that all visited establishments were of acceptable hygiene standard to carry out its various tasks in relation to animal health and food safety (EC, 2019). While the country's export eligibility to the EU was temporarily suspended in 2011 for the identification of FBD, it regained access to the EU market in 2015.¹⁵⁷

In regards to malnutrition, challenges from the double burden of both deficits and excesses persist in **Uruguay**. Diets in the country tend to be poor and prevalence of overweight children is higher from poorer households. While the country implemented the "Uruguay Grows with You" program to promote a system for protection in early childhood, prevalence of overweight and obese adults continued to rise since 2006. Figure 47 demonstrates that Uruguay scores below the global average on all four malnutrition indicators with the exception of overweight children.

Finally, as regards food safety, the incidence of foodborne diseases is low in **Uruguay**. The National Directorate of Cattle Services coordinates prevention, control, and eradication measures for zoonotic disease like aphtose fever, brucellosis, rabies and bird flu through the National Cattle Information System. This allows users to record any suspicion of disease amongst their animals.

¹⁵⁶ https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3874

¹⁵⁷ https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=4264

In 2016, the European Commission conducted an audit of Uruguay's food safety inspection system. The report concluded that while a few weaknesses were found regarding the organisation of controls at feedlots, the overall control system provides an adequate basis for the country to effectively implement safety inspections. Significant improvements have been implemented on Uruguay's cattle database and traceability system along the production chain (EC, 2016)¹⁵⁸.

5.2.3. Rights of Indigenous Peoples

Structural Indicators

The United Nations Declaration on the Rights of Indigenous Peoples, which "emphasizes the rights of all indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations", is the principle international instrument for the protection of indigenous rights (UNESA, n.d.). While all EU member states and all four of the Mercosur partner countries voted in favour of its adoption, they are additionally signatories of numerous other international, regional, and national commitments (Table 34).

Table 34: Commitments to the Rights of Indigenous Peoples

International
United Nations Declaration on the Rights of Indigenous Peoples
International Covenant on the Elimination of all Forms of Racial Discrimination
International Covenant on Economic, Social, and Cultural Rights
International Covenant on Civil and Political Rights
ILO Indigenous and Tribal Peoples Convention (No. 169)
European Union Member States
EU Charter of Fundamental Rights
Resolution of 3 July 2018 on violation of the rights of indigenous peoples in the world, including land grabbing (2017/2206(INI)) ¹⁵⁹
2011 Swedish Constitution
Mercosur Partner States
American Convention on Human Rights
OAS Declaration on the rights of Indigenous Peoples
Inter-American Court of Human Rights
Argentinian 1985 law on Indigenous Policy and Aboriginal Community Support
Argentinian Constitutional recognition of Customary Law of 1994
Brazil's 1988 Constitution
Brazil's Indigenous Statute Law (Law nº 6.001 of 1973)
Articles 63-66 of Paraguay's National Constitution
Paraguay's Indigenous Communities Statute (Act No. 904/81),

Source: Author's elaboration.

¹⁵⁸ https://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_id=3793

¹⁵⁹ https://www.europarl.europa.eu/doceo/document/TA-8-2018-0279_EN.pdf

Specific legal principles apply to Indigenous peoples including (1) collective rights and (2) “free prior informed consent” (FPIC). Both the UNDRIP and the American Declaration on the Rights of Indigenous Peoples (ADRIP) recognise such rights. Collective rights include Indigenous peoples’ right to self-determination and independent means of subsistence; while the principle of free, prior and informed consent builds upon and develops the right to participate through stakeholder consultation and other mechanisms – notably in relation to claims to land, territories and resources, and more generally in relation to decision-making that affects indigenous peoples directly, including with respect to their priorities for their own development.

Process & Outcome Indicators

European Union

There are two main indigenous peoples in the continental EU, mostly found in the Arctic: the Saami, living in Sweden and Finland (and thought to consist of a population between 50,000-100,000 people) and the approximately 50,000 people identifying themselves as Greenlandic Inuit living in Greenland. Like most indigenous traditions, the Saami were a nomadic culture that relied solely on hunting and fishing for subsistence. Reindeer herding was the basis of the economy until recently, but with economic growth, shifts have occurred towards commercial fisheries, or public and commercial employment. Sami also increasingly participate in the Scandinavian professional, cultural, and academic world.

In regards to the EU’s Outermost Regions (OR), indigenous groups have been driven out in most departments. Today, a small minority of indigenous groups remains in French Guiana. In French Guiana, indigenous groups form about 3–4% of the population, (about 10,000 people) and include the Arawak, Carib, the Kaliña, Palikur, Wayampi and Wayana. Most rely on subsistence fishing, hunting, and horticulture, mostly growing cassava. However, groups also cultivate sweet potatoes, sugarcane, cotton, coffee, and citrus trees (PIB, n.d.)¹⁶⁰.

Where indigenous communities in Mercosur struggle regarding recognition and protection of indigenous languages, the Greenlandic Inuit and Sami do not. West Greenlandic (Kalaallit), an Inuit language, is recognised as the official language of the territory, along with Danish, and is taught in schools, used in broadcasting, administration, church services, literature and newspapers.

In regards to the Sami, the political struggle for influence began in the 1950s and led to the establishment of the Sami parliament in the 1990s. Across Sweden and Finland, the parliament works to coordinate concerns of the Sami. Financed by grants from the Swedish government, 31 members of parliament meet three times a year and remain in office for a term of four years each. In 2011, the Swedish constitution recognised the Sami people’s right to preserve and develop a cultural and social life of their own by confirming Sweden’s responsibilities in promoting such opportunities. As a result, financial resources have been earmarked to further Sami interests such as the inclusion of Sami language in nursing homes and schools (Swedish Institute, 2020)¹⁶¹.

However, despite progress in institutional recognition, the Inuit and Sami face a range of economic, social, health and environmental challenges. Traditional way of life for both groups is threatened by both economic modernisation as well as international animal rights campaigns

¹⁶⁰ <https://pib.socioambiental.org/en/Povo:Palikur>

¹⁶¹ <https://sweden.se/society/sami-in-sweden/>

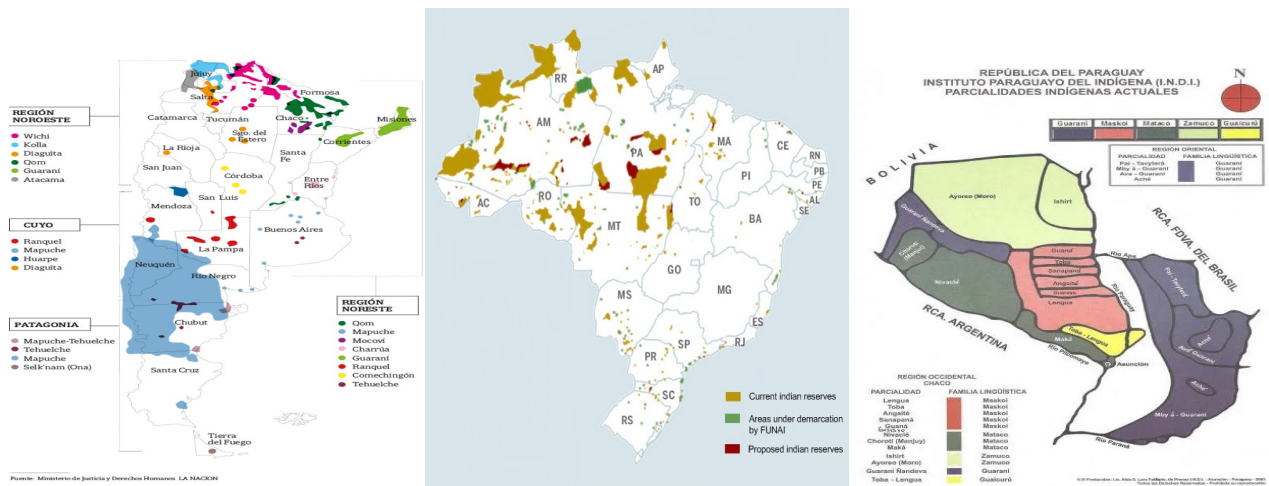
against their traditional forms of subsistence hunting. Land rights face a different challenge in this region of the world, as the issue of titles is trumped by the impacts of global warming, rising sea levels, melting ice and the disappearance of animals. In February 2007, a delegation of Inuit from Greenland, US, Canada and Russia, challenged the U.S. before the Inter-American Court on Human Rights for its failure to contain greenhouse gases, arguing that it violated its obligations under the American Convention on Human Rights, however the court continues in deliberation (Minority Rights Group, 2008)¹⁶².

Originally hunters and gatherers, reindeer herding became an important part of Sami traditions in the 17th century. Today, only 10% of Swedish Sami earn a living from the reindeer industry and are forced to supplement their income elsewhere as a result of continuing disputes over land rights. Like the Arctic Inuits, the Sami too challenged the courts for their rights—specifically regarding a historical dispute between reindeer grazing rights and landowners' logging rights. However, the Swedish Supreme Court ruled in favour of the Sami and provided them with rights to significant portion of land (Swedish Institute, 2020).

Mercosur

The Mercosur countries each host considerably sized indigenous populations. According to the 2018 World Indigenous Report, the 2010 census conducted by the Brazilian Institute of Geography and Statistics reveals that 0.46% of Brazil's population (over 900,000 people) is indigenous, while the 2012 Paraguayan National Census of Population and Housing for Indigenous Peoples demonstrates that 2% of the population, or 136,000 people, self-identifies as indigenous (IWGIA, 2018). A survey by the World Population Review also demonstrates that 1.1% of Uruguay's population, almost 40,000 individuals, self-identifies as indigenous (WPR, 2019). Finally, the most recent census by the National Institute of Statistics and Census in 2010 revealed that 2.4% of Argentina's population, over one million people, self-identified as descending from or belonging to an indigenous group (IWGIA, 2018). While the Brazilian percentage of indigenous peoples in Brazil is smallest relative to its population, it has the greatest geographical representation with presence in 80% of the country's municipalities. Together with Paraguay, whose population belongs to 20 nations and five language groups, Brazil warrants particular attention for the inequalities indigenous people face within each of the countries.

¹⁶² <https://www.refworld.org/docid/49749d307.html>

Figure 48: Map of Indigenous Communities in Argentina (left); Brazil (middle); and Paraguay (right)

Source: IWGIA - International Work Group for Indigenous Affairs

While living in very different climates, and reflecting very diverse traditions, indigenous populations across both the EU and Mercosur regions face similar key challenges including those regarding discrimination poverty, climate change, endangered languages, and land/natural resources. Despite constitutional recognition in Argentina, Brazil, and Paraguay, Indigenous peoples across Mercosur commonly struggle with the lack of implementation activities to uphold such recognition.

Land rights and access to natural resources are perhaps amongst two of the most evident and contentious challenges indigenous populations face. Mercosur member states have an obligation via the Inter-American Commission on Human Rights and the Inter-American Court of Human Rights to protect indigenous communities' relationship with their land and take action against the continuing displacement of indigenous peoples. However, theoretical efforts to respect this right have proved superficial in many instances, with the implementation of constitutional recognition failing to translate into practical implementation.

The land ownership system established in **Argentina** after the Spanish conquest, did not consider indigenous systems in its design and failed to incorporate legal protection. In 2006, an emergency law was adopted to suspend evictions and conduct a survey of lands traditionally occupied by indigenous communities. Since then, the law has continuously extended the completion deadline and after the third extension it is now meant to be completed by 2021. In regards to language, while Argentina's National Congress "recognises the ethnic and cultural pre-existence of the Argentine indigenous peoples", Spanish is the nation's only official language. However, municipalities have acted to adopt several indigenous languages as co-official in their local provinces, such as the Province of Corrientes in 2004 and the Province of Chaco in 2011.

In an effort to progress respect for indigenous rights, the country's National Institute of Indigenous Affairs was established by the Emergency Act in 2006 to manage the National Program for Territorial Survey of Indigenous Communities. While the aim of the survey is to register property for the title of ancestral land, a 2019 investigation found that after 13 years, the survey had only begun in 57% of indigenous communities and was completed in only 38% of the cases.

Dispossession of lands and exploitation of natural resources has intensified in **Argentina** as an effect of increases in mining, natural gas extraction, and oil activities as well as agricultural and livestock expansion in indigenous lands (OHCHR, 2017). Argentinian communities are currently facing numerous instances of such struggles. According to the Ministry of Mining, between 2015 and 2018, investment in lithium exploration and production in Argentina increased by 928%. In 2010, the Kolla people of Salinas Grandes filed a collective injunction against the states of Jujuy, Salta, and the national government to challenge lithium production as a violation of their rights to PFIC and a cause of their depleting water sources. These communities are forced to move away due to the shortage of water suitable for consumption, and the health effects of lithium extraction. Ten years later, the inter-American Court of Human Rights continued to process the case (Roth, 2019).

In another instance, spring 2019 saw indigenous communities in **Argentina** gather to block access to a mining enterprise in Guayatayoc Lagoon as the communities were not approached for approval and the local government had approved it independently. Similarly, the Mapuche community of Campo Maripe continues to resist oil activities and the extraction of natural gas in Vaca Muerta as inhabitants understand the water to be contaminated – which is having effects on their livestock and which risks effects on their own health. The CESCR expressed concern about the indigenous situation in Argentina, questioning the authorities on compliance issues and lack of channels to deliver community land titles to indigenous groups.

However, in April 2020 the Inter-American Court of Human Rights ruled in favour of the Indigenous people in Salta and declared **Argentina** to be in violation of various rights owed to 132 different indigenous communities that inhabit the various lands in Salta. The ruling establishes that the Argentinian government must provide 400,000 hectares of ancestral property in the north of Salta to the Wichí, Iyjawaja, Komlek, Niwackle and Tapy'y peoples and is required to comply by a given deadline (Meyer, 2020).

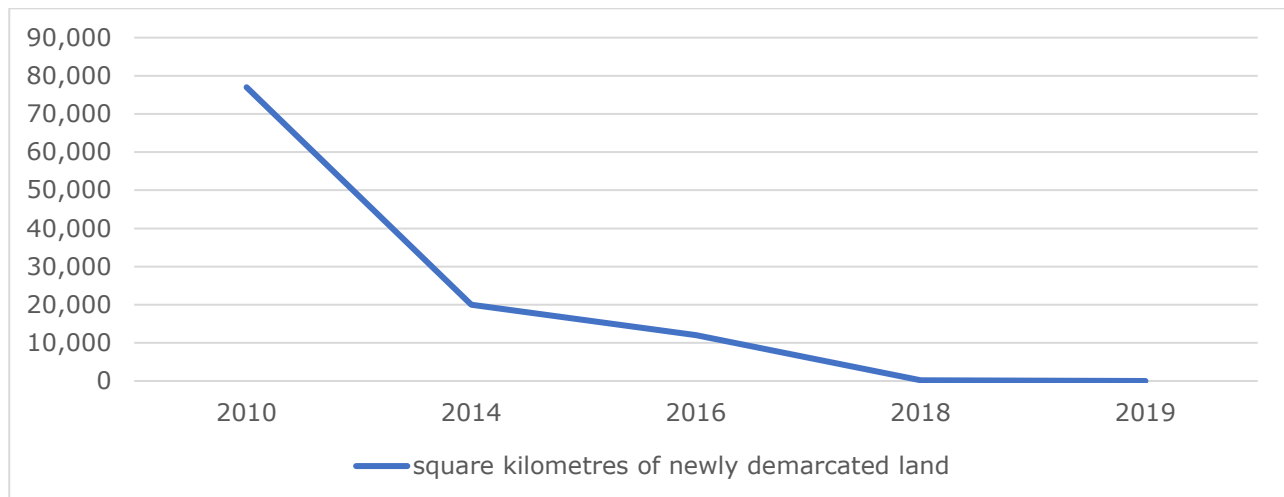
While **Brazil's** constitution recognises the rights of indigenous peoples, it guarantees the exclusive use of their land rather than its ownership. In this sense, if certain criteria specified in article 231 of the constitution are met, a person or community can engage in a process known as demarcation where the state then recognises the land as indigenous. The National Indian Foundation (FUNAI) is responsible for the demarcation process and has undergone many changes. While the 1988 constitution set a goal of demarcating all indigenous lands within five years, only 291 indigenous territories were demarcated. The situation has only worsened as in 2017, the President restricted the rights of indigenous peoples to their traditional lands by requiring that demarcation of any new indigenous land is subject to anthropological proof of indigenous occupation of that specific land as of October 1988.

Since 2016, the position of FUNAI, responsible for mapping out and protecting lands traditionally inhabited by indigenous communities, has been weakened (IWGIA, 2019). Governments have reduced the agency's budget which is already estimated to only leave 14% for its mandated activities as 72% of its budget was allocated to personnel expenses (active and retired, including benefits), 12% to the agency's structure maintenance and 2% to payment liabilities¹⁶³. The government adopted Provisional Measure No. 870/2019 on the first of January 2019, which transferred the decision-making power over the demarcation of indigenous and Quilombo reserves from FUNAI to the Ministry of Agriculture, Livestock and Supply (MAPA). However, Brazil's Congress voted to restore FUNAI's authority after a large mobilisation by indigenous

¹⁶³ International Work Group for Indigenous Affairs (NGO), *The Indigenous World 2019*.

peoples and legal challenges in the Supreme Federal Court (STF). The weakening of FUNAI's position is evident when observing the rate of demarcation procedures over the past decade. According to Figure 49, Brazil's demarcation procedures have particularly slowed over the past four years (AgenciaBrasil, 2018).

Figure 49: Square kilometres of newly demarcated land in Brazil



Source: AgenciaBrasil

Between 2007 and 2010, **Brazil's** federal government demarcated 77,000 square kilometres of Indigenous territories in the Amazon region. In the next four years, it demarcated 20,000 square kilometres. During President Rousseff's truncated second term, from 2014 to May 2016, it demarcated an additional 12,000 square kilometres. Between 2016 and 2018, it demarcated only 192 square kilometres, and finally since January 2019, the federal government has not demarcated any new indigenous areas. While Brazil's Bureau of Indian Affairs was legally required to complete all demarcation cases by 2009, currently, 228 cases await finalisation, keeping 107,203 indigenous people in states of uncertainty. The 2017 decision to require anthropological proof for the demarcation of any new indigenous land has effectively put an end to demarcation efforts (Figure 49). However, in March 2018 the Inter-American Court of Human Rights ruled against Brazil and held it accountable for the violation of several rights of the Xukuru people, including the failure to respect PFIC, demarcate traditional territories, and provide effective legal protection and proceeding. This was the first time that an indigenous people's group was able to take Brazil to court for its treatment of indigenous peoples (AgenciaBrasil, 2018)¹⁶⁴.

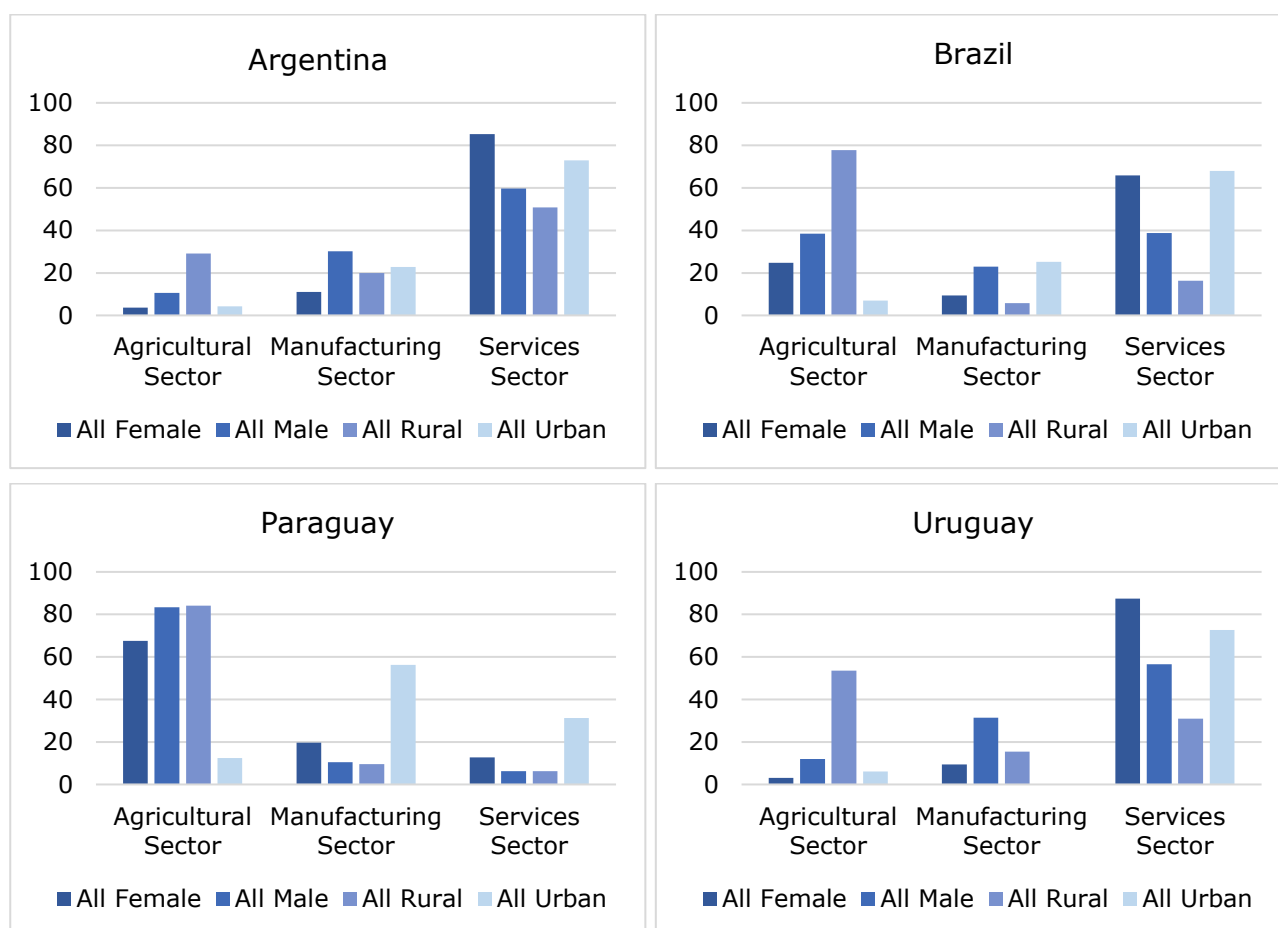
While **Paraguay's** constitutional recognition of indigenous rights has not translated into effective practical measures to provide indigenous peoples with the means to enjoy their rights in the past, a few recent advancements are relevant. Paraguay has established an inter-ministerial committee to implement Court decisions and put legislation in place for the return of traditional land to indigenous communities. Furthermore, the National Strategy for Indigenous Communities adopted a decree on consulting indigenous communities ahead of decisions relevant to their territories and livelihoods, although concerns remain about the levels of bureaucracy involved in these future consultations.

¹⁶⁴ <https://agenciabrasil.ebc.com.br/en/direitos-humanos/noticia/2018-03/inter-american-court-condemns-brazil-violating-indigenous-rights>

While indigenous communities in **Paraguay** continue to struggle for land rights and several territorial restitutions are pending, recent progress has been made regarding land restitution. The Tarymandymi community from Mbya benefited with restitution of land in Luque. The Wonta Santa Rosa community also received lands in Mariscal Estigarribia district and the Río Apa community obtained the regularisation of their traditional lands. Furthermore, the state has proceeded with implementation of some outstanding sentences offhanded down by the Inter-American Court, such as the opening of an access road for the Yakye Axa community in the Chaco, and the first compensation instalment (of three) as a consequence of development projects for the Yakye Axa, Sawhoymaxa, Xamok Kasek and Kelyenmagategma communities.

Across Mercosur, the deterioration and fragility of the ecosystems on which their well-being depends, motivates indigenous people to migrate to the cities, where they tend to find work in the manufacturing and services sectors. Figure 50 suggests that this migration from rural to urban areas and the switch from the agricultural to manufacturing and service sectors are evident in Argentina, Brazil, and Uruguay—where there is a high prevalence of urban service sector employment.

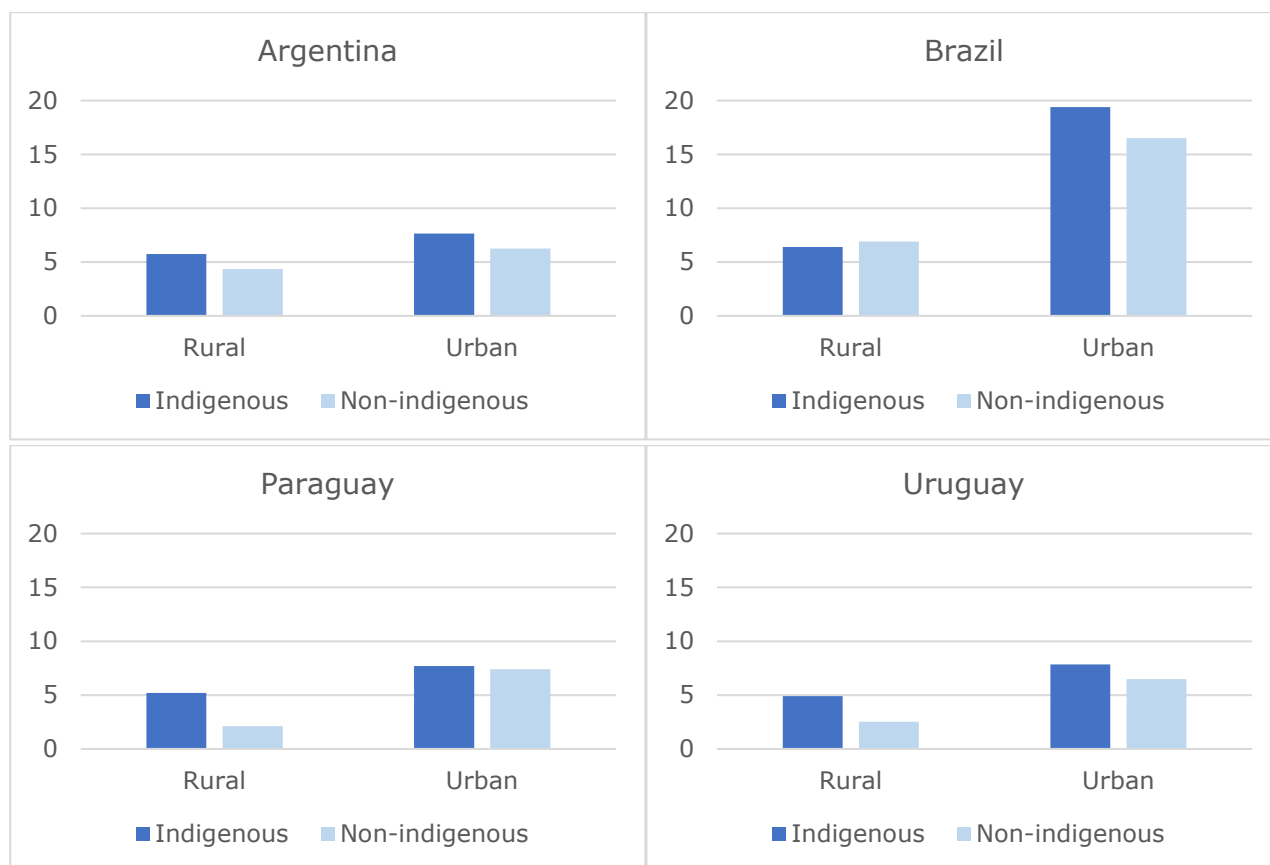
Figure 50: Indigenous Occupational Structure by Sector



Source: Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE, 2015

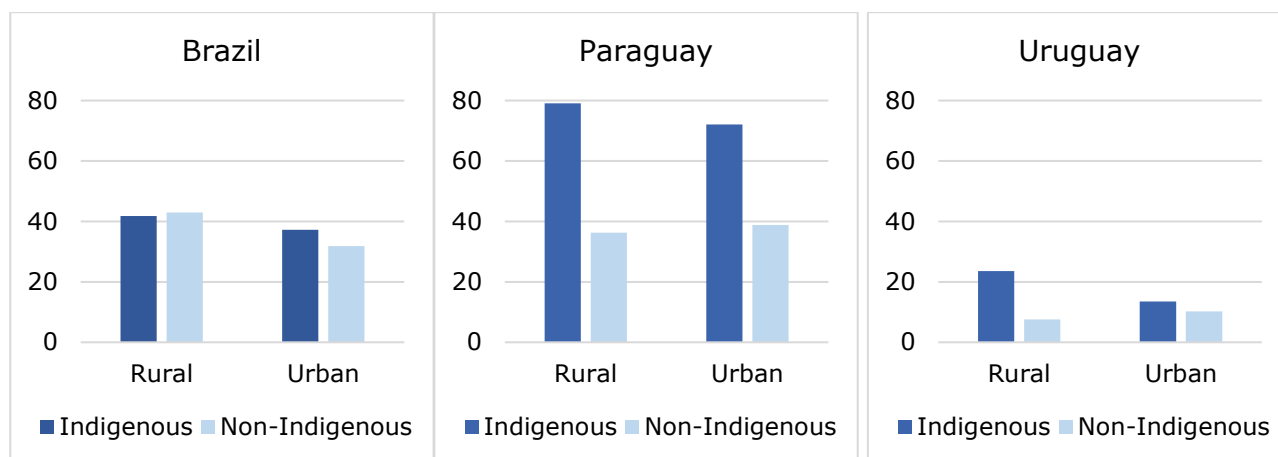
In rural areas, the presence of indigenous people in the manufacturing sector is, in general, associated with the making of crafts or industries that also depend on natural resources. It is important to note that, although indigenous peoples participate in the service economy, they do so for the most part in vulnerable employment including lower-income jobs, short-term work, and informal employment, such as domestic service in the case of indigenous women. Figure 51 indicates barriers of indigenous into labour markets in all four Mercosur partner countries as rates of unemployment are higher in comparison to non-indigenous.

Figure 51: Percentage of population unemployed



Source: Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE, 2015

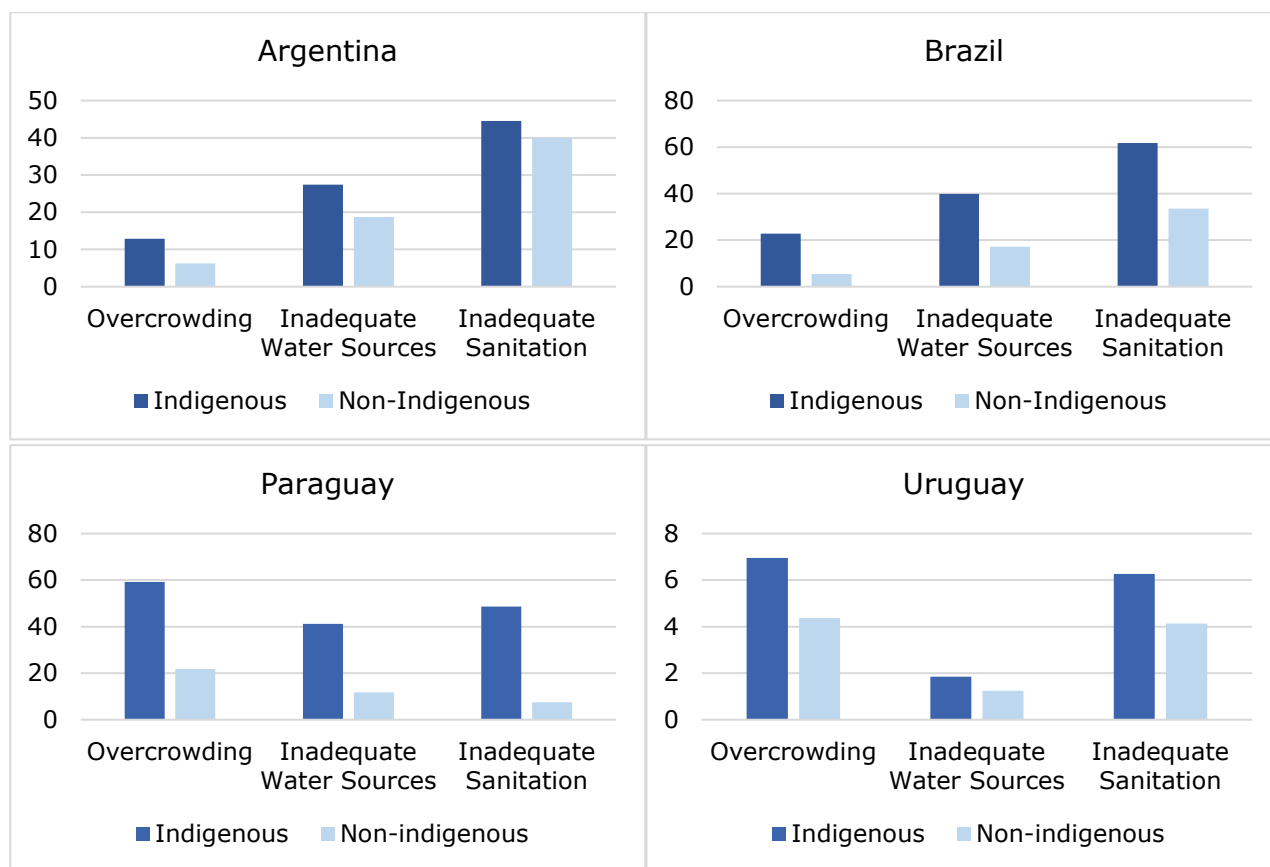
Challenges exist in the level of access to adequate health treatments among indigenous communities in **Brazil**, and there are vast disparities among income groups (among which higher percentages of indigenous communities live in poverty) (Ferraz, 2009). Similarly, the most recent UPR of **Argentina** noted that indigenous communities, particularly the Mapuche, experience major health issues as a direct result of pollution from extractive industries in the country (OHCHR, 2017). The report also identified the increase in agrochemical use in the Gran Chaco region to be poisoning the air, soil and water (OHCHR, 2017).

Figure 52: Infant Mortality Rate

Source: *Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE*; *there is no publicly available data on Indigenous mortality rates in Argentina

Figure 52 above compares infant mortality rates of indigenous populations with those of non-indigenous communities in Brazil, Paraguay, and Uruguay*. There are considerable disparities between indigenous and non-indigenous communities in all three countries, but Paraguay and Uruguay's rural indigenous populations reflect disproportionately high rates in comparison. While data on infant mortality rates for indigenous groups in Argentina is not available, the critical situation of the indigenous population has recently been highlighted by the death of eight children belonging to the Wichi people due to malnutrition exacerbated by poor access to clean drinking water (Bianco, 2020).

As such, achieving the right to adequate housing with proper sanitation facilities and clean water has direct implications for the health of indigenous groups. States must meet obligations defined by the right to life where measures must guarantee conditions for a "dignified life" (OHCHR, 2015). Considerable disparities are seen for the three indicators (overcrowding, water access, and adequate sanitation) of adequate living conditions below in all four Mercosur countries.

Figure 53: Access to Adequate Living Conditions for Indigenous Peoples

Source: *Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE*

The situation regarding water sources and sanitation in **Brazil** is a serious concern for both indigenous as well as non-indigenous communities. Agricultural expansion projects, including in Mercosur member states, have at times undermined indigenous peoples' rights, including their rights to lands, natural resources, as well as their rights to food, tradition, health and development. Such projects sometimes deplete water sources, and at times indigenous families are displaced, often suffering from extreme poverty and marginalisation.

In 2015, the collapse of a dam owned by a subsidiary of the **Brazilian** mining company Vale, and the Anglo-Australian multinational BHP Billiton, killed 19 people and destroyed resources necessary for the livelihoods of the surviving members of the Krenak indigenous group along the Rio Doce. Unleashing 40 million litres of water and sediment from iron ore extraction, the collapse of the dam contaminated the sole water supply for hundreds of thousands of local people (Phillips and Brasileiro, 2018)¹⁶⁵.

In another example, indigenous campaigns in **Brazil** highlight how Xingu river residents struggle with the damage caused by Belo Monte dam, and underline the contamination of rivers and groundwater around the Norwegian Hydro Alunorte aluminum refinery in the Para state. After years of complaints that the contaminated water was causing diarrhoea, illness, and poisoning

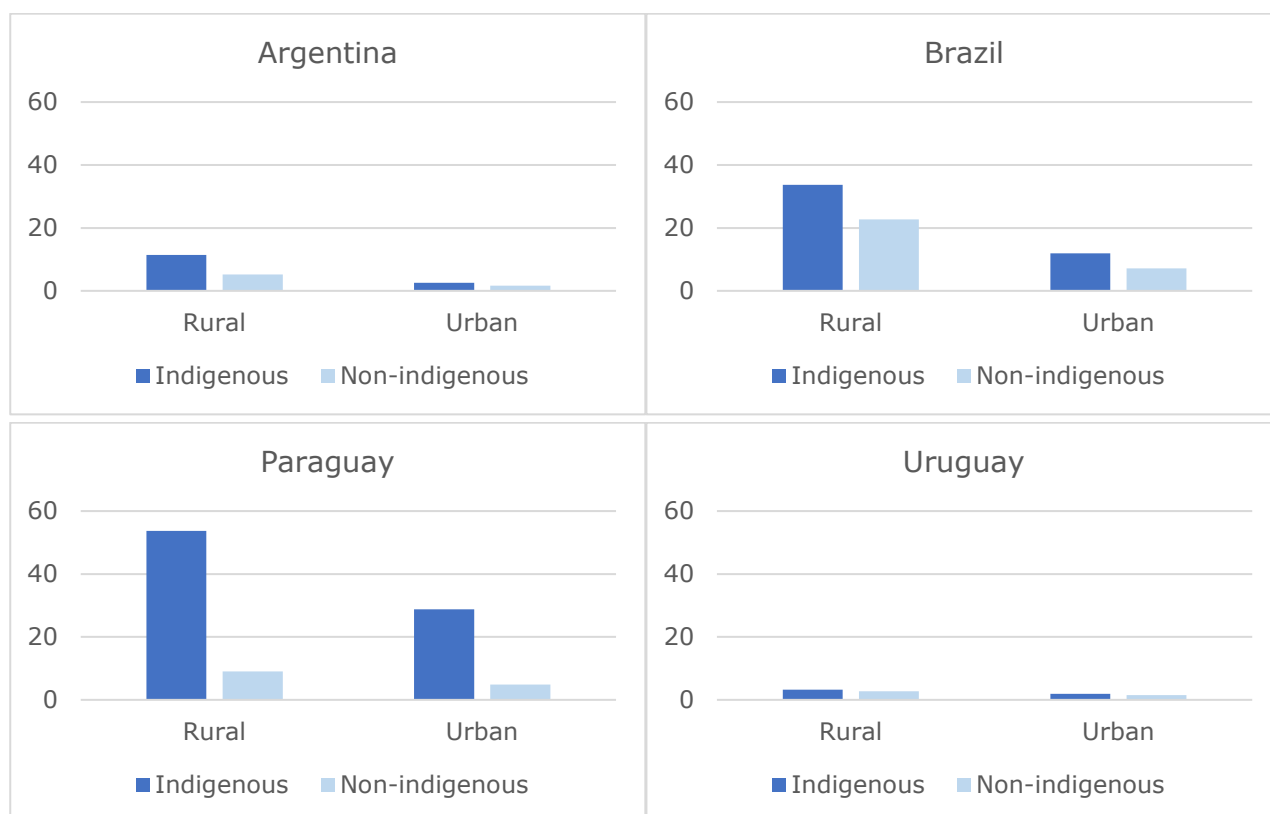
¹⁶⁵ <https://www.theguardian.com/world/2018/feb/28/brazil-dam-collapse-samarco-fundao-mining>

fish populations, government researchers announced evidence of a contaminating leak. However, soon after floods swelled the town with red-colored mud, a leading member of the \$150 million legal claim launched against the Para state government for damages was murdered (Phillips, 2018)¹⁶⁶.

A study in 2016 engaged in discussion groups with peasants and indigenous communities near a nature reserve in Eastern **Paraguay** to elicit attitudes towards recent soy expansion nearby. Interview results demonstrated that soy cropping expansion had created concerns of agrochemical pollution and displaced a considerable amount of the population (Cardozo et al., 2016)¹⁶⁷. While clearing of land as part of agricultural activities and investment projects can affect livelihoods across populations, the effects on indigenous subsistence livelihoods are of particular concern by limiting access to game, fish, and honey (Notess & Veit, 2018; Notess, 2018; Notess et al., 2018).

Existing discrimination against indigenous people is particularly evident in the degree of socioeconomic marginalisation, lack of preservation of indigenous culture, and challenges in accessing appropriate educational opportunities (OHCHR, 2017). The UNDRIP prohibits discrimination against indigenous peoples including in relation to education. In that regard, Figure 54 observes the right to education by comparing illiteracy rates and average years of study between indigenous and non-indigenous populations in the four Mercosur countries.

Figure 54: Rates of Illiteracy among Indigenous Populations



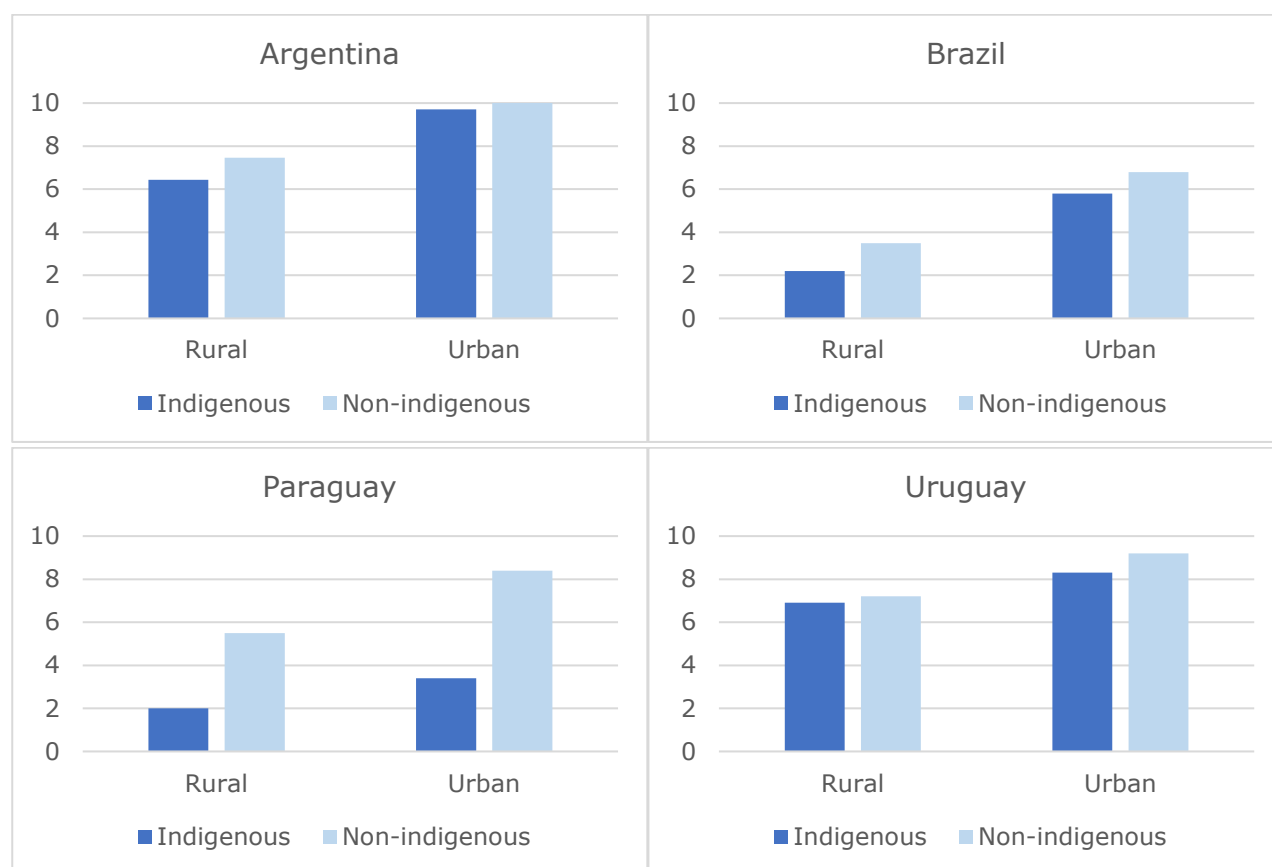
Source: *Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE*

¹⁶⁶ <https://www.theguardian.com/world/2018/mar/16/brazil-pollution-amazon-aluminium-plant-norwegian>

¹⁶⁷ <https://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=1055&context=jlaq>

The discrepancies in access to education in Brazil are linked only to a limited extent to indigenous identification as the rural-urban divide plays a more significant determining role. While about 34% of the indigenous community living in rural areas is considered illiterate, 23% of the non-indigenous are illiterate. Similarly, Figure 54 demonstrates that Indigenous peoples in Brazil's urban areas are almost 5% more likely to be illiterate. In contrast, Paraguay also sees rural vs urban differences, but accessibility is more strongly predicted by indigenous identification. About 54% of Indigenous peoples in rural areas are considered illiterate, in comparison to only 9% of non-indigenous individuals. Similarly, Indigenous peoples in Paraguay's urban areas are seven times more likely to be illiterate. The disparities in literacy rates among Indigenous peoples in Paraguay can be explained, in part, by examining the average years of study.

Figure 55: Average years of study among Indigenous Populations

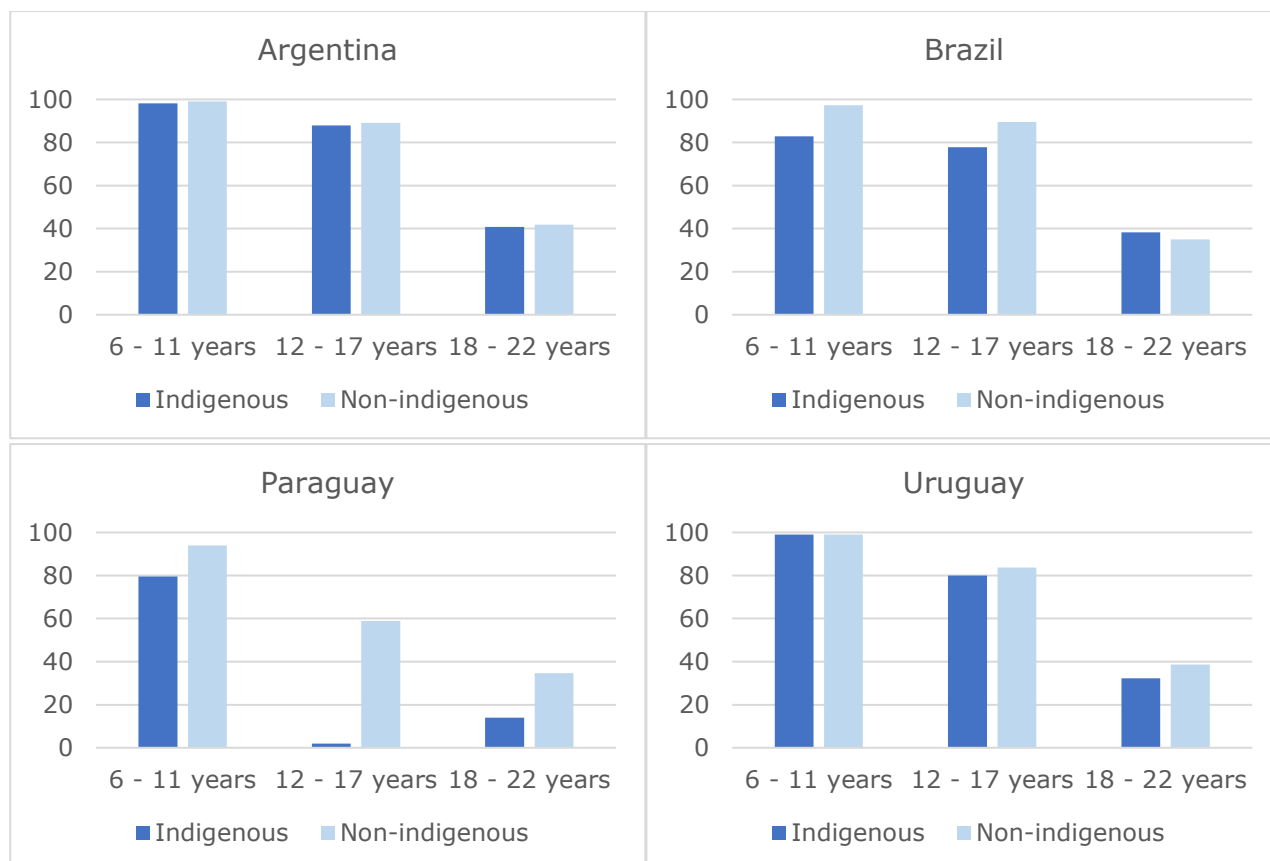


Source: Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE

While Argentina and Uruguay—those with the smallest disparities in literacy rates—reflect small discrepancies in average years of study, the situation in both Brazil and Paraguay is of concern. Anything below a 100% rate of primary education enrolment in

Figure 56 below would indicate an implementation gap in the right to education. Moreover, a lower percentage of school attendance of indigenous children compared to non-indigenous children is a measure of inequality.

Figure 56: School Attendance



Source: *Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE & World Bank Data*

Figure 56 demonstrates that while Argentina and Uruguay reflect minor inequalities in school attendance by indigenous communities, both Brazil and Paraguay indicate sizeable inequalities—with the largest concern in Paraguay. According to the Latin American and Caribbean Demographic Centre (CELADE), the lower attendance of indigenous youth to secondary education is associated with an earlier incorporation into the labour market (CELADE, 2018). According to the last visit of the Special Rapporteur on the right to education, Paraguay reflects persistent inequalities in the realisation of this right for indigenous children¹⁶⁸. While non-indigenous adolescents receive over eight years of schooling on average, Indigenous peoples receive three. As noted in Figure 54-55, about 40% of Paraguay's indigenous population remains illiterate and indigenous adolescents are 25 times less likely to attend school than their non-indigenous classmates.

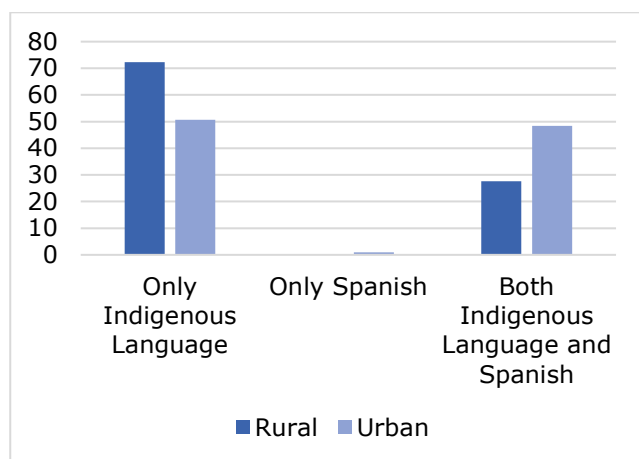
Poor attendance may be explained by limited incentives for families to invest in schooling when evidence indicates that only 30% of teachers working in indigenous schools have completed basic education. The report also finds that there are significant inequalities in the infrastructure of indigenous schools as only 25% have electricity and only 5% have main water supplied from

¹⁶⁸ <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G10/120/88/PDF/G1012088.pdf?OpenElement>

a public or private grid, only 7% have toilets with septic tanks, and only 23% have separate toilets for boys and girls.

At the time of the Special Rapporteur's visit, government support for the educational needs of indigenous peoples focused on the provision of centrally mandated services, but did not plan on providing support for educational needs designed by their own conceptions of development and indigenous education in their own language. In fact, according to the CELADE, security of the indigenous language, and bilingualism in Spanish are indicators of the respect of the right to culture and identity (CELADE, 2018). As the most common of Paraguay's indigenous language, Guaraní, is recognised as a national language in the constitution, Figure 57 compares the percentage of indigenous populations in Paraguay that only speak their indigenous language versus those that only speak the national language versus those that speak both.

Figure 57: Percentage of Indigenous Population Fluent in traditional Language in Paraguay



Source: *Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas, CELADE*

While the right to culture and identity is integral to the Declaration of Rights of Indigenous peoples, certain local authorities view the prioritisation of indigenous languages alongside the national language as a cultural barrier or sign of underdevelopment. According to the report of the Special Rapporteur, the language is often shunned by teachers, and students hesitate to speak it in public. Even though it is protected under the Constitution, the plan for Guaraní to be taught in formal education is viewed as a subsidiary issue as Spanish is considered necessary for economic opportunities. Studies show systematically that those indigenous people who only speak their own indigenous language present indicators of unfavourable living conditions in comparison to those that speak Spanish. While a direct causal link between the ability to speak Spanish, and improved living standards is difficult to prove, the inability of some to speak Spanish marginalises them socially and prevents indigenous populations from securing work in the formal sector (CELADE, 2018).

5.2.4. Gender Equality

Structural Indicators

The principle instrument guiding the commitment to Gender equality is the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW). However, via further adoption of other international, regional, and national instruments, the EU and all four of the

Mercosur partner States commit themselves to end discrimination against women throughout their institutional, legislative, and normative frameworks (UNWomen, 2009).

Table 35: Commitments to Gender Equality

International
Convention on the Elimination of all forms of Discrimination against Women
ILO Discrimination Convention
International Covenant on Economic, Social, and Cultural Rights
International Covenant on Civil and Political Rights
Convention on the Elimination of Racial Discrimination
Fundamental ILO Convention No. 100 on Equal Remuneration
European Union Member States
EU Charter of Fundamental Rights
Resolution of 3 July 2018 on violation of the rights of indigenous peoples in the world, including land grabbing (2017/2206(INI) 169
Mercosur Partner States
American Convention on Human Rights
Inter-American Court of Human Rights
Argentinian Constitution
Argentine Quota Law 1991
Argentine Civil Code
Inter-American Convention on the Prevention and Eradication of Violence against Women
Argentine anti-femicide law
Brazil's 1988 Constitution
Articles 63-66 of Paraguay's National Constitution
Articles 46-48 and 89 of the 1992 Paraguayan Constitution
Uruguay's 2006 Domestic Work Law
Uruguay's 2008 Consensual Union Law
Uruguay's 2008 Reproductive and Sexual Health Law
Uruguay's 2009 Law on quotas
Uruguay's 2009 Sexual Harassment Law
Uruguay's Gender Identity Law
Uruguay's Pregnancy Termination Law

Source: Author's elaboration.

Process & Outcome Indicators

A plethora of existing literature assesses the state of gender equality across time and countries. Measuring gender equality however can be a difficult and demanding task. While various indices, including the UNDP's Gender Development Index, efficiently allocate rankings that symbolise

¹⁶⁹ https://www.europarl.europa.eu/doceo/document/TA-8-2018-0279_EN.pdf

progress towards achieving women's rights across countries, they fail to provide a granular picture of where disparities lie within countries. As such, this report observes indicators that define capabilities gaps (health, education and nutrition) and disparities in access to resources and opportunities (Seguino, 2006) (Table 36).

Table 36: Gender Equality Indicators

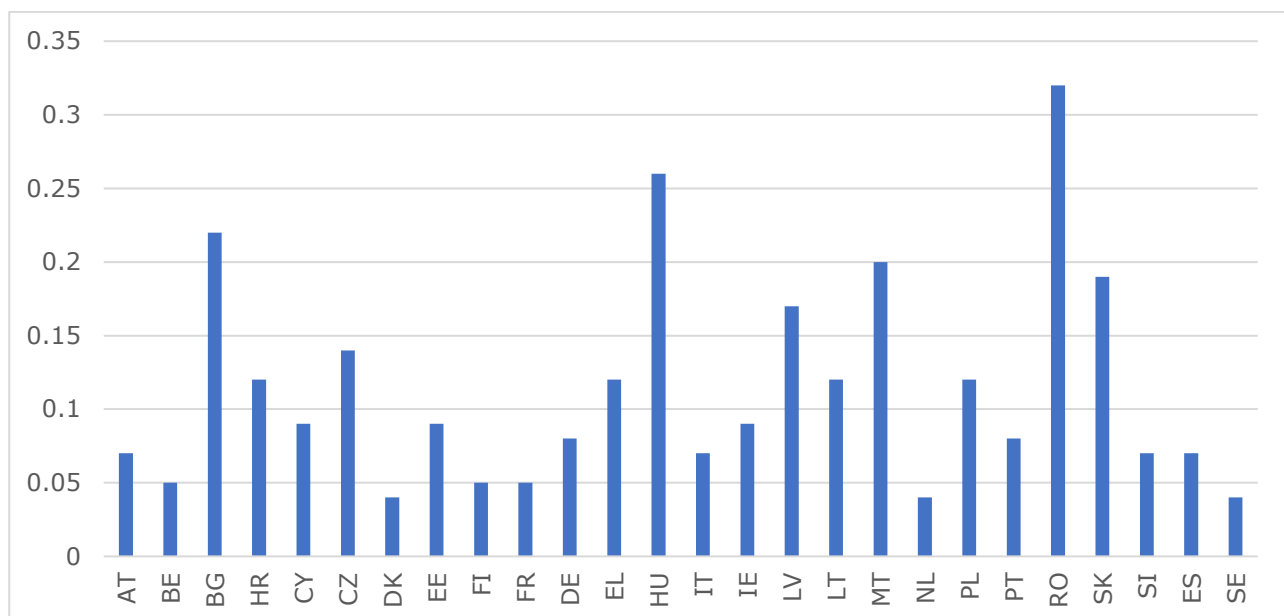
Key toolbox elements	Indicators
Capabilities	Mortality ratio; fertility rate; secondary school enrolment ratio; illiteracy ratio; educational attainment ratio; rates of malnourishment
Access to resources / opportunities	Female share of total employment; female share of vulnerable employment; demographic profile of sectors; unpaid and care work

Source: Author's elaboration.

European Union

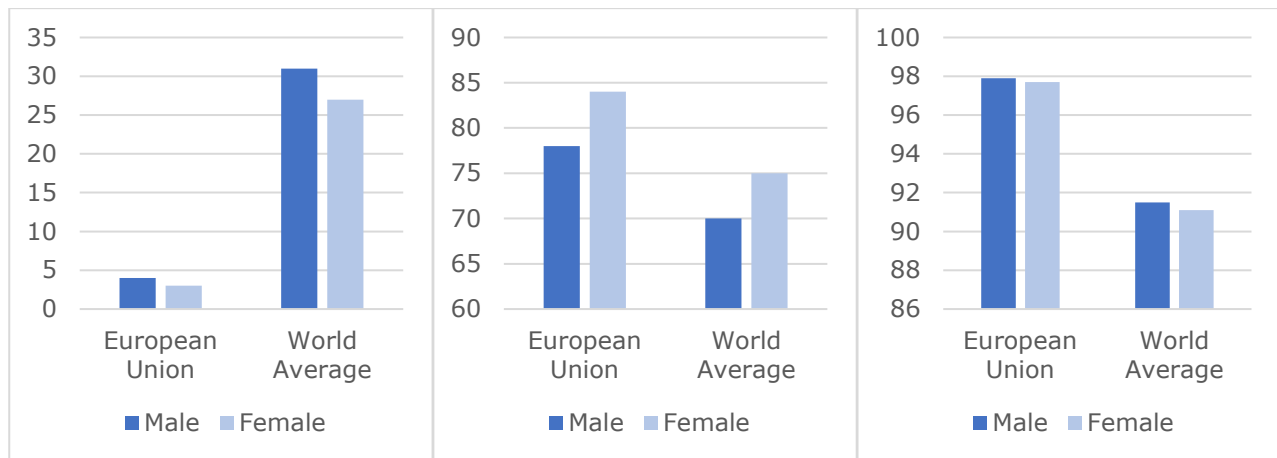
Although inequalities still exist, the EU has made progress in gender equality over the last decades by embarking on numerous initiatives with a focus on equal treatment legislation across disciplines, gender mainstreaming, integration of the gender perspective into all policies, and specific measures for the advancement of women. As such, EU member states reflect some of the lowest values among UNDP's Gender Inequality Index (GII). The GII measures losses in potential human development due to disparity between female and male achievements in reproductive health, empowerment and the labour market.

Figure 58: Gender Inequality Index scores among EU Member States



Source: European Commission. Gender equality strategy

Values range between 0 and 1 where higher values indicate higher inequalities between women and men. With the exception of Bulgaria, Hungary, and Romania, EU member states remain below scores of 0.20. Low values across the EU are further evident as rather gender-equal observations of mortality rate, life expectancy, and progression to secondary school (Figure 59).

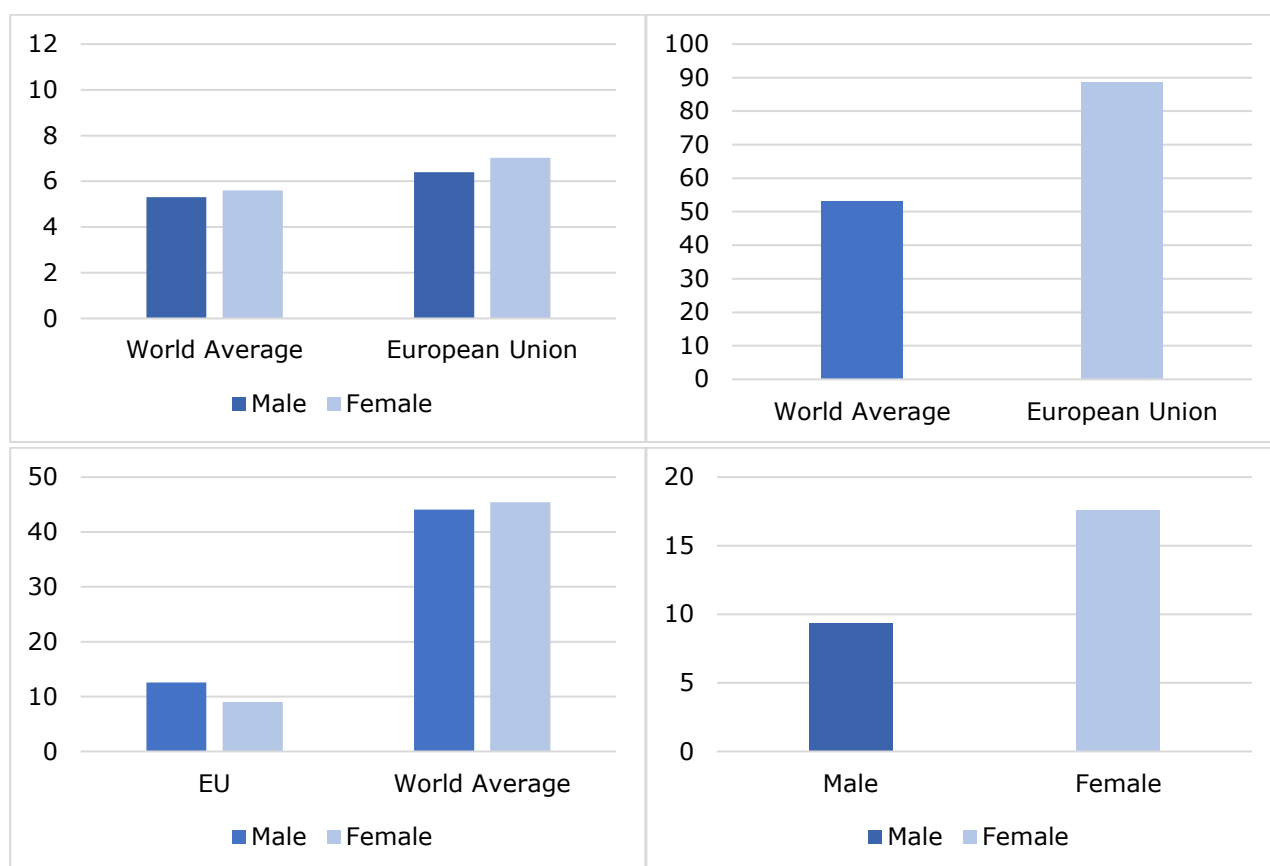
Figure 59: Mortality rate (left); Life expectancy (middle); progression to secondary school (right)

Source: European Commission. Gender equality strategy

In order to continue positive trends in the labour market, the region follows the EU Gender Equality Strategy of which the key objectives include challenging gender stereotypes, closing gender gaps in the labour market, achieving equal participation across different sectors of the economy and achieving gender balance in decision-making. The Strategy pursues a dual approach of gender mainstreaming combined with targeted actions. While the Strategy focuses on actions within the EU, it is coherent with the EU's external policy on gender equality and women's empowerment (European Commission, 2020)¹⁷⁰. While the EU has made significant progress in the areas of gender equality in the past decade, a small gender disparity continues to exist in unemployment rates.

¹⁷⁰ https://ec.europa.eu/info/policies/justice-and-fundamental-rights/gender-equality/gender-equality-strategy_en

Figure 60: Unemployment (top left); % of women in wage employment (top right); % of population in vulnerable employment (bottom left); time spent on unpaid work (bottom right)



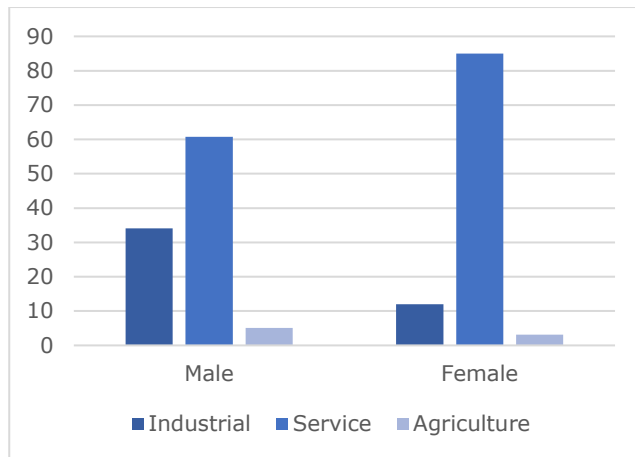
Source: World Bank Data

Figure 60 presents the share of female workers in wage employment in the non-agricultural sector (industry and services), expressed as a percentage of total employment in the non-agricultural sector. In comparison to the agricultural sector, the industry and service sectors reflect greater rates of formal wage employment—allowing for greater bargaining power through contractual means. Data on women in wage employment in the non-agricultural sector show the extent to which women have access to paid employment – which affects their integration into the monetary economy. This acts as an indicator of the degree to which labour markets are open to women - which affects not only equal employment opportunities, but also economic efficiency through flexibility of the labour market and the economy's capacity to adapt to changes over time. Vulnerable employment is defined as informal working arrangements, with a lower likelihood of decent working conditions, adequate social security and 'voice'. Such arrangements can be characterised by shorter hours, unpaid work, inadequate earnings, and lack of social protection. While vulnerable employment is widespread for both women and men, women are more likely to help out in a household or family business while men are more likely to be self-employed (ILO, 2018)¹⁷¹. Figure 60 demonstrates that vulnerable employment is not of great concern for women in the EU.

¹⁷¹ <https://www.ilo.org/infostories/en-GB/Stories/Employment/barriers-women#intro>

The concentration of women in certain sectors may result from cultural attitudes that prevent them from entering industrial employment. This is particularly harmful for women, who have a much narrower range of labour market choices and lower levels of pay than men.

Figure 61: Employment by Gender and Sector



Source: World Bank Data

There are several explanations for the importance of service jobs for women. Figure 61 demonstrates that while the EU is a service economy with both a majority percentage of men and women working in the service industry, the agricultural and industrial goods sectors are predominantly male.

Mercosur

In recent years, **Argentina** has focused on eradicating gendered violence by launching the National Action Plan to Prevent and End Violence against Women 2017–2019. Argentina has also taken numerous steps towards bridging the labour market related gender disparities. The country recently joined the GQUAL Campaign which supports balance in international organisations. Additionally, the past decades have benefited from further implementation of the Argentine Republic's National Plan of Action to implement UN Security Council resolution 1325 (2000). As an indicator of its commitment, Argentina is also in the process of establishing a "UN Women" office in Buenos Aires to further support its recent commitments.

Throughout the last decade, **Brazil's** strategy to improve the situation of women (through initiatives such as the Bolsa Familia, Brazil Without Extreme Poverty, the National Documentation Program, My House, My Life, Brasil Cariñoso, Light for All, Social Assistance Network, and Pro-Gender and Racial Equality in Businesses program, continue) continues to have a significant impact on the socioeconomic opportunities for women¹⁷².

While focusing on ending violence against women by forming a task force for the implementation of its 2016 Law for Comprehensive Protection for Women Against Violence, **Paraguay** has also adopted strategies to bridge the rural-urban gaps with the implementation of the Public Policy Law for Rural Women, thus far training more than 1,000 rural women on agriculture techniques.

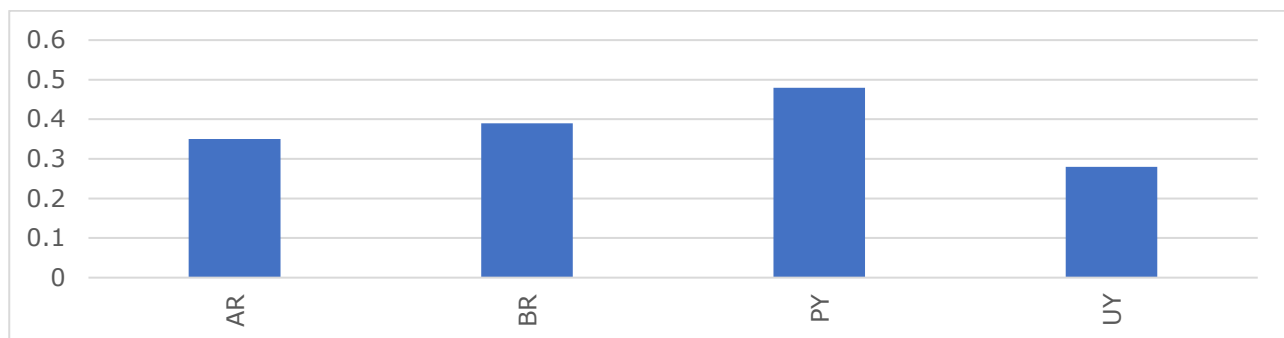
¹⁷² <https://lac.unwomen.org/en/noticias-y-eventos/articulos/2016/05/mujeres-brasil>

Finally, with the support of UN Women, Paraguay has also proposed legislation aimed at increasing women's participation in politics¹⁷³.

Finally, **Uruguay** has implemented advances in legal, programmatic, institutional and budgetary frameworks to further gender equality initiatives in the country. The National Institute for Women's Affairs (INMUJERES) was established in 2005 and has since launched numerous gender equality programs, including those under the National Plan for Equal Opportunities and Rights which has mainstreamed a gender-based approach.

While significant progress has been made in the areas of gender equality in the past decade, the four Mercosur countries continue to score poorly on gender equality.

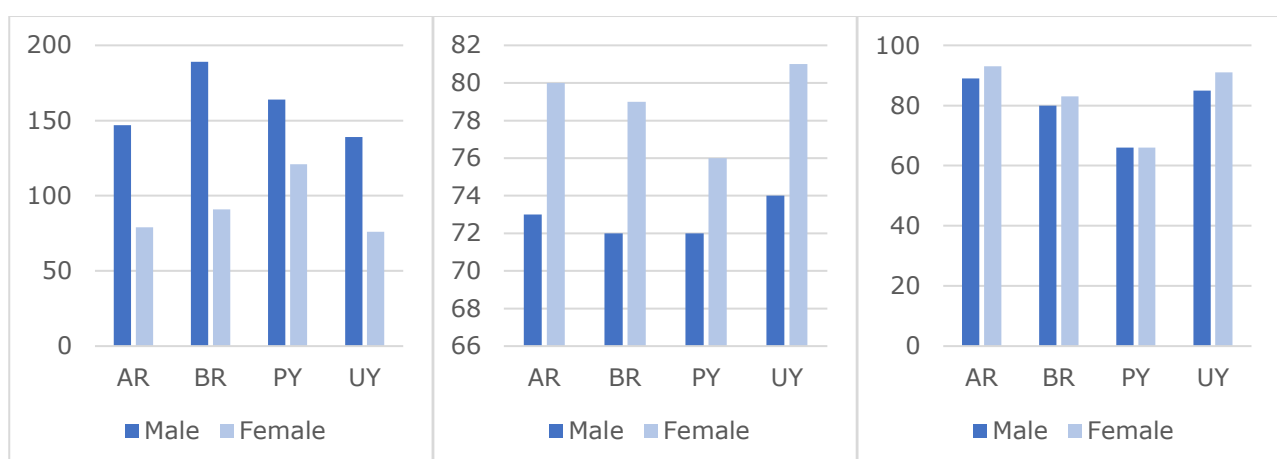
Figure 62: Gender Inequality Index scores among Mercosur partner countries



Source: UNWomen. Americas and the Caribbean

Argentina, Brazil, and Paraguay all reflect GII scores significantly higher than those across EU member states. While Uruguay is lower than Romania, at 0.28, it also raises higher concerns than those in the EU. However, observing mortality rates, life expectancy, and enrolment in secondary schooling across Mercosur, women seem to fare better than men (Figure 63).

Figure 63: Mortality rate (left); Life expectancy (middle); progression to secondary school (right)

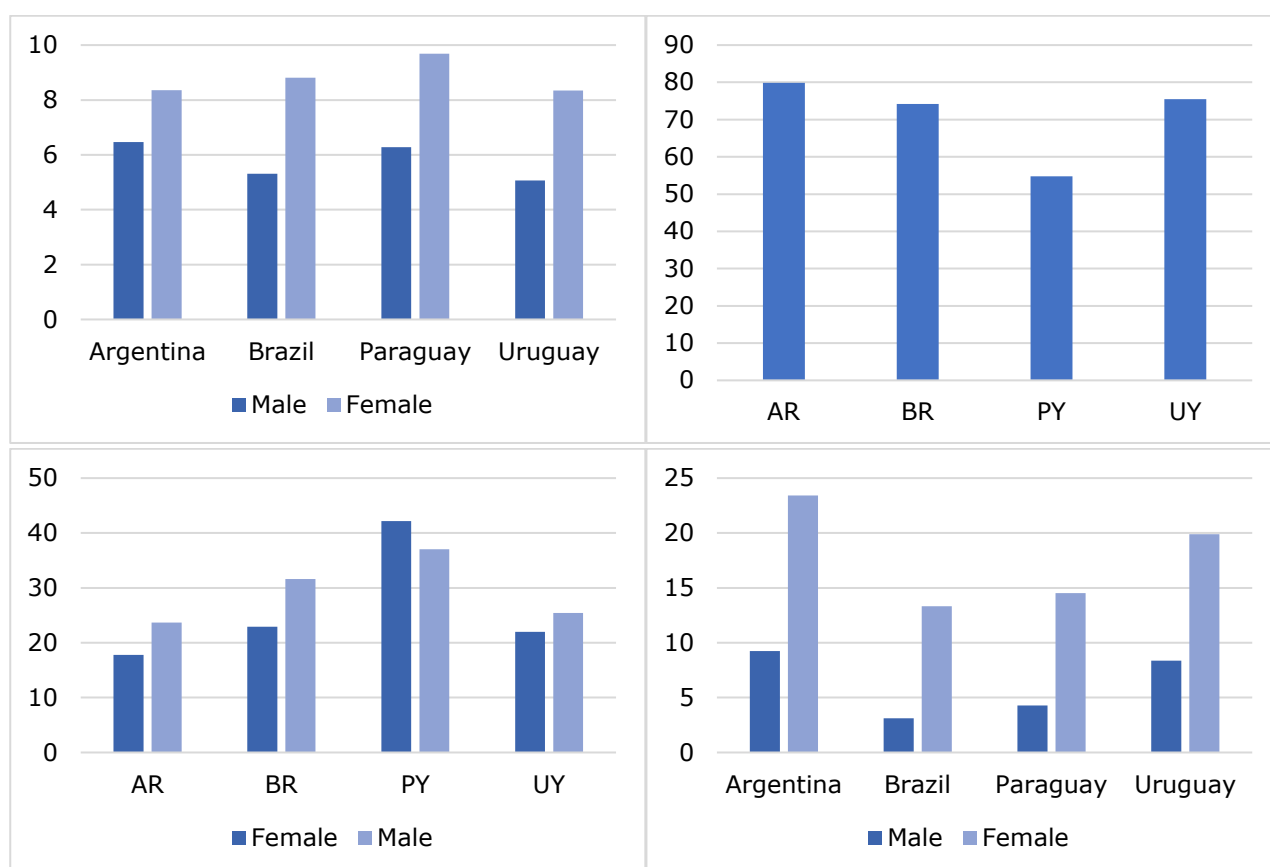


Source: UNWomen. Americas and the Caribbean

¹⁷³ <https://www.unwomen.org/en/get-involved/step-it-up/commitments/paraguay>

Across Mercosur, women remain more vulnerable to poverty and malnourishment, and spend twice the amount of time on unpaid domestic work (OECD, 2019). Women's labour market participation is lower than men's, they are more likely to be working in vulnerable employment, and their positions render them less likely to reap the financial benefits of any sectoral trade increases. Figure 64 compares female unemployment against male unemployment in all negotiating states. World Bank data demonstrate that a small gender disparity exists in unemployment rates in the EU and a far larger disparity in Mercosur member states.

Figure 64: Unemployment (top left), % of women in wage employment (top right); % in vulnerable employment (bottom left); % of time spent on unpaid work (bottom right)



Source: World Bank Data

Figure 64 presents the share of female workers in wage employment in the non-agricultural sector (industry and services), expressed as a percentage of total employment in the non-agricultural sector. Wage employment in industry and services takes place in the formal economy where women have greater bargaining power through contractual means. Data on women in wage employment in the non-agricultural sector show the extent to which women have access to paid employment – which affects their integration into the monetary economy. This acts as an indicator of the degree to which labour markets are open to women – which affects not only equal employment opportunities, but also economic efficiency through flexibility of the labour market and the economy's capacity to adapt to changes over time.

The current share of women in wage employment within the negotiating parties is of concern mainly in Paraguay, where only about half of the female workforce is employed under formal arrangements.

While reducing unemployment is a priority, it is equally important that employment does not place women in positions of vulnerability. According to a 2018 ILO report, women are often sought for different kinds of employment that make them vulnerable through unjust wages, and informal employment. The lack of formal complaint mechanisms such as human resource departments, labour unions, or open and objective channels for communication pose serious concerns about the ability to hold employers accountable and to provide fair working conditions (ILO, 2018). Vulnerable employment is defined as informal working arrangements, with a lower likelihood of decent working conditions, adequate social security and 'voice'. Such arrangements can be characterised by shorter hours, unpaid work, inadequate earnings, and lack of social protection. While vulnerable employment is widespread for both women and men, women are more likely to help out in a household or family business while men are more likely to be self-employed (ILO, 2018)¹⁷⁴.

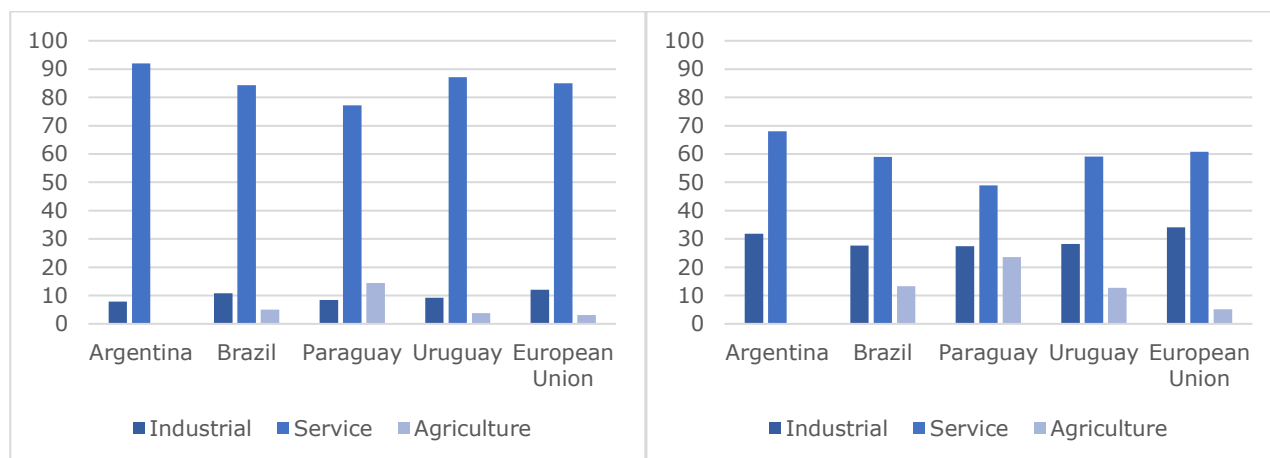
Figure 65 demonstrates that while vulnerable employment is typically not of great concern for women across Argentina, Brazil, and Uruguay, rates across all Mercosur countries are greater in comparison to the EU. Concerns are particularly present in Paraguay where 42% of women are engaged in vulnerable employment. According to UN Women, the integration of women in the Paraguayan workplace occurs unequally, with noticeably different rates of involvement in the labour market between men (87.1%) and women (62%). These disparities in the labour market may be explained by the fact that a majority of women in Paraguay work in the informal sector, where vulnerable working conditions provide monthly wages equal to only 71% of those of men's (UN Women, 2009).

Casual or temporary jobs — to which women have more access — usually include few, if any, social benefits (ILO, 2018). Additionally, the gender gap in earnings is particularly high in informal employment, where unpaid work has been registered in cases of piece-rate employment arrangements (Hinojosa, 2009). Women may be drawn into lower-paying service activities that allow for more flexible work schedules, thus making it easier to balance family responsibilities with work life. On a daily basis, in all four Mercosur member states, women spend more than double the amount of time on unpaid domestic and care work than men.

Across both the EU and Mercosur countries, the concentration of women in certain sectors may result from cultural, structural, and traditional elements that prevent them from entering industrial employment. In fact, the last two decades have seen men's employment in industry increase by 5.3%, while the global share of women in industry has declined by 5.6% (ILO, 2016).¹⁷⁵ This is particularly harmful for women, who have a much narrower range of labour market choices and lower levels of pay than men. Men continue to make up the majority of people employed in all three sectors, but the gender gap is biggest in the industrial sector.

¹⁷⁴ <https://www.ilo.org/infostories/en-GB/Stories/Employment/barriers-women#intro>

¹⁷⁵ https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_457317.pdf

Figure 65: Percentage of Female Employment (left) and Male Employment (right) by Sector, 2017

Source: World Bank Data

There are several explanations for the importance of service jobs for women. Figure 65 demonstrates that while all negotiating parties are service economies with both a majority percentage of men and women working in the service industry, the agricultural and industrial goods sectors are predominantly male. Women's wage employment is important for economic growth and the well-being of families. However, women often face obstacles such as restricted access to credit markets, capital, land, and training and education; time constraints due to traditional family responsibilities; and labour market bias and discrimination. These obstacles force women to limit their full participation in paid economic activities, to be less productive, and to receive lower wages.

The realities provided above outlining the gendered realities of unemployment, contractual arrangements, vulnerable employment, and sectoral make up define the basis for the study's analysis. The baseline highlights that women have restricted access to land as collateral, provide disproportional amounts of unpaid labour, are at risk of informal arrangements and are most commonly employed in the service sector.

5.3. Analysis

Based on the results of the economic analysis from the CGE modelling along with the analysis in the previous chapters, we look at the aggregate welfare effects, GDP, results on skilled and unskilled labour, loss of tariff revenue and sectoral effects to assess the implications for the selected human rights on the EU, Argentina, Brazil, Paraguay, and Uruguay.

5.3.1. Right to an Adequate Standard of Living

Section 5.2.1 provided a baseline scenario of current progress towards achieving the right to an adequate standard of living across four Mercosur states and EU member states. Poverty has decreased in the last decade in all Mercosur partner countries, with the exception of Brazil. However, while all headcounts of poverty below the line of \$1.90 per day were decreasing over the medium term, Mercosur member states continued to reflect greater populations in poverty than those of the EU from 2004 -2017. Data on food and water insecurity demonstrates that conditions for the achievement of the right to food have improved since 2005 in all negotiating parties except for Paraguay, where 12% of the population remains undernourished. As regards

the right to water, World Bank data illustrates that the situation of Brazil and Uruguay's rural population are of greatest concern. The Association Agreement has the potential to directly impact the right to an adequate standard of living in the negotiating parties through two central mechanisms:

1. Effects of investment on housing, living conditions, and access to land

Increasing the ability of EU investors to purchase agricultural land in Mercosur can increase global production and generate income for all four member states. However, with a pattern of prioritizing economic development over land rights, there is often controversy over displacement of local people and the sharing of benefits provided by surrounding natural resources.

While interpretation of some CGE results on human rights impacts is straightforward, others can prove to be rather ambiguous and dependent on external factors. The CGE results demonstrate that exports will increase in all negotiating parties, particularly for **Brazil and Argentina**. According to USAID, Brazil has implemented legal provisions to address inequities and land disputes that may arise from increased exports, providing small farmers with forest lands for cultivation. However, section 5.2.3 demonstrates that in practice, such commitments are weak, and development activities add continuing pressure (USAID, 2019).

According to stakeholder contributions for the 2017 UPR, **Brazil** is struggling to protect rural residents from violations regarding the right to an adequate standard of living, adequate housing, food, and water. Poor working conditions are common in infrastructure projects, such as poor housing conditions and long hours at the Santo Antônio factory in northern Brazil. Additionally, expansion of soybean cultivation risks increasing unemployment in rural areas as it is recorded to displace eleven agricultural workers for every one finding employment in the sector (Clay, 2013). Further, stakeholders reported that coffee plantations in the southern region of Minas Gerais have exhibited concerning numbers of slave-like working conditions—notably even among those certified as sustainable. Cases have also been recorded of exploitation of rural workers in **Brazil's** informal sector as they are unable to retire. In order to retire, workers are required to submit a declaration of rural activity. Cases have been noted of workers unable to convince their landowners to issue the necessary documents to claim their retirement rights with the National Social Security Institute (OHCHR, 2017)¹⁷⁶.

Paraguay is particularly vulnerable to the effects of investment on exacerbating existing inequalities in the agricultural sector. The sector contributes to about 25% of GDP, and the last decade has witnessed its success in transforming itself from a net importer into a large-scale exporter. However, with private ownership of 60-80% of the country's land by only 2-3% of the population, an export-oriented development strategy risks leaving small holder farmers behind. Almost half a million small-holder families are estimated to lack access to land in the country. The nature of FTAs leads them to inherently benefit farmers producing export crops, often having negative impacts on farmers producing foods for the domestic market as they face pro-competitive effects. Only 6% of agricultural land in Paraguay is available for domestic food production, whilst 94 % is used for export crops. Further lowering trade barriers risks further encouraging conversion to higher-value crops for export, and further exacerbating inequality in the country.

¹⁷⁶ <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/045/56/PDF/G1704556.pdf?OpenElement>

Impacts for Uruguay may be positive. Throughout the last decade **Uruguayan** governments have managed to provide a high level of access to basic services such as education, electricity and sanitation. However, the North of the country suffers from disproportionately higher levels of poverty. As such, if increases in investment prioritise the north of the country, increases in employment, income, and training, may prove beneficial for the region.

Some stakeholders pointed to the efforts by foreign investors who engage in corporate responsibility, and often finance local health, education, cultural, and capacity building programs across the Mercosur region. Investment could provide greater opportunities for formal employment and mitigate the lack of accountability in informal arrangements. Transnational corporations have played a significant role in the regional economies—particularly in Brazil, with the world's 25 largest transnational agricultural suppliers having a presence. However, as increasing investment may pose risks, including increases in inadequate living conditions as a result of investment-induced labour demands or increased land inequality, any benefits such as local infrastructure development and formal employment will partly depend on the strength of accountability mechanisms. Such mechanisms can be identified either in the private sector via properly monitored due diligence, or in through public policy measures via institutional strengthening and regulatory enforcement.

2. Effects of trade in goods, investment, and public procurement on water security

Section 5.2.1 demonstrated that lack of access to basic drinking water services is most concerning in Brazil's rural areas (13.4% of the population) and in Uruguay's rural areas (6.3% of the population). As such, impacts in terms of the right to water are expected to be bigger in these two countries than into Argentina and Paraguay where lack of access to basic drinking water services range from 0%-1.6% of the populations.

Lack of clean drinking water in **Brazil's** rural areas is of serious concern. The country's water companies suffer significant water losses (more than a third of the supply, on average) and have high operating costs. In light of the concerns about the right to water as an effect of foreign investment described in section 5.2.1 and 5.2.3, increased investment — particularly involving agricultural expansion and the construction of dams — poses a number of risks as it may lead to the contamination of critical water supplies for Brazil's rural populations (USAID, 2011).

While **Uruguay** has a National Water Policy, there is currently no formal mechanism to coordinate the work of different organisations with responsibilities in the field of water, sanitation and hygiene. A 2012 report by the Special Rapporteur on the human right to safe drinking water and sanitation raised concerns relating to the possible impacts of large-scale investment projects on the quantity and quality of water in the country. Particular concerns surround access to drinking water for those living in rural areas (OHCHR, 2012)¹⁷⁷. According to the CGE results, investment in Uruguay may increase up to 1.4% above the baseline. Sector specific results demonstrate that the largest increase in Uruguay's outputs will consist of Vegetables and Bovine Meats – water intensive industries. However, initiatives with the specific aim of reducing disparities of access levels include financing plans to distribute water more efficiently and make it more affordable for vulnerable groups. Should investment help build infrastructure to improve water distribution services in rural areas impacts could be positive.

¹⁷⁷ https://reliefweb.int/sites/reliefweb.int/files/resources/PDF1_135.pdf

5.3.2. Right to the Enjoyment of the Highest Attainable Standard of Mental and Physical Health

In addition to the impacts of individual income gains on household health expenditure as well as state level GDP increases on earmarking gains for the provision of health care, the Association Agreement can impact the achievement of the Right to Health through six key mechanisms: 1) Phytosanitary issues and food safety; 2) Trade in goods and non-communicable diseases; 3) Impact of trade in services and health-related goods on scope and quality; 4) Intellectual property rights, pharmaceuticals, and associated technologies; and 5) Procurement; and 6) Trade in services health workforce retention.

1. Phytosanitary regulation and enforcement issues

About three fourths of new human diseases emerge from animals. Although most new diseases emerge from wildlife, intensive industrial livestock systems appear to present greater risk than traditional systems without robust safety inspection standards. Trade in services and trade in goods can increase risks of communicable disease through increases in cross-border activity. However, increased trade with countries that uphold higher standards, can indirectly improve safety inspection procedures by the need to align standards. The possible implications of trade liberalisation on food safety are both negative and positive.

Results from the consultation activities demonstrate that European stakeholders share widespread concerns over food safety issues from Mercosur exports, and lack trust in the ability of partner countries to enforce EU standards. However, the AA is expected to induce improvements in SPS controls and standards across Mercosur countries, while not having an impact across EU member states. Indeed, increased food trade and cooperation with Mercosur countries, where safety inspection systems and enforcement mechanisms have historically been weaker, is expected to produce further alignment to EU standards. Mercosur exports to the EU will be required to comply with the EU's stringent food safety standards, with audits to ensure maintenance of such systems is kept to the highest quality. Further, the agreement reaffirms the 'precautionary principle' and the right of both sides to adopt measures to protect human, animal and plant health, including in situations where scientific information is not conclusive.

However, improvements in SPS controls and standards will require EU-Mercosur cooperation and the guarantee of robust monitoring/enforcement mechanisms. Food safety enforcement is somewhat dependent on institutional strengths of the Mercosur countries and their ability to control corruption. Brazil's 2017 meat scandal, involving rotten and contaminated meat, is said to have been caused, in part, by the bribery of health inspectors and politicians¹⁷⁸.

Further the replacement of parastatals with private sector actors at specific nodes in the supply chain can lead to challenges in managing food safety by national authorities, as has been shown in the case of the dairy sector. Dairy production in low and middle income countries has increasingly shifted from a formal sector heavily supported and supervised by the public sector to a largely autonomous informal sector, with associated increasing difficulties of inspection and regulation. However, with an increase in inspection standards, trade may lead Mercosur countries to identify food safety concerns already present in the domestic market, but that had

¹⁷⁸ <https://www.foodsafetynews.com/2019/12/usda-inspection-team-returning-to-brazil-to-check-on-promised-corrections/>

gone under the radar until arrival in the EU. For example, chemical contamination was not identified in traditionally smoked fish imported from the Ivory Coast until it arrived in France.

In low- and middle-income countries, there is little evidence that a lead reason for the spread of foodborne diseases is trade liberalisation. As imported food from the EU is typically of higher sanitary quality than food in **Mercosur's** domestic markets, there is little scope for concern regarding imports of foodborne illnesses. In fact, EU investment in Mercosur countries can also lead to positive health impacts in the latter. Increasing demand for meat and other livestock products increases private investment in the intensification of animal production in all four partner countries. Positive implications can arise if large food multinationals, with complex supply chains, adopt private systems of higher quality than existing standards. By training employees with local networks, this has the possibility of higher standards spilling over to surrounding firms. One study found that Kenyan farmers who received food safety training used safer chemicals and had fewer reported health problems. However, the results are varied as no benefits were found for exporters of seafood in Brazil. Indeed, while increased enforcement of food safety inspection might increase standards for export-oriented foods, there is little evidence that the benefits extend to domestic incidence of foodborne illnesses in Brazil and Paraguay. Most food sold in Brazil and Paraguay's domestic markets is still not subject to effective food safety management.

Additionally, higher standards may also give private companies considerable negotiating power with governments when developing food safety regulations, which may further barriers for small-scale producers. Indeed, the other way around, food safety can also affect the ability to enjoy the benefits of liberalisation. International trade studies have found evidence that the fixed costs of meeting standards can lead to increases in inequality by favouring established exporters. Considering the country's unequal land distribution, this is particularly concerning for Paraguay.

2. Increase in non-communicable diseases (NCDs) as a result of changes in the patterns of food consumption brought about by changes in income, lifestyle and the food industry (nutrition transition)

During this study's consultation activities, stakeholders expressed widespread concerns on the impacts of increases in EU exports making unhealthy commodities (including foods high in fat, salt and sugar, processed meat and alcohol and tobacco) more accessible across Mercosur states.

Considering existing trends in **all four of the Mercosur trading partners** as well as patterns across the EU (section 5.2.2.), the most evident risk of the Association Agreement regards the nutrition transition and obesity. A number of studies suggest that trade is associated with increased intake of soft drinks and fast foods while evidence points to a correlation between imports and expenditure on unhealthy foods (Hawkes, 2006; WHO, 2015; Milijakovic et al., 2017). Rapid increases in sales and marketing of packaged foods took place in lower-middle income countries in the 1990s as a direct effect of liberalisation.

A recent study on the determinants of obesity in Brazil found that an increase in trade openness has directly led to an increase in overweight and obesity ratios in Brazil (Milijakovic et al., 2017). The implementation of free trade agreements in Latin America have been found to be associated with changes in the availability of meat, dairy products, and processed foods. Imports of processed cheese slices—a novel product in the region—grew by over three thousand percent.

Island countries perhaps reflect examples of the most severe cases as imports of high-fat meats led directly to the decline of traditional root crops.

In practice, the effect of trade liberalisation has been variable, but there is some evidence of a price lowering effect for energy-dense foods and diets. Possibilities of EU FDI in the form of large European multi-national supermarket chains, such as Aldi and Lidl, poses both benefits and challenges in Mercosur partner countries. While supermarkets have a larger selection of health foods in comparison to traditional retailers, they have been found to charge lower prices for processed foods and higher prices for fresh nutritious foods in comparison to traditional retailers. In fact, the price difference between healthy and unhealthy foods in supermarkets naturally drives consumers to unhealthy choices as healthy foods typically cost 10% to 60% more than processed foods. While informal markets and traditional retailers benefit from pricing advantages for local foods, pro-competitive effects may cause them to exit the market, as has been evident in Mexico (Atkin et al., 2017).

The situation in Paraguay is of particular concern, because the country is at highest risk of facing the double burden of malnutrition. The country reflects greatest levels of inequality and provides the least measures of social protection. Although there is evidence on the impact of trade liberalisation on food availability and prices, there is little written evidence of the direct impact of trade liberalisation on the prevalence of undernutrition. Evidence suggests that trade liberalisation leads to increased national food availability in net-importing countries which in turn leads to declines in stunting. Imports move countries with insufficient domestic food production towards food adequacy. However, Paraguay does not suffer from insufficient domestic food production, but is financially incentivised to export 94% of it. Lowering tariffs via the AA may further influence household malnutrition among farming families via pro-competitive effects of imports and increasing financial incentives to export. Policies limiting domestic support for the agricultural sector, alongside pressures of increased agricultural production of high-yield cereals with lower nutritional content, can lead to reductions in micronutrient nourishment (DeFries et al. 2015).

3. Impact of trade in goods and services on rural health services

Apart from the obvious gains from trade in high quality medical equipment, trade in health services under Mode 1 and Mode 3 present possible opportunities for rural healthcare in **Argentina, Brazil, and Paraguay.**

The opportunity to remotely supply health services (mode 1) stems from advancements in technological progress and information technology that allow for medical services—as simple as diagnostics or complex as remote surgeries—to electronically deliver. As a global hub for medical and technological advancements, a trade relationship with the EU offers Mercosur partner countries the ability to engage with professionals with vast experience using such technologies. Increases in mode 1 trade can increase the scope of health services reaching geographically remote populations that may not be adequately served by existing systems. In addition to increasing scope, the remote supply of health services can decrease costs for users. Considering rural populations in Argentina, Brazil, and Paraguay may be subject to longer distance travelled to reach healthcare, cost reductions of remote supply expand beyond possible direct costs, to include opportunity costs through time savings. In addition, the possibility of engaging with a physician online in the privacy of an individual's home may encourage an increase in dialogue of culturally sensitive health issues—such as reproductive health.

However, increase in trade of remote healthcare services are not without risk. First, depending on costs, remote services may exacerbate existing health disparities among the poor. Considering that all three countries' exhibit rural-urban income disparities, benefits of mode 1 trade will only be possible if affordable. Second, the increase in culturally sensitive dialogue is largely dependent on two factors: the user must have internet and access to either a smart phone or computer in the household, and the user has to actually have a spacious enough household to find privacy. Considering that 17-22% of the population in the three countries live in slums characterised by overcrowding, the latter is questionable. In addition, while more than 80% of Argentinians have internet in the household, less than 70% do in Brazil and Paraguay. Finally, increasing such services risks the possible reallocation of resources away from rural health care and towards export-oriented specialised health services targeting higher income populations.

In addition, foreign direct investment (mode 3), can also contribute to reaching the Right to Health in Argentina, Brazil, and Paraguay. Investment in rural areas can contribute to upgrading health care infrastructure, it can create jobs, and encourage the transfer of know-how and medical expertise to local providers and practitioners. However, risks include establishing a duality of healthcare and increasing disparities between the wealthy and poor. A foreign private clinic or hospital may incentivise "internal brain drain" where the already small number of health workers in the three countries, but especially in Paraguay, may be drawn to work at foreign firms with higher salaries. Considering that all three countries currently benefit from less than 1% of external health expenditure, there is sparse evidence for effects in practice.

4. Impact of strengthened intellectual property rights and access to medicines

Perhaps one of the most debated areas of trade regards access to medicine. The duty to assure that all health care services are accessible, implies an obligation on all four Mercosur states and EU member states to ensure access to affordable and safe drugs. There are two key areas to assess for impact: the effect on price of medicines, and the effect on innovation.

While the AA is not expected to impact the right to access to medicines across the EU, stakeholders have expressed concern that increased patent protection may put the right at risk across **Mercosur countries**. Some empirical studies suggest that increasing patent protection for medicines has a direct impact the price of medicines (Shadlen, 2019). A number of *ex-post* studies find higher prices following increased IP protection in Malaysia, Brazil, and Jordan (Dommen, 2020), and a 2018 study of prices in OECD countries finds that stronger IP standards correlate with higher national pharmaceutical expenditure (Jung & Kwon, 2018). However, as most medicines on the WHO essential medicines list are available in generic form, the impact of the AA would be quite limited. Further, the agreement is not expected to contain TRIP+ provisions on regulatory data protection or supplementary protection certificates—suggesting that the impact on access to novel medicines would not be significant. The exclusion of such provisions is welcomed by numerous stakeholders who expressed concern on how the previous EU proposal on IP could have had a negative impact on access to medicines across Mercosur (Ghiotto & Echaide, 2019)¹⁷⁹.

As noted in the baseline, in Argentina prices for most medicines are currently higher than the median price around the world (with medicine for cardiovascular disease deviating by 167% and

¹⁷⁹ <https://www.annacavazzini.eu/wp-content/uploads/2020/01/Study-on-the-EU-Mercosur-agreement-09.01.2020-1.pdf>

for diabetes by 170%). Similarly, all medicines in Brazil are more expensive than the median price (and these price deviations can range from 12.04% more for bacterial infections, 160% more for cardiovascular treatment and 174% more to treat anxiety disorders). These price deviations could be attributed to the relatively high tariff barriers for EU exports to Mercosur – nine out of the top-20 EU exports face ad-valorem tariffs of over 10%, while tariffs for medical instruments and equipment can be as high as 18%. Reduction or elimination of tariffs and non-tariff barriers could in fact reveal a positive impact of the AA in terms of cheaper medicines and medical instruments in **Mercosur**.

Even in the absence of stricter IP provisions for patent protection, the AA may incentivise R&D and innovation to some extent. The AA's incentive provisions, which have as their objective supporting innovation and new medicines, could potentially lead to lower costs for the health care system, as well as incentives for FDI in **Mercosur countries'** health sectors. Significant challenges regarding AMR, new diseases, and neglected tropical diseases among other threats require innovation, research, and development for new drugs and vaccines. The AA's provisions on procurement present a viable opportunity for Mercosur countries to take advantage of health-related innovation as a result of increased FDI.

Finally, **Paraguay** is in a unique position to benefit from strengthened IP enforcement as improved border enforcement could indirectly contribute to a reduction in the country's counterfeit pharmaceutical trade which poses serious risks to public health. In fact, alongside China and India, Paraguay is one of the largest producers of false pharmaceuticals, where 30% of medicine is counterfeit.

5. Impact of procurement on quality of health services, goods, and management

Procurement could also have direct benefits for the four Mercosur countries. Novel access to government contracts could allow the partner countries to procure both higher quality healthcare goods at discount prices, as well as services for management efficiencies (Bloom et al., 2013).

While trade agreements covering investment in services typically exempt public services, including health services, the EU-Mercosur AA text opens procurement options at the national level. In fact, Mercosur governments have engaged in public procurement processes and strategies to reduce the price of medicines since 2015. They have successfully joined forces to negotiate lower prices for several medicines including drugs for treating HIV, hepatitis C antivirals and oncology medicines. However, liberalizing the procurement market risks weakening participatory approaches in the design of strategies for the provision of public goods and services.

6. Health workforce –capacity building and tech transfer opportunities matched with risks of brain drain exacerbation

Lastly, mode 4 of trade in services—namely the movement of natural persons—could have both negative and positive impacts for both the EU as well as Mercosur. The movement of health care professionals can facilitate the promotion of knowledge spillovers and increase capacity in Mercosur countries in two ways. First, exchange programs for Mercosur physicians to spend time in the EU, and vice versa, can facilitate capacity building and increase the preparedness of both sides in the case of an outbreak. In fact, the Global Health Security Index uses the presence of an exchange program as an indicator of health security in the country, but it highlights that none of the four Mercosur countries have evidence of supporting any exchange program for medical

training. Second, much like the opportunities presented by trade in services mode 1 and 3, Mercosur countries—especially **Brazil and Paraguay**—can take advantage of such exchange programs and establish them in rural areas lacking healthcare.

However, mode 4 may present a serious risk concerning the brain drain phenomena. Temporary exchanges may encourage permanent movement, risking a loss of critical health care professionals. This risk is costly for the constrained human capital in medical resources across Brazil and Paraguay, but also for the investment costs lost in training professionals in the home country.

5.3.3. Rights of Indigenous Peoples

Building on CGE outcomes, existing literature, and stakeholder contributions across this study as well as those identified in past consultations, this section identifies three possible impacts of the Association Agreement on the rights of indigenous peoples in Argentina, Brazil and Paraguay.

1. Effects of investment, natural gas extraction, and agribusiness on Indigenous Land Rights

A key characteristic among indigenous communities is the inherent relationship with nature. Acting as stewards of natural resources, indigenous communities often live in biologically-diverse and resource-rich areas. However, the lack of formal registration of this traditional relationship with the land across **Argentina, Brazil, and Paraguay**, have led indigenous communities to be particularly vulnerable to dispossession of their lands.

The CGE model predicts increased output in some agricultural sectors in Mercosur countries, which may lead to pressure on land use and potential impacts on indigenous populations' access to land. To take the important case of beef, in the conservative scenario where EU tariffs are reduced by 15%, output increases in Argentina by 1.3%, in Brazil by 1.2%, and in Paraguay by 0.2%. In the ambitious scenario, where EU tariffs are reduced by 30%, output expands most in Argentina with a 2.5% increase, in Brazil, by 2.0% and in Paraguay by 0.6%.

On a sub-sector level, the AA's impacts on beef output in particular in Brazil and Argentina are relatively modest and reflect the impact of a limited market access opening that is small in relation to existing production levels. The AA impacts on beef output in Paraguay are very small in the CGE modelling and reflect Paraguay's small share of historic Mercosur beef exports to the EU.

As in Mercosur only 40% of the land is used by agricultural activities, risks exist for expansion of the agricultural frontier. According to stakeholder responses, the majority of land clearing in **Argentina** is caused by soya and cattle production, leading to the displacement of many indigenous communities (Yousefi et al., 2018)¹⁸⁰. Likewise, the majority of land clearing in **Brazil** is caused by demand for cattle and soy. Over a period of a decade, the rapid spread of soy cultivation has led to the displacement of about 300,000 people in Rio Grande do Sul, Brazil, and 2.5 million people in Paraná, Brazil (Clay, 2014). Stakeholders reflect widespread concerns that increased agricultural exports risk furthering the agricultural frontier into the Brazilian Amazon which, in turn, threaten the natural resources indigenous communities rely on.

¹⁸⁰ http://www.mightyearth.org/wp-content/uploads/2018/04/ME_DEFORESTATION_EU_English_R8.pdf

For the reasons set out in Chapter 4, increases in agricultural production do not necessarily take place at the expense of forests. Past evidence for **Brazil** has pointed towards agricultural expansion through intensification without inducing deforestation. Forest and indigenous protection policies play a key role in determining whether agricultural expansion takes place at the expense of land dispossession and deforestation. This is demonstrated by data from the period 2004-12 when production of beef and various crops increased while deforestation decreased in the country (Chapter 4). Further, according to this study's agricultural sector analysis, there may be an increase in the density of animals per hectare in Brazil rather than an increase in the use of land. Already deforested lands tend to be used for low efficiency pastures¹⁸¹ and the north of Brazil reflects high variability in productivity¹⁸², both suggesting room for intensification.

However, while policy frameworks for the protection of indigenous rights are theoretically in place across all Mercosur countries to ensure agricultural expansion would advance without jeopardizing rights of indigenous communities, section 5.2.3 highlights numerous shortcomings in both Argentina and Brazil's protection mechanisms. FUNAI's activities, including the demarcation, protection, and maintenance of indigenous reserves are of particular importance to avoid risks of land dispossession in **Brazil**. However, the undermining of FUNAI's authority since 2016 and the drastic decrease in demarcation progress, together with agricultural expansion, raise concerns for indigenous land dispossession. Additionally, while **Argentina's** national land survey is meant to register and protect indigenous lands, registration activities have been slow and failed to comply with given deadlines for completion. The growing number of legal challenges brought against investments on indigenous lands, particularly across Argentina and Brazil, already reflect the disconnect between a theoretical respect for the rights of Indigenous peoples, and practical implementation of measures to ensure that the right is respected and fulfilled.

Further, a lack of adequate dispute settlement mechanisms for indigenous communities may cause communities to place themselves at risk of not being able to speak out against land intrusion. Examples of threats, violence, intimidation, and killings of indigenous activists are frequent across all three countries, and particularly in Brazil (Phillips and Brasileiro, 2018).

In Brazil, mechanisms to implement the right to prior, free and informed consent (PFIC), along with environmental impact assessments, risk becoming tick box exercises (OHCHR, 2017) that therefore fail to prevent the adverse effects of investment. Projects such as Belo Monte, Teles Pires and São Manoel Hydroelectric Dams, the Tapajós Dam project have passed through congress in Brazil, despite being in violation of indigenous rights to consultation (OHCHR, 2017). Impact assessments fail to be conducted locally, and the process is to be devised in a way to enable rights holders to demand inclusion in the decision-making process in its entirety. According to the 2016 Brazilian mission report of the Special Rapporteur on Indigenous rights, such concerns are aggravated by the growing use by the judiciary of the "security suspension" mechanism — which suspends certain rights in favour of other interests, and thus allows projects to proceed even if they risk leading to serious violations (OHCHR, 2016).

¹⁸¹ IPAM Amazonia (2017)

¹⁸² MDPI (2018)

In **Paraguay**, any increase in demand for land without legal land rights risks an exacerbation of conflict between indigenous communities, private sector, and government officials as records indicate agro-business commonly threaten those engaging in territorial claims. Economic growth in the country has historically excluded indigenous peoples as they have not benefitted from significant reductions in poverty levels¹⁸³.

In addition, the situation in **Argentina** is different from that of Brazil and Paraguay in that indigenous communities face a continued struggle against natural gas extraction—particularly in the country’s Vaca Muerta region (see section 5.2.3.), where shale and tight gas production is expected to continue to grow irrespective of the AA (USEIA, 2019). However, there are no tariffs on imports of natural gas into the EU, so Mercosur gas exports will not be directly affected by tariff liberalisation under the Agreement.

2. Impacts of investment and agribusiness on indigenous health

Beyond direct loss of land, agricultural expansion also threatens indigenous health with the increase of pesticide use in the intensification of agriculture. The CGE model predicts increased output in some agricultural sectors in Mercosur countries, with potential impacts on proper distribution of surrounding natural resources.

Additional production of some agricultural products may lead to pressure on land use with adverse impacts on environmental conditions. As a result of agricultural expansion, Mapuche communities in **Argentina** were subject to major health issues including impacts from increased use of agrochemicals in the Gran Chaco region as well as soybean monoculture production which led to polluting the local air, soil and water (OHCHR, 2017). Further, intensification of cattle breeding in Argentina and **Brazil** may risk ill management of manure associated with adverse effects on water and local environments (see Chapter 4). However, while land conflicts persist as a result of foreign investment in rural territories, indigenous people have, in some cases, managed to negotiate with companies involved to obtain benefits such as improved sanitation and access to drinking water supply (Cali, Ellis and Willem te Velde, 2008).

3. Effects of investment on tradition and livelihood transitions

The CGE model predicts increased output in some agricultural sectors in Mercosur countries, with potential impacts on traditional livelihoods and shifting labour structures. The CGE results demonstrate an increase in investment in Argentina, Brazil, and Paraguay. If this investment is to take place in rural areas, the indigenous livelihoods in the agricultural sector may be adversely affected. Hinojosa (2009) finds that incentives to accentuate asset concentration, particularly land, in order to produce economies of scale and to participate in the process of market expansion, could affect the most vulnerable groups if no mitigating measures are implemented to avoid asset dispossession and unfair labour-market practices. In Brazil, the natural resources on which indigenous communities depend for their livelihoods risk reduction as an effect of further agricultural expansion into the Brazilian Amazon or the Gran Chaco region (OHCHR, 2017; Dommen, 2019).

However, while land conflicts persist as a result of foreign investment in rural territories, indigenous people have, in some cases, managed to negotiate with companies involved to obtain benefits such as jobs, and the building of schools and roads (Cali, Ellis and Willem te Velde,

¹⁸³ <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=15362&LangID=E>

2008). In some instances, trade and investments have provided indigenous peoples with new employment opportunities and income gains with further intangible positive impacts such as on indigenous women's confidence and bargaining power. According to a 2011 FAO report, the social impacts of transnational corporations (TNCs) investing in rural territories can actually be positive through higher wages and job creation (Nascimento, 2011).¹⁸⁴ However, such employment may affect traditional livelihoods and pose risks to traditional know-how and culture.

In summary, concerns exist for indigenous land rights across Mercosur's rural areas. While such concerns exist independently, the AA's impact on agricultural output and investment risks contributing to the situation. Effective PFIC and complaint mechanisms are essential to ensuring that development does not come at the expense of indigenous rights. Upholding the protection of indigenous reserves and maintaining robust enforcement are other important mechanisms. The analysis above sets out important concerns regarding the current effectiveness of these measures. While increased output in some agricultural sectors can impact the distribution of natural resources and, in turn, health, existing evidence is insufficient to assess the direction of the impact. Furthermore, whilst new income-generating employment or new infrastructure opportunities may be a way of realizing the human rights of rural inhabitants in general, those who wish to maintain their lands and traditions may find the former insufficient if they come at the cost of the latter.

5.3.4. Gender Equality

While gender inequality seems to be of lesser concern among most EU member states, concerns remain across Mercosur. Women suffer disproportionately from poverty and malnourishment while undertaking unpaid domestic and care work. They are more likely to be unemployed, and when they are employed, it is likely in vulnerable employment and at a lower wage than their male counterparts. There is an expansive pool of research focusing on the link between female employment and equilibrium effects of trade liberalisation. However, results are variable as export increases may increase employment and minimise the pay gap in some countries while decreasing the labour pool in other countries. Considering the economic, social, and cultural complexities in the role of gender, impacts on gender equality will be context specific and depend on the sector, the country and a range of other factors. Studies assessing the effects of liberalisation in Latin American countries demonstrate that trade appears to have divergent gender effects, in some cases these give rise to considerable concerns (Seguino, 2006; Dias, 2010).

Trade liberalisation may impact women and men differently presenting different potential benefits as well as challenges. We draw on the CGE results to observe sectoral effects – in the broad sense in which the economy is divided into agriculture, manufacturing and services sectors – in order to assess the implications for gender equality in the EU, Argentina, Brazil, Paraguay, and Uruguay. Bearing in mind the results of the stakeholder consultations undertaken for this study as well as similar results from consultations undertaken in a 2019 study by Alliance Sud, we identify three main mechanisms through which the Association Agreement can impact gender equality (Dommens, 2019).

1. Impacts of trade in goods on employment

¹⁸⁴ http://www.fao.org/fileadmin/templates/tci/pdf/InternationalInvestment/Brazil/BR_Report_generalRev2011_oct.pdf

Following results from the quantitative analysis, the bulk of output and export increases from Mercosur will be in agricultural and industrial goods, which are sectors where ownership is dominated by men. While female wages may increase, special attention should be paid to potential consequences for income disparities as they risk increasing at a lesser rate than that of men. While the literature concludes that liberalisation certainly has an effect on wages, it differs between sectors, as well as countries (Satveren, 2003). An UNCTAD study estimating the impact of trade integration on women's employment in Mercosur concluded that liberalisation had a slight positive impact on women's employment in the service sector, but no impact in the agricultural or industry sectors (UNCTAD, 2018).¹⁸⁵ This CGE analysis conducted for the present study also found a slight positive impact for the service sector, in which 87% of Uruguay's female labour force and 92% of Argentina's finds itself.

Trade liberalisation in Brazil did not improve gender equality in the 1990s (Dias, 2010). While the employment gap between women and men did narrow, it did so as an outcome of job loss for both rather than as a result of increases for women. Pro-competitive effects forced those working in sectors with increased imports to exit. As in Brazil the trade sector is dominated by men, they disproportionately feel the effects of gains or losses. According to results from the CGE model, agricultural exports from Mercosur are estimated to intensify, however benefits to the female workforce are limited because land ownership is traditionally skewed towards men. One survey estimated that in Brazil only 11% of land was owned by women (although this was likely to be an underestimate given that the questionnaire did not give the option of indicating that land was owned jointly with a spouse) (Deere and Leon, 2003). Lack of land ownership does not only limit wage benefits for women in Brazil, it also restricts women's access to credit due to the impossibility of using land as collateral (Deere and Leon, 2003). Liberalisation in a sector where men receive higher earnings may increase income disparity as increased cash crop returns flow primarily to men. While this does not necessarily increase poverty in the female population, it is important to note the risks to women's economic independence.

On the other hand, trade liberalisation improved both employment and wages for women in **Uruguay**, but the direction of gender gap impacts were dependent on the specific trade flows (Terra et al., 2008). Another study found the reduction of import tariffs to have a variable effect on female-to-male employment ratios in **Paraguay** dependent on the sector. The impact on female employment was positive in terms of production tasks but negative for non-production tasks (UNCTAD, 2018).

Where women do work in the industrial and agricultural sectors, increased trade may lead to possible employment losses as technological and skill upgrading link to exports may affect women across **all four Mercosur partner countries**. Typically hired for unskilled 'feminine' jobs, women risk being replaced by men when technological upgrading is introduced in both manufacturing and agricultural sectors in the case of Mercosur (Dias, 2010). Post trade liberalisation across Latin America in the 1990s, labour markets reflected a mismatch between available skills among the female work force and those newly demanded by the market and decreased female employment. In fact, as pro-competitive effects of trade liberalisation across all four Mercosur partner countries caused local firms to exit and job losses, a higher percentage of women lost their jobs and were less likely to find new employment in trade sectors (Azar, 2004).

At the same time, losses in formal manufacturing employment are often compensated by

¹⁸⁵ https://unctad.org/en/PublicationsLibrary/ditc2018d2_en.pdf

increases in informal employment across both the manufacturing and agricultural sectors. Women are intentionally sought for work because they are more likely to accept poor working conditions (Dias, 2010). It has been argued that over the past three decades trade liberalisation along with inadequate finance policies have contributed to the growth of vulnerable employment across Mercosur (Seguino, 2006). According to ILO data, eight out of ten new jobs in Latin America were created in the informal sector in the 1990s (Dias, 2010). Evidence indicates that trade liberalisation risks contributing to inequality by increasing the probability of women working in the informal sector (Goldberg & Pavcnik, 2007).

According to the CGE results, production and exports of textiles and garments (T&G) in the **EU, Brazil, Argentina** and especially **Uruguay** will increase. In **Europe**, women make up more than 70% of workers in these sectors (Euratex, 2016), and while it is unclear how widespread informality is in Europe's T&G sector, a 2014 report estimates that a third of the workers in Eastern European countries operate on informal contracts (Clean Clothes Campaign, 2014).¹⁸⁶

In **Argentina**, it is estimated that the garment sector consists of 80% female workers where three fourths are estimated to be informally employed, receiving no social benefits or protection (SOMO, 2011). Similarly, 94% of the T&G workforce in **Brazil** are women where almost a fourth work in home-based workshops (BSR, 2017). On the other hand, while the informal sector is widespread in **Uruguay**, it is equally represented by both women and men (see Chapter 7).

Finally, beyond vulnerable employment, women undertake twice the amount of unpaid and care work than men. Literature suggests that women bear the burden of household adjustments as increases in exports lead to reductions in women's leisure time, especially for women with less bargaining power in the household (Floro, 1995; Satveren, 2003; Darity, 1995). While an increase in women's paid employment in exporting industries is beneficial, the amount of unpaid labour women are expected to take care of does not decrease, but rather is done at the cost of women's leisure time, more so than for men (Fontana and Wood 2000; Erturk, Catagay and Darity, 1995).

2. Effects of economic growth on Mortality

A quantitative analysis of liberalisation across Latin American countries, including the four Mercosur partner countries, demonstrates that while economic growth leads to inevitable decreases in mortality across both genders, the effect is stronger for men. The CGE results demonstrate that all four of the Mercosur partner countries will benefit from GDP increases (Table 37).

Table 37: Macroeconomic impacts of the AA in the ambitious scenario

Region	GDP %	GDP EUR bn	Invest	Real Wages (Skilled)	Real Wages (Unskilled)
EU28	0.1	20.9	0.5	0.3	0.3
Brazil	0.3	9.0	0.8	0	0
Argentina	0.7	6.4	1.6	0.3	0.4
Uruguay	0.4	0.4	1.4	0.3	0.8
Paraguay	0.1	0.1	0.4	0.2	0.3

Source: CGE Modelling Results.

¹⁸⁶ The countries included in the study are Bulgaria, Croatia, Romania and Slovakia (in the EU) and Bosnia & Herzegovina, Georgia, Macedonia (FYROM), Moldova, Turkey and Ukraine.

However, untangling the mechanisms through which economic growth impacts mortality is complex. Some argue that if growth results in job “flexibility,” women may differentially bear the costs of economic insecurity (Seguino, 2006; Dias 2010; UNCTAD, 2018).

Another common argument, particularly relevant to the situation in Argentina, regards a “backlash” against women as a result of economic deterioration across male employment. A decrease in economic opportunities for men is said to contribute to increasing rates of domestic violence, and so-called “crisis of masculinity” (Chant 2000). Violence against women is of particular concern in **Argentina** where poverty has been on the rise the past two years. Female victims of violence have limited access to legal aid and face continued sexist stereotypes amongst authorities (OHCHR, 2017). The worsening of gender-based violence has been noted by numerous local civil society groups including the Mesa Intersectorial and the Centro de Protección Familiar foundation. Further, shortcomings of national and provincial authorities’ data collection methods on femicides have been highlighted, and unpunished killings of women continue to raise alarms (OHCHR, 2017).

3. Effects of investment and trade in goods on education

Finally, effects on gender equality and educational attainment are ambiguous across all negotiating parties. According to a quantitative assessment of the effects of liberalisation on education, increase in trade as a % of GDP was found to have negative implications for gender parity in education across Mercosur states (Seguino, 2006). However, increases in investment were found to have positive effects on female educational attainment. It is unclear why the two liberalisation effects take opposite directions, but net effects are in any case found to be small (Seguino, 2006). In regards to impacts of the AA, Seguino’s methods would suggest that the agreement’s impacts on investment in Argentina would lead the country to experience most benefits for gender equality in education (Table 37).

An important finding from the Alliance Sud study undertaken in 2019 is that Mercosur countries have largely relied on tariff revenues for a significant portion of the public budget (Dommens, 2019). Tariff reductions from the Association Agreement risk decreasing available funds for public provision of key services including healthcare, social security, and education, which might disproportionately affect women. Argentina may face a reduction of up to 0.6% in tariff revenue, and with an applied customs averaging duty of 13.5%, Brazil also risks large public revenue losses. A reduction in public services affects women not only as direct beneficiaries of those services, but also as a source of employment given that across Mercosur states, the public sector employs a significant proportion of women.

5.4. Conclusion

Building on the results of the initial screening, based on human rights commitments, stakeholder consultation results, and recent developments in the EU and Mercosur countries, this chapter focused on impacts in four human rights areas: 1) the right to an adequate standard of living; 2) the right to health; 3) the rights of Indigenous peoples; and 4) gender equality. In order to best assess possible risks and provide appropriate flanking measures, the four selected rights needed to be assessed against identified trade measures and have crosscutting relevance to the Association Agreement specifically.

The study undertook an assessment of structural, process, and outcome indicators relevant to each right. Findings suggest that the AA is expected to impact on the Right to an Adequate

Standard of Living in two main ways. Impacts could be either positive or negative and are largely dependent on the strength of accountability mechanisms across Mercosur. First, increases in investment could provide greater opportunities for formal employment and mitigate the lack of accountability in informal arrangements. However, increasing investment may also pose risks, including by increasing inadequate living conditions as a result of investment-induced labour demands or exacerbating land inequality—especially in rural areas. Second, in rural areas in both Brazil and Uruguay increases in investment could create additional challenges with respect to access to basic drinking water services.

Concerning the Right to Health, our analysis suggests that the Association Agreement presents significant opportunities from trade in services and the potential to increase health care services in rural Brazil and Paraguay. Opportunities also exist via procurement, and transfer of know-how through the movement of persons. However, risks exist in terms of possible brain drain impacts and consumer trust as regards phytosanitary measures. While stakeholders have expressed concerns that new IP rights might have an adverse impact on access to medicines across Mercosur, the absence of TRIP+ provisions suggests such risks will not materialise. Further, the removal of tariffs as well as NTBs may expand access to cheaper medicine and medical equipment. Moreover, EU-Mercosur cooperation on IP enforcement presents opportunities to curtail the prevalence of counterfeit pharmaceuticals in the region.

While the situation of indigenous people has seen improvements in Argentina and Paraguay in the last decade, Brazil has regressed since 2014. While Brazil made several steps forward in the previous decade, including through the expansion of indigenous reserves, the recent situation in Brazil gives rise to considerable concerns, inter alia in the light of the shrinking resources for FUNAI, a considerable slowdown of the demarcation process (including the reopening of already demarcated land), and the recognition that the slowdown in demarcation has been accompanied with growth in large scale agribusiness and extractive projects (OHCHR, 2017).

Agricultural expansion and increased investments as a result of the AA may pose risks to indigenous peoples' land rights in Argentina, Brazil and Paraguay. However, the potential impacts are small as the AA only slightly increases output of agricultural products such as beef across the three countries in the CGE modelling.

While protection mechanisms are in place to ensure that any expansion of agriculture is not at the expense of indigenous rights, shortcomings in current policy frameworks exist. There is a key disconnect between theory and practice in the protection of indigenous rights and access to justice. Strengthening such institutional mechanisms can help ensure indigenous peoples are consulted in the expansion of agricultural or investment projects, and in turn adverse impacts are minimised. Additionally, investment can bring about positive effects including in terms of employment and infrastructure development. Nonetheless, while investments in rural employment and infrastructure increase the standard of living for inhabitants, they should not be considered to replace or justify the lack of consideration for indigenous rights to traditional lands, resources and culture.

Concerning gender issues, women are estimated to benefit from the AA. However, as women are underrepresented in tradeable sectors, and increases in agricultural and industrial exports may result in technical upgrading, women are expected to benefit from employment and income gains less so than men. Women's labour market participation is lower than that of men, they are more likely to participate in vulnerable employment, and are less likely to reap the financial benefits of any sectoral trade increases. However, opportunities exist—particularly in education.

While both genders will benefit, risks for widening rather than narrowing indicators of inequality exist across Mercosur as men are expected to benefit disproportionately.

5.5. Policy Recommendations

- **Mercosur and EU governments should continuously monitor the enjoyment of all the four rights** and use the instruments available under the Agreement to flag changes in the human rights situation. With proper accountability mechanisms, as well as adequate flanking measures in place, the AA has the potential to provide important benefits to the participating countries.

Right to an Adequate Standard of Living

- **Mercosur and EU governments should require businesses to present a plan on the provision of adequate living and working conditions** for employees prior to the approval of investment projects that are expected to require a large labour force in an underdeveloped area.
- **Paraguay should implement land reforms so as to enhance resource access** for small-holder farms and distribute trade benefits.

Right to Health

- **All parties should take steps in reducing risks of increasing obesity**, possibly with measures such as information campaigns, educational programmes, front of package (FOP) nutrition labelling.
- **All parties should make sure that physician exchange programs under mode 4 ensure balanced female participation** and distribute participants proportionally across rural and urban areas.
- **All parties should cooperate on matters related to incentivising research and development of new medicines** while providing access to affordable medicinal products.
- **All Mercosur countries, particularly Argentina and Brazil, should establish physician exchange programs** to place EU professionals in rural areas and increase healthcare services.
- **Mercosur countries, with the support of the EU, should implement programs to retain their domestic health workforce** and mitigate “brain drain” concerns.

Rights of Indigenous peoples

- **The governments of Argentina, Brazil, and Paraguay should strengthen their institutional frameworks for the protection of indigenous peoples.**
 - **Argentina should provide necessary resources for the National Institute of Indigenous Affairs** to expedite activities for the completion the Territorial Survey of Indigenous Communities so as to avoid post-investment land disputes.
 - **Brazil should consider retracting its proposed bill to open indigenous lands for natural resources** and re-prioritise the demarcation of indigenous lands as well as providing FUNAI with adequate resources to protect lands.

- **All three countries should prioritise mechanisms to implement the right to prior, free, and informed consent, particularly among municipal governments in states with large indigenous populations.** The EU's consultation strategies provide examples of good practices. Mercosur governments should establish regular roundtables, and a civil society dialogue so that proposed investment projects are presented prior to their approval.
- **The EU should encourage European businesses to engage in consultations with indigenous communities before investing.** Given the issues surrounding local enforcement of PFIC and impact assessments, such efforts will help recognise the rights of indigenous peoples while avoiding land disputes months into planned investments as has been evident in past cases in Argentina and Brazil.
- **The EU should encourage EU businesses to consider human rights impacts alongside cost-benefit analyses prior to approval of large-scale investments.** Such assessments could employ stated/revealed preference methods to capture the impacts on non-market values inherent to indigenous traditions (OECD, 2018) and could give consideration to protective or compensating measures including infrastructure development, capacity building and skill training, etc.

Gender Equality

- **Mercosur countries should invest in rural development programs in support of female-headed farms** to tackle the traditional skewness towards male-owned land. A similar approach as Brazil's My House My Life program¹⁸⁷ could be considered, but for female headed households to purchase land rather than property.
- **Mercosur countries should invest in capacity building and training programmes** specifically targeting women across agricultural and manufacturing sectors to tackle potential job loss due to skill upgrading, and historical difficulties in accessing training.
- **Argentina and Brazil should provide further resources for campaigns fighting domestic violence.**

¹⁸⁷ <http://worldpolicy.org/2016/07/07/brazil-my-house-my-life/>

6. Sectoral Analysis

6.1. Qualitative Analysis

Some of the dimensions of the analysis are hard to quantify and require other methodologies. Moreover, even when it may be possible to assess impact through quantitative methods, it is necessary to qualify the results in order to assess likelihood. For example, data from CGE models may not reflect very recent policy or economic developments. For these reasons, we carry out in-depth qualitative analysis focusing on ten key sectors¹⁸⁸. The sectoral analysis is based on data on production, trade, tariffs and revealed comparative advantages. It is also grounded in the reports, assessments and evaluations of relevant international organisations, complemented by academic literature.

Consultation with experts and stakeholders

We exploit the networks of contacts of the researchers and the institutions involved, particularly those located in Mercosur, to undertake interviews about specific issues that may be hard to quantify or that may require qualification. For example, countries may present non-reported restrictions to trade that need to be identified and be described by the local experts. In particular, the experts are useful in addressing the following issues:

- NTBs such as non-automatic licenses, SPS measures, and technical barriers to trade.
- Barriers to services provision. For example, market reservation and restricted modes of provision.
- Restrictions on the provision of services under mode 3 (commercial presences) and other restrictions on FDI.
- Restrictions on foreign companies bidding in government procurement procedures.
- Regulations on intellectual property rights such as patent protection and the enforcement of these rights.
- Geographic indications and origin denominations

We also use expert input to evaluate some potentially non-quantifiable aspects that can substantially affect the results of the agreement. In particular, we evaluate:

- The operation of the Mercosur customs union. Although applying a common external tariff (CET), Mercosur is not yet a fully operational customs union. Members have the capacity of changing unilaterally tariffs. Moreover, there are sectors where the FTA component (i.e. trade within Mercosur) is not liberalised.
- The existing Common Automobile Policy in the Mercosur and its reform. This may have important implications for how the FTA with the EU may affect the automobile sector.
- The non-automatic licenses regime in Argentina. Although this regime has been simplified, several products are affected by this measure.

¹⁸⁸ The sectors have been selected in consultations with the EC.

Chapter 7 provides more information about the stakeholder consultation process, concerning sustainability aspects in addition to the economic issues.

6.2. Cross-Cutting Issues

For each sector addressed, this chapter observes several cross-cutting themes, namely, SMEs, consumers, government procurement, LDCs and OMRs.

6.2.1. Small and Medium Enterprises (SMEs)

SMEs are major employers in both partners. Even in sectors such as car manufacturing, both the EU and Mercosur are populated by many SMEs as the main manufacturers. Moreover, given the integration of the sector into value chains, they export as well. On the other hand, although Mercosur agricultural production and exports tend to be dominated by large farms, there are a large number of small and medium farmers that may be affected by the agreement. The presence of SMEs on the EU side is even more substantial. Some of them are important exporters that face serious barriers to export to Mercosur given their high tariffs and NTBs. In addition, small farmers are important to the EU agricultural sector.

The data present some challenges. Surveys of firms and farms are, in the case of Mercosur, not easily available and present issues with their consistency among members. However, there is information about the number of firms by sector, size and country that can be used in the analysis. From the results of the CGE it is possible to identify sectors where trade and production will expand or contract, and assess whether those sectors are characterised by a large number of SMEs. If more detailed information about trade flows of SMEs to the participant countries is found, this number is refined to obtain a more precise number of potential firms or farms affected. The impact on SMEs is also assessed through the development of a questionnaire, specifically targeted to SMEs, further to the example set by SME Tests developed in the context of other negotiations.¹⁸⁹

6.2.2. Consumer Impacts

FTAs can have important effects on consumers in terms of price, quality and quantity. The removal of barriers to trade reduces the price of imported goods, especially when tariffs are high. It also increases prices of exported goods in the short run as domestic supply is used to supply the expanded opportunities in the destination market. At the same time, the EU-Mercosur FTA could increase the availability and variety of goods in both partners. In addition of the increase in the existing imports there may be additional products imported that increase the supply of varieties in both partners. Overall, this maximises the utility that consumers derive from the consumption of goods by virtue of the preference for variety that consumers present.

In addition, consumers derive utility based on the quality of the products. This includes direct elements such as the safety as well as indirect elements such as the ethical considerations in production including animal welfare or the labour conditions in the production. Products that address these issues, present among European consumers and increasingly in consumers in Mercosur, are considered as higher quality and of higher value. Moreover, geographic indications and denominations of origin define particular characteristics of the product. The quantitative elements (price, quantity) can be assessed using consumer welfare analysis. Other non-

¹⁸⁹ See EC, 2015c.

measurable effects can be assessed by looking into concepts such as consumer detriment and the analysis of the consumer conditions. In the first case, the effect of an agreement can be assessed by looking at the loss of consumer welfare generated by the market and regulatory failure or trade barriers. Their removal indicates the benefit for the consumer.

The European Consumer Agenda suggests a sequence of questions to answer with respect to consumer effects. Although inspired by an analysis of the EU Single Market, the framework can be adapted to accommodate the EU-Mercosur Agreement. For example, although cross-border trade is limited (e.g. France and Brazil share a land border), there are possibilities of business-to-consumer transactions between Mercosur and EU's firms and citizens that need to be evaluated. Other questions such as the effects on prices, quantity, availability as well as the safety of consumer products and services can be considered using this framework. Additional input to the cross-cutting consumer analysis is provided through the stakeholder consultation process. We structure the assessment on consumers based on the set of test questions, which feature in the Better Regulation Guidelines and Toolbox.

6.2.3. Government procurement

None of the Mercosur members have signed the WTO Government Procurement Agreement (GPA). Consequently, the access of foreign firms to the Government tendering process is discretionary in Mercosur countries. This has limited the capability of EU firms, especially SMEs, to provide goods and services to Mercosur governments. Access to tenders is, generally, only possible when there is a significant lack of local capacity.

The agreement could open the possibility for European firms to participate in procurement and tendering process in Mercosur countries. They will be able to compete with local and other Mercosur countries' suppliers. Overall, through bilateral and plurilateral agreements (such as the Mercosur or GPA agreement respectively), the EU pursues the mutual opening of procurement markets. In case such reciprocity is not provided, as explained in the 2019 Guidance on third country bidders¹[1], the economic operators that do not have secured access to the EU procurement market through an FTA or the GPA may be excluded from procurements in the EU. Therefore, the Mercosur agreement will provide the Mercosur firms with the secured access to the EU procurement market.

At the same time, it will benefit Mercosur Governments by increasing the competition in the process, allowing to procure under lower prices. The effects of the agreement on procurement are likely to be larger in sectors such as chemicals and pharmaceuticals and on machinery.

6.2.4. Least Developed Countries

None of the Mercosur members are LDCs. The trade between the EU and Mercosur suggests the possibility that some LDCs, currently receiving preferences under the Everything But Arms (EBA) initiative may be affected. In particular, the increased market access that the Mercosur countries will receive as a result of the FTA may reduce the value of the preferences received. Our assessment of the impact examines the degree of similarity of exports to the EU between each Mercosur member and each LDC. This can be performed by the calculation of the Finger-Kreinin index at much disaggregated levels (i.e. Common Nomenclature at 8 digits or Harmonised System at 6 digits). This indicates the potential negative effect for LDC exporters, also compared against the existing EU MFN tariffs in order to assess more properly the magnitude of the impact. On the other hand, as both partners will get increased access to each other's markets, there will be more opportunities for LDCs through their current integration into value chains. We perform

this analysis by looking into the results of CGE models that can assess the effects on LDCs of the agreement between both partners.

6.2.5. Impact on EU outermost regions (OMRs)

The assessment of the possible impact of this agreement on the economies of the EU's outermost regions is an important element of the Mercosur SIA. The OMRs are not singled out in the GTAP database and therefore cannot be analysed by CGE. This therefore entails a qualitative approach, setting out the structure of production and assessing this in view of the overall impact on certain products (notably sugar and fruits). The team has collected different views during the stakeholder consultation and taken them into consideration throughout the different sections of the report.

6.3. Sectoral analysis: Agriculture

6.3.1. Beef

Sector overview

Mercosur countries have been among the main historical suppliers of beef to the EU and Mercosur presents important production capacities. The importance of Mercosur as a supplier of beef is explained by the traditional links, consumer preferences as well as certain policies affecting the bilateral trade. The Mercosur beef export supply is diverse. On one side, Mercosur is a major exporter of processed beef (e.g. corned beef). This export supply, whose development started thanks to European investments in the late XIXth and early XXth, is demanded by many low-income consumers in the EU. On the other extreme, beef from some of the Mercosur countries (i.e. Argentina) is recognised in the European consumers as synonymous of the highest quality and it is consumed by the high-income end of the income distribution in the EU. This puts Mercosur as a diversified exporter of beef that can supply a wide range of consumers in the EU.

Production, trade and consumption

Table 38 and 39 present the beef balance in the EU and Mercosur. This indicates how much production, consumption and trade have evolved, measured in quantities, in the last 10 years. Unfortunately, it is impossible to obtain more updated information for Mercosur with this level of detail. In the EU, consumption fell between 2007 and 2013 and then picked up considerably between 2014 and 2018 (see data table), although it remains however lower than it was in the early 2000s. EU production has also grown considerably and in 2018 reached its highest level since 2007. This is in part due to the pick-up in domestic consumption and in part in response to growing demand for EU exports of both bovine meat and live animals.

Measured in volumes, Mercosur is the largest supplier of beef to the EU, accounting for 73% of total EU beef imports. This share, however, has been coming down during the analysed period. This may be the result of a joint effect associated with the increase in market access and exports into the EU from third suppliers and a generalised fall in the total Mercosur volume of exports.¹⁹⁰ Nevertheless, the importance which China as a destination of beef exports has acquired in the last years cannot be downplayed.

¹⁹⁰ The introduction of export duties and other restrictions to exports of beef in the mid 2000's (although substantially removed recently) has played a significant role.

In terms of consumption, Mercosur countries have been experiencing an increase in per capita consumption and the EU, on the other hand, experienced a fall. In Argentina, the fall in per-capita consumption experienced since 1970's has now stabilised while Brazil's consumption has increased.

These long-term trends may experience some short run cycle associated with the economic and the livestock cycle. In the first case, the economic crisis that affected Mercosur countries in the last three years may have affected beef consumption and it may have increased export surplus. This is not reflected in the analysis as more recent data are not available. On the other hand, change of producers' expectations resulting from the change in Government in Argentina and Brazil during 2015-16 may have led to a reduction of short run production of beef to increase the number of cows. This process seems to have stopped, and production has increased during 2017 (Infocampo, 2019).

Table 38: Beef balance in the EU (in thousands of tonnes carcass weight equivalent)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Gross indigenous production	8,203	8,183	7,855	7,488	7,655	7,835	8,070	8,107	8,236
Net production	8,100	8,036	7,697	7,379	7,541	7,657	7,852	7,869	7,994
Consumption	8,167	7,995	7,761	7,523	7,641	7,743	7,907	7,884	8,044
Imports meat	321	287	275	304	308	300	304	285	303
Imports (live animals)	0	0	0	0	0	0	0	0	0
Imports (total)	321	287	275	304	308	300	304	285	303
Exports (meat)	253	327	210	160	208	211	249	271	250
Exports (live animals)	104	147	159	109	114	178	219	238	242
Exports (total)	357	474	369	269	322	389	468	509	492

Source: Eurostat

Table 39: Beef balance in Mercosur (in thousands of tonnes carcass weight equivalent)

	2010	2011	2012	2013	2014	2015	2016	2017
Production	12612	12356	12690	13373	13382	13132	12963	13470
Apparent consumption	10109	10240	10382	10681	10588	10521	10267	10543
Export	2539	2157	2369	2750	2874	2673	2764	2992
Imports	36	41	61	59	80	61	69	64
Exports to EU	298	258	251	255	245	236	245	244

Source: FAOSTAT. Comtrade

The share and volumes fell substantially around a decade ago and have since been fairly stable. The fall was associated in part to the increase in consumption experienced in Mercosur as well as with changes in structure of the destination suggest that other non-EU markets have gained relevance. The Russian Federation, China and Egypt, for example, absorb, in volumes, more or similar volumes of Mercosur's beef exports than the EU.

Table 40 presents the bilateral trade in beef between Mercosur and the EU in values. Beef represents around 3% of the total EU imports from Mercosur. This share has gone up as the value of total EU imports from Mercosur has decreased (around 20% with respect to the 2012

values). Nevertheless, the value of the EU imports of beef from Mercosur have remained relatively constant since 2012 around Euros 1.3 billion. This is explained primarily by the fact that most of the imports from Mercosur (by value) are limited by quotas. The share of Mercosur in total EU imports in value remains close to the share observed in volumes. Moreover, it also presents a decreasing trend and indicates a reduction of near six percentage points in the last 5 years. This fall seems to be explained by a combined effect of a fall in the volumes imported, discussed before and an increase in the import prices.

On the other hand, the importance of the EU as a destination of exports measured in values is substantially higher than when measured in volumes. In fact, the EU doubles its share when the influence of prices is considered. The EU represents almost 17% of the value of the beef exported by Mercosur.

Table 40: EU-Mercosur bilateral trade (in billions of Euros)

Year	EU beef imports from Mercosur	Beef products in total EU imports from Mercosur (%)	Total EU beef imports	Share of Mercosur in total EU imports of beef (%)	Mercosur beef exports to EU	Total Mercosur beef exports	Share of EU in total Mercosur beef exports (%)
2012	1.3	2.6	1.8	73.9	1.3	7.1	18.4
2013	1.3	2.9	1.8	72.6	1.2	7.7	16.2
2014	1.3	3.3	1.9	71.6	1.3	8.5	15.6
2015	1.4	3.3	2.1	66.2	1.4	8.6	15.8
2016	1.4	3.4	2.0	68.0	1.4	8.4	16.7
2017	1.3	3.2	1.9	69.0	1.4	8.5	16.5

Source: Eurostat and UN Comtrade. Note: Differences between the value of exports and the value of imports due to different data sources and transformation into Euros of data originally in US dollars.

Trade composition

Mercosur beef exports can be classified in: Fresh, frozen and processed beef. These categories are also distinguished by whether beef include bones. However, due to SPS rules, almost all EU beef imports are boneless. Table 41 presents the detail of the beef imports from Mercosur classified using the EU Common Nomenclature at 8 digits between 2015 and 2017. Fresh beef constitutes the most important beef product imported from Mercosur, accounting for more than half of the total value imported. In turn, Mercosur represents nearly 64% of the total EU imports on this product. In general, this product represents the higher quality side of the distribution of products. This product is for what Mercosur beef imports are known for in the EU.

Frozen beef is another important beef product imported from Mercosur. Mercosur represent around 80% of the EU's total frozen beef imports from the world. This trade is limited to the hindquarters of the animal, based on the higher value assigned by the EU consumer. However, they are of less value than the fresh or chilled beef. Forequarters and other cuts are frequently exported by Mercosur to Israel and other low value markets. Finally, processed beef (e.g. thermo-processed) is another key product in the trade between Mercosur and the EU. Mercosur accounts for almost all the EU imports on this product, where Brazil is by far the largest supplier. However, the volumes imported by the EU have observed a decline in the last five years. This is

in large part because China and other emerging markets are increasingly demanding this product from Mercosur, reducing the supply to the EU.

Table 42 presents the Mercosur exports to the EU as Mercosur reports them. The differences in value with respect to the value of the EU imports from Mercosur are related to the different source of data and the transformation to Euros of the exports originally expressed in US dollars. The table presents the average value of total Mercosur exports in each product. It also presents the share of the EU as a destination of each product.

The most important exported beef product for Mercosur is boneless frozen beef (020230), accounting for almost 62% of the total Mercosur beef exports. However, the share of the EU in the exports of this product is small at 7%. This product, in general of lower quality and price, is frequently exported to low and middle-income countries. In the case of high quality chilled boneless beef (020130), the EU represents on average 44% of the Mercosur beef exports by value for the period 2012-16. Exports of this product have grown substantially over the last five years but remain well below peak levels seen in 2005-07.

Policy dimensions

Tariffs constitute a major element of the trade policy applied on the beef trade. In general, tariffs applied by the EU on beef constitute tariff peaks and they tend to be several times higher than the average tariff applied by the EU on all products. In addition to that, as it happens with many agricultural products, the tariffs applied by the EU tend to be non-ad valorem. This complicates the analysis, but it also affects trade differently than ad-valorem duties. This is because the ad-valorem equivalent tends to increase as the import price falls. Consequently, tariffs tend to be a larger share of the import price in the cheapest products.

In the rest of the products, ad-valorem equivalents range between 26.6% and 79.3%. Two products are of importance in virtue of the existing trade. In the case of chilled boneless beef (02013000), the ad-valorem equivalent tariff is 43%. In the case of boneless frozen beef (02023090), the ad-valorem equivalent is around 64%.

The Hilton quota provides access at a reduced tariff (20%) in high quality fresh and chilled cuts.¹⁹¹ This TRQ, negotiated in 1979 and expanded after successive EU enlargements due to withdrawal of WTO concessions, benefits several world exporters. However, the largest beneficiaries are the Mercosur countries, which account for more of than 70% of the total quota allocation. Argentina is the largest beneficiary of this quota, accounting for more than half of the total quota allocation and 75% of the allocation to Mercosur countries. Nevertheless, Argentina has not managed in the last years to export substantial volumes outside the allocated volumes under the TRQ. This was primarily associated with the restrictions that applied to the exports of beef from Argentina until 2015. On one side, exports of beef have been subject to a 15% export duty. On the other side, there have been intermittent quantitative restrictions on the volumes exported since 2006. These restrictions have been lifted in early 2016 (Reuters, 2016).

¹⁹¹ See Commission Regulation (EU) No 593/2013.

Table 41: Imports of beef products from Mercosur (in millions of Euros)

CN	Description	2015	2016	2017	Average share in imports from Mercosur				Average share in EU imports
					Argentina	Brazil	Paraguay	Uruguay	
02013000	Fresh or chilled bovine meat, boneless	810	860.5	860.2	45	26	3	27	64
02023090	Frozen bovine boneless meat (excl. Forequarters, whole or cut into a maximum	351.1	328.6	311.1	3	67	2	29	82
16025031	Corned beef, in airtight containers	120.4	107.8	83.2	0	100	0	0	100
16025095	Meat or offal of bovine animals, prepared or preserved, cooked	84.3	79.8	59.7	1	98	-	0	94
	OTHER BEEF PRODUCTS IN CHAPTERS 2 AND 16	1.7	1.6	0.7	21	55	0	24	11
	TOTAL	1,367	1,378	1,315					

Source: Eurostat.

Table 42: Mercosur beef exports to the EU (in millions of Euros)

HS6	Description	2012	2013	2014	2015	2016	Average Total Mercosur exports	Share of product in total beef exports	Share of EU in total product exports
020130	Meat of bovine animals, fresh/chill	691.6	686.0	762.3	781.8	884.6	1,744.8	21.6	43.6
020230	Meat of bovine animals, frozen, bon	348.4	330.6	342.5	348.3	319.3	4,983.3	61.8	6.8
160250	Prepared/preserved preparations of	254.6	208.2	200.1	208.0	179.9	601.5	7.5	34.9
	OTHER PRODUCTS IN CHAPTERS 02 AND 16	1.3	1.3	1.4	1.1	0.8	714.6	8.8	7.3
	TOTAL	1,316.4	1,244.3	1,324.0	1,361.1	1,406.2	8,066.5		16.5

Source: UN Comtrade.

Table 43: MFN tariff applied by the EU on beef products (2016)

CN	Description	Duty	Import price per 100 kg	Ad-valorem equivalent
02011000	Carcases or half-carcases of bovine animals, fresh or chilled: High quality beef and veal	12.8% + 176.8 EUR/100 kg	N/A	
02012020	""Compensated"" quarters of bovine animals with bone in, fresh or chilled: High quality beef and veal"	12.8% + 176.8 EUR/100 kg	831.0	34.1
02012030	Unseparated or separated forequarters of bovine animals, with bone in, fresh or chilled: High quality beef	12.8% + 141.4 EUR/100 kg	N/A	
02012050	Unseparated or separated hindquarters of bovine animals, with bone in, fresh or chilled: High quality beef	12.8% + 212.2 EUR/100 kg	N/A	
02012090	"Fresh or chilled bovine cuts, with bone in (excl. carcasses and half-carcasses, ""compensated quarters""",	12.8% + 265.2 EUR/100 kg	1,275.4	33.6
02013000	Fresh or chilled bovine meat, boneless: High quality	12.8% + 303.4 EUR/100 kg	999.3	43.1
02021000	Frozen bovine carcasses and half-carcasses: High quality beef and veal	12.8% + 176.8 EUR/100 kg	398.6	57.1
02022010	"Frozen ""compensated"" bovine quarters, with bone in: High quality beef and veal"	12.8% + 176.8 EUR/100 kg	265.8	79.3
02022030	Frozen unseparated or separated bovine forequarters, with bone in: High quality beef and veal	12.8% + 141.4 EUR/100 kg	N/A	
02022050	Frozen unseparated or separated bovine hindquarters, with bone in: High quality beef and veal	12.8% + 221.1 EUR/100 kg	N/A	
02022090	"Frozen bovine cuts, with bone in (excl. carcasses and half-carcasses, ""compensated"" quarters, forequarters	12.8% + 265.3 EUR/100 kg	774.2	47.0
02023010	"Frozen bovine boneless forequarters, whole or cut in max. 5 pieces, each quarter in 1 block;	12.8% + 221.1 EUR/100 kg	349.2	76.1
02023050	Frozen bovine boneless crop, chuck and blade and brisket cuts: High quality beef and veal	12.8% + 221.1 EUR/100 kg	388.1	69.8
02023090	"Frozen bovine boneless meat (excl. forequarters, whole or cut into a maximum of five pieces,	12.8% + 304.1 EUR/100 kg	589.6	64.4
16025010	Prepared or preserved meat or offal of bovine animals, uncooked, incl. mixtures of cooked meat or	303.4 EUR/100 kg	1,140.8	26.6
16025031	Corned beef, in airtight containers	16.6%	364.1	16.6
16025095	Meat or offal of bovine animals, prepared or preserved, cooked (excl. corned beef in airtight con	16.6%	572.0	16.6
16029061	Prepared or preserved meat or meat offal, uncooked, containing meat or offal of bovines, incl. mixture	303.4 EUR/100 kg	N/A	
16029069	Prepared or preserved meat or meat offal, cooked, containing meat or offal of bovine animals	16.6%	N/A	16.6

Source: Eurostat. Note: Only products in headings 0201, 0202 and 1602 are shown

In contrast, Uruguay and Brazil have managed to export larger volumes outside the quota, paying the standard MFN duty (12.80 % + 303.40 EUR/100 kg). Transformed into ad-valorem equivalent, this duty is of 43%. In virtue of the high quality associated with the product, Mercosur exporters manage to export significant volumes even when tariffs may be prohibitive for the rest of the exporters. This provides an idea of the competitiveness of Mercosur exporters in this product.

Sanitary Status

The Foot and Mouth Disease (FMD) constitutes a major concern for Mercosur exporters and different outbreaks in the past generated serious disruption and economic losses. Sanitary measures with respect to FMD applies primarily to fresh and frozen beef and not on cooked processed beef where the trade is not subject to these regulations. There is not a single FMD status across Mercosur and it presents not only variations between countries but also within the different regions in each country. Uruguay has been free of FMD for many years and it has managed to stop its vaccination. Consequently, this has allowed Uruguay to access high price markets such as the US and Japan. However, Uruguay reintroduced vaccination recently. The same status is currently observed in Paraguay.

The sanitary status of Argentina varies within the country. Patagonia is free of FMD without vaccination. In the rest of the country, vaccination is regularly performed and enforced by the Servicio Nacional de Sanidad (SENASA). The last serious outbreak occurred in 2001. As Argentina, Brazil presents different areas with respect to FMD status and vaccination. However, it presents some areas without FMD status. Only one state (Santa Catarina) is free of FMD and vaccination is not practiced.

Despite the variations, Mercosur countries have made enormous efforts to improve their sanitary status and they continue work to improve it. The status is not an impediment to export to the EU. However, it limits the products that can be exported. For example, no trade in beef with bone is recorded in virtue of the FMD status.

Animal Welfare

Given the importance of meat production in Mercosur countries, animal protection has long been subject to political debates in the region. Over time, each member has sought to regulate agricultural practices to prevent animal abuse at various stages of the production process or for various species, with recent reforms undertaken by Brazil (2012), Paraguay (2013) and Uruguay (2014) (Table 44). Over the past two decades, the Brazilian Ministry of Agriculture, Livestock and Food Supply (MAPA) has worked to develop a set of "Good Agricultural Practices" with the agricultural industry and collaborated with World Animal Protection to fund a program known as STEPS. The latter was designed to educate Brazilian producers across the country on humane slaughter of cattle, poultry and pigs (Cassuto & Saville, 2012¹⁹²; Souza, Leite and Molento, 2019).

¹⁹² David N. Cassuto & Sarah Saville, *Hot, Crowded, and Legal: A Look at Industrial Agriculture in the United States and Brazil*, 18 *Animal L.* 185 (2012), <http://digitalcommons.pace.edu/lawfaculty/869/>.

Table 44: Animal protection regulation in Mercosur countries

Country	Regulation	Year
Argentina	Law 13346, abuse act and acts of cruelty to animals	1891
	Law 2786, prohibiting animal abuse	1954
Brazil	Decree 16590, public entertainment houses, prohibiting animal abuse	1924
	Decree 24645, for animal protection	1934
	Law 9605, on environmental crimes	1998
	Humane Slaughter Regulation	2000
	Regulation 275	2012
Paraguay	Protection and Animal Welfare Act 4840	2013
Uruguay	Law 18471, for the responsible possession of animals	2009
	Decree 62, regulation of Law 18471	2014

Source: Souza, Leite and Molento, 2019¹⁹³.

Today, Mercosur countries are global players in the production and exports of meat products, with Brazil ranking as the world's top beef and chicken exporter, while Uruguay, Paraguay and Argentina also rank within the top-ten list (Argentina being also the 10th exporter of chicken meat), according to U.S. Department of Agriculture (USDA) data. The intensification of meat production and the dramatic rise of beef exports from Mercosur (notably Brazil) have renewed concerns over animal welfare. This is partly due to the uneven enforcement of animal welfare across regions or Mercosur countries, sectors (e.g. fish being generally excluded from animal protection regulation) and farmers of the same industry. With regard to the protection of animals in farming, the World Animal Protection Index shows a higher rate for Argentina (rated A) than Brazil (B) and Uruguay (C)¹⁹⁴.

Paradoxically, large-scale factory farms tend to have higher levels of compliance given their greater exposure to federal inspection agencies and their dependence on foreign markets like the EU, which requires stricter standards (Cassuto & Saville, 2012; Souza, Leite and Molento, 2019).

Assessing the impact of the agreement

Economic impact

Given the limitations of the CGE analysis, it does not model tariff rate quotas (TRQs) but rather applies partial tariff cuts of 15% and 30% in the conservative and ambitious scenarios respectively. Table 45 presents a summary of the results obtained in the CGE analysis for bovine meat.

In the most conservative scenario, where the tariff currently being applied in the model is reduced by 15%, EU beef imports from Mercosur will expand between 26% and 37% depending on the country. In this scenario, output in Mercosur would expand between 0.2% and 2.1% and total EU output will contract by 0.7%. In general, the effects of the agreement tend to be smaller

¹⁹³ Souza A.P.O., Leite L.O. & Molento C.F.M., "Animal welfare in Central and South America: What is going on?" In: Hild S. & Schweitzer L. (Eds), *Animal Welfare: From Science to Law*, 2019, pp.88-102.

¹⁹⁴ Paraguay is not included in the 50-country database. For more details on the WAP index and its methodology, see <https://api.worldanimalprotection.org/>

for Paraguay, whereas Uruguay is the country that experiences the largest effects in terms of output.

In the ambitious scenario, where tariffs applied in the CGE model are reduced by 30%, the effects are, as expected, larger. EU imports from Mercosur would expand between 54% and 78%. Output in the EU would fall by 1.2% whilst output in Mercosur would expand between 0.6% and 4% and by around 2% in the two large countries.

Table 45: Bovine meat results in the CGE Model

	Conservative Scenario		Ambitious Scenario	
	EU imports	Output	EU Imports	Output
Argentina	30.9	1.3	66.3	2.5
Brazil	37	1.2	78.0	2.0
Paraguay	28.7	0.2	63.7	0.6
Uruguay	25.6	2.1	54.1	4.0
EU28		-0.7		-1.2

Source: CGE Modelling Results.

These results need to be qualified based on the limitations of the CGE analysis and the reality of the beef trade. However, it is important to highlight a few features. The conservative scenario would imply an increase of around 30% in imports of beef cuts. Based on recent trend imports of around 200 thousand tonnes per year, this would be equivalent to an increase in imports of around 60 000 tonnes. The ambitious scenario would imply an increase of around 64% in imports of beef cuts, which would imply an increase in imports of around 128 000 tonnes.

It is important to highlight the segmentation of the beef market. Whilst the general analysis and the CGE results in particular treat beef as a single product, there is a significant heterogeneity within the product. First, beef production is a completely different activity from dairy production, with dedicated breeds and practices. Most beef production in the EU is in fact from the dairy herd with the remainder coming from the beef herd. The latter commands a higher price. Second, although it is a typical case of joint production, there are marked consumer preferences that determine different price elasticities and prices. Third, even within specific cuts, there are significant quality differentials that explain differences in prices.

Although domestic consumption of beef is high in Mercosur, it is a major exporter in all the segments of the beef market. It exports cooked, frozen and chilled beef. However, particularly in the case of frozen and chilled beef, it tends to export to the EU the higher end of the quality spectrum, with a consequent higher price. This is reflected in a significant differential between the price of cuts imported from Mercosur and the average cut produced in the EU. For example, in 2018, average price of Mercosur beef imported in the EU was €5.64/kg cwe¹⁹⁵ and in the EU, the price was €3.80/kg cwe¹⁹⁶. These differentials suggest the existence of segmented markets for beef, indicating that the effect of the FTA is likely to be fall primarily on the premium segment of the market and, consequently, larger than it would be if all segments were equally represented.

¹⁹⁵ Average price of imports from Mercosur in headings 0201 and 0202 (EU Comext)

¹⁹⁶ DG Agri's medium term outlook

This focus of Mercosur in the higher segments responds is, in part, a reaction to European consumer preferences; but also the result of a limited market access.

In addition, the EU beef market and the EU-Mercosur trade is also affected by another characteristic that tends to reduce the impact than it would be under more standard market configurations. Currently, Mercosur exports enter to the EU through the Hilton quota; the *erga omnes* tariff rate beef quota (which is open to those countries authorities which have been authorised by the Commission to issue certificates of authenticity on a competitive basis and amounts to 45,000 tonnes product weight)¹⁹⁷; the *erga omnes* quota for frozen beef¹⁹⁸ with a volume of 54 875 tonnes product weight; and the out-of-quota channel that involves facing the EU MFN tariff which varies significantly depending on the type of beef. This last channel has, on average, attracted imports from Mercosur of around 45,000 tonnes cwe of fresh beef and around 10,000 for frozen beef.

The increase in imports from Mercosur as compared with current trade will likely be significantly less than the volume of the new quota given the high level of existing out-of-quota trade, much of which will likely be channelled through the new quota. The negotiated quota will imply a transfer, in the form of quota rent, of EU tariff duties collected to the Mercosur exporters or to EU importers (e.g. supermarkets), depending on how the quota is going to be administered.

Environmental impact

Beef production may have important effects on the environment. On one side, extensive models of cattle breeding have important implications with respect to how land is used and allocated to different agricultural activities. On the other hand, cattle breeding has been associated to the production of certain GHGs such as carbon dioxide and methane. This point is addressed in more depth in Chapter 5 with reference to the modelling results. Moreover, the management of manure associated with more intensive forms of cattle breeding (e.g. feed-lots) may have also important implications with respect to the effects on water and the environment of the areas where these farms are located. Therefore, the assessment of the effect that the agreement may have on the environment needs to be related to the differential effect with respect to the current situation. This suggests understanding the existing use environmental resources and how the situation may change as a result of the agreement.

Use of land

Additional land to be used in cattle production (especially under extensive models of production) will come from basically two sources. On one side, cattle farming may advance on current idle lands in terms of agricultural production. This may include former agriculture lands as well as forests and other natural ecosystems. On the other side, cattle production may expand on existing agricultural lands dedicated to other products such as crops or other animal production. In terms of the effect of the agreement on land, the effect of the agreement should be primarily concerned to the first dimension.

¹⁹⁷ Argentina and Uruguay are the only Mercosur members, which have access to this quota. They currently have access to the full volume shared with the USA, Australia and New Zealand. The volume available to countries other than the US will gradually be reduced to 10 000 tonnes product weight over the coming years. See Commission Implementing Regulation 2179/2019 amending Commission Implementing Regulation 481/2012.

¹⁹⁸ See Commission Implementing Regulation 431/2008 as amended by Commission Implementing Regulation 2276/2016.

Table 46 presents how the total land available in each country is used as agricultural land and on permanent and temporary meadows and pastures. This last category is relevant for the cattle production. In general, more than 72% of the agricultural land in Mercosur are permanent and temporary meadows and pastures. The room for substitution between cattle production and non-animal production is limited as the share of pastures in agricultural land is above 70% in Mercosur as compared with 35% in the EU. However, it is still possible that some reallocation between cattle and other animal production could occur. Moreover, this general picture does not consider the case of reallocation within regions.

In addition, there is room for increases in productivity that may allow producing larger volumes of beef without increasing the land use for cattle. On one side, already deforested lands tend to be used for low efficiency pastures, suggesting room for increases¹⁹⁹. On the other side, there is high variability in productivity in the north of Brazil, suggesting that there is space for homogenous and higher productivity²⁰⁰.

It is possible, except in Uruguay where it has already occupying 83% of the total land that the agricultural land may expand further in Mercosur. In Mercosur, only 40% of the land is used by agricultural activities. This suggests that there is a large room for expansion of the agricultural frontier. It may be possible that domestic consumption may fall, maintaining the stock unchanged. Moreover, even in the case that cattle stock increases, there may be an increase in the density of animals per hectare rather than an increase in the use of land.

Table 46: Land use in Mercosur and the EU (2015) in millions of hectares

Country	Total Land (1)	Agricultural Land (2)	Permanent and temporary meadows and pastures (3)	Share of agricultural in total land (2)/(1)	Share of pastures in agriculture land (3)/(2)	Cattle stock (millions of heads)	Density in pastures and meadows (heads/ha)
Argentina	273.7	148.7	112.9	54%	76%	51.4	0.35
Brazil	835.8	282.6	196.0	34%	69%	215.2	0.76
Paraguay	39.7	21.9	17.0	55%	78%	14.2	0.65
Uruguay	17.5	14.5	12.5	83%	87%	11.9	0.82
Total Mercosur	1,166.7	467.6	338.4	40%	72%	292.8	0.63
EU	423.8	184.5	65.3	44%	35%	89.6	0.49

Source: FAOSTAT.

Consequently, although it may be possible a limited expansion of the agricultural frontier in Mercosur associated with an increase in the cattle stocks; it is also possible that exports to the EU may be generated without increasing stocks, by increasing the animal density and/or by substituting land with other animal uses.

¹⁹⁹ IPAM Amazonia (2017)

²⁰⁰ MDPI (2018)

Animal welfare

This subsection primarily focuses on the anticipated effects of the EU-Mercosur AA on animal welfare in relation to the beef sector. This is logically the area that received the greatest attention during the stakeholder consultation sessions organised within the framework of this study. It also discusses the potential impact of bilateral institutional mechanisms on the protection of animal welfare in the two trading partners, and more specifically in the Mercosur region.

To the extent that the agreement will stimulate meat exports, it will favour the development of factory farms, where, as mentioned previously, compliance with animal protection regulation tends to be stricter than small producers (Cassuto & Saville, 2012; Souza, Leite and Molento, 2019).

However, the agreement opens the channels to assist Mercosur governments, institutions and producers in production techniques and practices that minimise the suffering of animals. The agreement includes several instances to establish dialogue between the sanitary services of the party members.

It is worth mentioning that the EU and some of the Mercosur countries have been already engaged in cooperation activities in the matter. With Argentina, the EU has signed the Administrative Arrangement on Technical Cooperation on Animal Welfare. This recent agreement has focused in its early stages in developing capacity building activities such as the Regional Better Training for Safer Food (BTSF) Workshop on Animal Welfare in March, 2018²⁰¹. These activities are expected to reinforce the positive effects of the visits of EU inspectors to abattoirs in Argentina (and other exporters) which include animal welfare assessments. These visits not only focus on assessing the compliance with EU normatives but they have also didactic value.

With Brazil, cooperation extends since 2013 and there have been more activities which have been evaluated in terms of their impact²⁰². Within the framework of the 2013 Administrative Memorandum of Understanding on Animal Welfare, the EU and Brazil have worked together in areas such as a BTSF event (that included participants from the rest of the Mercosur members), research activities, technical meetings and specific projects on road transport of live animals, a project on gestation group sow housing, maritime transport of live animals and humane slaughtering in small scale establishments. The evaluation suggests that, although the agreement did not consider any legal mechanisms to modify practices, the activities have contributed to a significant change in attitude of the stakeholders in the production, commercialisation and logistics involved. Moreover, this success seems to reinforce some underlying trends in Brazil. On the one side, there is an increase in animal welfare as a specific topic of research by scholars in universities, research and extension institutions. Moreover, although slow, there is a increasing concern by Brazilian consumers on animal welfare.

In this sense the FTA is more likely to spur further these actions and trends. It creates additional instances of cooperation, communication and dialogue between EU and Mercosur institutions. Moreover, it is possible that positive effects can spill over and improve animal welfare in activities not related to the trade with the EU. The FTA can generate a large enough mass of good

²⁰¹ https://ec.europa.eu/food/animals/welfare/international-activities_en

²⁰² European Commission (2017) "Study on the impact of animal welfare activities international activities", file:///C:/Users/m.mendez-parra/Downloads/EW0617175ENN.en.pdf

practitioners on animal welfare in Mercosur that can facilitate the application of good animal welfare techniques in the trade with other destinations and the domestic market.

This is where the enforcement of the EU-Mercosur AA's language on cooperation on behalf of animal welfare could not only mitigate minor externalities arising from increasing production and trade, but also offer opportunities to develop a stricter regulatory framework for animal protection both in Mercosur and the EU. However, to the extent that animal welfare provisions are not subject to dispute settlement, the efficacy of this chapter will depend primarily on trading partners' commitment to harmonise or raise regulatory standards in this realm.

Social impact

There are significant differences in the related social composition of the beef sector in both the EU and Mercosur. The EU's animal production is characterised by its intensive production based on small and frequently family-owned farms. This puts the effects of the agreement on the beef sector at the core of its social dimensions in the EU. In addition to the effects on the rural population, workers operating in the meat processing plants may also be affected by the agreement.

In the case of Mercosur, animal production tends to be more extensive and based on large scale farms. However, in virtue of their larger size, these farms tend to make more intensive use of paid labour than their European counterparts. In many of these cases, employees live with their families in the farm. Consequently, their housing is attached to the performance of the employment. This means that farm downsizing tend to have far more serious consequences than the typical job loss. As in the case of the EU, urban workers tend to be employed in the meat processing plants.

Social impact in the EU

In 2013, there were 1,825,000 cattle-keeping farms in the EU (Rico et al, 2017). 640,000 were subsistence farms. The commercial farms generated nearly 2.5 million jobs (measured as Annual working units). This means that many of these jobs include the labour input provided by the farmer and his/her family. Around 888,000 were employed by the sector which includes the production of other type of meats in addition of beef.

The conservative scenario anticipates that unskilled and skilled employment will fall by 0.7% in both cases. In the ambitious scenario, on the other hand, the unskilled and skilled employment would fall by 1.3% in both cases.

Of course, the effect on employment and income in these population groups will depend primarily on the magnitude of the effect of the agreement. Although beef imports from Mercosur could increase substantially, considering that they will remain a small share of the volumes consumed by the EU, the effect in total production and consequently on employment tend to be limited. All this suggests that in virtue of the small share of Mercosur in EU consumption before and after the agreement and the possibility of re-conversion of farms, the effect in terms of employment in the EU production of beef are expected to be limited.

Social impact in Mercosur

There are no statistics about employment in the cattle farming for Mercosur. This information does not allow us to quantify precisely the employment relevance of the beef sector in Mercosur.

However, based on the share of cattle production in total value of production in each of the countries and making abstraction of any consideration with respect to labour productivity, employment in the cattle production in Mercosur countries could be around 3% of the total employment. This could potentially be more than 3 million of jobs that would depend on the cattle production.

In Mercosur countries, the demand for unskilled labour in the conservative scenario may increase between 0.2% and 2.5%; and the demand for skilled labour would rise between 0.3% and 2.7%. In the ambitious scenario, the unskilled labour would increase between 0.6% and 4.7%; and the demand of skilled labour between 0.7% and 5%.

This represent a very high upper bound of what could be the number of employees affected in the sector. The employment that may be affected by the agreement will be potentially lower. On one side, there is a significant share of beef that is marketed domestically without significant effect expected. Although it is not possible to distinguish farms that supply beef for export (animals are breeding to supply jointly the domestic and export market), based on Table 42, 1% of the beef produced in Mercosur would be exported to the EU. With a potential increase of this share to 2% as explained before, the share of employment affected in Mercosur by the agreement would be around 0.06% of the total employment or around 10,000 jobs across Mercosur. Although many of these jobs may be created among the most vulnerable people in the region, the effect is very small to generate a significant change in either poverty or income distribution.

In addition to the effects on the cattle breeding, there is an additional effect to consider in the sector that slaughters and process animals. There are no official statistics about the employment in the beef producer sector. We do not have information about the value of production of beef in the sector, but even if 100% of it is produced by the beef sector and considering the potential share of the EU in total Mercosur beef production, the affected employment will be around of 0.1% of the total employment. This could be as high as 35,000 jobs for Brazil. However, this would constitute still an unrealistic upper effect on employment in this sector.

Chapter 4 makes a deeper assessment of the labour rights effects of the agreement. Although there are certain labour rights issues that affect the agricultural sector (e.g. housing associated with employment), they are not specific to the beef sector. There are no major specific labour rights issues affecting workers in beef production and cattle breeding.

Human rights

Beef production involves activities that spread into both rural and urban areas. Populations in each of these areas are subject to different type of legal and institutional challenges that affect in different degrees their human rights. Therefore, it is important to distinguish the labour rights and the land access dimensions in the analysis. However, there are no significant issues specific to beef production. Chapter 6, on the other hand, discusses general human rights issues, including the access to land. These are very relevant to the agricultural sector in general but no specific to beef production and/or cattle breeding.

Impact on SMEs

The assessment does not preview specific impact on SMEs, resulting from these provisions.

Impact on Consumers

A related dimension of the social impact is associated with the effect on EU domestic prices associated with the agreement. In principle, the agreement may generate some important reduction in key products of importance for consumers.

Beef (and other meats) accounts for 3.5% of the average household expenditure.²⁰³ Based on the animal protein consumption, beef would represent nearly 20% of the meat consumption in the EU²⁰⁴. Therefore, although we may be mixing value and quantity-based measures, we could say that beef would represent around 0.7% of the average household consumption.

Although the effect in terms of employment in Mercosur may be limited, there is a potential dimension to consider associated to the weight that beef has in the household consumption. Table 47 suggests that the share of beef in total household consumption could be as high as 5.45%. This suggests that any change in the price of beef associated with the effect may have potentially large effects on the value of the household consumption.

However, as we mentioned, even a relatively large increase in the exports of beef to the EU will still represent a relatively small change with respect to the total production and consumption in Mercosur. Consequently, it is unlikely that small changes in volumes may generate large effect on prices. Moreover, it is expected that the supply to the EU will be mostly concentrated in higher quality cuts and their consumption is more limited in Mercosur. This suggests that the effect in prices may be more limited. However, it is expected that the effect in prices may be higher than the one that EU consumers may experience.

Table 47: Share of beef in average household consumption in Mercosur

Country	Share of beef (%)	Source
Argentina	5.45	Indice de Precios al consumidor base (2015)
Uruguay	3.93	Indice de Precios al consumidor base (2010)
Brazil	3.02	Sistema Nacional de Indice de Precos a Consumidor (2014)

Source: Author's elaboration.

Impact on LDCs

The effect on preference erosion on LDCs associated with the improvement in market access from Mercosur is expected to be negligible as there is no expected any displacements of exports from LDCs to the EU. The impact can be assessed by looking at the LDCs exports and the exports to the EU. Table 48 presents the average value of beef exports from each LDC to the EU and in total. Exports of beef products to the EU are less than Euros 2 million and represent around 25% of the total LDC beef exports. However, considering that the EU imported, in 2016, from LDCs by almost Euros 39 billion, the effect general preference erosion effect is marginal. For Myanmar, the country with the largest value exported to the EU, beef exports represent around 0.2% of

²⁰³ Based on data from Eurostat.

²⁰⁴ Food Supply - Livestock and Fish Primary Equivalent provided by Food and Agriculture Organization of the United Nations.

its total exports. Therefore, the effect of increased market access of Mercosur in beef products on LDCs exports is in general negligible.

Table 48: Least Developed Countries exports of beef (in millions of Euros)

Country	Total Exports	Exports to the EU
Myanmar	5.3	1.4
Nepal	0.7	-
Ethiopia	0.3	0.1
Bangladesh	0.3	0.0
Lao PDR	0.3	-
Madagascar	0.3	0.1
Sudan	0.2	-
Rest of LDCs	0.7	0.0
Total	8.1	1.9

Source: UN Comtrade

Impact on OMRs

In virtue of the reduced size, there is no commercial exporting beef activities of relevance in the Outermost regions of the EU with the notable exception of the Azores. Therefore, the increase in the exports of beef from Mercosur to the mainland EU is not expected to have a significant effect on the exports of these regions as well as on the intra-EU regional trade.

Moreover, the small economic size of this regions, suggest that the effect of the imports from the Mercosur may be limited on the beef production that exist to supply the local market. For example, it is unlikely that the agreement will imply a sizable increase in the exports of Mercosur to Reunion, for example. It is possible, nevertheless, some increase in the cross-border trade between Brazil and French Guyana. However, this is likely to be limited to a circumscribed expansion of the already low cross-border trade between Brazil and France.

Policy Recommendations

- **Mercosur countries should aim to increase productivity to limit the effects that additional production may have on land use.** For example, measures to increase the weight of slaughtered animals can contribute to increase beef without increasing substantially the number of animals.
- **Both parties should pursue effective implementation of their commitments under the Paris Agreement** and in particular their commitments on forests and GHG emissions.
- **Both parties should make use of the frameworks for dialogue and cooperation created by the agreement** and the other cooperation frameworks that exist on the area of animal welfare.
- **The EU should cooperate and support the design of adequate animal welfare legislation in countries with weak legal frameworks in this matter.** The improvement in the enforcement of legislation in this topic and will benefit from support and collaboration between the EU and Mercosur countries.

6.3.2. Dairy

Sector overview

European immigrants in Mercosur countries in the late XIXth and early XXth centuries brought their taste and preferences for dairy products. Mercosur countries tend to present a higher per-capita level consumption of dairy product than similar developing countries and definitely higher than most of their Latin-American partners. This and the perceived good quality associated with the European dairy products put Mercosur as a potential key export partner for the EU. The same European immigrants also brought their know-how to the production of dairy products in the region. In addition, the availability of resources (e.g. land) and the increased domestic demand and contributed to the development of an important and competitive local dairy sector in Mercosur countries. Therefore, Mercosur producers may also see the agreement as an opportunity to expand their exports to the EU.

However, these structural similar characteristics hide the enormous scale and trade asymmetries between both partners. The EU is the largest producer and consumer of dairy products in the world; whilst Mercosur manages to supply a growing domestic demand but is a much smaller producer and exporter. In this sense, there are different opportunities and challenges for both partners. In the case of Mercosur, there is an opportunity to expand their industry beyond the regional context. For the EU, Mercosur constitutes an opportunity for further expansion of an already dynamic sector.

Production, consumption and trade

Table 49 presents the composition of the balance of milk and some dairy products in the Mercosur and the EU. This allows to identify the production and consumption evolution of some key products and for the whole sector. In the case of milk, the quantity value for all milk trade, production and consumption, includes the milk already used to produce cheese and butter. Therefore, it presents a general view of the sector and not specifically of fresh milk.

Production of milk in Mercosur has grown by 31% between the periods analysed (2004-05 and 2012-13), following closely the evolution of consumption. Consumption of cheese has experienced a significant increase during the period. This is associated with the increase of incomes experienced during the period across the region (e.g. cheese presents generally a very high-income elasticity). Exports of dairy products have increased also by 30%; however, most of this trade is intra-Mercosur trade as we will see.

Table 49: Balance sheet of dairy products (in thousands of tonnes)

	Product	Period	Export Quantity	Import Quantity	Production	Stock Variation	Consumption
Mercosur	Butter	2004-05	20	1	157	-1	138
		2012-13	48	7	180	3	137
	Cheese	2004-05	80	7	455	0	381
		2012-13	103	35	687	-5	624
	Milk	2004-05	3,177	444	35,864	-13	33,144
		2012-13	4,286	1,297	47,040	-2	44,053
EU	Butter	2004-05	923	765	2,084	53	1,872
		2012-13	914	866	1,927	-2	1,881
	Cheese	2004-05	3,117	2,491	8,525	-21	7,920
		2012-13	4,354	3,605	9,448	6	8,693
	Milk	2004-05	53,712	43,346	153,680	-526	143,840
		2012-13	70,439	54,016	156,538	-2	140,117

Source: FAOStats.

It is worth mentioning that the period presented here does not capture the economic crisis that Mercosur countries experienced in the last 3 years and it is expected that consumption of dairy products (although not fresh milk), rather than falling, may have slowed down its growth during the period. However, this short run phenomenon constitutes a short-term deviation of the long-run trend showing the increase in the consumption of dairy products in Mercosur. The increase in the consumption of dairy products responds to a long run trend rather than to short term variations. In the case of the EU, production and consumption have been more stable. Trade, on the other hand, has experienced a more dynamic behaviour with both exports and imports expanding.

Trade composition

In the case of the EU, Mercosur is a small partner in its dairy exports. It represents no more than 0.4% of the total extra-EU dairy exports (Table 50). Moreover, exports have fallen in the recent years associated with the fall in incomes in Mercosur as well as some price behaviour explained by, among other factors, fluctuations in the exchange rate. In addition, dairy products constitute a very marginal product in the total exports of the EU to Mercosur.

Table 50: EU-Mercosur bilateral trade of dairy products (in millions of Euros)

Year	Imports from Mercosur	Total EU dairy imports from the world (extra-EU)	EU dairy exports to Mercosur	Total EU dairy exports to the world (extra-EU)	Share of Mercosur in total EU dairy exports (%)	Share of dairy products in total EU exports to Mercosur (%)
2012	0.0	637.3	33.8	8,717.3	0.39	0.07
2013	0.1	653.1	36.1	9,331.4	0.39	0.07
2014	0.0	703.9	33.9	10,210.2	0.33	0.07
2015	0.0	576.1	26.9	9,318.7	0.29	0.06
2016	0.0	581.9	24.3	9,092.5	0.27	0.06

Source: Eurostat Comext

Most of the EU exports of dairy products to Mercosur are concentrated in cheese, accounting for more than 45% of the total dairy export (Table 51). This is followed by preparations for infant use (baby formula) which accounts for almost 25% of the exports. Whey, accounting for slightly more than 15%, almost completes the range of products exported. However, when looking at the information at 8 digits, whey in powder is the most important dairy product. Among cheese, brie, parmigiano reggiano and other cheese account for the largest shares. Although this analysis provides an initial assessment overview of the capabilities of both partners to supply each other's market, it is insufficient to give a comprehensive assessment of the capacities to supply and to absorb more trade. Therefore, we need to focus on different elements to assess the potential effects.

In the case of the EU exports, it matters the structure and the size of total Mercosur imports of dairy products. This will indicate the opportunities that the EU may have to gain market share in the Mercosur market. At the same time, the assessment of the existing total export capacities of Mercosur will suggest the potential short run expansion of the exports to the EU.

In terms of Mercosur export, Table 52 presents total exports disaggregated by product. It also indicates the share of the intra-Mercosur trade. This trade represents a sizable share (53%) of total exports of dairy products. In virtue of the relatively high tariffs applied on dairy products imported by Mercosur (to be discussed later in more depth), it suggests an important trade diversion within Mercosur. Mercosur producers manage to export primarily to the rest of the bloc under the high protection of the CET whereas outside Mercosur, in general, Mercosur dairy products might not be very competitive. However, this lack of competitiveness may be associated with general high levels of protection worldwide rather than a typical trade diversion scenario.

However, a product view suggests that in some products, Mercosur exporters manage to export important volumes outside the bloc. In the case of full fat milk powder (040221), that represents 47% of the total Mercosur exports of dairy products, almost 40% are exported outside the bloc. In addition to this, skimmed milk powder (040210) and cheese (040690) are products with a sizable out-of-Mercosur exports. This suggests that Mercosur may have some supply capacities of milk powder outside the bloc that could maybe employed to supply the EU market. Despite these products, in general, Mercosur does not have, at least in the short run, capacity to export dairy products in sizable volumes and value to the EU. Moreover, even assuming an unlikely re-allocation of exports from Mercosur to the EU, the effect of these exports on the EU market are expected to be minimal as we have already seen.

Table 51: EU dairy exports to Mercosur (in thousands of Euros)

HS6	Description	2012	2013	2014	2015	2016	Share (%)
040210	Milk and cream in solid forms, of a fat content by weight of $\leq 1,5\%$	212	810	930	786	198	1
040410	Whey and modified whey	8,633	6,369	4,885	1,496	2,557	11
040510	Butter (excl. Dehydrated butter and ghee)	1,569	2,737	1,398	1,899	2,314	5
040610	Fresh cheese "unripened or uncured cheese"	615	1,022	717	333	353	1
040630	Processed cheese, not grated or powdered	1,287	1,727	1,171	736	658	3
040640	Blue-veined cheese and other cheese containing	1,015	1,393	1,407	1,476	1,353	3
040690	Cheese (excl. Fresh cheese, incl. whey cheese).	19,968	20,936	22,698	19,557	16,528	46
190101	Preparations for infant use	6,328	12,43	19,575	9,818	5,909	25
	OTHER	556	1,121	667	656	327	2
TOTAL		42,193	50,560	55,461	38,772	32,213	

Source: Eurostat.

Table 52: Total Mercosur exports of dairy products (including intra-Mercosur, in millions of Euros)

HS6	Description	2012	2013	2014	2015	2016	Average share of Mercosur in total exports (%)	Share of product in total dairy exports (%)
040120	Milk and cream of a fat content by weight of > 1% but <= 6%, ...	20	19	21	13	10	30	1
040140	Milk and cream of a fat content by weight of > 6% but <= 10%, not ...	15	13	14	14	12	12	1
040210	Milk and cream in solid forms, of a fat content by weight of <= 1,5%	118	176	142	113	94	64	10
040221	Milk and cream in solid forms, of a fat content by weight of > 1,5%, unsweetened	748	914	912	841	625	63	48
040299	Milk and cream, concentrated and sweetened (excl. In solid forms)	41	40	48	34	42	20	2
040390	Buttermilk, curdled milk and cream	14	13	7	10	10	39	1
040410	Whey and modified whey	110	127	122	85	67	23	6
040510	Butter (excl. Dehydrated butter and ghee)	123	121	121	74	48	12	5
040610	Fresh cheese "unripened or uncured cheese"	83	91	78	57	108	49	6
040630	Processed cheese, not grated or powdered	17	21	24	22	26	82	2
040690	Cheese (excl. Fresh cheese, incl. whey cheese)	287	275	292	178	146	55	14
	Other dairy products	44	52	46	29	32	80	4
TOTAL		1,618	1,860	1,827	1,470	1,218	53	100

Source: UN Comtrade.

Trade Policy

The dairy sector tends to be protected worldwide. Not only are there different tariffs and trade measures applied; the sector tends to be subject to different incentives such as price support mechanisms and other subsidies. This certainly applies to EU and to certain extent to Mercosur too. In the EU, whilst the CAP reform has reduced notably the volume of price distorting mechanisms towards less distorting de-coupled payments, a substantial share of the dairy farm income is provided through different producer support mechanisms.

Table 53 presents an aggregation into 6 digits of the ad-valorem equivalent MFN tariffs. This sheds some light, although partial, on the weak performance of the Mercosur exports of dairy in the EU. Tariffs applied to dairy products are several times higher than the average MFN tariff applied by the EU. Moreover, all the dairy products are subject to the non-ad valorem tariffs which not only make analysis difficult, they affect efficient suppliers by applying a higher duty to low price exporters.

Table 53: EU and Mercosur MFN tariffs applied to dairy products in 2016 (%)

HS6	Description	European Union			Mercosur		
		Min	Avg	Max	Min	Avg	Max
040110	Milk of a fat content, by weight, not exceeding 1%	34.6	35.8	37	12	13	14
040120	Milk and cream of a fat content by weight of > 1% but ≤ 6%, ...	44.2	50.1	56.1	12	13	14
040140	Milk and cream of a fat content by weight of > 6% but ≤ 10%, not ...	61.7	62.2	62.7	12	12.7	14
040150	Milk of a fat content, by weight, exceeding 10%	30.6	63	99.2	12	12.7	14
040210	Milk and cream in solid forms, of a fat content by weight of ≤ 1.5%	52.8	58.9	65.1	28	28	28
040221	Not containing added sugar or other sweetening matter	44.7	51	57.3	16	24	28
040229	Other	60.3	66.7	75.1	16	24	28
040291	Not containing added sugar or other sweetening matter	32.6	104	172.7	14	14	14
040299	Milk and cream, concentrated and sweetened (excl. In solid forms)	34.7	86.3	121.6	28	28	28
040310	Yogurt	15.4	48.6	135.3	16	16	16
040390	Buttermilk, curdled milk and cream	16.5	72.8	148.1	16	16	16
040410	Whey and modified whey	9.2	167.2	241.6	28	28	28
040490	Whey - other	58.5	84	107.1	14	14	14
040510	Butter (excl. Dehydrated butter and ghee)	57.4	59	70.1	16	16	16
040520	Dairy spreads	64	64	64	16	16	16
040590	Dairy spreads - other	64.3	64.3	64.3	16	16	16
040610	Fresh cheese "unripened or uncured cheese"	62	65.4	74.1	16	22	28
040620	Grated or powdered cheese, of all kinds	41.2	41.2	41.2	16	16	16
040630	Processed cheese, not grated or powdered	35.6	39.8	55	16	16	16
040640	Blue-veined cheese and other cheese containing	21.6	21.6	21.6	16	16	16
040690	Cheese (excl. Fresh cheese, incl. whey cheese).	34.5	36.7	50.6	16	22	28

Source: World Bank Trains.

Although the CET tariffs applied by Mercosur on dairy products are high in term of international average standard, they are not tariff peaks. They are slightly above the average Mercosur CET. They are, nevertheless, substantially lower than those applied by the EU. Moreover, they show a high level of homogeneity within dairy products, presenting a very low variation. EU importers can import dairy products under a system of TRQs. Some of them are assigned to specific suppliers (none of them a Mercosur country) whilst others are open to products from any WTO member. In virtue of the high out-of-quota tariffs presented before, most of the dairy imports are done through the TRQs.

The administration of the TRQ, in this case, is on the importer. Importers need to request a licence to import under the TRQ. The Commission allocates the license based on different criteria up to the maximum volume established by the TRQ. This system provides importers with a rent generated by the difference between the out-of-quota and the in-quota tariff. Under the TRQ, the importer pays the in-quota tariffs whilst, if the quota is effectively filled, sells domestically considering the higher out-of-quota tariff.

Sanitary conditions

The low levels of Mercosur exports to the EU makes it difficult to analyse the compliance with sanitary standards. In the RASFF, for example, there are no recent alerts risen on milk and milk products originated from Mercosur, but this may be the result of the very low level of imports from Mercosur.

Although there are certain minimum sanitary standards that apply to the production of dairy in Mercosur and the main producers tend to adopt private standards above the required local regulations; it is unclear how many Mercosur dairy exporters are in position of meeting in the short-run the EU standards. Still, there is a significant informal milk circuit in many of the Mercosur countries where fresh milk is commercialised without minimum processing (e.g. pasteurisation). Although this volume of milk is not used in any exported or domestically commercialised dairy product, it reveals the weaknesses in the enforcement of some basic sanitary regulations and heterogeneity among dairy farms. This complicates the assessment of the compliance capacities of the Mercosur dairy producers.

On the other extreme of the sector, there are large dairy firms that operate with high levels of compliance. Some of these firms are in partnerships with or are directly owned by internationally recognised dairy firms, many of them from the EU (e.g. Danone). This suggests that it may be easier, in case of being required, for these firms to adequate their production processes to meet EU standards. The capacity of other formal dairy firms to meet EU standards is more unclear. Mercosur presents good enough certification capabilities. The EU has granted to the respective sanitary authorities the recognition to perform these tasks. Therefore, if Mercosur exporters can meet the standards, it will be easy for them to certify their compliance.

Assessing the impact of the agreement

The EU dairy sector is three times larger than the Mercosur's. It indicates, on the other hand, that the Mercosur capacity to supply an expanded demand from the EU is, in the short run, limited. This puts a major limit on the effects of the agreement on the exports of dairy products from Mercosur. Although there might be some sharper effects in some specific products; in general, the effect will be small in the whole EU dairy market.

Geographic indicators and denomination of origin

Dairy products (especially cheese) present a wide range of variety with different quality characteristics. The enforcement of these features is of extreme importance in the EU and it is increasingly important in Mercosur countries. Geographic indicators and the denomination of origin introduce another issue to consider in the assessment of the effects of the agreement in the dairy sector. EU consumers have developed very strong preferences and taste for varieties of cheese. In this sense, most of the cheese consumed in the EU is differentiated using geographic indicators and denominations of origin. Product differentiation introduces a limit on competition. Although not an institutional or legal discrimination, it tends to create market niches where competition is limited.

This puts a constraint on the capacity of Mercosur exporters to supply cheese to the EU. Mercosur exporters will be only able to export to the EU using a different denomination for their products, even if their products may be very similar or even superior to those supplied by EU producers. These denominations will be, initially, unknown for the European consumer and it will be hard for them to identify the qualities that the product may have. Consequently, it will be only through a very competitive price that these varieties may compete with the established and known EU varieties.

This "branding" issue is of less importance for cheese or other dairy products used in the food manufacturing where the quality requirements tend to be lower than those assigned by the consumer. If the manufactured products are not marketed as containing or being produced using some dairy product protected by geographic indicator or denomination of origin, Mercosur exporters will be in position of supplying them with the product. This suggests that the potential expansion on the exports of cheese from Mercosur would be likely to occur in the cheapest and lowest quality spectrum destined to the manufacturing sector. Nothing would prevent exporting high quality cheese using a Mercosur denomination of origin (e.g. Reggiano cheese) or geographic indicator. However, it will take time until the EU consumer recognises the quality of the product and consider it as a substitute and, consequently, competitor of an EU cheese.

This issue is raised as there are significant differences in the geographic indicators system in both partners. In the case of Mercosur, this system is little developed. This is the result of a country-oriented marketing structure with limited trade scope with limited need to differentiate the product in third markets. In the case of the EU, the system is widely developed and implemented.

Economic impact

Table 54 presents an extraction of the most relevant results for the dairy sector of the CGE analysis separated in two scenarios. In the conservative scenario, partial tariff cuts are assumed for dairy products, and full liberalisation is assumed in the ambitious scenario. Bilateral trade will expand substantially relative to the baseline in both scenarios. However, it is important to remark that trade in the baseline, as we have seen, is limited. Consequently, EU imports of dairy products will not change significantly in absolute terms. The same happens with output in both scenarios. As we have seen, Mercosur is a negligible supplier to the EU market and, despite the large relative increases in the exports to the EU, this does not change substantially its position in the EU market.

The EU will experience smaller, but still large, relative increases in its exports to Mercosur. In the most ambitious scenario, exports to Mercosur more than double. However, the starting base,

while still low is higher than in the other direction, resulting in a far larger absolute increase for EU exports to Mercosur than for EU imports from Mercosur. The increase in exports to Mercosur is offset by a reduction in the exports to other destinations due to interactions with other sectors and the dynamic effects of the model. Total EU exports of dairy products therefore do not experience an overall increase. Thus, although exports to Mercosur increase, this does not lead in the modelling results to an increase in output in the EU.

As to the effect on Mercosur, Uruguay is the most affected by the agreement, with fall in output between 1.5% and 2.4% (the latter in the ambitious scenario, in which dairy is fully liberalised). This is noteworthy considering that Uruguay would be the country that will see its exports to the EU growing the most. While the assumption of full liberalisation leads to some displacement of Uruguay exports to Mercosur by EU exports, this is not the full explanation of the fall in dairy output, which is also in part due to reallocation between Uruguayan sectors due to the dynamic effects of the model.

Table 54: Summary of results in the dairy sector in CGE analysis (million EUR)

	Conservative Scenario			Ambitious Scenario		
	EU Imp	EU Exp	Output	Eu Imp	EU Exp	Output
Argentina	8.5	74.2	0.4	22.7	97.3	0.6
Brazil	22.0	93.1	-0.2	104.7	123.9	-0.2
Paraguay	3.1	76.3	-0.1	4.4	101.0	-0.05
Uruguay	28.7	105.7	-1.5	363.8	144.1	-2.4
EU28			-0.09			-0.10

Source: CGE Modelling Results.

The analysis needs to be considered considering the products traded. Although there are high levels of protection across all products, a different effect of the trade agreement is expected depending on the product considered.

Except for Uruguay, the effects of the agreement on the output of the dairy sector in Mercosur tend to be minimal. It is important to highlight that the effects on increasing EU supply to Mercosur will depend on the capacity and convenience of the EU in supplying products with prices according to the level of income of Mercosur. Although incomes are rising, Mercosur consumers may find, in general, the products supplied by the EU to be unaffordable. For example, certain types of cheese or variety may find only demand among consumers with the highest income and they are likely to be already consuming these products. Therefore, the increase in the supply of dairy products to Mercosur may be more limited than expected. For Mercosur producers, nevertheless, the full elimination of the tariffs on the imports from the EU seem to have little effect.

The recognition of certain denomination of origin from the EU in Mercosur may, eventually, expand further the exports from the EU. This will depend, as explained, on whether Mercosur consumers are willing to afford the European-dominated varieties and the associated higher quality. In any case, over time, it may be possible that Mercosur consumers develop stronger preferences for European varieties that will reinforce the impacts.

For Mercosur, the actual impact of the agreement is, in the short run, minimum. The lower rate of growth applied to a low export base to the EU indicate a minimum impact in the volume of exports. The expansion of the Mercosur exports to the EU will depend on the combination of the

lower tariffs, the improvement in the sanitary conditions, and other quality aspects of production. The agreement generates these opportunities which may generate, in the long run, an expansion of the exports to the EU. However, although perfectly possible, this possibility remains hypothetical.

Environmental impact

Dairy farming is generally performed in small farms that occupy a limited area. Production tends to be based on intensive rather than extensive techniques, more demanding of capital and labour than land. Consequently, an expansion of the sector is expected to put limited pressure on the availability of land. It is expected that, although the number of farms in the EU may expand, this will have a limited effect in the non-agricultural area. Moreover, it is expected that the expansion in the production of milk may be matched with increases in productivity.

Table 55 presents the volume of GHG (in CO₂ equivalents) of the milk production in the EU and Mercosur. Based on the CGE results, it is unlikely that current GHG emissions will change substantially as a result of the agreement. The impacts of the model are marginal except for Argentina and Uruguay, which account for a very small share of dairy emissions as can be seen from the table. These impacts are examined in full in Chapter 5.

Table 55: Greenhouse gases emissions in Mercosur and the EU in the production of milk (2012-13) (in megatonnes)

Country	Emissions
Argentina	4.6
Brazil	48.2
Uruguay	1.6
Paraguay	0.5
Total Mercosur	54.9
European Union	87.9

Source: FAOSTAT.

Social impact

Social impact in the EU

In the EU, the manufacture of dairy products sector employs 102 thousand workers, representing 0.34% of the total employment in the manufacturing sector.²⁰⁵ In 2010, there were 1.2 million commercial farms in the EU dairy sector (Rico et al, 2017). 54% of them were specialised dairy farms or were dedicated exclusively to the production of milk. This suggests that more than 600 thousand farms have the production of milk as the main and exclusive source of income. In virtue that most of these farms tend to be family owned and run units, it is possible to suggest that at least that number of households will depend on the income of the dairy sector.

In this sense, the agreement is also expected to benefit many of these households. An increase in demand for milk associated with an increase in the production of dairy products for export to Mercosur will lead to an increase in price that will be translated into an increase in household income. It is hard to assess how many households will directly benefit by the increase in the

²⁰⁵ Source: Eurostat (2015) Number of employed people by EU firms classified by size class in the food and beverage sector

price of milk. However, a generalised increase in the price of milk will generate higher income for all farmers.

Therefore, based on the number of farms involved directly in the production of milk and on the workers involved in its manufacture, it is possible that at around 700,000 workers/farmers may benefit directly because of the agreement. The magnitude of that improvement is unclear. However, they will receive either an increase in income associated with the rise in the price of milk and/or a higher job security related to the increase in the market access in the small dairy products producers.

Social impact in Mercosur

The modelling figures and the composition of the sector in Mercosur suggest that a negative impact, although small, in the sector will likely affect primarily the most vulnerable producers, most of them family run businesses. The increase in the exports to Mercosur of dairy products from the EU, will affect directly those producers that are at the border of profitability and competitiveness.

Moreover, dairy farms tend to be family owned businesses, with a minimal component of paid labour. This implies that the issues associated with labour representation in the dairy farming sector tends to be minimum. Only in the dairy processing, where there are more labour-type relationships, there is scope for conflicts in terms of representation. However, they tend to have good representation by relatively powerful labour unions. This suggests that there are minimum potential conflicts associated with this regard.

Human rights impact

In general, the sector has not been associated with issues related to human rights in Mercosur. On one side, in terms of land use and the effects on indigenous populations, there are little overlapping and potential conflict between dairy farms and indigenous populations. Dairy farms in Mercosur tend to be in areas with almost no indigenous populations. Moreover, in virtue of their limited size, the potential displacement of indigenous populations associated with an expansion of these farms is minimal.

Impact on SMEs

Most of the employment (75%) in the EU dairy sector is generated in small establishments (with less than 9 persons employed). In virtue that large firms are generally in better position of overcoming existing trade barriers, the agreement with Mercosur may benefit the smallest firms as it will bring down barriers hard to overcome to them. Despite this, and even when Mercosur may be a potential large destination of products, it is unlikely that the agreement will have a sizable impact in the employment in the sector.

The structure of the sector in Mercosur is similar to the EU, with typical small farmers supplying milk to milk processors. There is no uniform information about the number of milk farms and employment in the dairy sector. Estimates go from 4291 milk farms in Uruguay to 931299 dairy farms in Brazil.²⁰⁶ Milk processors in Argentina employ nearly 30,000 people (Ministerio de

²⁰⁶ For Uruguay data see Uruguay XXI (2015) "Informe Sector Lacteo"; for Brazil, see BNDES "Producao leiteira no Brasil", BNDES Sectorial 37.

Ciencia y Tecnica, 2016). These figures come from a wide range of sources and estimation methodologies that complicate the assessment.

However, as in the case of the EU, the majority of the milk and dairy producers tend to be micro and small firms. In Brazil, 95% of the dairy farms have less than 21 cows. Even in Argentina and Uruguay, tending to have a more concentrated sector, 33% of the dairy farms have less than 60 cows. This approaches to the average cows per farm in the EU (I.e. 54 cows) (EC, 2014).

Impact on Consumers

Dairy products represent at least 2% of the household expenditure in Mercosur and it could be as high as 3.6%.²⁰⁷ This implies that a reduction in consumer prices associated with the agreement may bring some moderate benefits to Mercosur consumers. These benefits may be higher in those household where the consumption of dairy products tend to be higher. However, on average, households will be better off by 0.02% as a result of a decrease of dairy consumer prices of 1%. Although a fall in the producer prices may be partly absorbed along the commercialisation chain and the fall may therefore be reduced for consumers, the impact of the small increase in EU imports is likely to reach the consumer at least in part.

Dairy products account for up to 2.1% of EU household expenditure. As in the short run, the volumes of production of milk and dairy are constant, an increase in the exports of milk and dairy products to Mercosur may lead to an increase in prices in the EU.

Impact on LDCs

EU imports of dairy products from LDCs are marginal (less than Euros 100,000). The effect on these countries is likely to be negligible. On one side, as it was seen before, the capacity of Mercosur to supply the EU market and the likelihood of the removal of barriers are limited. On the other hand, given the magnitude of imports from LDCs is minimal, the potential damage is also minimal. Therefore, the EU-Mercosur agreement presents negligible challenge for the LDCs.

Impact on OMRs

In virtue of the low Mercosur exports of dairy products to the EU, it is possible to affirm that it is unlikely that the agreement will have important effects on both producers and consumers located in the outermost regions of the EU. On the other hand, being the dairy production capacity in most of the outermost regions of the EU very limited, with the notable exception of the Azores, it is unlikely that the agreement will bring additional benefits in terms market access to Mercosur. Therefore, it is expected that the agreement will have on both exports and imports a neutral effect for these regions.

Policy Recommendations

- **Uruguay should secure support to affected farmers to accommodate to the new market conditions.**
- **Mercosur countries should work in improving quality and strengthening its system of denomination of origin and geographic indicators.** The expertise of the EU in this area is extremely valuable and it could contribute that in the long run, more Mercosur exporters could benefit from the agreement.

²⁰⁷ Based on the analysis of the structures of the Consumer prices indexes of Argentina (2015), Brazil (2014) and Uruguay (2010)

6.3.3. Sugar and Ethanol

Sector overview

The EU is the third largest sugar producer and the second largest consumer in the world. It accounts for roughly 50% of the total sugar beet production in the world and is also a major importer of raw cane sugar for refining. With consumption of sugar, including sugar used for non-food purposes, reaching 19 million tonnes w.s.e²⁰⁸ in the period 2012-2015, the sugar sector continues to be of great economic importance to the EU (EP, 2016). According to CEFS (2016), the sugar industry is also an important job creator, providing direct or indirect employment to roughly 180 thousand people.

Sugar beet in which EU is a major producer, accounts for 20% of the world's sugar production. The remaining 80% is produced using sugar cane, of which Brazil is the world's largest producer and exporter. Brazil accounted for approximately 52% of world net sugar exports in 2015 and is also the second largest producer and exporter of ethanol in the world (EFFAT, 2017). For Mercosur, the sugar and ethanol sectors are important employment generators, particularly for the rural areas. In Brazil alone, the sugar/ethanol chain provides direct and indirect employment to around 3.5 million people. Salaries for the sugarcane industry in Brazil are among the highest in its agricultural sector.

EU's sugar policy

Prior to the gradual abolition of sugar production quotas, a process which was completed in September 2017, EU sugar policy had three important pillars; a) minimum support price for beet sugar, b) production and import quotas and c) import tariffs. Under the quota system, the total EU production quota of 13.5 million tonnes of sugar was divided between 20 Member States (EC, 2017a). Production in excess of this quota was governed by strict rules. It could either be a) exported up to the EU's annual World Trade Organisation (WTO) limit of 1.374 million tonnes) sold for biofuel or other industrial non-food uses, c) counted as the following year's sugar quota and d) released on the EU domestic market with a levy.

In 1992, the support price for sugar beet was reduced, followed by introduction and 'decoupling' of direct payments to farmers i.e. payments were no longer related to the quantity of sugar produced. Significant reforms were further introduced in the period 2006-2010, which has resulted in the reduction in production of sugar by roughly 6 million tonnes, closure of around 80 sugar beet processing factories and ended production in many EU states (EC, 2017a). Gradual reduction of support prices for Beet sugar, end to export refunds and phasing out of public intervention finally led to EU abolishing the quota system on 30 September 2017. In this post-production quota regime, there is no limit to production or to exports, enabling EU's production to better adjust to domestic and global market demand.

Sugar imports into the EU are subject to an MFN tariff of €339 per tonne with the exception of those imported under multilateral or bilateral Tariff-Rate Quotas (TRQs), and sugar from LDCs, which can be imported duty-free quota-free under EBA. At present, 412,054 tonnes of Brazilian sugar can be imported at the preferential rate of €98 per tonne (Sugarcaneorg, 2017), with additional sugar imports subjected to the MFN tariff.

²⁰⁸ White Sugar Equivalent.

EU's Ethanol Policy

The EU's ethanol market also remains highly protected; the EU imposes a tariff of €19.20 per hectolitre of undenatured ethanol, and the import duty for denatured ethanol is around €10.20 per hectolitre (Aghajanzadeh-Darz et al., 2015). Broadly, EU's regulatory framework for biofuels is based on the Renewable Energy Directive (RED) and the Fuel Quality Directive (FED). In 2015, the EU approved ILUC Directive 2015/1513, which amended the RED and the FQD to address indirect land use change (ILUC). This directive capped the contribution of crop-based biofuels, including ethanol, in Europe's climate and renewable objectives. The Renewable Energy Directive was recently revised for the period 2020-2030, with EU target's for Renewable Energy Sources consumption being raised to 32% by 2030 (EU Science Hub, 2019). It further states that the share of biofuels and bioliquids shall be no more than one percentage point higher than their share in 2020, with a maximum of 7 % of final consumption of energy in the road and rail transport sectors (ibid)²⁰⁹.

Brazilian ethanol policy

Brazilian ethanol producers have historically received dedicated support by the government. The industry started to develop in the 1970s as result of government subsidies. Tax incentives continue to play a key role in supporting ethanol consumption, particularly since the introduction of flex-fuel cars (ABSugar, 2016). Moreover, specific credit lines are provided to sugar and ethanol producers to fund investment in sugarcane production, and expansion of industrial capacities and logistics for sugar and ethanol. Other forms of subsidies and government support include; guaranteed purchases of ethanol by Petrobras (a state-owned oil company); access to low-interest loans for agroindustry firms; lower excise taxes on ethanol compared to petrol; price-fixing for hydrous ethanol; incentivised sales to domestic car fleet; substantial mandatory blending of ethanol in gasoline; support to development of flex fuel-vehicles; and banning purchases of diesel-powered cars (Alpha Invesco, 2018).

Production of Sugar and Ethanol in EU and Mercosur

Table 56 shows EU's sugar production and use in the period 2010-2018. Sugar beet production in the EU increased from 105.2 MT to 109 MT in 2010-2013. In 2014, there was a 20% increase, leading to almost 3 MT of out-of-quota sugar being carried forward and treated as quota for 2015. Since a significant percentage of the quota for this year was already produced before the season started, there were strong incentives for farmers to reduce sugar output- there was a substantial fall in sugar production in 2015.

The EU production quota on sugar ended on 1st October 2017, represented by a clear hike in sugar production, which reached 21.1 MT in 2017/2018. EU also emerged as a net exporter of sugar in this year, with a substantial decline in imports. However, the record global sugar production in this year resulted in a sugar surplus of close to 9 MT, suppressing world prices, and slowing down exports, which are forecasted at 2.1 MT for the EU in 2018/2019 (EC, 2018). In the case of ethanol (Table 57), domestic production in the EU steadily increased in the period 2010-2019. EU has consistently remained a net importer of ethanol in the period considered, with ethanol being primarily used for fuel purposes. About 23% of the EU ethanol is sugar beet based.

²⁰⁹ <https://ec.europa.eu/jrc/en/jec/renewable-energy-recast-2030-red-ii>

Table 56: EU Sugar Market Balance (Million Tonnes)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar beet production	105.2	125.0	114.1	109.0	131.0	101.9	112.4	142.8	126.2
Sugar production*	16.1	18.9	17.5	16.7	19.5	14.9	16.8	21.1	18.6
Consumption	18.9	19.0	19.0	19.1	19.4	18.5	17.7	18.6	18.5
Imports	3.4	3.3	3.6	3.1	2.7	2.9	2.4	1.3	1.3
Exports	1.0	2.1	1.3	1.4	1.4	1.4	1.3	3.3	2.1
Beginning stocks**	1.6	1.2	2.4	3.2	2.6	4.0	1.9	2.2	2.7
Ending stocks**	1.2	2.4	3.2	2.6	4.0	1.9	2.2	2.7	1.9

Source: EU Agricultural 2018 Outlook. Notes: * Sugar production is adjusted for carry forward quantities and does not include ethanol feedstock quantities. ** Stocks include carry forward quantities. The sugar marketing year is October/September.

Table 57: EU Ethanol balance (Million Tonnes)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Production	4.4	4.8	4.8	4.8	5.5	5.1	4.9	5.2	5.2
of which based on cereals	66%	66%	65%	67%	66%	61%	72%	71%	73%
of which based on sugar beet and molasses	27%	28%	30%	29%	29%	33%	23%	23%	21%
of which based on other agricultural crops	6%	4%	4%	3%	4%	4%	3%	3%	2%
of which advanced	1%	1%	2%	1%	2%	2%	3%	4%	4%
Consumption	4.5	4.8	5.0	5.1	5.7	5.2	5.2	5.3	5.8
of which for fuel use	3.1	3.4	3.6	3.6	3.8	3.6	3.5	3.9	4.1
of which for other uses	1.4	1.4	1.4	1.5	1.9	1.6	1.7	1.5	1.7
Ethanol imports	0.3	0.3	0.4	0.6	0.4	0.4	0.3	0.3	0.2
Ethanol exports	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Ethanol blending in gasoline %	3.1	3.6	4.0	4.3	4.4	4.2	4.2	4.5	4.8

In the case of Mercosur, Brazil is the world's largest producer of sugar cane. Table 58 shows that the production of sugar declined in Brazil from 38 MT in 2010 to 33 MT in 2015, recovered in the period 2015-2017, but thereafter declined to 29 MT in the year 2018. In the case of ethanol, production increased from roughly 21 MT of ethanol in 2010 to 26 MT in 2018.

Table 58: Sugar and ethanol production in Brazil (million tonnes)

Year	Sugarcane	Sugar	Ethanol
2010	620	38	21
2011	559	35	17
2012	588	38	18
2013	651	37	21
2014	633	35	22
2015	666	33	23
2016	651	38	21
2017	641	38	22
2018	620	29	26

Source: UNCIA DATA

Trade in sugar and ethanol between EU and Mercosur

Comparative advantages of EU and Mercosur

To examine which trading bloc can produce sugar and ethanol products with lower opportunity cost, we calculate the global revealed comparative advantage index or Balassa's RCA index. Table 59 shows the RCA index for EU and Mercosur in the sugar and ethanol sectors, and at a further disaggregated product-level.²¹⁰ To ensure that results are robust to the choice of year, results for RCA indices are presented as an average in the period 2012-2016 and separately for the latest year 2016.

RCA index greater than 1 for a product implies that the trading bloc has global comparative advantage in producing it. Table 59 shows that Mercosur has higher comparative advantage in both the sugar and ethanol sectors. At the disaggregated product level, it is observed that Mercosur has global comparative advantage in raw cane sugar, which accounts for 80% of global sugar production. It also has comparative advantage in Cane or Beet sugar in solid form, Molasses and Chewing gum. On the other hand, EU has comparative advantage in Raw Beet sugar, Refined Cane or Beet sugar, Lactose and Glucose products, Sugars in solid form, Beet molasses and Sugar confectionary, other than chewing gum.

²¹⁰ Here product refers to six-digit HS product. A list of all the six-digit products in the sugar and ethanol sectors is given in appendix A.

Table 59: Revealed Comparative Advantage of EU and Mercosur in sugar and ethanol

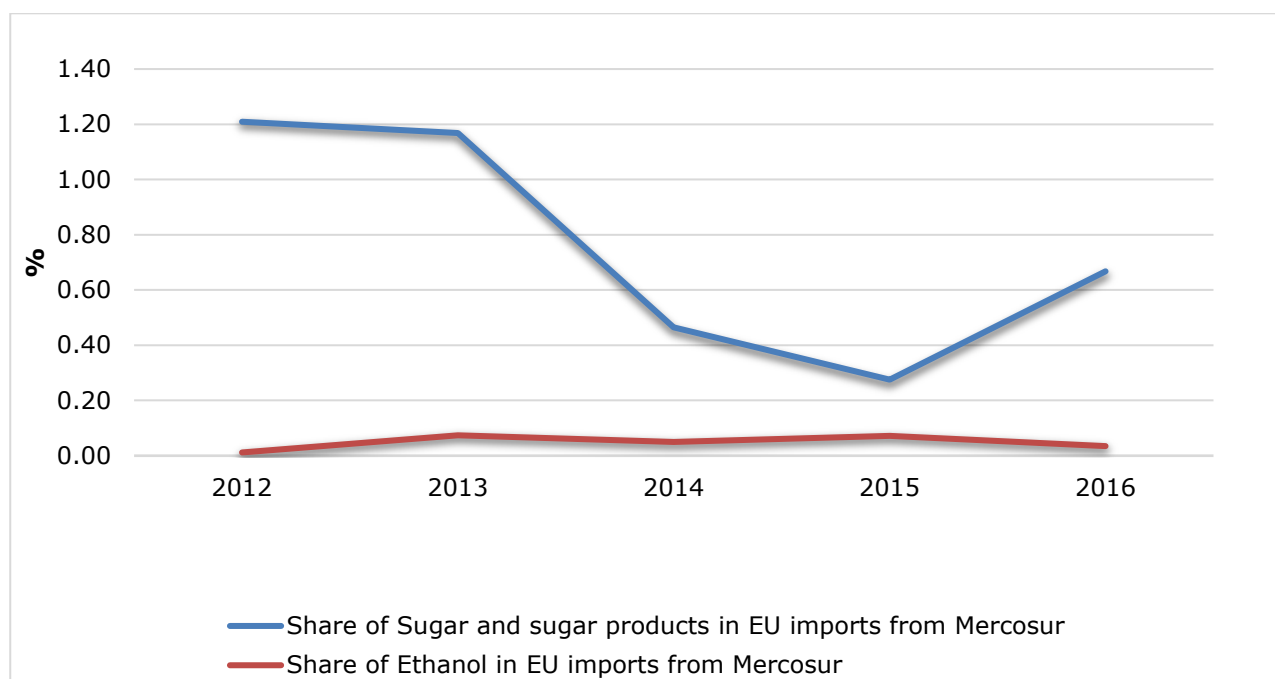
Product Name	HS code	EU (2016)	Mercosur (2016)	EU Avg.	Mercosur Avg.
Sugar Sector	17	0.8	14.3	0.9	12.5
Ethanol Sector	2207	1.2	7.2	1.1	8.9
Raw Beet Sugar	170112	1.8	0	2.3	0
Refined Cane or Beet Sugar	170191	1.2	0.2	1	0.1
Lactose, Weight >= 99%	170211	1.7	0.1	1.7	0.1
Glucose, < 20% By Weight	170230	0.9	0.7	1.1	0.8
Glucose >= 20% And < 50%	170240	1.8	0.4	1.8	0.3
Sugars In Solid Form	170290	1.3	0.4	1.4	0.6
Beet Molasses	170390	1.4	0	1.5	0
Sugar Confectionery	170490	1.4	0.9	1.4	1
Raw Cane Sugar	170114	0	40.1	0	36.8
Cane or Beet Sugar in solid form	170199	0.7	9.6	0.9	9.3
Chewing Gum	170410	0.6	2.1	0.7	1.9

Source: Export data is collected from UNCOMTRADE in WITS. Note: $RCA(ij) = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$, Where x_{ij} and x_{wj} are the values of trading bloc i 's exports of product j and world exports of product j and where X_{it} and X_{wt} refer to the trading bloc's total exports and world total exports.

Trends in EU's imports from Mercosur

Importance of sugar and ethanol in EU's total imports from Mercosur

Although agricultural imports occupy a large portion of total imports from Mercosur, the share of sugar imports in total imports from Mercosur remained low in the period 2012-2016 and declined from 1.2% in 2012 to 0.2% in 2015. In the year 2016, this rose to 0.5%. The share of ethanol in total imports from Mercosur is even lower and averaged at 0.05 in the period 2012-2016 (see Figure 66).

Figure 66: Share of sugar & ethanol imports in total imports from Mercosur (%)

Source: Data collected from Comext-Eurostat.

Importance of Mercosur as a trade partner to EU in sugar and ethanol

Mercosur is more important as an import partner for the EU in the sugar and ethanol sectors than as an export partner. Table 60 shows that the share of Mercosur in EU's total sugar imports in the year 2016 was 12%, while its share in EU's ethanol imports was 4.68%. As an export partner, Mercosur accounts for less than 1% of EU's total sugar exports and ethanol exports. Brazilian exports of ethanol to the EU have also faced tough competition from other ethanol-exporting countries. Recently, Brazil has lost sizeable market share to new market entrance by Guatemala (through trade agreement) and Pakistan (through preferential imports in Generalized System of Preferences status), who have gained duty-free access to the EU in the ethanol sector.

Table 60: Share of Mercosur in EU trade

	Share of Mercosur (%)
EU imports of Sugar	12.08
EU imports of Ethanol	4.68
EU exports of Sugar	0.92
EU exports of Ethanol	0.51

Source: Comext-Eurostat. Note: Data is for 2016.

To identify the top 5 products imported by the EU from Mercosur in the sugar sector, we calculate the import share of each six-digit product in the overall imports of the sugar sector. Table 61 shows the average import share of each product in the period 2014-2016. It is observed that the top most imported product from Mercosur is Raw Cane sugar which, on an average, comprised of 59.5% of sugar imports from Mercosur per year in the period 2014-2016, followed by Cane or Beet sugar in solid form, sugar confectionary, raw cane sugar obtained without centrifugation and chewing gum.

Table 61: Top five products imported by EU from Mercosur in the sugar sector

HS code	Description	Average import share in the period 2014-2016 (%)
170114	Raw Cane Sugar	59.53
170199	Cane or Beet Sugar in solid form	37.47
170490	Sugar Confectionery	1.072
170113	Raw Cane Sugar, In Solid Form, Obtained Without Centrifugation	0.76
170410	Chewing Gum, Whether or Not Sugar-Coated	0.57

Source: Comext-Eurostat.

To identify the top 5 products exported by the EU to Mercosur in the sugar and ethanol sector, the export share of each six-digit product in EU's total exports in the sugar sector is calculated. Table 62 shows the average export share of each product in the period 2014-2016, and it is observed that the top most exported products to Mercosur include Sugar confectionery (excluding chewing gum) followed by Lactose in solid form, Sugar in solid form, Chewing gum and Glucose in solid form.

Table 62: Top exported products by the EU to Mercosur

HS code	Description	Average export share in the period 2014-2016 (%)
170490	Sugar Confectionery	58.40
170211	Lactose in Solid Form and Lactose Syrup	23.07
170290	Sugars in Solid Form	12.68
170410	Chewing Gum	1.96
170230	Glucose in Solid Form and Glucose Syrup	1.81

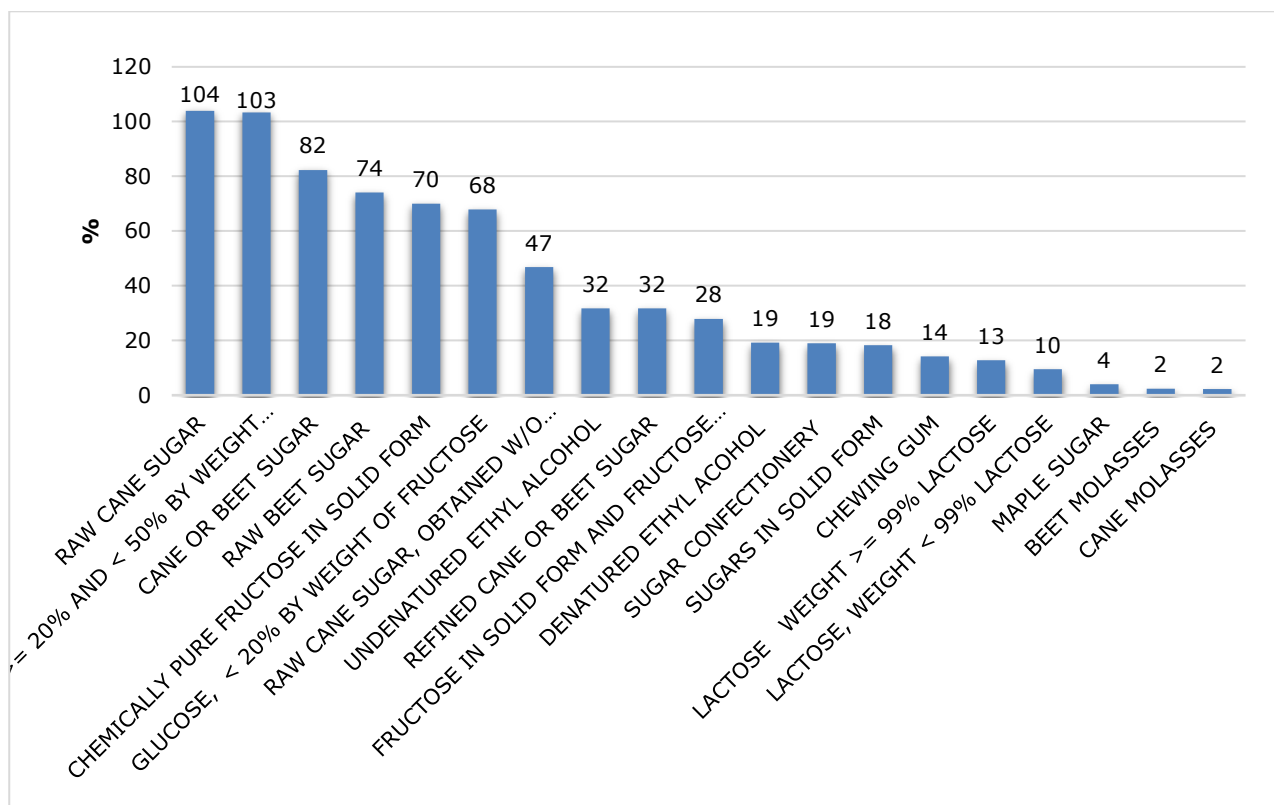
Source: Comext-Eurostat. Calculations of share do not take account of trade marked confidential

Barriers to trade between EU-Mercosur in sugar and ethanol sectors

Barriers faced by Mercosur exporters

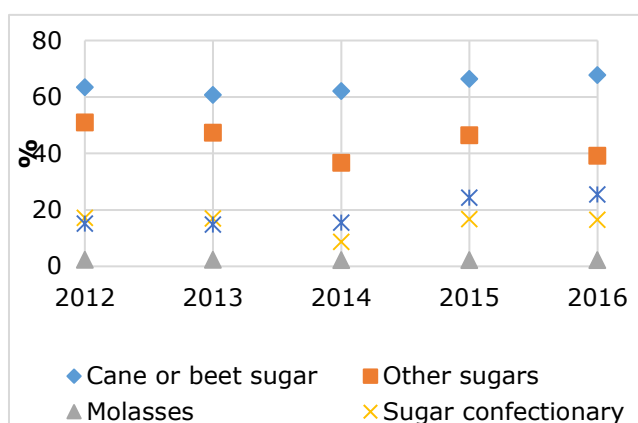
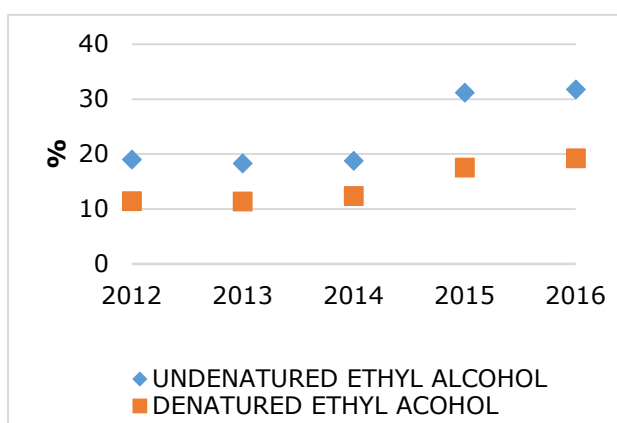
Examining MFN tariffs²¹¹ imposed by the EU on sugar and ethanol products in the year 2016 (see Figure 67) shows that EU imposed high tariffs on imports of Raw Cane sugar and Glucose (more than 100% tariffs), Cane or Beet sugar in solid form, Raw Beet sugar and Fructose. Comparatively lower tariffs were placed on Sugar Confectionery, Lactose products and Molasses.

²¹¹ Applied MFN simple-average rates are used.

Figure 67: Applied MFN tariffs imposed by the EU in 2016 (AVE)

Source: Tariff data collected from TRAINS, WITS at HS six-digit level. MFN (AVE) applied tariffs have been use.

Figures 68 and 69 plot EU MFN ad valorem equivalent (AVE) tariffs for sugar and ethanol products (at four-digit level) in the period 2012-2016. It is observed that the AVE rate of MFN applied tariff on Cane or Beet sugar has remained high, while that on molasses has remained low in the period. In the Cane or Beet sugar (HS 1701) products, tariffs on Raw Cane sugar have remained the highest compared to other products in the period 2012-2015, while tariffs on Refined Cane or Beet sugar have been consistently the lowest. In terms of the ethanol sector, tariffs on undenatured ethanol remained consistently higher than tariffs on denatured ethanol (Figure 69). These tariffs on ethanol do not distinguish between the different uses of ethanol (beverage, fuel, industrial).

Figure 68: Tariffs on sugar products**Figure 69: Tariffs on Ethanol products**

Source: Tariff data collected from TRAINS, WITS at HS four-digit level. MFN (AVE) applied tariffs have been used.

Barriers faced by EU exporters

At the four-digit level, products on which highest tariffs are imposed (see Table 63) include Cane or Beet sugar in solid form (21%), followed by Sugar Confectionary (20%), ethanol (18%), and Molasses (16%). On the remaining sugar products, an MFN tariff of around 15.8% is placed.

Along with high tariffs on sugar and ethanol products imposed by Mercosur, other problems faced by EU exporters include un-harmonised tariffs, which in some cases need to be paid twice (EC, 2012), and absence of single market for sugar in Mercosur and the uncertainty related to differences in national trade regimes and intraregional customs within Mercosur.

Table 63: Applied MFN tariffs imposed by Mercosur on sugar and ethanol products

Product	MFN tariffs, 2016
Cane or Beet Sugar	21.3
Other Sugars	15.81
Molasses	16
Sugar Confectionary	20
Ethanol	17.92

Source: Tariff data collected from TRAINS, WITS at HS four-digit level.

Assessing the impact of the agreement

Economic Impact

Given the limitations of the CGE analysis, it does not model tariff rate quotas (TRQs) but rather applies partial tariff cuts of 15% and 30% in the conservative and ambitious scenarios respectively. In both scenarios, there is a small decline in output in EU's sugar sector, slightly larger in the ambitious scenario, with a diversion of output into some Mercosur countries; there is a predicted increase in output in the sugar sector of Brazil and Argentina. Driven by increasing exports, the domestic use of sugar declines in Brazil and Argentina.

In the sugar and ethanol sector as a whole, Mercosur enjoys comparative advantage over the EU. EU imports Raw Cane sugar, Cane or Beet sugar in solid form and Ethanol from Mercosur. Currently in the sugar sector, more than 100% ad valorem equivalent (AVE) tariff rate is imposed by the EU on import of Raw Cane sugar and Glucose, along with very high tariffs on Raw Beet sugar and Cane or Beet sugar in solid form. Tariffs on Ethanol are also high; around 31% (AVE) on undenatured and 19% (AVE) on denatured ethanol. As part of FTA, if EU opens up TRQ on sugar, then Mercosur countries can benefit by an increase in exports of sugar to the EU. These are products where Mercosur enjoys a global comparative advantage and is an important exporter to the EU.

For EU producers, reduction in tariffs imposed by Mercosur countries in the sugar sector can lead to some increase in exports of Sugar Confectionary, Lactose products and Sugars in solid forms-products where EU has a comparative advantage. On the import side, increased access to Mercosur's cheaper sugar imports, particularly raw cane sugar and cane or beet sugar, can increase competitiveness of EU's sugar users, including sugar refiners, confectioners, bakery producers and chocolatiers. As seen from Table 61, EU is a net importer in the case of ethanol, and its bioethanol production is also closely linked to the sugar sector.

Since ethanol is not specifically captured by the GTAP database, market impacts cannot be obtained from the model. With the opening of a TRQ for ethanol, domestic EU ethanol producers will face increased competition from Brazilian ethanol imports. Higher access to Brazilian ethanol as part of the TRQ can however boost competitiveness of EU industries that use ethanol as a feedstock, such as chemicals, pharmaceuticals, cosmetics and the food and drink industry.

Environmental Impact

In the case of EU, rising ethanol from Mercosur can reduce pollution in the EU by beneficially impacting its greenhouse gas emissions. European and Brazilian biofuels have different energy balances and emit different green-house gasses. Altieri (2012) argues that the success of the Brazilian ethanol program is rooted in the proven economic and environmental advantages of sugarcane ethanol, which offers an unrivalled fossil energy balance compared with other alternative fuels, and in turn contributes to a significant reduction in GHG emissions²¹². However, in recent years, significant improvements have been made by the EU in its GHG savings. EU ethanol production and use resulted in more than 71% average savings over fossil fuels in 2018 as compared with 50% in 2011 (ePure, 2020)^{213, 214}.

Higher ethanol production is associated with increasing use of irrigation, water consumption, overflow of fertilisers and pesticides, degradation of soil and pollution. These environmental implications could be reduced should Mercosur countries increase investment in more modern facilities that use cleaner technologies.

Given the scale of existing Brazilian sugarcane production-less than 9 million hectares, largely concentrated in Sao Paulo, which is roughly 4.4% of the total agricultural land- any significant spill over on deforestation is unlikely, particularly as a response to the extra volume represented by a TRQ. Recent studies, including de Oliveira Bordonal et al. (2018 and Jaiswal et al., (2017), show how Brazilian sugarcane ethanol can be increased substantially without leading to deforestation.

According to the FAO, the land for sugarcane cultivation in Brazil has almost doubled (rising from 56 to 97 tons per square km) in the period 2004-12, when deforestation was decreasing dramatically (see Chapter 5). It has stagnated for the last five years. Moreover, sugar cultivation remains concentrated around the North-Eastern region or around Sao Paulo, away from the Amazon, implying that any significant spill over on deforestation is unlikely, particularly as a response to the extra volume represented by a TRQ.

Furthermore, increased sugar production in Mercosur may come from productivity gains realised through economies of scale associated with higher export production from the FTA. Mercosur could be in position of supplying the EU with the additional sugar and ethanol generated by the agreement with a minimum impact in the current land use, given productivity trends. Between 2015 and 2018, the annual average growth rate for sugarcane yields in Brazil was 1.85% (USDA, 2019).

²¹² <https://ec.europa.eu/jrc/en/iec/renewable-energy-recast-2030-red-ii>

²¹³ <https://ec.europa.eu/jrc/en/iec/renewable-energy-recast-2030-red-ii>

²¹⁴ <https://epure.org/news-and-media/press-releases/european-ethanol-scores-higher-greenhouse-gas-savings-again/>

Social impacts

Signing of the FTA, and the consequent economic impacts, also have an important social dimension. In the EU, the sugar sector provides jobs to roughly 145,000 sugar beet growers, 28,000 sugar processors, and to many more upstream and downstream works (EC, 2017a). As discussed in the economic impact section, the CGE modelling results predict a decline in output (albeit small) and exports in EU's sugar sector. The reduction in EU's output and exports can negatively impact employment opportunities; the CGE modelling results, under both the conservative and ambitious scenario, predict a small decrease in employment in EU's sugar sector for skilled and unskilled labour. The amount of downward pressure on production will however depend on the volume of the TRQ; modelling results predict 0.7% and 1.0% contraction in the two scenarios. Moreover, as the EU primarily imports cane sugar for refining, it will also create some activity and employment in refineries.

Specific modelling results for ethanol cannot be considered as it is not captured by the GTAP database. However, as with sugar, market access for Brazilian ethanol will expose EU producers to additional competition with consequent effects for workers in the sector and other related industries. Additional market access for Brazilian ethanol will also allow ethanol users in the EU, such as the biochemical and bioplastics industry, to become more competitive, in turn generating some employment.

In the case of Mercosur, rising output and exports in the sugar and ethanol sector will generate new employment opportunities, for both skilled and unskilled labour. For Brazil and Argentina, the CGE modelling results predict a rise in both skilled and unskilled employment. Further, under both scenarios, there is expected to be a higher increase in skilled employment in Brazil and Argentina compared to unskilled employment, along with a rise in real wages in the sugar sector of Mercosur countries.

In the short-run, the FTA is expected to decrease rural unemployment, especially in Argentina where rural unemployment is significantly higher than urban unemployment, and contribute towards reduction in rural poverty, which is particularly high in Brazil. However, an overall increase in rural- informal employment may be limited as the sector becomes increasingly formalised and mechanised (de Oliveira Bordonal et al., 2018). Increasing exports can lead to an increase in employment in urban areas for processing of sugar and ethanol products and their transport. To attract workers, wages and working conditions may be improved, which in the longer run will create incentives for mechanisation and skill development, leading to a move from agricultural employment towards more skilled employment (EC, 2010). Moreover, if incentives from mechanisation leads to more skilled employment, it can translate into lower inequalities for those in employment.

Human Rights Impact

The sugar-cane sector in Mercosur countries is traditionally dependent on informal seasonal and unskilled labour. In Brazil, the sugar and bio-fuel industry has historically relied on poor labourers and migrants. However, in the recent years, the sugar sector has become increasingly mechanised (de Oliveira Bordonal et al., 2018).

As per the CGE modelling results, both production and exports in Mercosur's sugar sector is likely to increase with signing of the FTA, and there are also likely to be employment gains for both skilled and unskilled workers, as well as rise in wages. Overall, this can offer better working and living conditions for the workers in the sugar sector. However, if expansion of sugar production

and commercial farming to meet the increase demand for sugar exports occurs at the expense of small-scale farmers, it can lead to loss of livelihood for smaller farmers in Mercosur and have adverse gender impacts. The impact on human rights in the EU can be expected to be minimal; partial liberalisation mechanisms such as tariff rate quotas (TRQs) allow the EU to provide limited market access on these products for Mercosur countries, while also safeguarding the interests of EU farmers.

Impact on SMEs

Less competitive small-scale EU farmers and SMEs that produce and process raw sugar may be more affected than larger producers. In contrast, for sugar-using SMEs such as confectioners and bakeries, opening up TRQ on sugar products will provide access to cheaper sugar products, allowing them to become more competitive and generate higher profits.

For sugar producers in Mercosur, the FTA can lead to an increase in the demand for Mercosur's exports, providing important opportunities for SMEs in expansion and becoming more productive.

Impact on Consumers

According to the European Food Safety Agency (EFSA), there is evidence that high intakes of sugar products contributes to weight gain, dental problems and other serious diseases. However, as a primary good, table sugar is characterised by low-price elasticity, indicating that changes in the price of table sugar will not affect consumers' consumption decisions substantially. The impact on consumers is likely to be limited since sugar is also not a very large part of consumer budgets.

Impact on LDCs

Since 2009, the EU has been granting duty-free and quota-free access for sugar imports from LDCs and African, Caribbean and Pacific countries (ACP) that have signed preferential agreements such as the Economic Partnership Agreement or the Everything-But-Arms agreement (EC, 2017a). Sugar is also imported on the basis of zero-duty TRQs through free-trade agreements with some countries including Balkans and India, and at reduced duty from Mercosur countries. In addition to these import concessions, EU has supported restructuring or diversification of the sugar sector in developing countries which have been traditional suppliers to the EU. This has contributed to developing countries moving up the chain in the sugar sector or diversifying into new sectors. Under the EU-Mercosur FTA, sugar will be subject to TRQ and therefore the impact on LDCs will be limited, particularly since imports from Brazil are currently at a historic low.

Impact on Outermost regions of the EU

In these outermost areas, cane cultivation and processing accounts for a substantial portion of local economic activity. They are known mainly for production of specialty sugars and rum. The French outermost regions produce cane sugar many for exporting to continental Europe and secondarily for their local markets: 60% of their sugar production is exported for refining in Europe and the remaining 40% are specialty sugars for direct consumption mainly in the EU market (source: French Ministry of Agriculture). The main sugar producing region is Réunion, where sugar cane production plays an important role in the island's agriculture and its socio-economic development. Réunion accounts for 75% of the EU's sugar cane production (93% of its cane sugar is exported to continental Europe, half of it being specialty sugars – source: SSR) with the rest produced in the Antilles (Guadeloupe, Martinique and French Guyana). Insofar

as the market access opening for sugar will be limited and will not cover specialty sugars, the impact of the agreement is likely to be limited for the outermost regions.

Policy Recommendations

- **Mercosur countries with support from the EU should implement policies to manage social impacts and to increase environmental efficiency** in order to mitigate the potential adverse effect of the expansion of sugar production and maximise the economics gains from the FTA. Mercosur countries will also need to address challenges related to the proper enforcement of adjustment policies.
- **Brazil should ensure that its biofuels policy effectively addresses liberalisation issues to have positive social impacts.** For instance, organisational support can facilitate the involvement of small farmers through contract farming or cooperatives (EC, 2010).
- **Mercosur countries should manage the environmental consequences of trade liberalisation through the FTA.** They should increase investment in more modern plants that use cleaner technology or invest in development of certification systems addressing biodiversity and climate change to counter potential soil and water degradation.
- **The EU should provide technical assistance in the form of supporting the development of newer and cleaner technologies in Mercosur,** as well as research programmes and policies aimed at improving productivity in the agricultural areas, and sharing of best-practices such as management techniques for better resource use and better agro-chemical usage.

6.3.4. Beverages

Sector overview

EU-Mercosur trade in alcoholic and non-alcoholic beverages is significant for both trading blocs. EU exports of waters (HS 2201-2202) as well as a range of different alcoholic beverages account for a significant share of the beverages imported by the four Mercosur countries. Similarly, beverages are among Mercosur's largest exports to the EU. Even so, tariffs applied on certain beverages imported into Mercosur from the EU and vice versa remain high, and NTMs have been shown to raise the cost of trade in beverage products between the two trading blocs.

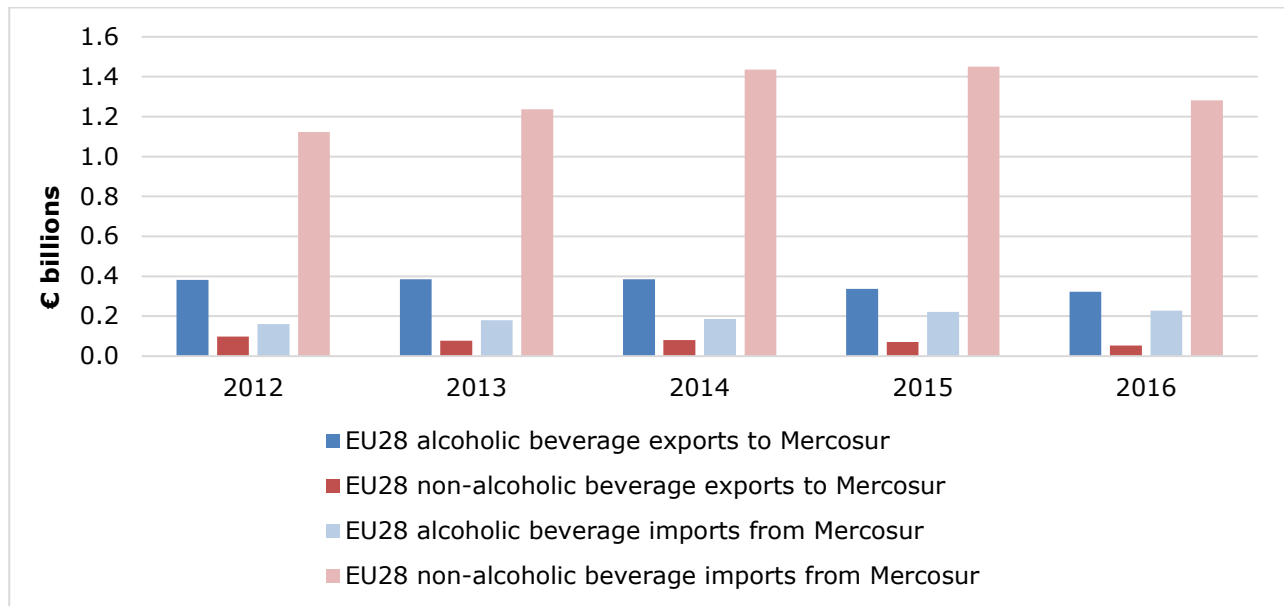
The status quo in EU-Mercosur trade in beverages

Figure 70 compares the combined value of EU beverage exports to all four Mercosur countries (measured in € billions) between 2012 and 2016 with the equivalent value of Mercosur exports of beverage products to the EU, distinguishing between alcoholic and non-alcoholic beverages. Mercosur's non-alcoholic beverage exports to the EU are dominant, significantly exceeding the values of non-alcoholic and alcoholic beverages imported by Mercosur from the EU. In 2016, the EU imported nearly €1.3 billion worth of non-alcoholic beverages from the four Mercosur countries (down from €1.45 billion in 2015).

In contrast, the EU dominates trade in alcoholic beverages with Mercosur. The gap between EU exports of alcoholic beverages to Mercosur and the corresponding imports of these beverages

from Mercosur countries has narrowed since 2012. This has occurred on the back of both a decline in the value of EU exports of alcoholic beverages to Mercosur since 2014 as well as steady growth of Mercosur exports of these beverages to the EU over the past five years. In 2016, the EU exported more than €322 million in alcoholic beverages to Mercosur (down from €381.4 million in 2012) and imported €227.8 million worth of alcoholic beverages (up from just less than €161 million in 2012) from the Mercosur member states. There is significant variation across the four Mercosur countries in the types of beverage products that dominate EU-Mercosur trade.

Figure 70: EU-Mercosur trade in alcoholic & non-alcoholic beverages, 2012-2016



Source: Author's elaboration using EU Comext data

Table 64: Share of beverages in total EU-Mercosur trade in 2016

	Share of total EU exports to Mercosur countries (%)	Share of Argentina's total exports to the EU (%)	Share of Brazil's total exports to the EU (%)	Share of Paraguay's total exports to the EU (%)	Share of Uruguay's total exports to the EU (%)
Alcoholic beverages	0.9	2.7	0.03	0.01	0.2
Non-alcoholic beverages	0.1	1.3	4.1	0.3	0.2
All beverages	1.0	4.0	4.1	0.3	0.4

Source: Author's calculations using EU Comext data

Much of the two-way trade in beverages between the EU and Mercosur is concentrated in specific products. Table 65 and Table 66 outline the top 10 beverage products exported from the EU to Mercosur and from Mercosur to the EU, respectively, in both cases based on the total value of exports over the five-year period between 2012 and 2016. In line with the overall pattern of EU beverage exports to Mercosur discussed above, alcoholic beverage products generally dominate the top 10 EU exports to the Mercosur countries. Whisky is the top EU export in value terms to each of the four Mercosur member states. While there is significant variation in the relative position of other types of beverages across the four Mercosur members, wine and sparkling wine feature prominently among the top five EU beverage exports to all Mercosur countries. In

addition, beer is among the top 10 exported products from the EU to each of the Mercosur members. Among the non-alcoholic beverages, water products are generally more significant exports from the EU to Argentina and Brazil, with much smaller values of exports going to Paraguay and Uruguay. Water aside, however, non-alcoholic beverages generally do not feature much among the top 10 EU beverage exports to Mercosur countries.

Table 65: Top 10 beverage products exported from the EU to Mercosur countries, by total value of exports between 2012 and 2016

	Argentina		Brazil		Paraguay		Uruguay	
	Product	Value (€ mn) & % Share of EU exports	Product	Value (€ mn) & % Share of EU exports	Product	Value (€ mn) & % Share of EU exports	Product	Value (€ mn) & % Share of EU exports
1	Whiskies (HS 220830)	74.3 (0.19%)	Whiskies (HS 220830)	466.8 (0.28%)	Whiskies (HS 220830)	88.6 (3.50%)	Whiskies (HS 220830)	197.7 (2.46%)
2	Non-alcoholic beverages n.e.s. (HS 220290)	23.8 (0.06%)	Wine (HS 220421)	414.8 (0.25%)	Beer (HS 220300)	27.4 (1.08%)	Sparkling wine (HS 220410)	22.7 (0.28%)
3	Waters (HS 220210)	23.0 (0.06%)	Waters (HS 220210)	183.5 (0.11%)	Sparkling wine (HS 220410)	14.4 (0.57%)	Vodka (HS 220860)	14.4 (0.18%)
4	Sparkling wine (HS 220410)	17.8 (0.04%)	Sparkling wine (HS 220410)	129.7 (0.08%)	Wine (HS 220421)	11.6 (0.46%)	Liqueurs and cordials (HS 220870)	10.2 (0.13%)
5	Liqueurs and cordials (HS 220870)	14.9 (0.04%)	Non-alcoholic beverages n.e.s. (HS 220290)	111.3 (0.07%)	Waters (HS 220210)	10.2 (0.40%)	Wine (HS 220421)	9.4 (0.12%)
6	Vodka (HS 220860)	13.6 (0.03%)	Beer (HS 220300)	108.1 (0.07%)	Vodka (HS 220860)	8.3 (0.33%)	Beer (HS 220300)	8.8 (0.11%)
7	Beer (HS 220300)	7.5 (0.02%)	Vodka (HS 220860)	80.6 (0.05%)	Liqueurs and cordials (HS 220870)	4.3 (0.17%)	Waters (HS 220210)	4.2 (0.05%)
8	Gin and Geneva (HS 220850)	4.6 (0.01%)	Liqueurs and cordials (HS 220870)	19.0 (0.01%)	Ethyl alcohol <80% vol. (HS 220890)	1.6 (0.06%)	Spirits (HS 220820)	3.7 (0.05%)
9	Wine (HS 220421)	2.3 (0.01%)	Ethyl alcohol <80% vol. (HS 220890)	6.4 (0.00%)	Non-alcoholic beverages n.e.s. (HS 220290)	0.8 (0.03%)	Non-alcoholic beverages n.e.s. (HS 220290)	3.4 (0.04%)
10	Mineral water and aerated water (HS 220110)	1.2 (0.00%)	Mineral water and aerated water (HS 220110)	5.7 (0.00%)	Gin and Geneva (HS 220850)	0.4 (0.02%)	Ethyl alcohol <80% vol. (HS 220890)	2.9 (0.04%)

Source: Own calculations using EU Comext data.

The profile of top exported products from the four Mercosur countries to the EU is, at least in general terms, markedly different. Specifically, non-alcoholic beverages, and fruit juices in particular, feature much more prominently among the top 10 Mercosur exports to the EU. Orange juice is the top beverage export from Brazil to the EU market, accounting for almost 4% of total Brazilian exports to the EU. Frozen orange juice and other citrus fruit juices also rank among Brazil's top four exports to the EU in terms of total value exported between 2012 and 2016.

Orange juice and/or citrus fruit juices also feature prominently among the top exports to the EU from Argentina, Paraguay and Uruguay. In addition, grapefruit juice (Paraguay's top beverage export to the EU), pineapple juice (Brazil and Uruguay) and apple juice (Brazil) also rank among the top exported beverages to the EU for specific Mercosur members.

Alcoholic beverages are generally less prominent among the top exports to the EU, with some important exceptions. Wine (in containers of 2 litres or less) is both Argentina's and Uruguay's top beverage export to the EU. Rum (and other spirits obtained from distilling fermented sugar-cane products) are key exports to the EU for both Brazil and Paraguay and, to a lesser extent, Uruguay as well. In turn, whisky is Uruguay's fourth largest beverage export to the EU in value terms, and Paraguay's 10th largest export to the European bloc. Sparkling wine is also an important export to the EU for Argentina, Paraguay and Uruguay. In addition, beer ranks among Argentina's top 10 beverage exports to the European market, although it does not feature among the top exports in any of the three other Mercosur member states.

Table 66: Top 10 beverage products imported by the EU from Mercosur countries, by total value of imports between 2012 and 2016

	Argentina		Brazil		Paraguay		Uruguay	
	Product	Value (€ mn) & % Share of EU imports	Product	Value (€ mn) & % Share of EU imports	Product	Value (€ mn) & % Share of EU imports	Product	Value (€ mn) & % Share of EU imports
1	Wine <= 2 litres (HS 220421)	745.7 (1.83%)	Orange juice (HS 200919 and 200912)	5,881.8 (3.77%)	Grapefruit juice (HS 200929 and 200921)	12.1 (0.23%)	Wine <= 2 litres (HS 220421)	5.1 (0.07%)
2	Citrus fruit juice (HS 200939)	329.4 (0.81%)	Juice of fruit or vegetables (HS 200989)	98.3 (0.06%)	Orange juice (HS 200919)	7.2 (0.14%)	Citrus fruit juice (HS 200939)	4.4 (0.06%)
3	Wine > 2litres (HS 220421)	126.3 (0.31%)	Frozen orange juice (HS 200911)	51.5 (0.03%)	Frozen orange juice (HS 200911)	1.1 (0.02%)	Orange juice (HS 200919)	4.2 (0.06%)
4	Orange juice (HS 200919)	25.5 (0.06%)	Citrus fruit juice (HS 200939)	36.7 (0.02%)	Rum and other spirits (HS 220840)	0.5 (0.01%)	Whiskies (HS 220830)	2.5 (0.03%)
5	Spirits (HS 220820)	18.5 (0.05%)	Rum and other spirits (HS 220840)	35.7 (0.02%)	Juice of fruit or vegetables (HS 200989)	0.2 (0.00%)	Frozen orange juice (HS 200911)	1.4 (0.02%)
6	Grape juice (HS 200969)	13.6 (0.03%)	Pineapple juice (HS 200949)	23.6 (0.02%)	Ethyl alcohol <80% vol. (HS 220890)	0.2 (0.00%)	Mineral water and aerated water (HS 220110)	0.4 (0.00%)
7	Ethyl alcohol <80% vol. (HS 220890)	10.6 (0.03%)	Non-alcoholic beverages n.e.s. (HS 220290)	8.2 (0.01%)	Citrus fruit juice (HS 200939)	0.1 (0.00%)	Liqueurs and cordials (HS 220870)	0.2 (0.00%)
8	Sparkling wine (HS 220410)	7.2 (0.02%)	Wine <= 2 litres (HS 220421)	7.2 (0.00%)	Sparkling wine (HS 220410)	0.04 (0.00%)	Sparkling wine (HS 220410)	0.2 (0.00%)
9	Juice of fruit or vegetables (HS 200989)	3.6 (0.01%)	Apple juice (HS 200979)	6.0 (0.00%)	Spirits (HS 220820)	0.02 (0.00%)	Rum and other spirits (HS 220840)	0.2 (0.00%)

10	Beer (HS 220300)	3.6 (0.01%)	Mixtures of fruit juices (HS 200990)	4.6 (0.00%)	Whiskies (HS 220830)	0.02 (0.00%)	Pineapple juice (HS 200949)	0.1 (0.00%)
----	---------------------	----------------	--	----------------	-------------------------	-----------------	--------------------------------	----------------

Source: Author's calculations using EU Comext data.

A more aggregated picture of the importance of the EU in total beverage imports into Mercosur and vice versa is presented in Table 67 and Table 68 respectively. The EU accounts for a large share of imports of certain beverages into the Mercosur countries, but there is variation across products and the individual Mercosur member states. Among the non-alcoholic beverages, the EU accounts for the majority of Argentina's and Brazil's water (HS2201) imports and is a key source of Brazilian imports of sweetened or flavoured water into Brazil as well (HS2202). However, the presence of EU fruit juice exports in Mercosur markets is generally much more limited. In contrast, the EU's share in certain alcoholic beverage markets in the Mercosur countries is markedly more substantial. The EU accounts for half of the beer imported into Brazil; one quarter and more than one-third of the wine imported into Argentina and Brazil, respectively; all of the vermouth imported by Argentina and more than 90% of Brazilian imports; and between 65-80% of the spirits and liqueurs imported by the four Mercosur members.

Table 67: EU shares of total beverage imports of Mercosur countries in 2016

Product	% of total Mercosur imports of the product			
	Argentina	Brazil	Paraguay	Uruguay
Fruit juices (HS2009)	0.3	6.0	1.7	2.1
Waters, not containing added sugar, sweeteners or flavourants (HS2201)	93.6	75.1	25.4	84.2
Waters, containing added sugar, sweeteners or flavourants (HS2202)	32.3	82.8	10.6	6.9
Beer (HS2203)	14.0	50.5	9.4	5.4
Wine (HS2204)	25.9	35.4	8.3	12.0
Vermouth (HS2205)	100.0	92.6	1.0	37.5
Cider, perry, mead and other fermented beverages (HS2206)	18.4	11.4	2.4	4.5
Undenatured ethyl alcohol, spirits and liqueurs (HS2208)	65.9	80.5	71.9	73.2

Source: Author's calculations using UN Comtrade data

In comparison, however, exports from the individual Mercosur countries generally hold much less substantial shares of the EU beverage market. The Mercosur countries' shares of total EU imports of most beverage products are substantially below 1%. Notable exceptions are fruit juice exports from Argentina and Brazil (1.6% and 23.4% of total EU fruit juice imports, respectively) and Argentina's wine exports (1.8% of total EU wine imports).

Table 68: Mercosur countries' shares in total EU beverage imports in 2016

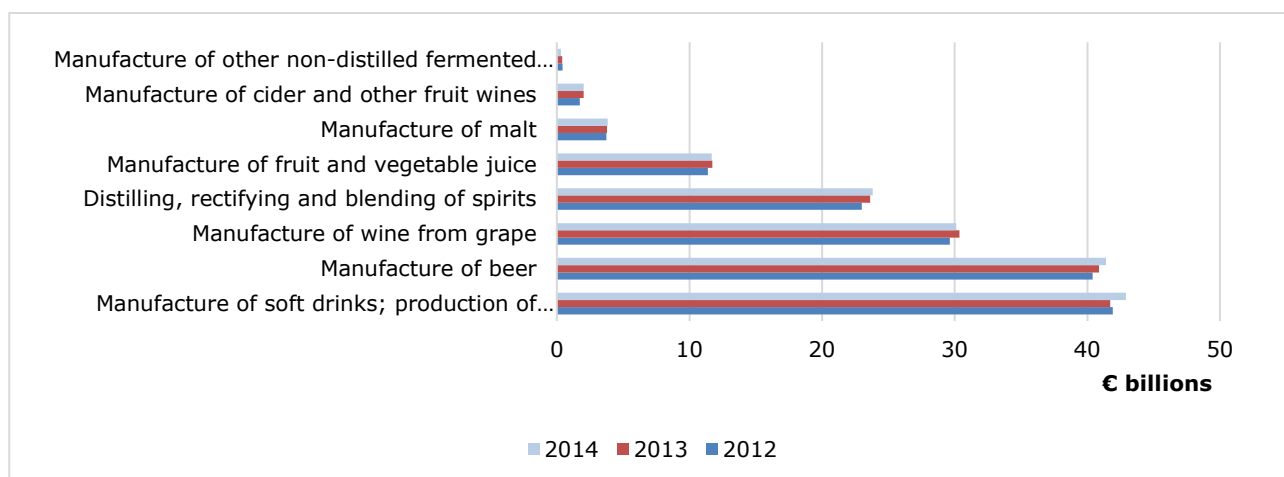
Product	% of total EU imports of the product			
	Argentina	Brazil	Paraguay	Uruguay
Fruit juices (HS2009)	1.6	23.4	0.05	0.05
Waters, not containing added sugar, sweeteners or flavourants (HS2201)	0.0	0.03	0.0	0.01
Waters, containing added sugar, sweeteners or flavourants (HS2202)	0.0	0.04	0.0	0.0
Beer (HS2203)	0.02	0.02	0.0	0.0
Wine (HS2204)	1.8	0.01	0.0	0.01
Vermouth (HS2205)	0.01	0.0	0.0	0.0
Cider, perry, mead and other fermented beverages (HS2206)	0.0	0.0	0.0	0.0
Undenatured ethyl alcohol, spirits and liqueurs (HS2208)	0.05	0.1	0.0	0.0

Source: Author's calculations using UN Comtrade data.

Beverage production in the EU and Mercosur countries

An accurate analysis and comparison of beverage production levels in the EU and Mercosur is constrained by the limited availability of comparable data across countries, particularly in the case of the Mercosur member states. Nevertheless, beyond what can be learnt about production levels from the trade data presented above, comparable production data is available for the EU across a number of different alcoholic and non-alcoholic beverage products.

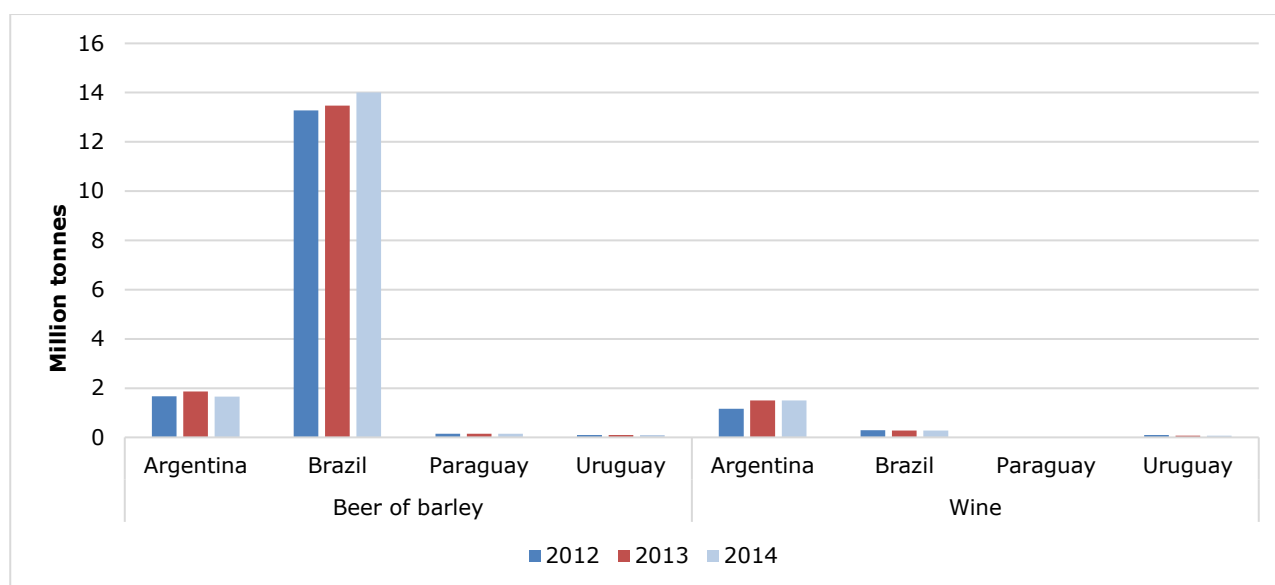
The total value of EU beverage production reached €144.4 billion in 2014 (up from €140.9 billion in 2012). Figure 71 provides an indication of the scale of production of particular types of beverages across the EU by depicting recent trends in the production value of various beverages. Beverage production in the EU is dominated by the manufacture of soft drinks and mineral/bottled waters, beer and wine, followed in order of magnitude of the value of production by distilling, rectifying and blending of spirits and the manufacture of fruit and vegetable juice.

Figure 71: EU beverage production in € billions, by beverage type, 2012-2014

Source: Author's elaboration using Eurostat data.

Comparable data on production levels (measured in terms of the value of production) for different types of beverages across the Mercosur countries is not readily available. However, limited cross-country data on production volumes is available for wine and beer production in Mercosur. Figure 72 shows that Brazil was the dominant beer producer in Mercosur between 2012 and 2014 by some margin, followed by Argentina. In comparison, Paraguay and Uruguay produced very limited volumes of beer over this period. In contrast, Argentina was the Mercosur bloc's major wine producer between 2012 and 2014, with only limited volumes produced in the other three member states. This is also reflected in the trade data outlined in the previous section, which shows that wine is Argentina's top beverage export to the EU and also that Argentina accounts for the Mercosur countries' largest share of wine imported into the European bloc.

Figure 72: Beer & wine production (million tonnes) in Mercosur, 2012-2014



Source: Author's elaboration using FAOstat data.

Tariffs and other protective measures on EU-Mercosur trade in beverage products

Mercosur has relatively high applied most-favoured nation (MFN) tariffs on beverages, particularly in the case of waters and alcoholic beverages. No beverage products from the EU currently enter Mercosur duty free. Applied MFN tariffs on beverage exports in 2016 ranged from 14% in the case of fruit juices to 20% for beer (marginally lower tariffs applied by Paraguay) and most waters, wines (although Brazil's tariff on still wine is 27%), vermouth, ciders and other fermented beverages, and spirits and liqueurs, and 35% for other non-alcoholic beverages (excluding water, fruit and vegetable juices and milk) in the case of Argentina.

The EU is a major source of the Mercosur countries' imports of water (especially Argentina, Brazil and Uruguay), beer (particularly in the case of Brazil), wine (again, particularly for Brazil), vermouth (especially Argentina and Brazil) and spirits and liqueurs, exports of which all still attract high tariffs in Mercosur. There is thus potential to increase EU beverage exports to Mercosur if the EU-Mercosur agreement includes an elimination of Mercosur tariffs on beverage products facing relatively high applied tariffs. This is especially true in the case of alcoholic beverages, and particularly in the case of sparkling wine in Argentina and wine in containers of less than 2 litres in Brazil, where the applied tariffs are high even in comparison to the general Mercosur tariff.

Table 69: Mercosur countries' applied MFN tariffs on beverage imports from the EU, by HS 6-digit product, 2016

Product description	HS code	Mercosur simple average applied MFN tariff(s)
Frozen orange juice	200911	14.0
Orange juice	200912 or 200919	14.0
Grapefruit juice	200921 or 200929	14.0
Single citrus fruit juice	200931 or 200939	14.0
Pineapple juice	200941 or 200949	14.0
Tomato juice	200950	14.0
Grape juice	200961 or 200969	14.0
Apple juice	200971 or 200979	14.0
Cranberry juice	200981	14.0
Other fruit juices	200989	14.0
Mixtures of fruit juice	200990	14.0
Mineral waters and aerated waters	220110	20.0
Ordinary natural water	220190	20.0
Waters with added sugar or flavour	220210	20.0
Non-alcoholic beverages (excl. water, milk)	220290	20.0 (Brazil, Paraguay, Uruguay) 35.0 (Argentina)
Beer	220300	20.0
Sparkling wine	220410	19.0 (Paraguay) 20.0 (Brazil, Uruguay) 27.5 (Argentina)i
Wine in containers <=2 litres	220421	19.0 (Paraguay) 20.0 (Argentina, Uruguay) 27.0 (Brazil)
Wine in containers >2 litres	220429	20.0
Grape must	220430	20.0
Vermouth and other wine in containers<=2 l.	220510	20.0
Vermouth and other wine in containers >2 l.	220590	20.0
Cider, perry, mead and other fermented beverages	220600	20.0
Spirits obtained by distilling grape wine or grape marc	220820	20.0
Whiskies	220830	13.33 (Uruguay) 16.67 (Paraguay) 17.33 (Brazil) 20.33 (Argentina)ii
Rum and other distilled sugar cane spirits	220840	20.0
Gin and Geneva	220850	20.0
Vodka	220860	18.0 (Paraguay) 20.0 (Argentina, Brazil, Uruguay)
Liqueurs and cordials	220870	18.0 (Paraguay)

		20.0 (Argentina, Brazil, Uruguay)
Ethyl alcohol of strength <80% volume (excl. those above)	220890	20.0

Sources: UNCTAD TRAINS database; WTO Tariff Analysis Online database. Notes: Tariffs are simple averages. The UNCTAD TRAINS database is used predominantly, with the WTO database use to fill gaps in terms of missing data in the TRAINS database. (i) In Argentina, champagne is subject to 35% tariff, and other sparkling wine to 20%. (ii) Whisky in bottles is subject to 35% in Argentina.

There is significant variation in the applied EU MFN tariffs across beverage products imported from the Mercosur countries. Mercosur exports of mineral waters and aerated waters, ordinary natural water, beer and a range of spirits (including whiskies, rum, gin and Jenever, vodka, and liqueurs and cordials) enter the EU duty free, while Paraguay also enjoys duty free access for waters with added sugar, sweetener or flavour, other non-alcoholic beverages (excluding water, fruit or vegetable juices and milk), vermouth, and cider and other fermented beverages. The EU's applied tariffs on alcoholic beverage imports from Mercosur are generally lower. Sparkling wine, wine, cider and other fermented beverages, and rum face non-ad valorem tariffs, but these are fairly low. However, aside from wine exports from Argentina, the EU is generally a relatively limited market for alcoholic beverage exports from the Mercosur countries.

Table 70: EU applied MFN tariffs on beverage imports from Mercosur countries, by HS 6-digit product, 2016

Product description	HS code	EU applied MFN tariff(s)	Non-ad valorem tariffs
Frozen orange juice	200911	24.40	
Orange juice	200912	12.20	
Orange juice	200919	22.90	
Grapefruit juice	200921	12.00	
Grapefruit juice	200929	22.80	
Single citrus fruit juice	200931	14.80	
Single citrus fruit juice	200939	17.49	
Pineapple juice	200941	15.60	
Pineapple juice	200949	20.00	
Tomato juice	200950	16.40	
Apple juice	200971	18.00	
Apple juice	200979	22.00	
Cranberry juice	200981	19.76	
Other fruit juices	200989	18.87	
Mixtures of fruit juice	200990	18.45	
Mineral and aerated waters	220110	0.00	
Ordinary natural water	220190	0.00	
Waters with added sugar, sweetener or flavour	220210	9.60*	
Non-alcoholic beverages (excl. water, and milk)	220290	9.60*	
Beer	220300	0.00	

Sparkling wine	220410		EUR 32/hl
Wine in containers ≤2 litres	220421		EUR 15.4 - 32/hl
Wine in containers >2 litres	220429		EUR 12.2 - 32/hl
Grape must	220430	32.00	
Vermouth and other wine in containers ≤2 litres	220510	0.00* Paraguay only	EUR 10.9/hl * or EUR 0.9/% vol/hl + EUR 6.4/hl *
Vermouth and other wine in containers >2 litres	220590	0.00* Paraguay only	EUR 9/hl * or EUR 0.9/% vol/hl *
Cider, perry, mead and other fermented beverages	220600	0.00* Paraguay only	EUR 5.76 – 19.2/hl * or EUR 1.3/% vol min EUR 7.2/hl *
Spirits obtained by distilling grape wine or grape marc	220820	0.00	
Whiskies	220830	0.00	
Rum and other distilled sugar cane spirits	220840		EUR 0.6/% vol/hl Or EUR 0.6/% vol/hl + EUR 3.2/hl or 0%**
Gin and Geneva	220850	0.00	
Vodka	220860	0.00	
Liqueurs and cordials	220870	0.00	
Ethyl alcohol of strength <80% volume (excl. those above)	220890		EUR 1/% vol/hl + EUR 6.4/hl Or EUR 1/% vol/hl

Source: WTO Tariff Analysis Online database. Notes: Tariffs are simple averages except in the case of non-ad valorem tariffs. (*) Paraguay enjoys preferential duties for these beverage products under the GSP+ scheme. (**) Part of Brazil's exports of rum and cachaça are under HS22084031 and HS 22084091, which are duty free.

Non-tariff measures

Since negotiations between the EU and Mercosur began in June 2000, the promotion of mutual trade in agricultural products, and products relying on agricultural inputs, has been an important area of cooperation (EC, 2001). At the same time, consumer protection and food safety has been a key objective for the EU member states in particular. Nevertheless, there have been no instances of alerts since 2005 in the EU's Rapid Alert System, Rapex, involving any beverages posing risks to the health and safety of consumers in EU member states from any countries, including the Mercosur member states. On the other hand, previous studies have found NTMs pose particularly onerous constraints on EU beverage exports to Mercosur (Philippidis and Sanjuan, 2007; van Bekum, 2015). Philippidis and Sanjuan (2007) estimated in 2007 that, when measured in trade cost equivalents, NTMs affecting EU exports of beverages and tobacco to Mercosur were equivalent to an additional cost of 160% of the value of the product. Similarly, trade costs faced by Mercosur exporters of beverages to the EU also appear to be high (van Bekum, 2015).

Problematic issues facing EU exporters into Mercosur include variation in labelling and/or packaging standards for wine and potentially also other beverage products. For instance, there are currently lengthy market processes involved in accepting labelling and packaging in Brazil and labelling requirements differ from international standards in Argentina (CELCAA, 2016). Tax

discrimination also affects EU beverage exports into Mercosur, especially in Brazil where local spirits have been taxed at a lower rate since the reform of the industrialised product tax in 2015 (Spirits Europe, 2017). These and other issues, together with the potential benefits from addressing them, are interrogated further below (including specific economic issues related to sanitary and phytosanitary standards (SPS), geographic indicators (GIs) and quality requirements and standards). Nevertheless, the insights presented so far suggest an EU-Mercosur agreement that successfully reduces NTMs could have a substantial impact in boosting EU beverage exports to Mercosur.

Assessment of the impact

Economic impact

The modelling exercise undertaken for this study offers some insights on the impact of the agreement on the beverages sector. In terms of output, this is estimated to increase in the EU, Brazil and Argentina, and decrease in Uruguay and Paraguay. It also shows that imports of beverages are going to increase in both the EU and Mercosur bloc, with a stronger impact on Mercosur countries. Exports of beverages, on the other hand are forecasted to increase (especially for Brazil and Argentina), except for Uruguay.

A key objective of EU negotiators involved in negotiations with Mercosur around a future trade agreement is to free up trade in wines and spirits. This has generally focused on seeking to:

- facilitate mutual recognition of standards, practices and regulations as well as certification and documentation requirements, notably through the inclusion of a wine annex;
- cooperate to address divergences in product definitions, certification and labelling (e.g. in the use of grape varieties for winemaking and the labelling thereof) as well as those related to the International Organisation of Vine and Wine's standards (e.g. on quality requirements and content analysis/additives); and
- improve intellectual property protection and facilitate protection and recognition of geographic indicators (GIs).

The EU has made a number of recent proposals to govern trade in wines (HS2204) and spirits (HS2208) between the EU and Mercosur. These proposals cover the mutual recognition and authorisation of imported wine products produced in accordance with relevant winemaking practices and regulations in the EU and Mercosur; specific agreements regarding labelling requirements; and limits on certification and documentation requirements for wine products and spirits imported from either the EU or Mercosur.

Another objective is to address issues related to GIs relevant to trade in wines and spirits. The EU is seeking legal protection in the shape of protected designation of origin (PDO) and protected geographical indication for certain wines in Mercosur markets. Similarly, some Mercosur producers have also sought protection for GI products in European markets such as cachaça, a spirit produced in Brazil from sugarcane and used in cocktails such as caipirinha. Producers of the latter want protection to ensure only they are allowed to use this denomination for their products in the European market. These producers also argue the recognition process should respect that cachaça and rum are different products and hence should not be subject to EU tariffs on rum but rather be treated equally with other spirits.

Environmental impact

The liberalisation of EU-Mercosur trade in beverages would likely result in an increase in agricultural production (to provide inputs for beverage producers) and downstream beverage manufacturing, potentially placing greater pressure on both land and water resources. While the potentially adverse effects of the anticipated production changes arising from an EU-Mercosur agreement should not be ignored, the overall environmental impacts in Mercosur and the EU are unlikely to be significant. This owes, in part, to the strong emphasis in EU regulatory policies on reducing environmental impacts. There is emphasis, for example, on waste prevention and recycling (including through the revised Waste Framework Directive adopted in 2008) and on reducing the environmental impact of packaging and packaging waste (e.g. through the Packaging and Packaging Waste Directorate, established in 1994).

On the Mercosur side, exposure to increased competition from European exporters may necessitate positive changes among beverage producers that improve environmental compliance and sustainability. Likewise, beverage exporters based in Mercosur will face greater incentives to comply with European regulations and legislation in order to capitalise on better opportunities in European markets. This may, however, require support for regulatory capacity building for both regulators and beverage firms (in relation to compliance) in Mercosur.

Social impact

Our modelling exercise shows that in the beverage sector, both skilled and unskilled employment will decrease marginally in both the EU and Mercosur because of the agreement.

An EU-Mercosur agreement has potential to improve labour conditions and address land tenure constraints related to agricultural production in Mercosur. The shifting dynamics in the beverage sector resulting from trade liberalisation may also induce greater concentration in the agricultural segments of particular beverage value chains in either the EU or Mercosur. Beverage production is already relatively highly concentrated in Mercosur countries (Traistaru and Martincus, 2003). Further liberalisation of trade through an EU-Mercosur agreement may result in greater concentration and alter the distributional and locational patterns of beverage production, resulting in changes in both overall welfare and the distribution of welfare over space. This has the potential to compound inequality within Mercosur countries.

Health considerations are also important when analysing the impact of EU-Mercosur trade in beverages. The EU policy agenda increasingly emphasises combatting obesity, which has resulted in heightened attention on the health impacts of the food and beverage industry. This has motivated greater focus, and growing interest, in the reformulation of beverages to ensure they contribute to healthier diets. This is likely to have important implications for product standards and nutritional requirements guiding Mercosur beverage exports to the EU market.

Human rights impact

Liberalisation of EU-Mercosur trade in beverages is unlikely to create any major human rights concerns.

Impact on SMEs

SMEs account for a large share of activity in the beverages sector. Indeed, more than 80% of the firms operating in the beverage sector in the EU employ fewer than 10 people (EC, 2016b). More than 285,000 SMEs operate across the broader food and beverage sectors in the EU, accounting for nearly two-thirds (62.8%) of total employment in these sectors, just less than

half (48.1%) of the value added generated by these sectors, and almost all firms (99.1% of the total number of firms) producing either food or beverages (Food Drink Europe, 2016). Similarly, a relatively high concentration of manufacturing SMEs in Argentina are involved in the production of food and beverages (Oxford Business Group, 2018).

It is unclear how much small farmers in Mercosur producing inputs for beverage value chains would benefit from enhanced trade in beverages resulting from an EU-Mercosur agreement. This suggests increased agricultural activity associated with beverage production may contribute to dispossession of the land of smallholders or indigenous groups. Participation of local producers, especially smallholders, may depend on how successfully these producers can engage in collective production to participate directly in new investments and larger markets (Hinojosa, 2009).

Even with lower tariffs and a reduction of other barriers to EU-Mercosur trade in beverages, another potential concern for SMEs, particularly those in Mercosur, is the cost of compliance with regulatory requirements in each other's markets. SMEs generally have fewer resources at their disposal compared to large beverage firms or multinational beverage manufacturers to overcome import regulations and comply with SPS measures required for access to foreign markets. The European Commission has cited concerns about the administrative burden and legislative demands faced by SMEs to comply with regulations in the food and drink industry (EC, 2016). This may include compliance with labelling and/or packaging standards, health and nutritional requirements and product quality standards. As such, measures that simplify some of these requirements will be beneficial for SMEs.

Impact on Consumers

Consumers in both the EU and the four Mercosur countries are likely to benefit from enhanced EU-Mercosur trade in beverages. Prices of beverages are likely to fall in both the EU and Mercosur through the liberalisation of EU-Mercosur trade as domestic producers face greater competition from foreign varieties. The pressure from heightened competition can improve aggregate productivity in the domestic beverage sectors in the Mercosur countries and the EU member states, and also stimulate product innovations, meaning consumers may enjoy better quality, more innovative beverage products at lower prices. In turn, consumers will also benefit from access to a wider array of both alcoholic and non-alcoholic beverages. The modelling exercise undertaken for this study shows that private consumption in the beverages sector will increase for all countries, with especially strong effects in the EU bloc and in Paraguay.

Impact on LDCs

In theory, a reduction of tariffs on Mercosur beverage exports to the EU under an EU-Mercosur trade agreement could erode the tariff preferences enjoyed by LDC beverage manufacturers into the EU market. LDCs enjoy duty free access to the EU market, whereas the EU's applied duties on beverage imports from Mercosur are relatively high for some beverage products, particularly fruit juices and many different types of alcoholic beverages, which face non-ad valorem tariffs (see Table 71). However, in other beverage products (mineral waters and natural waters, beer, spirits, whiskies, rum, gin, vodka, liqueurs and cordials) this is not a relevant consideration since the EU's applied MFN duties on beverage imports from Mercosur are set at zero.

In reality, LDC exports of beverages to the EU are very limited at present, both in value terms and as a share of the EU's total imports of particular beverage products from the world. Table 71 shows that even when the exports from all 47 LDCs are combined, the total values of

beverages exported from these countries to the EU are minimal. Only fruit juice exports from LDCs to the EU exceeded €1 million, on average, each year between 2012 and 2016. The values of LDC exports of vermouth and cider and other fermented beverages were especially small. Moreover, at the individual country level, many LDCs did not export certain types of beverages to the EU at all over this period. This suggests the immediate impact of an EU-Mercosur agreement on the beverage sectors in LDCs would be limited.

Table 71: LDC total and selected LDCs with significant beverage exports to the EU (based on the average export value from 2012-2016), by product

	Fruit juices (HS2009)	Waters (unflavoured) (HS2201)	Waters (flavoured) (HS2202)	Beer (HS2203)	Spirits and liqueurs (HS2208)
LDC Total (average export value 2012-2016)	1,200,439	53,264	691,842	759,948	405,726
LDCs with annual average exports to the EU exceeding EUR 100,000 (2012-2016)	Bangladesh (€265,555) Ethiopia (€483,494) Madagascar (€145,266) Mali (€105,048) Uganda (€112,248)		Bangladesh (€313,249)	Lao PDR (€115,423) Madagascar (€204,231)	Haiti (€170,409) Madagascar (€187,810)

Source: Author's calculations using Eurostat data.

Impact on OMRs

Production of specific beverage products, mostly alcoholic varieties, is significant in the context of the economies of a handful of the EU's outermost regions. Rum, for example, is a key product in the French Caribbean islands (Martinique and Guadeloupe) and is also produced in French Guiana, Réunion and the Canary Islands (particularly Gran Canaria, home to the Arehucas rum factory, the oldest rum distillery in Europe, and several other distilleries, which import raw materials from abroad to produce rum). Rum production is especially important for the economy of Martinique, where it is responsible for approximately one-fifth (21%) of total agricultural GDP (IEDOM, 2011). Martinique is often referred to as the "Rum Capital of the Caribbean", and producers in the geographic area enjoy PDO status, labelled AOC Martinique Rhum Agricole, for varieties that meet specific local standards (Clarke, 2013). Much of the rum produced in Martinique is exported, with exports primarily going to the French mainland (nearly 80% of total production in 2010) or North America.²¹⁵ A reduction in the tariffs (of EUR 0.6/% vol/hl in the case of bottled rum)²¹⁶ on rum exported by Mercosur countries to the EU is unlikely to have major effects on the rum producers (and especially exporters) in Martinique, Guadeloupe, French Guiana, Réunion and the Canary Islands.

In the case of certain other beverages, an EU-Mercosur trade agreement may be beneficial for consumers in the EU's outermost regions. Martinique, for example, is largely reliant on imports from Europe and Latin America to meet local demand, especially for processed products such as fruit juice. A reduction in tariffs on fruit juices imported from Mercosur countries could boost the

²¹⁵ See Rhum Agricole, 2018. Available at: http://www.rhum-agricole.net/site/en/mq_rum.

²¹⁶ In a one-litre bottle with 40% of alcohol, the duty will be as much as Euros 0.24

variety of juice available to consumers in Martinique (and other outermost regions of the EU) and lower prices.

Policy Recommendations

- **Both parties should address the NTMs in the beverages sector.** Affecting both EU and Mercosur beverages exporters, these barriers could prevent the realisation of some of the positive gains from the agreement. In particular, labelling and packaging standards, certification requirements, tax discrimination, SPS issues should be addressed.
- **Both parties should ensure legal protection** for both EU and Mercosur products requiring PDO and GI and ensure that different varieties are treated like different products.
- **Mercosur members should put in place appropriate welfare measures to counter the potential negative social effects.** This includes social protection measures (social safety nets) to counterbalance the potential changes in production of beverages, which could increase economic concentration and inequality. This could also mean introduce programmes to accelerate job creation in other sectors for those who may be losing their jobs due to increased concentration of production.
- **Both parties should consider introducing measures to promote responsible consumption of certain beverages,** especially alcoholic and sugary drinks. This also includes introducing educational campaigns of the health risks of certain drinks and strengthening the national health systems to deal with this issue.

6.4. Sectoral analysis: Manufacturing

6.4.1. Textile and Garments

Sector overview

The European textile and garment sector

The T&G sector is important to both the European and Mercosur economies. Data for 2013 shows that in Europe, the T&G sector produces items for a total value of EUR 166 billion. European countries work on large sections of the value chain, from the production of natural and synthetic yarn, to fabrics and garment but also home, technical and industrial textiles. The retail and distribution part of the value chain is also present in Europe (EC, 2017c). Three quarters of the production are concentrated in Italy, France, the UK, Germany and Spain. Southern European countries tend to focus on clothing, while northern European countries produce a larger share of technical textiles (EC, 2017c). 30% of the global market T&G exports come from the EU.

The Mercosur textile and garment sector

T&G also play a big part in the Mercosur economies, notably in Paraguay where textile export represents 11.34% of all manufacture exports (WTO, 2017). With 799.6 million US\$ Brazil is the largest textile exporter of the Mercosur economies, yet constituting only 1.04% of all manufacturing exports the textile sector's overall significance is more limited. In the regional context, other important players in the textile sector are El Salvador, Guatemala and Peru (WTO, 2017).²¹⁷

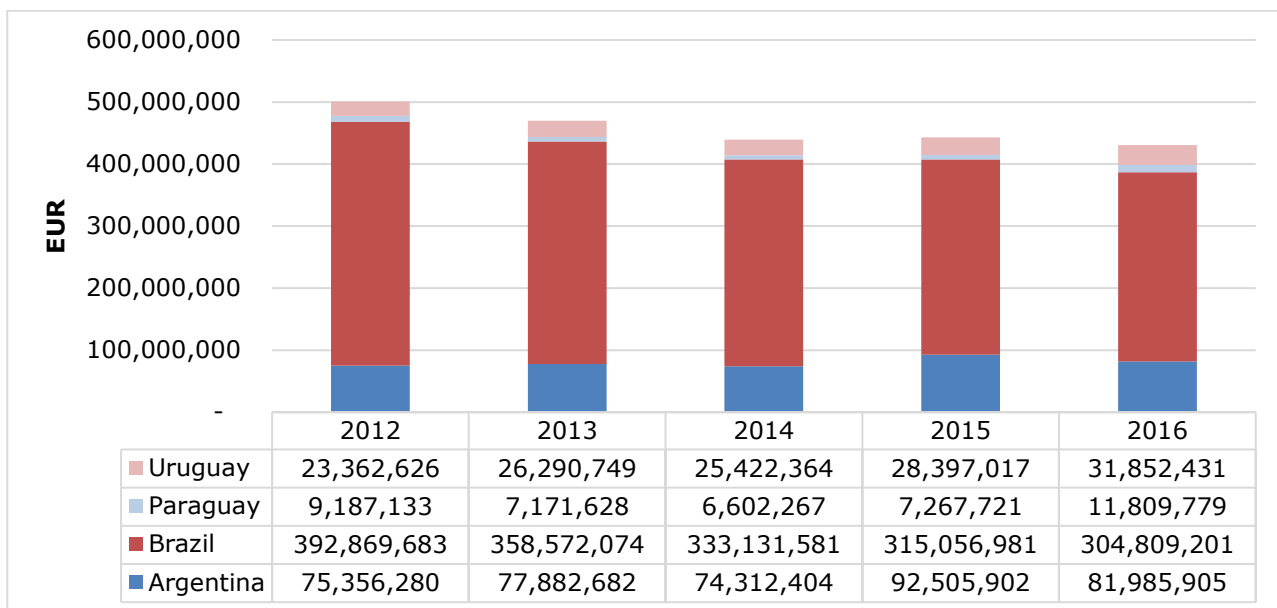
Historically a cotton producer, Brazil now ranks fifth in the global cotton production ranking (Nascimento, 2016). According to the Brazilian Textile and Apparel Industry Association (Abit), 33,000 companies of all sizes operate in the T&G sector in 2015, employing 1.5 million people and making T&G the second largest manufacturing employer in Brazil.²¹⁸ The Brazilian T&G sector relies on the country's large domestic market rather than focussing on exports (Fibre2 Fashion).

Similarly, in Argentina the textile industry generated 6.42% of the total national manufacturing output in 2016 (INCED). The industry is mostly focussed on the domestic market and is dominated by small and medium size companies (65% of the companies have less than 50 employees; SOMO, 2011).

Current status of trade in textile and garment²¹⁹

The EU exports considerable amounts of garments and textiles. For the EU countries, Mercosur is a small market, accounting for only 1% of the total export of garment and textile in 2016 (the largest market, the US, accounted for 13% in the same year). Mercosur only ranks 20th among the markets for European garment and textile exports, as shown in Figure 73 below. In 2019, the EU exported a total of EUR 448 million worth of T&G to the Mercosur, up from the 426 million exported in 2015 (Eurostat, International trade in goods). Brazil is the largest importer, with around 72.46% of the total Mercosur imports from Europe in 2019 (comparable to 71.94% in 2015).

Figure 73: EU exports of garment and textile to Mercosur by country, 2012-2016

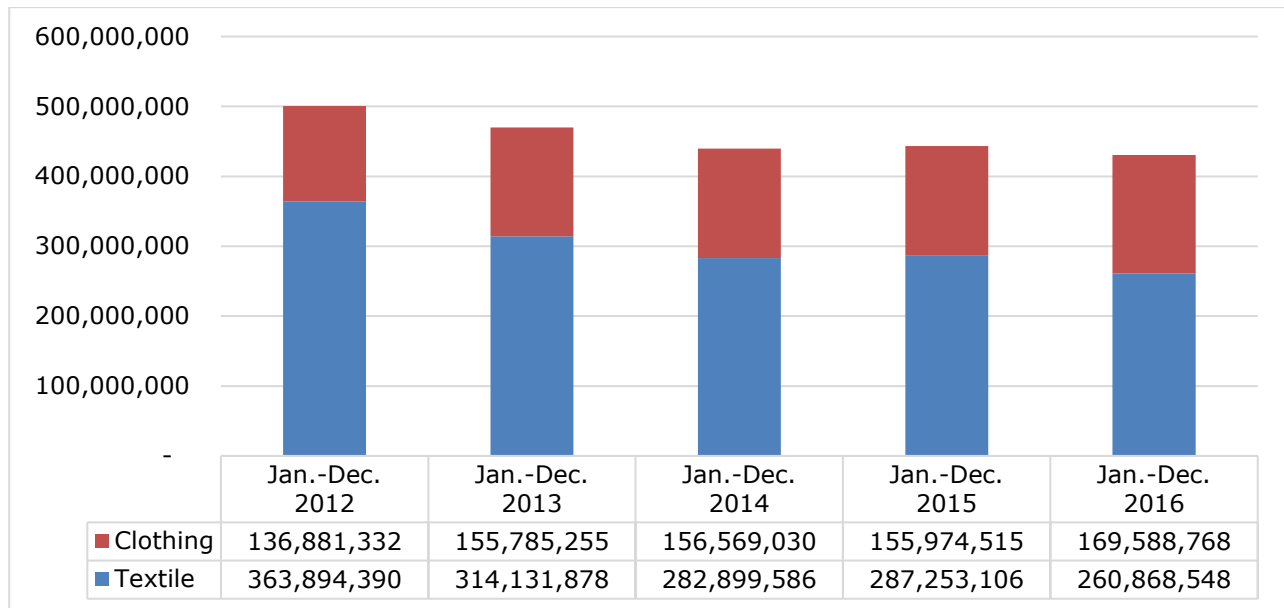


Source: Eurostat

Mercosur countries used to import more textile than garment, for example with a 64.27% share of textiles in Mercosur T&G imports from the EU in 2015. Textile and garment imports have since balanced out and in 2019 textile constituted 53.58% of Mercosur T&G imports from the EU.

²¹⁸ Abit - Associação Brasileira da Indústria Têxtil e de Confecção. Available at: <http://texbrasil.com.br/en/press/brazilian-textile-and-apparel-sector-in-2015/>

²¹⁹ Throughout this section, we define textile using HS codes 50-60, and garment using HS codes 61, 62, and 63.

Figure 74: EU exports of garment and textile to Mercosur by type, 2012-2016

Source: Eurostat

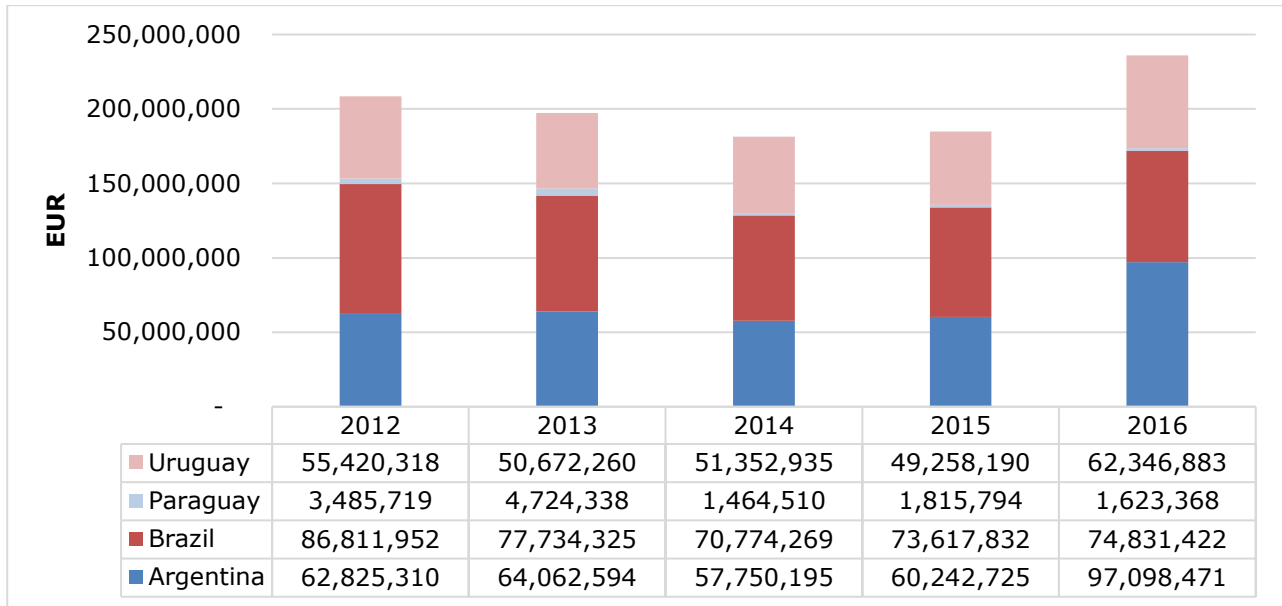
Table 72 shows the top exported products from the EU to Mercosur. These are raw materials, yarn and textile, while no garments are included – reflecting the content of Figure 74. These top 20 products only cover 33% of the total EU T&G exports to Mercosur. These indicate that EU exports to Mercosur are quite diversified.

Table 72: EU exports to Mercosur, top 20 most exported T&G products, 2016

Product code (HS)	Product name	Export (EUR)	% of total
620462	Women's or girls' trousers, bib and brace overalls, breeches and shorts of cotton (excl. Knitted or crocheted)	12,631,620	2.93%
560313	Nonwovens, n.e.s., of man-made filaments, weighing > 70 g/m ² but ≤ 150 g/m ²	11,849,046	2.75%
620342	Men's or boys' trousers, bib and brace overalls, breeches and shorts, of cotton (excl. Knitted or crocheted)	11,129,623	2.59%
620640	Women's or girls' blouses, shirts and shirt-blouses of man-made fibres (excl. Knitted or crocheted and vests)	8,218,099	1.91%
591190	Textile products and articles, for technical purposes, n.e.s.	7,745,087	1.80%
590699	Rubberised textile fabrics (excl. Knitted or crocheted textile fabrics, adhesive tape of a width of ≤ 20 cm)	7,656,778	1.78%
591132	Textile fabrics and felts, endless or fitted with linking devices, of a kind used in papermaking or similar machines, weighing ≥ 650 g/m ²	7,352,527	1.71%
610910	T-shirts, singlets and other vests of cotton, knitted or crocheted	7,291,281	1.69%
610990	T-shirts, singlets and other vests of textile materials, knitted or crocheted (excl. Cotton)	6,990,650	1.62%
591000	Transmission or conveyor belts or belting, of textile material, (excl. Those of a thickness of < 3 mm and of indeterminate length or cut to length only)	6,439,119	1.50%
620520	Men's or boys' shirts of cotton (excl. Knitted or crocheted, singlets and other vests)	5,964,310	1.39%
551011	Single yarn, containing ≥ 85% artificial staple fibres by weight	5,921,868	1.38%
550130	Filament tow, acrylic or modacrylic	5,817,720	1.35%
551614	Woven fabrics containing ≥ 85% artificial staple fibres by weight, printed	5,679,404	1.32%
611030	Jerseys, pullovers, cardigans, waistcoats and similar articles, of man-made fibres, knitted or crocheted	5,609,254	1.30%
590390	Textile fabrics impregnated, coated, covered or laminated with plastics other than polyvinyl chloride or polyurethane	5,233,258	1.22%
590220	Tyre cord fabric of high-tenacity polyester yarn	5,006,405	1.16%
630790	Made-up articles of textile materials, incl. Dress patterns, n.e.s.	4,880,406	1.13%
560312	Nonwovens, , n.e.s., of man-made filaments, weighing > 25 g/m ² but ≤ 70 g/m ²	4,839,576	1.12%
560900	Articles of yarn, strip or the like of heading 5404 or 5405, or of twine, cordage, ropes or cables of heading 5607, n.e.s.	4,747,189	1.10%
TOTAL			32.76%

Source: Eurostat

The EU mostly imports T&G from China (33% of total T&G imports in 2016), Bangladesh (15%) and Turkey (13%). Compared to these, Mercosur is a small market as it only provides 0.4% of the total T&G imports into the EU. Import of T&G from Mercosur have increased, from EUR 209 million 2012 to EUR 236 million in 2016. Argentina has overtaken Brazil as the largest exporter, with 41% of the exports in 2016, but Brazil and Uruguay follow closely.

Figure 75: EU imports of garment and textile from Mercosur, 2012-2016

Source: Eurostat

Figure 76 below shows how most imports from Mercosur are in textile rather than garment. For the period 2012-2016, Textile products constitute more than 90% of the imports.

Figure 76: EU import of garment and textile from Mercosur by type, 2012-2016

Source: Eurostat

Table 73 looks at the top 20 most imported products from Mercosur into the EU. Combed wool dominates the imports, accounting for almost half of the total imports. Due to this, the imports are very concentrated, with the top 20 imported products accounting for almost 90% of total imports. However, among these imports we also find garment products.

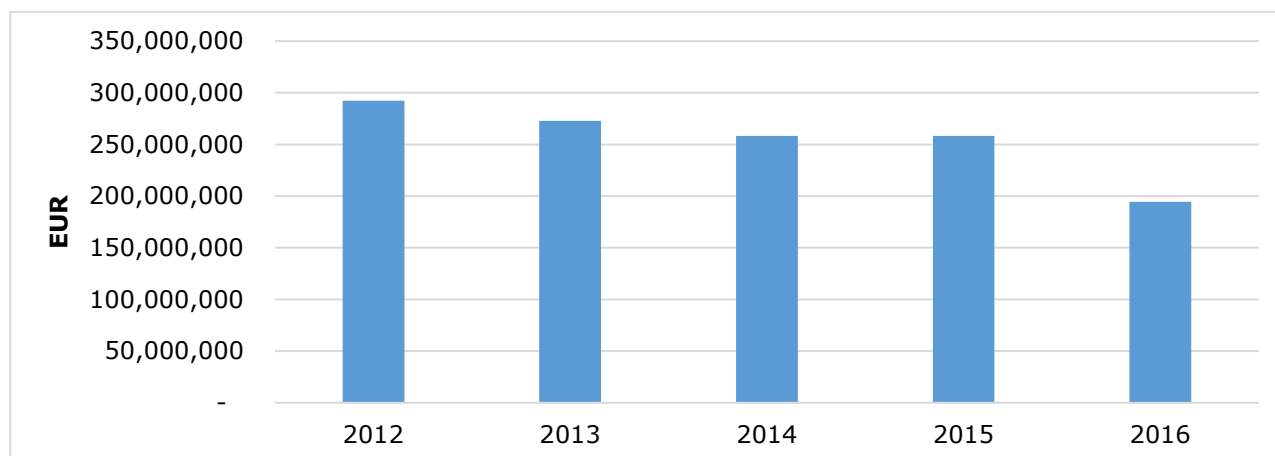
Table 73: EU imports from Mercosur, top 20 most imported T&G products, 2016

Product code	Product name	Imports (EUR)	% of import
510529	Wool, combed (excl. That in fragments 'open tops')	112,467,572	47.7%
510111	Greasy shorn wool, incl. Fleece-washed wool, neither carded nor combed	29,846,290	12.7%
520100	Cotton, neither carded nor combed	14,553,213	6.2%
500200	Raw silk 'non-thrown'	8,421,850	3.6%
510121	Shorn wool, degreased, non-carbonised, neither carded nor combed	7,446,826	3.2%
580632	Narrow woven fabrics of man-made fibres, with a width of ≤ 30 cm, n.e.s.	6,565,757	2.8%
530500	Coconut, abaca "manila hemp or musa textilis nee", ramie, agave and other vegetable textile fibres, n.e.s., raw or processed, but not spun; tow, noils and waste of such fibres, incl. Yarn waste and garnetted stock	6,004,237	2.5%
510310	Noils of wool or of fine animal hair (excl. Garnetted stock)	4,161,133	1.8%
611241	Women's or girls' swimwear of synthetic fibres, knitted or crocheted	2,949,385	1.3%
560721	Binder or baler twine, of sisal or other textile fibres of the genus agave	2,574,907	1.1%
630260	Toilet linen and kitchen linen, of terry towelling or similar terry fabrics of cotton (excl. Floor-cloths, polishing-cloths, dishcloths and dusters)	2,143,169	0.9%
530890	Yarn of vegetable textile fibres (excl. Flax yarn, yarn of jute or of other textile bast fibres of heading 5303, coconut "coir" yarn, hemp yarn and cotton yarn)	1,623,798	0.7%
591132	Textile fabrics and felts, endless or fitted with linking devices, of a kind used in papermaking or similar machines, e.g. for paper pulp or asbestos-cement, weighing ≥ 650 g/m ²	1,520,024	0.6%
540233	Textured filament yarn of polyester (excl. That put up for retail sale)	1,345,057	0.6%
510219	Fine animal hair, neither carded nor combed (excl. Wool and hair of kashmir "cashmere" goats)	1,243,949	0.5%
510220	Coarse animal hair, neither carded nor combed (excl. Wool, hair and bristles used in the manufacture of brooms and brushes, and horsehair from the mane or tail)	1,135,096	0.5%
500400	Silk yarn (excl. That spun from silk waste and that put up for retail sale)	1,060,911	0.4%
610463	Women's or girls' trousers, bib and brace overalls, breeches and shorts of synthetic fibres, knitted or crocheted (excl. Panties and swimwear)	1,035,216	0.4%
510539	Fine animal hair, carded or combed (excl. Wool and hair of kashmir "cashmere" goats)	942,527	0.4%
540773	Woven fabrics of yarn containing ≥ 85% synthetic filament by weight, incl. Monofilament of ≥ 67 decitex and a maximum diameter of ≤ 1 mm, made of yarn of different colours (excl. Those of polyester, nylon or other polyamide filaments or monofilaments, and of mixtures of textured and non-textured polyester filaments)	878,085	0.4%
TOTAL			88.1%

Source: Eurostat

Overall, the EU is a net exporter of clothes to the Mercosur, although decreasingly so, as shown in Figure 77 below. In 2016, the net exports of T&G were EUR 195 million.

Figure 77: EU net export of T&G to Mercosur, 2012-2016



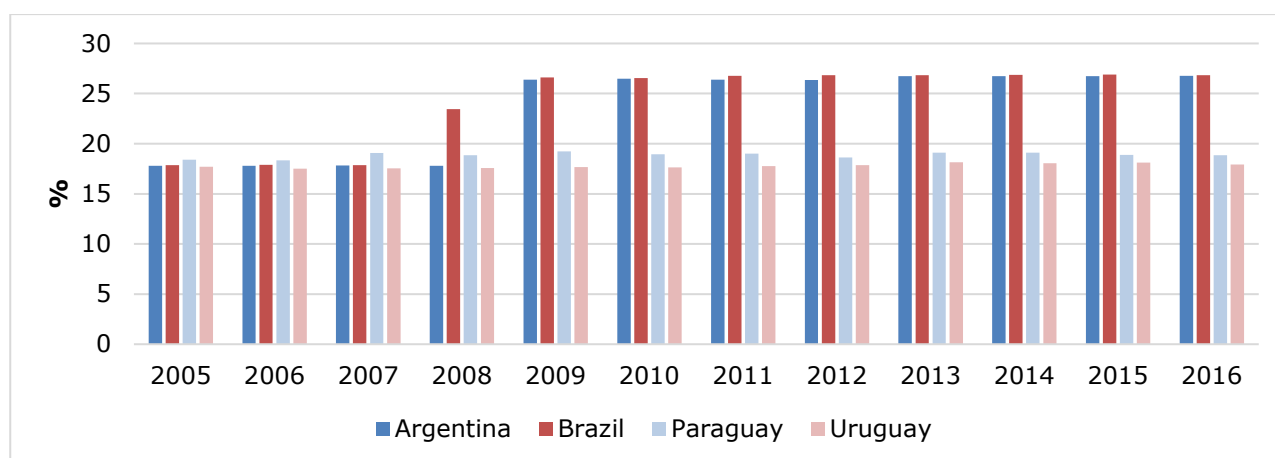
Source: Eurostat

Tariffs

This section uses data from the UNCTAD Trade Analysis Information System (TRAINS) to look at tariffs levied on T&G in the EU-Mercosur trade. We extracted data on effectively applied tariffs (simple average) applied by the EU and by Mercosur for the products under HS codes 50-62.

For EU exports, we collected data on the tariffs applied by Mercosur countries. Mercosur member countries apply many exemptions on the Mercosur CET, and therefore each country applies different tariffs to goods imported from the EU. For the T&G, these range from 0% to 35%. The average tariff applied by Mercosur countries on T&G products increased from 17.6% in 2005 to 22.6% in 2016 (TRAINS data). Figure 78 shows the differences in the tariffs applied by each country. Argentina and Brazil have applied higher tariffs than Paraguay and Uruguay especially since 2009.

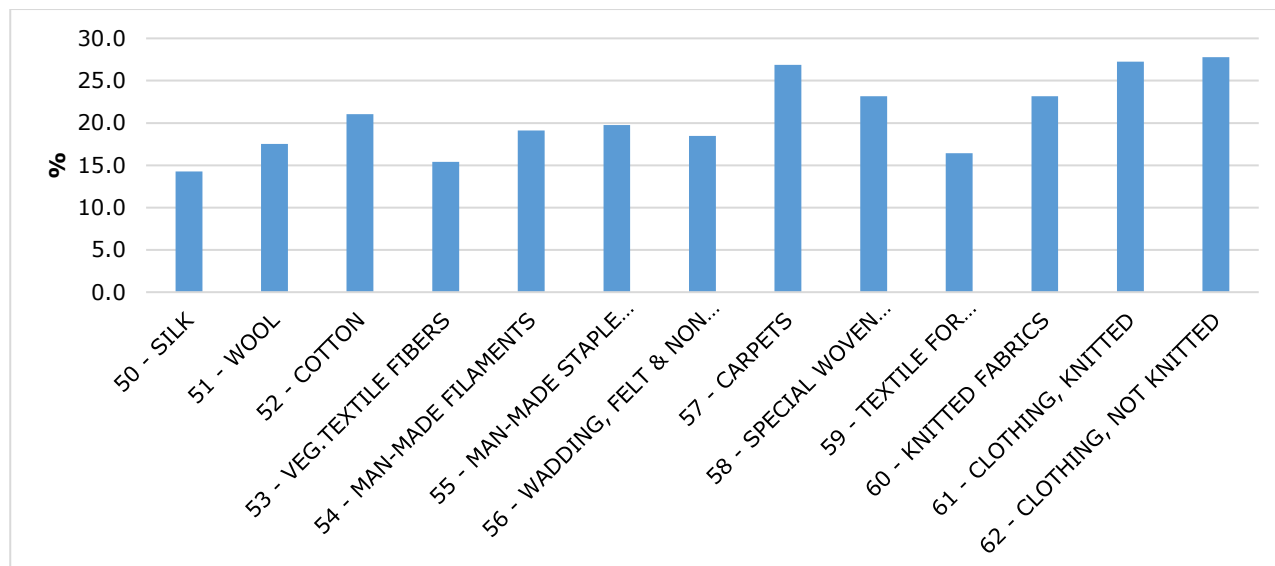
Figure 78: Mercosur average applied tariff by country, HS 50-62, 2005-2016



Source: TRAINS

Mercosur countries apply the highest MFN tariffs on clothing (HS 61-62) rather than on textile. These tariffs, applied to all trade partners, are relatively high and reveal the interest of Mercosur countries to protect the domestic garment industry.

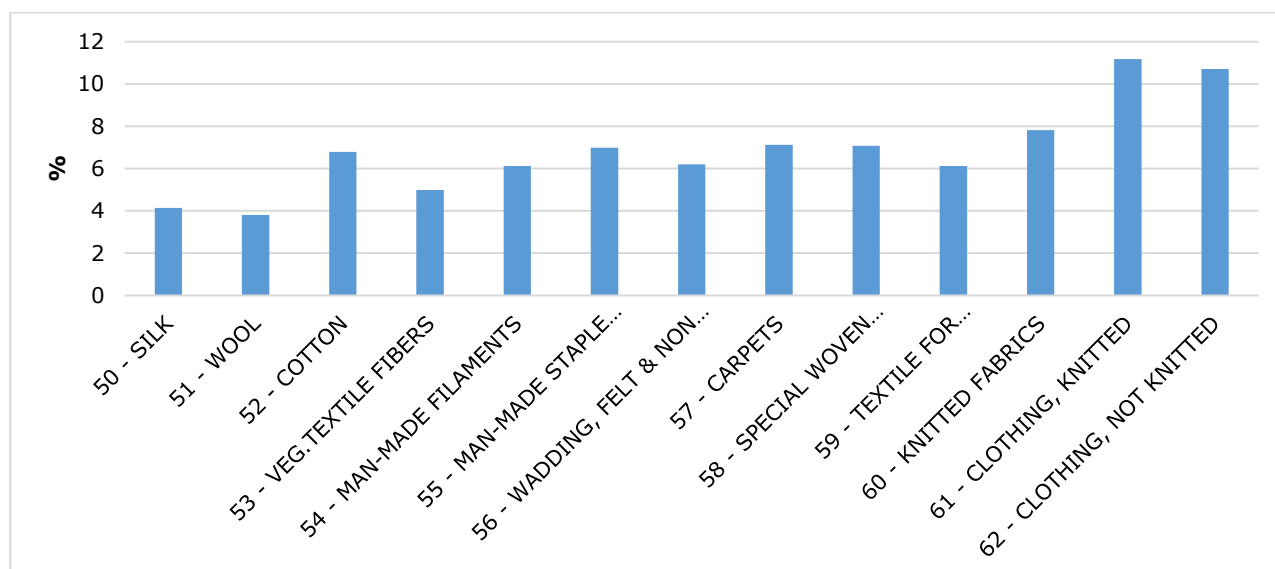
Figure 79: Mercosur average applied tariff by HS code, HS 50-62, 2016



Source: TRAINS

When trading with the EU, all Mercosur countries now face MFN tariffs.²²⁰ The average tariffs applied by the EU to T&G (HS 50-62) imports from Mercosur countries have ranged between 6.5% and 8.4% in the period 2007-2015 (TRAINS data). While these averages have increased over the years, they are lower than the tariffs applied by Mercosur to EU exports. Similarly to Mercosur, the EU applies the highest tariffs to garments.

Figure 80: EU average applied tariff by HS code, HS 50-62, 2015

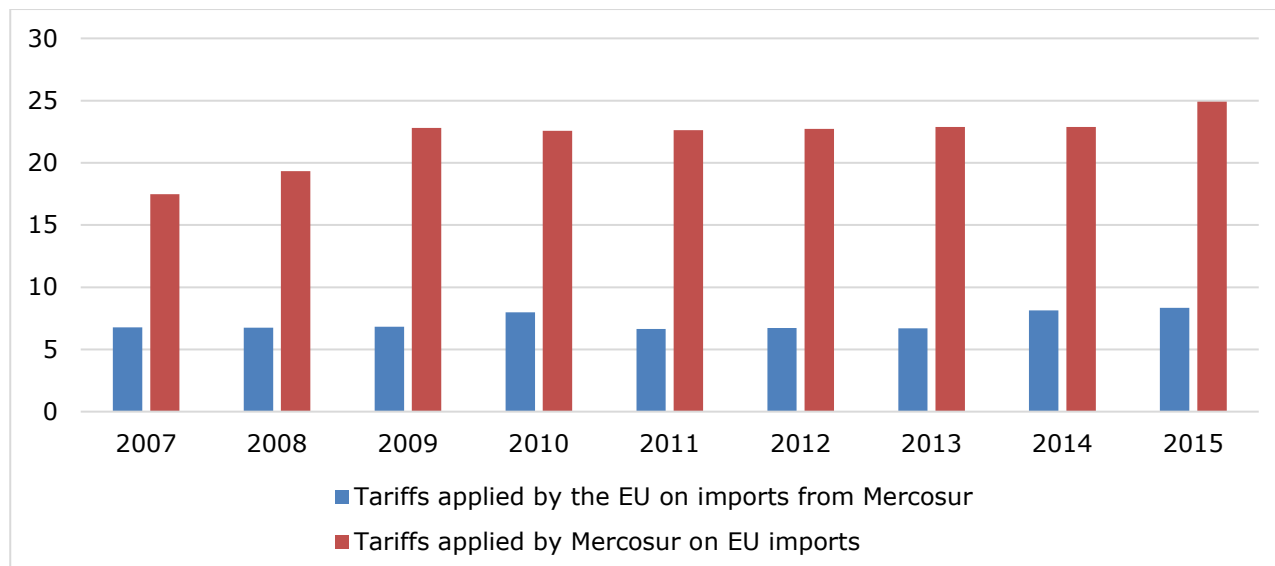


Source: TRAINS

²²⁰ Paraguay graduated from GSP+ in January 2019.

In 2015, the average tariff applied by the EU on imports from Mercosur was around 8%, and the average tariff applied by Mercosur on imports from the EU was around 25%. The Mercosur market is therefore more protected from EU imports compared to the EU market.

Figure 81: EU and Mercosur average applied tariff, HS 50-62, 2007-2015



Source: TRAINS

Quality, safety and standards

The EU has set up several systems to protect its consumers by ensuring that goods imported into the Union comply with health and safety regulations. The degree to which these regulations affect imports from Mercosur countries is the ability of Mercosur exporters to comply with EU standards.

The EU has set up a Rapid Exchange of Information System (RAPEX) through which national trade and customs authorities report notifications about unsafe consumer products other than food and pharmaceuticals.²²¹ Searching the database for notification raised on imports of T&G and footwear products from Mercosur countries from 2005 till 2017 only returns 8 notifications. In the Mercosur, these notifications concern all countries: there were 2 from Brazil, 3 from Paraguay, 2 from Argentina and one from Uruguay. Paraguay is the country with the least exports to the EU, but with the highest number of notifications. However, the number of notifications is relatively low, especially considering the long time span taken into account. This suggests that quality and safety standards are not an obstacle to Mercosur exporters to Europe.

Assessing the impact of the agreement

Economic impact

This section assesses the impact of the AA on the textile and garment sector for both the EU and Mercosur. With an AA, trade between the EU and Mercosur would be liberalised, and the tariffs on T&G in trade between the two blocs would be eliminated.

²²¹ See:

https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/index_en.htm

The Mercosur T&G sector is more protected compared to the EU market. Through the AA, the EU T&G exporters will face a greater reduction in tariffs and are likely to export more to the Mercosur market. Given that the tariffs on garment are higher on both sides, the AA could encourage increased exports in garment, compared to textile.

The CGE modelling offers some insights on the potential impact of the AA for the EU and Mercosur economies. The modelling looks at an ambitious and a conservative scenario (for more details, see section on CGE results). For each scenario, results are provided by sector.

EU production will fall very marginally by up to 0.1%. This is not due to direct trade impacts on the T&G sector but to reallocation of resources between sectors in the model. Output in Paraguay will also fall slightly, whereas Brazil, Argentina and especially Uruguay will see their output increase. The EU and Mercosur (except Paraguay) will see their exports increase considerably.

Environmental impact

The T&G sector value chain has considerable environmental impacts. In 2015, the global textiles and clothing industry was responsible for the consumption of 79 billion cubic metres of water, 1 715 million tons of CO₂ emissions and 92 million tons of waste, and these figures are set to double by 2030 (Sajn, 2019). The environmental impact is present at all segments of the value chain. Growing cotton requires huge quantities of land, water, fertilisers and pesticides. Natural fibres also have a high environmental impact, with silk production linked to depletion of natural resources and global warming, cotton contributing to water scarcity and wool to GHG emissions.²²² Data derived from the Higg Materials Sustainability Index (MSI), which provides a cradle-to-gate material scoring tool by the Sustainable Apparel Coalition (SAC), illustrates that the materials with the overall highest environmental impact are leather and natural fibers (silk, cotton, wool). Silk shows high negative impacts across all five dimensions used in the scoring: Abiotic Resource Depletion, Fossil Fuels; Eutrophication; Global Warming; Water Scarcity (Global Fashion Agenda, 2017). Polyester, which is made of fossil fuels, has a lower water footprint compared to cotton but it discharges microplastic fibres in the water when washed, which can end up in the human food chain.

T&G production is an energy-intensive process which uses large amounts of water and chemicals. More than 1 900 chemicals are used worldwide in the production of clothing, of which 165 the EU classifies as hazardous to health or the environment. Transport and distribution of material and finished products accounts for only 2% of the climate-change impacts of the industry. This phase is also characterised by waste generated through packaging, tags, hangers and bags, as well as unsold leftovers that are thrown away (Sajn, 2019). The phase with the highest environmental footprint is consumer use, due to the chemicals and energy involved in washing and ironing, as well as disposal of clothes at the end of their life (Sajn, 2019).

The assessment of the EU-Mercosur T&G trade reveals a potential increase in trade of textile and garment between the two blocs. This can potentially have negative environmental consequences, especially considering the increased transport of goods across the ocean between the two regions. The main negative environmental impacts could therefore arise from trade.

²²² See EPRS, 2019. *Environmental impact of the textile and clothing industry. What consumers need to know.* [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS_BRI\(2019\)633143_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS_BRI(2019)633143_EN.pdf). Also Global Fashion Agenda & The Boston Consulting Group, 2017. *Pulse of the Fashion Industry.* <https://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry-2017.pdf>

There could be additional negative impact deriving from the increase in production arising from import/export opportunities between the two blocs. However, if consumption of textile and garment does not increase or increases only marginally as is predicted by the modelling, the impact on these externalities can be expected likewise to be marginal.

Social and human rights impact: gender, informality and wages in the T&G sector

Worldwide, most workers in the T&G sector are women (BSR, 2017); in Europe, women are more than 70% of workers in these sectors (Euratex, 2016). It is unclear how widespread informality is in the T&G sector in Europe. A 2014 report by the Clean Clothes Campaign analyses the garment sector in selected post-socialist Eastern European countries (of which some are part of the EU), and estimated that a third of the workers in the garment sector operates on informal bases (Clean Clothes Campaign, 2014).²²³ The Home-Based Workers Association estimates that in Bulgaria, in addition to 100,000 registered workers in the garment sector, another 500,000 operate as home-based workers (ibid.). The same study also reports that wages paid to the workers (even when compliant with minimum wages) do not provide a liveable income (ibid.).

In Mercosur countries, the T&G sector has large pockets of informality in which gender and migration issues also take an important role. The Argentinian garment sector presents a high degree of informality - around 75% of the workers are estimated to be operating in the informal space (SOMO, 2011). These include workers in small enterprises and home workshop. These workers often do not have contracts, and receive no social benefits or compensation, and are unlikely to be protected in case some issues arise (ibid.).

Women are often overrepresented among the casual and less-skilled workforce, including in the garment sector in Argentina. One study estimates that 80% of the workers in this sector are women (SOMO, 2011). In addition, many of them are migrant workers from the Quechua and Aymara ethnic groups coming from the neighbouring Bolivia and Peru (SOMO, 2011). Especially those working in home workshops often lack documentation and any form of protection and tend to work long hours for low wages (ibid.).

Similarly, the Brazil T&G sector predominantly employs women. Almost 25 percent of the total employment in this sector is in home-based workshops, in which women account for 94% of the workforce (BSR, 2017).

In Uruguay, informality is prevalent in various sectors, including light manufacturing (which includes garment and textile manufacturing) (UNCTAD, 2015). However, informality does not seem to have a strong gender dimension in Uruguay, as studies have found similar levels of men and women in the informal sector (ibid.)

The CGE modelling offers some insights on the potential impact of the AA for labour. The modelling looks at an ambitious and a conservative scenario (for more details, see section on CGE results). For each scenario, results are provided by sector and by type of labour (skilled or unskilled).

In case of an AA, there will be changes in sectoral employment. The CGE model conducted for this study distinguishes between skilled and unskilled labour. In the T&G sector, the conservative

²²³ The countries included in the study are Bulgaria, Croatia, Romania and Slovakia (in the EU) and Bosnia & Herzegovina, Georgia, Macedonia (FYROM), Moldova, Turkey and Ukraine.

scenario of the model estimates that the EU bloc, Argentina and Paraguay will see a small decrease in unskilled employment in the sector. Brazil and Uruguay, on the other hand, will see an increase in unskilled employment. The employment effect is particularly strong for Uruguay. In terms of skilled employment, the results are quite similar: the EU countries and Paraguay will see a small decrease, but Argentina, Brazil and Uruguay will see an increase in their skilled employment (again, this effect is stronger for Uruguay). The ambitious scenario reveals similar pattern, with a decrease in both skilled and unskilled labour in the EU, Argentina and Paraguay, and an increase in Brazil and Uruguay.

Impact on consumers

The creation of an AA between the EU and Mercosur will promote additional trade between the two blocs, and this could promote increased consumers' welfare, as consumers will have more options to choose from and will benefit from increased competition.

The CGE forecasts that private consumption of T&G will increase in EU and Argentina, but will decrease in Brazil, Uruguay and Paraguay. These changes, however, are limited and unlikely to have a large impact on consumers.

Impact on SMEs

SMEs are important players in the T&G sectors in Europe. In 2013, the sector had 185,000 companies employing 1.7 million people, accounting for 3% of manufacturing value added and for 6% manufacturing employment in Europe (EC, 2017c). Many of these companies are small businesses – companies with less than 50 employees account for more than 90% of the workforce and produce almost 60% of the value added (ibid.).

The simulation of the AA and other available data do not allow us to distinguish between SMEs and larger firms, and therefore it is difficult to establish what will be the impact of the AA on SMEs in both the EU and Mercosur. The extent to which these smaller and medium firms will thrive under the AA will depend on their ability to increase their production and export.

Impact on LDCs

As part of its Generalised scheme of Preferences (GSP), the EU offers duty-free and quota-free access to its market to a number of developing countries. LDCs benefit from the EBA programme, while low and lower-middle income countries benefit from GSP or GSP+. Among the countries which are beneficiaries of these schemes, a number are strong T&G producers. Looking at the EU top sources of T&G imports, nine countries benefit from preferential market access to the EU through GSP, GSP+ or EBA. In 2016, this represented 35% of the EU total imports of T&G. This is around the same size of the total EU imports of T&G from China (33.4% of total T&G imports in 2016). Therefore, the EU imports of T&G from China and from its most competitive trade partners with preferential access make up almost 70% of the total EU imports of T&G.

Eliminating tariffs between the EU and Mercosur, an AA could allow Mercosur countries to export more to the EU, depending on their production capacity. This could in principle displace some of the imports from LDCs.

However, this impact will only be significant if Mercosur countries manage to export T&G to the EU in significantly greater volumes. Mercosur is a much smaller supplier of T&G to the EU and to the world as compared to LDCs (with duty free access) and other MFN countries such as China.

Therefore, duty elimination for Mercosur is unlikely to lead to significant preference erosion for LDCs.

Impact on the Outermost Regions of the EU

The EU Outermost Regions (ORs) are the most remote regions of the EU. The ORs are not large producers of garment and textile. For this reason, the likely impact of an AA between the EU and Mercosur on the EU ORs from the viewpoint of the T&G industry is unlikely to be large. The ORs are unlikely to be affected by larger trade flows.

Policy Recommendations

In order to fully benefit from the EU-Mercosur AA and to minimise the negative effects, this study recommends to:

- **Mercosur and EU countries should work to minimise the negative environmental implication of increased trade in T&G products.** While increases in production of T&G products will be limited, trade among the EU and Mercosur will increase. Therefore, the environmental implications linked to increased transport and trade need to be taken into account, and minimised where possible. This could include introducing and enforcing stricter regulations on transport sector emissions both in the EU and in Mercosur and encouraging cooperation on environmental standards related to transport.
- **Both parties should implement measures to protect informal workers in the textile and garment sector.** We lack precise information on the informal workers in the textile and garment sector in both the EU and Mercosur. However, simulations show potential job losses in these sectors in the EU and Paraguay, and in a smaller measure in Argentina – and we can assume that these trends will affect both the formal and the informal sector. The EU, Paraguay and Argentina should therefore strive to support extend social safety nets to protect informal sector workers.
- **Both parties should improve their understanding of the role of SMEs and establish monitoring strategies to ensure timely support measures.** SMEs play an important role in the textile and garment sector, especially in some of the EU and Mercosur countries. However, there is limited understanding of how trade impacts SMEs. Therefore, it is recommended to closely monitor the effects in the years following the entry into force of the agreement to potentially intervene with mitigation measures for the negative impact.

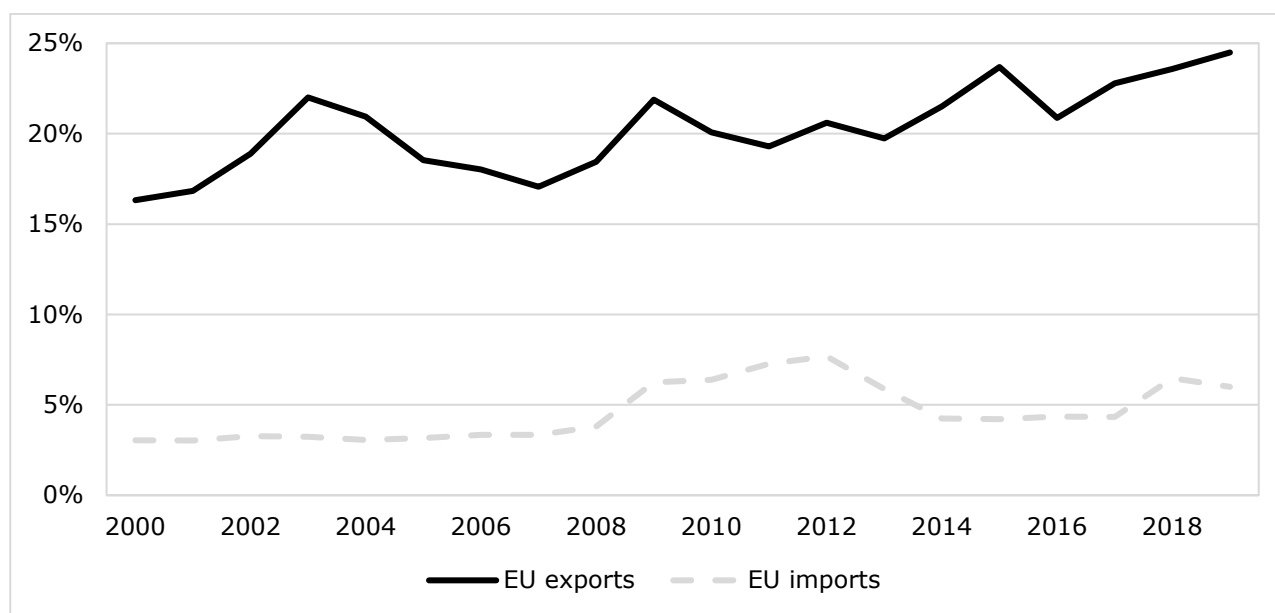
6.4.2. Chemicals and Pharmaceuticals

Sector overview

The chemicals sector includes both inorganic industrial products, including rubber, plastics, and industrial agents, and organic products, including pharmaceuticals for human and animal use as well as pharma-chemicals (e.g. synthesised active ingredients, incipient inputs for formulation, raw materials) that are used in the production of human and veterinary drugs. For the most part, trade flows of inorganic chemicals reflect relative prices and traditional barriers to trade (e.g. tariffs). Trade flows of pharmaceuticals, however, reflect intellectual property coverage as well as health regulations that condition market access. In this section, unless a distinction is made, “chemicals” is used with reference to the entire array of outputs, including pharmaceutical products (HS30).

Chemicals is one of the EU's major exports, accounting for about 17% of total extra-EU28 exports in 2019, with this share having remained broadly stable over the past ten years. Figure 82 shows the share of trade in chemical and pharmaceutical products in EU-Mercosur trade.²²⁴ The share of EU exports of chemicals and pharmaceuticals to Mercosur countries increased from 16% in 2000 to 24% in 2019. The share of EU imports of chemicals and pharmaceuticals from Mercosur countries increased from 3% in 2000 to 6% in 2019.

Figure 82: EU28 Chemical and Pharmaceutical Exports and Imports

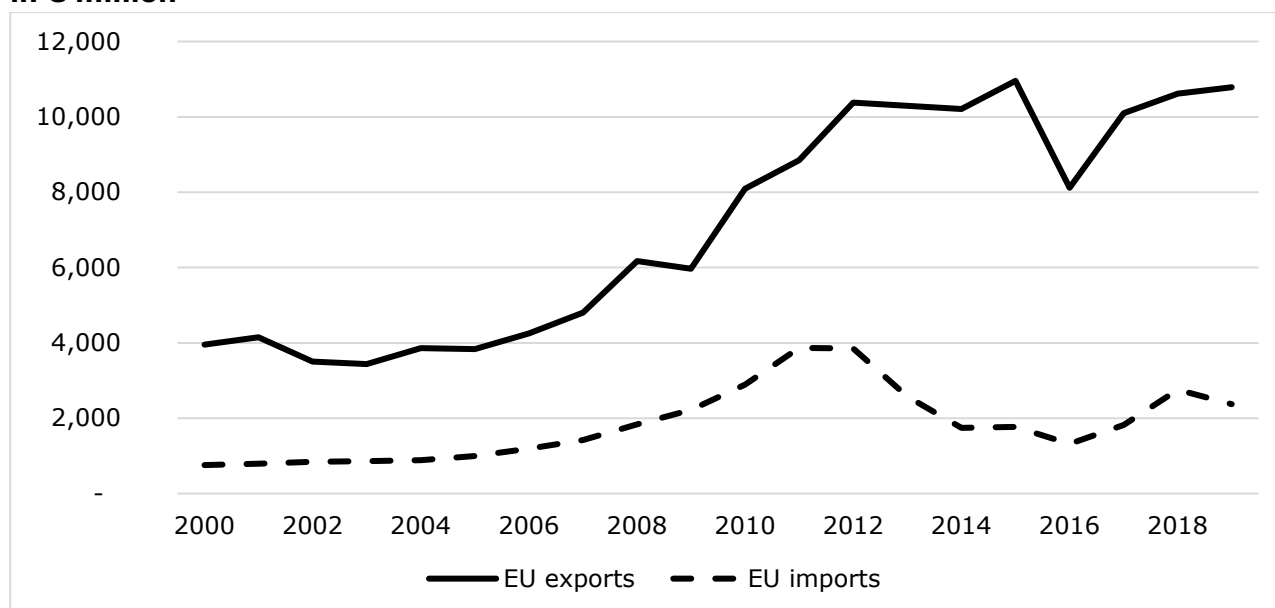


Source: COMEXT. Notes: Table shows chemical and pharmaceutical exports and imports as a share of total EU-Mercosur exports/imports. Chemical and pharmaceutical trade is defined as Section VI (Chapters 28-38) of HS 2012.

²²⁴ Here and in the following, chemical and pharmaceutical trade is defined as Section VI (Chapters 28-38) of HS 2012.

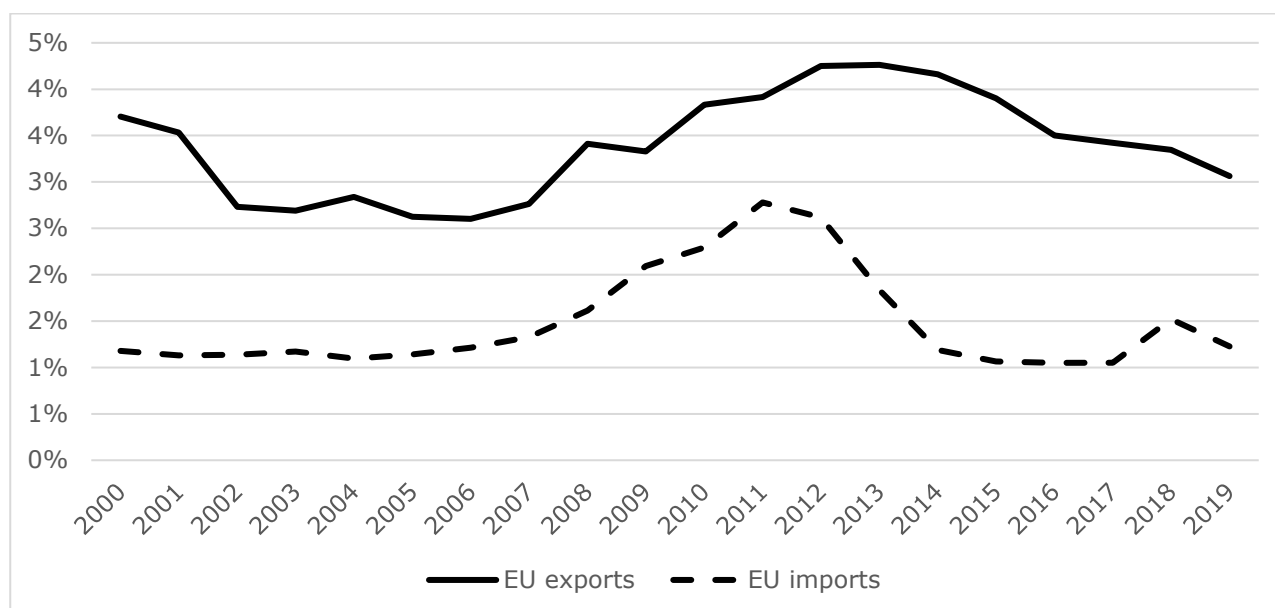
The EU is currently running a substantial trade surplus in chemicals with Mercosur, amounting to €8.4 billion (with exports of around €10.8 billion in 2019 and imports of €2.4 billion in 2019 (Figure 83). This surplus has widened since 2012, with the increase mainly driven by strong EU export growth. In terms of overall importance to EU chemicals exporters, however, Mercosur accounted for approximately 3.1% of total extra-EU28 exports of chemicals in 2019. Mercosur exporters accounted for only about 1.2% of total EU28 chemical imports in 2019 (Figure 84).

Figure 83: EU28 Trade in Chemical and Pharmaceutical Products with Mercosur (Total), in € million



Source: COMEXT. Notes: Figure shows chemical and pharmaceutical exports and imports by the EU28 to and from Mercosur. Chemical and pharmaceutical trade is defined as Section VI (Chapters 28-38) of HS 2012.

Figure 84: EU28 Trade in Chemical and Pharmaceutical Products with Mercosur (% of total extra-EU28 chemical and pharmaceutical trade)



Source: COMEXT. Notes: Figure shows chemical and pharmaceutical exports and imports by the EU28 to and from Mercosur, expressed as a share of total extra-EU28 chemical and pharmaceutical exports or imports. Chemical and pharmaceutical trade is defined as Section VI (Chapters 28-38) of HS 2012.

Table 74 and Table 75 take a closer look at the main chemical and pharmaceutical HS 6-digit products traded between the EU and Mercosur.²²⁵ Broadly speaking, trade is evenly concentrated across the top products on both the export and import side, with the top 20 HS codes accounting for 62% to 76%. Medicaments, antisera and blood and immunological products, fungicides, vaccines and heterocyclic compounds are the most important EU exports, with a total share of approximately 42%. Biodiesel was the most important imported product in 2019, Silicon and inorganic or organic compounds of precious metals. Note that a number of derivatives of agricultural products are also present among the top exports of Mercosur to the EU (e.g. essential oils; oils of lemon). This is consistent with the broader comparative advantage of Mercosur in many agricultural products.

Table 74 and Table 75 also provide information about tariffs. Relatively high tariff barriers remain for the top products, in particular for EU exports to Mercosur – nine out of the top-20 EU exports face ad-valorem tariffs of over 10%. Tariffs for Mercosur exports to the EU are generally lower, but around 65% of the top-20 products still encounter EU import tariffs of around 5%.

Table 74: Top 20 Pharmaceutical and Chemical Exports from the EU to Mercosur

	HS6	Description	2019 EU export volume in € million	Export share	Avg. MFN Tariff Mercosur (%)
1	300490	Medicaments; consisting of mixed or unmixed products n.e.c. in heading no. 3004, for therapeutic or prophylactic uses, packaged for retail sale	1,651	15.3%	14
2	300215	Blood, human or animal, antisera, other blood fractions and immunological products; immunological products, put up in measured doses or in forms or packings for retail sale	735	6.8%	6
3	300220	Vaccines; for human medicine	595	5.5%	4
4	380892	Fungicides; other than containing goods specified in Subheading Note 1 to this Chapter; put up in forms or packings for retail sale or as preparations or articles	518	4.8%	2
5	293319	Heterocyclic compounds; with nitrogen heteroatom(s) only, containing an unfused pyrazole ring (whether or not hydrogenated) in the structure, other than henazone (antipyrin) and its derivatives	445	4.1%	14
6	300212	Blood, human or animal, antisera, other blood fractions and immunological products; antisera and other blood fractions	379	3.5%	14
7	31SSS9	Confidential trade chapter 31	267	2.5%	2
8	300439	Medicaments; containing hormones (but not insulin), adrenal cortex hormones or	265	2.5%	10.5

²²⁵ Note that due to confidentiality requirements, trade for certain HS products cannot be reported. This is the case when reporting would reveal information about individual statistical units (exporters in this case). Such trade is subsumed in more aggregate categories. For example, the artificial HS code "Confidential trade of chapter 29 and SITC Group 5" sums trade from all confidential HS codes from chapter 29 (i.e., HS code starting with 29).

		antibiotics, for therapeutic or prophylactic uses, packaged for retail sale			
9	330300	Perfumes and toilet waters	245	2.3%	11
10	293339	Heterocyclic compounds; containing an unfused pyridine ring (whether or not hydrogenated) in the structure, n.e.c. in 2933.3	232	2.1%	12
11	293399	Heterocyclic compounds; n.e.c. in headings no. 2933	187	1.7%	2
12	382200	Reagents; diagnostic or laboratory reagents on a backing and prepared diagnostic or laboratory reagents whether or not on a backing, other than those of heading no. 3002 or 3006; certified reference material	156	1.4%	12
13	382499	Chemical products, mixtures and preparations; n.e.c. heading 3824	145	1.3%	12
14	380869	Insecticides; containing goods named in Subheading Note 2 to this Chapter, put up in forms or packings for retail sale or as preparations or articles, in packings of a net weight content exceeding 7.5kg	140	1.3%	-
15	300290	Toxins, cultures of micro-organisms (excluding yeasts) and similar products	134	1.2%	6
16	380893	Herbicides, anti-sprouting products and plant-growth regulators; other than containing goods of Subheading Note 1 to this Chapter; put up in forms or packings for retail sale or as preparations or articles	133	1.2%	2
17	330499	Cosmetic and toilet preparations; n.e.c. in heading no. 3304, for the care of the skin (excluding medicaments, including sunscreen or sun tan preparations)	128	1.2%	4
18	293499	Nucleic acids and their salts, other heterocyclic compounds, n.e.c. in heading number 2934	124	1.2%	7
19	310240	Fertilisers, mineral or chemical; ammonium nitrate with calcium carbonate or other inorganic non-fertilizing substances, mixtures thereof	123	1.1%	4.5
20	300420	Medicaments; containing antibiotics (other than penicillins, streptomycins or their derivatives), for therapeutic or prophylactic uses, packaged for retail sale	106	1.0%	10
Total			6,707	62.2%	

Notes: Table shows the 20 HS 6-digit products with the highest share in EU chemical and pharmaceutical exports to Mercosur. 'Export share' denotes the share of the HS product in total chemical/pharmaceutical exports to Mercosur. 'Avg. MFN Tariff Mercosur' is the average Mercosur MFN import tariff, calculated as the simple average ad-valorem equivalent of the tariff lines underlying each 6-digit code. Chemical and pharmaceutical trade is defined as Section VI (Chapters 28-38) of HS 2012. Sources: COMEXT, UN Comtrade, UNCTAD Trains.

Table 75: Top 20 Pharmaceutical and Chemical Imports from Mercosur to the EU

	HS6	Description	2019 EU import volume in € million	Import share	Avg. MFN Tariff EU (%)
1	382600	Biodiesel and mixtures thereof; not containing or containing less than 70% by weight of petroleum oils or oils obtained from bituminous minerals	628	26.5%	6.5
2	280469	Silicon; containing by weight less than 99.99% of silicon	197	8.3%	5.5
3	284390	Inorganic or organic compounds of precious metals, n.e.c.; amalgams	116	4.9%	4.15
4	293719	Polypeptide hormones, protein hormones and glycoprotein hormones, their derivatives and structural analogues; other than somatotropin, (its derivatives and structural anaologues) and insulin and its salts	107	4.5%	0
5	330113	Oils, essential; of lemon (terpeneless or not), including concretes and absolutes	95	4.0%	5.7
6	330112	Oils, essential; of orange (terpeneless or not), including concretes and absolutes	72	3.0%	5.7
7	290121	Acyclic hydrocarbons; unsaturated, ethylene	66	2.8%	0
8	300490	Medicaments; consisting of mixed or unmixed products n.e.c. in heading no. 3004, for therapeutic or prophylactic uses, packaged for retail sale	63	2.7%	0
9	350300	Gelatin (including gelatin in rectangular sheets, whether or not surface-worked or coloured) and gelatin derivatives; isinglass; other glues of animal origin, excluding casein glues of heading no. 3501	61	2.6%	7.7
10	293339	Heterocyclic compounds; containing an unfused pyridine ring (whether or not hydrogenated) in the structure, n.e.c. in 2933.3	57	2.4%	5.6
11	282530	Vanadium oxides and hydroxides	52	2.2%	5.5
12	380610	Rosin and resin acids	43	1.8%	5
13	292320	Lecithins and other phosphoaminolipids, whether or not chemically defined	41	1.7%	5.7
14	28SSS5	Confidential trade chapter 28	36	1.5%	-
15	300610	Pharmaceutical goods; sterile surgical catgut, suture materials, tissue adhesives, laminaria, laminaria tents, absorbable surgical or dental haemostatics, and surgical or dental adhesion barriers	31	1.3%	0
16	382319	Industrial monocarboxylic fatty acids; acid oils from refining; (other than stearic acid, oleic acid or tall oil fatty acids)	30	1.2%	2.9
17	300190	Glands and other organs; heparin and its salts; other human or animal substances prepared for	27	1.2%	0

		therapeutic or prophylactic uses, n.e.c. in heading 3001			
18	290919	Ethers; acyclic, and their halogenated, sulphonated, nitrated or nitrosated derivatives, other than diethyl ether	25	1.0%	5.5
19	291819	Acids; carboxylic acids, (with alcohol function but without other oxygen function), other than lactic, tartaric, citric, and gluconic acids and their salts and esters	23	1.0%	5.3
20	320110	Tanning extracts of vegetable origin; quebracho extract	22	0.9%	0
Total			1,791	75.6%	

Sources: COMEXT, UN Comtrade, UNCTAD Trains. Notes: Table shows the 20 HS 6-digit products with the highest share in EU chemical and pharmaceutical imports from Mercosur. 'Import share' denotes the share of the HS product in total chemical/pharmaceutical imports from Mercosur. 'Avg. EU MFN Tariff' is the average EU MFN import tariff, calculated as the simple average ad-valorem equivalent of the tariff lines underlying each 6-digit code. Chemical and pharmaceutical trade is defined as Section VI (Chapters 28-38) of HS 2012.

Assessing the impact of the agreement

Chemicals and pharmaceutical products are aggregated into a single sector in the GTAP database. Consequently, some caution is necessary when assigning the impact to lower levels of disaggregation.

In the conservative scenario, EU imports from Mercosur will increase by 12.8% and in the ambitious scenario, they will increase by 16.2%. Exports to Mercosur will increase by 47.6% in the conservative scenario and by 60.2% in the ambitious scenario. This will increase total exports by 0.7% in the EU in the conservative scenario and by 0.9% in the ambitious scenario. In Mercosur, total exports will expand 7.7% in Brazil and by 1.9% in Argentina in the conservative scenario. In the same scenario, exports from Uruguay and Paraguay will contract by 1.3% and 3%, respectively. In the ambitious scenario, total exports will expand by 10.5% and 2.8% (in Brazil and Argentina, respectively); and they will contract by 2.2% and 3.5% (in Uruguay and Paraguay, respectively).

These changes in trade will generate some minor output changes in the EU. Output would increase by 0.2% in both scenarios. Changes in output in Brazil are similar to those experienced by the EU in both scenarios. However, output will fall in Argentina by 0.2% (both scenarios), in Uruguay by 1.2% (1.9%); and in Paraguay by 2.5% (2.4%) in the conservative (ambitious) scenario.

Social impact

Unskilled and skilled labour will increase in the EU by 0.1% in the conservative and in the ambitious scenario. In Mercosur, the impact is negative. In the conservative scenario, unskilled and skilled labour will fall between 0.5% (Brazil) and 0.9% (Uruguay). In the ambitious scenario, unskilled labour would fall between 0.5% and 2.5%. Skilled labour would fall by 0.5% and 2.3%,

The negative social impact in Mercosur is compensated by an improved and cheaper access to chemical and pharmaceutical products by consumers and firms. The fall in tariffs, especially in Mercosur, is likely to reduce prices consumer and wholesale pay for key products such as medicines.

Environmental and human rights impact

There are not foreseen relevant impact in the environment and human rights. However, access to cheaper medicines will benefit Mercosur citizens in relation with the right of access to healthcare.

Government procurement

None of the Mercosur countries are signatories of the WTO Government Procurement Agreement. Therefore, chemical and pharmaceutical companies are, in general, excluded from participating in tendering processes. The EU-Mercosur agreement will allow, in principle, EU companies to participate, bid and compete in procurement processes as local companies. This could allow, for example, EU pharmaceutical companies to participate in tendering processes to supply public health systems in Mercosur with vaccines and medicines.

Impact on SMEs

SMEs account for high shares in the total number of EU companies trading both chemicals and pharmaceutical products to partners outside the EU (extra-EU trade). In 2017 (most recent data), EU SMEs' share in the number of enterprises exporting chemicals and pharmaceuticals products was 91% and 75% respectively (Table 76). Likewise, EU SMEs' share in the number of enterprises importing chemicals and pharmaceuticals products was 90% and 75% respectively (Table 77). Accordingly, a reduction or full elimination of tariffs in Mercosur countries would improve market access conditions for SMEs for both partners. A reduction or full elimination of import tariffs on the side of Mercosur countries would improve EU SMEs competitiveness in Mercosur markets. The full elimination of import tariffs would reduce the deterrent effect of Mercosur countries' import regulations, e.g. customs and import facilitation procedures, on EU SMEs regarding the decision to enter Mercosur markets. Even though EU tariffs are generally lower than tariffs applied by Mercosur countries, similar considerations apply for SMEs from Mercosur countries.

Table 76: Extra-EU Exports of SMEs and Large Companies, Pharmaceutical and Chemical

Number of exporting enterprises	Chemicals products	Pharmaceutical products
Total	10,594	1,832
Fewer than 10 employees	3,325	388
From 10 to 49 employees	3,851	390
From 50 to 249 employees	2,463	587
250 employees or more	777	409
Unknown	142	21
Shares of exporting enterprises	Chemicals products	Pharmaceutical products
Total	100%	100%
Fewer than 10 employees	31%	21%
From 10 to 49 employees	36%	21%
From 50 to 249 employees	23%	32%
250 employees or more	7%	22%
Unknown	1%	1%
<i>SMEs</i>	91%	75%
<i>Large companies</i>	7%	22%

Source: Eurostat TEC database.

Table 77: Extra-EU Imports of SMEs and Large Companies, Pharmaceutical and Chemical

Number of importing enterprises	Chemicals products	Pharmaceutical products
Total	9,580	1,943
Fewer than 10 employees	2,894	429
From 10 to 49 employees	3,267	434
From 50 to 249 employees	2,422	603
250 employees or more	789	423
Unknown	156	24
Shares of importing enterprises	Chemicals products	Pharmaceutical products
Total	100%	100%
Fewer than 10 employees	30%	22%
From 10 to 49 employees	34%	22%
From 50 to 249 employees	25%	31%
250 employees or more	8%	22%
Unknown	2%	1%
<i>SMEs</i>	90%	75%
<i>Large companies</i>	8%	22%

Source: Eurostat TEC database

Impact on Consumers

Chemicals

The reduction or full elimination of tariffs on chemical products would result in lower prices for intermediary and final products. The precise impact is difficult to assess because of the high number of chemical compounds and the high number of products in value chains that use chemicals compounds as input for production.

Pharmaceuticals

In markets for medicines, wholesalers and retailers frequently apply lump sum percentage margins. As a result, lower import tariffs result in market price reductions that are much higher than the initial savings from lower import tariffs. In markets for pharmaceutical products, even low import tariff rates have a significant compounding effect on the final retail price of medicines, which in turn impacts on affordability. The nominal tariff charged by customs authorities only tells part of the story of the real burden imposed on intermediate (e.g. hospitals, insurance companies) and final consumers. At the counter, the final price of a medicine paid for by a consumer is a combination of the manufacturer's price, various mark-ups by importers, wholesalers and distributors, and retail pharmacies, doctors and hospitals respectively (see, e.g.,

IFC 2017; IMS 2014).²²⁶ Survey data presented by the International Finance Corporation (IFC 2017; referring to Health Action International (HAI) survey data) show that numerous mark-ups along the medicine distribution chain can account for up to 90 per cent of the final price to the consumer, and often are in the 30% to 50% range in countries with unregulated mark-ups. Specifically, according to the IFC (2017), mark-ups range from 25% to 30% per cent for importers, 25% to 50% for wholesalers, 25% to 75% for sub-wholesalers, and 50% to 80% for retailers (for generics products).

While import tariffs on pharmaceuticals and medicinal products can cause substantial net losses for governments, taxpayers and patients, they effectively work as a subsidy for companies along national distribution chains. This may lead to a political economy, in which customs authorities and pharmaceutical distributors may have a common interest in maintaining (high) import tariffs. The reduction or full eliminations of import tariffs on medicines would thus reduce rent-seeking and market distortions, and help to substantially cut the costs of medicines in Mercosur countries that apply tariffs on medicines and create better conditions for access to medicines for patients in these countries. The precise relative impact depends on the level of the import tariff, the number of wholesalers along national markets' distribution chains and the mark-ups applied at by importers and distributors.

Impact on LDCs and OMRs

The assessment does not preview specific impact on LDCs and OMRs resulting from these provisions.

Recommendations

- **Mercosur countries should aim to gradually introduce changes in the tariff schedule.** This will allow companies to adjust the new competition by increasing their productivity and competitiveness, as well as tackling the negative effects on output and employment that the agreement is expected to generate in the chemicals and pharmaceutical sector.
- **Mercosur countries should support the re-training of workers with the aim of facilitating transition to other sectors.** In addition, the provision of income support should be considered for the affected workers.

6.4.3. Machinery

Sector overview

The structure of the machinery sector

The machinery and equipment products are mostly included in in Chapter 84 (Nuclear reactors, boilers, machinery and mechanical appliances and parts thereof) and Chapter 85 (Electrical

²²⁶ IFC (2017), *Private Sector Pharmaceutical Distribution and Retailing in Emerging Markets - Making the Case for Investment*, International Finance Corporation of the World Bank Group. IMS (2014), *Understanding the pharmaceutical value chain*, IMS Institute for Healthcare Informatics. HAI (2010), *Life-saving insulin largely unaffordable – A one day snapshot of the price of insulin across 60 countries*, available at: http://www.haiweb.org/medicineprices/07072010/Global_briefing_note_FINAL.pdf, accessed on 20 August 2017. Bauer (2017). *The Compounding Effect of Tariffs on Medicines: Estimating the Real Cost of Emerging Markets' Protectionism*. ECIPE Policy Brief 1/2017.

machinery and equipment and parts thereof; sound recorders and reproducers; television image and sound recorders and reproducers, parts and accessories of such articles) of the Harmonized System (HS). However, as the analysis in this section is based on the GTAP classification used in the CGE model, it also includes some inputs and parts used in production processes that belong to other Chapters. On the one side, machinery accounts for 889 HS 6 digits products. On the other side, electronic equipment and other manufactures accounts for 328.

According to Grasso, F. & Kossacoff S. (2015)²²⁷, the most important Latin-American countries in the *capital goods sector*²²⁸ are Argentina, Brazil and México. The machinery and equipment sector (Sectors 29 and 31 in the ISIC Rev. 3) weighs moderately in gross value added both in MERCOSUR (in 2015: 2% Argentina, 1% Brazil and 0.4% in Uruguay) and in the EU (in 2014: 2.5%). In terms of manufacturing employment, the sector share in the EU (14.4% in 2015) doubles the share in MERCOSUR (7.3% Argentina and 7.6% Brazil in 2015). The sector performance in terms of productivity and technological content is quite heterogeneous. SMEs represent a large share of employment in Sectors 29 & 31 (more than 50% in Argentina in 2011 and, for Sector 29 only, 42% in Brazil), while their share is lower in EU (around 21% in 2011).

Top Products

Based on the bilateral trade between the EU and Mercosur, the GTAP Machinery sector accounts for most it. It accounts for 94% of the EU exports to Mercosur and for 88% of the imports from Mercosur. Within Mercosur, Brazil represents the largest share of both exports and imports, followed by Argentina. Table 78 presents the bilateral trade between the EU and Mercosur.

Table 78: EU-Mercosur bilateral trade on electronic equipment and machinery (2015-18) (in thousands of Euros)

	Argentina	Brazil	Uruguay	Paraguay	Mercosur
Electronic equipment and other manufactures nec					
<i>EU exports</i>					
2015	162,066	561,269	24,633	17,785	765,753
2016	171,420	523,453	23,562	14,457	732,891
2017	182,608	570,950	21,673	21,148	796,378
2018	178,881	608,564	22,883	19,510	829,838
<i>EU imports</i>					
2015	8,192	178,596	9,906	1,005	197,699
2016	9,042	155,554	7,590	1,546	173,734
2017	8,399	161,410	8,594	1,074	179,477
2018	10,382	141,957	8,858	1,498	162,695
Machinery					
<i>EU exports</i>					
2015	2,740,858	9,133,768	682,284	145,300	12,702,210

²²⁷ Grasso, F & Kossacoff S. (2015). *Lineamientos de Política Tecnológica para la Industria de Bienes de Capital*, CIECTI Working Paper n°5. Available at: <http://www.ciecti.org.ar/publicaciones/dt5-lineamientos-politica-tecnologica-industria-bienes-capital/>

²²⁸ Their definition of the capital goods sector is broader than ours: they include, in addition to Sectors 29 and 31 from the ISIC Rev 3 (excluding domestic appliances), some subdivisions from Sectors 28, 32, 33 and 34.

2016	2,738,165	7,419,884	534,092	136,431	10,828,572
2017	3,334,103	7,809,460	334,141	167,512	11,645,217
2018	2,958,575	8,539,852	322,523	167,408	11,988,359
<i>EU imports</i>					
2015	75,669	1,133,550	13,507	620	1,223,345
2016	65,643	1,122,477	10,391	1,888	1,200,400
2017	77,632	1,307,320	13,314	730	1,398,996
2018	76,210	1,468,528	10,147	371	1,555,256

Source: Own elaboration based on EU-Comext

Table 79 captures the magnitude of the EU-Mercosur trade in the context of all Mercosur trade in electronic equipment and machinery. Electronic equipment represents a small share of total Mercosur exports. However, machinery accounts for nearly 5% of total Mercosur exports. In the case of imports, electronic equipment accounts for 5% (on average) of the Mercosur imports and machinery represents a 17% (average) of the total Mercosur imports.

In terms of Mercosur exports, the EU shows a growing share in both electronic equipment and machinery (25% and 17% in 2018 respectively). In terms of imports, the EU is a major supplier of machinery for Mercosur but a minor one in the case of electronic equipment. This anticipates that a significant impact of the agreement in terms of EU exports is expected in the machinery sector.

Table 79: Mercosur trade on Machinery and electronic equipment (2015-18) (in millions of Euros)

	Total	European Union	Share EU (%)	Share of sector in total Mercosur trade (%)
Electronic equipment and other manufacture				
<i>Mercosur exports</i>				
2015	1,170.7	229.7	19.6	0.5
2016	1,168.8	226.7	19.4	0.5
2017	1,151.5	189.1	16.4	0.4
2018	1,222.6	313.5	25.6	0.5
<i>Mercosur imports</i>				
2015	10,822.9	695.9	6.4	4.8
2016	8,653.5	681.8	7.9	4.5
2017	10,883.3	686.4	6.3	5.2
2018	10,270.2	691.2	6.7	4.6
Machinery				
<i>Mercosur exports</i>				
2015	11,759.4	1,648.6	14.0	4.9
2016	11,470.6	1,761.6	15.4	4.9
2017	12,971.7	1,934.0	14.9	5.0
2018	12,286.7	2,135.3	17.4	4.6

<i>Mercosur imports</i>				
2015	40,863.6	13,225.1	32.4	18.1
2016	35,423.6	11,811.5	33.3	18.6
2017	35,016.2	11,275.9	32.2	16.6
2018	35,680.5	11,239.4	31.5	16.0

Source: Own elaboration based on UN-Comtrade. NB. Some trade flows may differ from those in the previous table based on Comext data.

Based on the top electronic products and manufacture nec exported by the EU to Mercosur presented in Table 80, there seems to be a combination of electronic products (mostly inputs and intermediate products) and some manufactures used in motor vehicles. This suggests the existence of a value chain involving both sectors. The top 10 products account for almost 48% of the total EU exports of electronic products and manufactures nec to Mercosur.

In contrast to electronic equipment and manufacture nec, EU exports of machinery appear more diversified. The top 10 products accounts 17% of the EU exports of machinery to Mercosur. These products involve a wide range of products. Brazil is the most important destination, with the only exception of generating sets, wind-powered (850231), where Argentina and Uruguay are the largest importers.

Tariff applied by Mercosur on electronic products and manufactures nec and machinery are high. The top exported products by the EU attract tariffs as high as 20%. This reveals a significant protection on Mercosur on these products and that the agreement could generate significant changes in the relative prices between products imported from the EU, domestically source and imported from other origins.

Table 81 captures the top 10 electronic products and manufactures nec and machinery products imported by the EU from Mercosur. In the case of electronic products and manufactures nec, these products represent almost 61% of the total EU imports. This set of products represent a wide range of products, mostly inputs and intermediates products. Top 10 EU imports of machinery from Mercosur represent 37% of total EU imports of this set. These products are basically engines (especially electric) as well as self-propelled machinery.

In contrast to Mercosur, tariffs applied by the EU on the Mercosur exports of both electronic products and manufactures nec and machinery are low. They do not exceed 3% and, in many instances, they are zero. This indicates that, at least with respect to the tariff reduction, the effect of EU imports from Mercosur is likely to be minimal.

Table 80: Top EU exports to Mercosur average 2015-18 (in thousands of Euros)

	Argentina	Brazil	Uruguay	Paraguay	Total	Mercosur Tariff
Electronic products and other manufactures nec						
940190 Parts of seats, n.e.s.	19,607.8	72,620.8	678.1	25.7	92,932.5	18
847330 Parts and accessories of automatic data-processing machines	14,436.5	36,207.9	1,093.5	753.7	52,491.7	5.1
847150 Processing units for automatic data-processing machines	6,697.5	29,660.2	734.8	1,476.4	38,568.9	11.2
852990 Parts suitable for use solely or principally with transmission	3,916.7	31,989.7	359.0	153.4	36,418.9	8
852910 Aerials and aerial reflectors of all kinds; parts suitable	4,937.4	28,098.6	182.4	972.6	34,191.0	16
852721 Radio-broadcast receivers not capable of operating without an external ...	7,660.2	24,330.6	16.2	8.8	32,015.7	20
847170 Storage units for automatic data-processing machines	15,433.1	15,645.5	741.1	120.4	31,940.1	4.4
847290 Office machines, n.e.s.	16,518.8	4,927.6	1,032.5	383.4	22,862.3	11.8
711319 Articles of jewellery and parts thereof	963.7	14,265.0	652.9	5,937.1	21,818.8	18
940120 Seats for motor vehicles	5,784.5	11,612.6	35.2	9.1	17,441.4	18
<i>Total Selection</i>	<i>95,956.2</i>	<i>269,358.5</i>	<i>5,525.7</i>	<i>9,840.7</i>	<i>380,681.1</i>	
Total Electronic products and other manufactures	173,780.92	566,204.11	23,202.84	18,234.30	781,422.17	
Share Selection (%)	55.2	47.6	23.8	54.0	48.7	
Machinery						
853710 Boards, cabinets and similar combinations of apparatus for electric	74,788.1	257,754.9	3,694.8	2,414.3	338,652	12
847989 Machines and mechanical appliances, n.e.s.	58,735.1	232,489.0	4,710.9	3,018.1	298,953	12
848180 Appliances for pipes, boiler shells, tanks, vats or the like	45,608.4	195,341.2	5,178.7	1,615.1	247,743	15.1
848340 Gears and gearing for machinery	31,747.4	156,028.9	4,792.9	317.6	192,887	14

901890 Instruments and appliances used in medical, surgical or veterinary ...	39,048.3	130,488.7	3,730.9	3,004.1	176,272	9.1
842240 Packing or wrapping machinery, incl. heat-shrink wrapping machinery	53,849.8	107,334.0	4,472.6	2,864.7	168,521	3.5
850231 Generating sets, wind-powered	68,903.5	2,509.1	88,414.9	23.5	159,851	14
850300 Parts suitable for use solely or principally with electric motors	45,175.2	104,808.3	7,732.1	66.8	157,782	14
842230 Machinery for filling, closing, sealing or labelling bottles, cans, ...	51,515.0	92,160.7	5,863.4	2,767.9	152,307	9.3
843149 Parts of machinery of heading 8426, 8429 and 8430, n.e.s.	15,700.8	114,580.8	4,108.8	1,778.6	136,169	10.4
<i>Total Selection</i>	<i>485,071.6</i>	<i>1,393,495.7</i>	<i>132,699.9</i>	<i>17,870.8</i>	<i>2,029,137.9</i>	
Total Machinery	2,950,097.3	8,249,370.4	471,774.1	156,067.0	11,827,308.7	
Share Selection (%)	16.4	16.9	28.1	11.5	17.2	

Source: Own elaboration based on EU-Comext

Table 81: Top EU imports from Mercosur average 2015-18 (in thousands of Euros)

	Argentina	Brazil	Uruguay	Paraguay	Total	EU MFN
Electronic products and other manufactures nec						
853222 Fixed electrical capacitors, aluminium electrolytic	0.0	27,170.8	0.2	0.0	27,171.0	0
940190 Parts of seats, n.e.s.	257.9	5,283.1	6,945.1	378.6	12,864.8	2.5
852990 Parts suitable for use solely or principally with transmission	81.4	11,856.6	15.9	17.0	11,970.9	2.6
710399 Precious and semi-precious stones, worked, whether or not graded	5.8	10,791.3	154.2	-	10,951.3	0
847759 Machinery for moulding or otherwise forming products from rubber ...	0.1	9,901.2	0.2	-	9,901.5	1.7
901832 Tubular metal needles and needles for sutures	0.5	9,010.6	3.5	-	9,014.6	0
846799 Parts of pneumatic tools for working in the hand, hydraulic or with	1,418.7	5,968.8	237.1	166.0	7,790.7	1.7
851680 Electric heating resistors	-	6,751.3	-	-	6,751.3	2
853225 Fixed electrical capacitors, dielectric of paper or plastics	567.6	5,747.9	27.2	13.7	6,356.4	0
844712 Circular knitting machines, with cylinder diameter > 165 mm	1,119.1	4,246.4	531.4	96.8	5,993.7	1.7
<i>Total Selection</i>	<i>3,451.1</i>	<i>96,728.0</i>	<i>7,914.8</i>	<i>672.2</i>	<i>108,766.1</i>	
Total Electronic products and other manufactures	9,010.7	159,597.9	8,738.0	1,285.6	178,632.2	
Share Selection (%)	38.3	60.6	90.6	52.3	60.9	
Machinery						
850152 AC motors, multi-phase, of an output > 750 W but <= 75 kW	18.4	97,076.6	5.9	-	97,100.9	1.5
842951 Self-propelled front-end shovel loaders	-	92,287.8	-	-	92,287.8	0
841290 Parts of non-electrical engines and motors, n.e.s.	34.9	72,337.4	8.3	0.7	72,381.3	1

841330 Fuel, lubricating or cooling medium pumps for internal combustion ...	1,767.4	53,494.0	14.1	0.2	55,275.6	1
848310 Transmission shafts, incl. cam shafts and crank shafts, and cranks	617.1	43,088.1	15.6	-	43,720.8	2
850153 AC motors, multi-phase, of an output > 75 kW	3.5	40,128.8	4.5	-	40,136.8	2.4
841430 Compressors for refrigerating equipment	123.4	32,264.2	1.1	1.4	32,390.2	1.5
842911 Self-propelled bulldozers and angledozers, track laying	-	30,555.3	-	-	30,555.3	0
850300 Parts suitable for use solely or principally with electric motors	17.2	23,646.3	169.1	-	23,832.7	2.7
842920 Self-propelled graders and levellers	-	23,814.0	-	-	23,814.0	0
<i>Total Selection</i>	<i>2,581.8</i>	<i>508,692.5</i>	<i>218.7</i>	<i>2.3</i>	<i>511,495.3</i>	
Total Machinery	75,336.2	1,276,931.9	12,148.8	922.8	1,365,339.7	
Share Selection (%)	3.4	39.8	1.8	0.2	37.5	

Source: Own elaboration based on EU-Comext

Assessing the impact of the agreement*Economic impact*

Economic analysis

This section presents the main results of the CGE analysis in relation to machinery and electronic equipment and manufactures nec. The analysis is based on outlining two scenarios. In the conservative and the ambitious scenario, the EU eliminates tariffs duties in both sectors. Mercosur liberalises 90% of the both machinery and electronic products in the conservative scenario whilst eliminates duties in all products in the ambitious scenario. Moreover, in the case of Mercosur, there is reduction of NTBs of 5% and 10% in the conservative and ambitious scenarios, respectively.

Table 82 presents the main direct impact of the simulations. Even in the conservative scenario, the impact of the agreement in EU exports is important. Machinery exports will increase by 78% and exports of electronic equipment and manufactures nec by 109%. The complete elimination of duties and further reduction of NTBs on the Mercosur side in the ambitious scenario will make EU exports of machinery to increase by 100% and of electronic equipment and manufactures nec by almost 149%. The fact that these products (especially machinery) represent significant shares of the EU exports to the Mercosur suggest that they account for most of the impact in the total effect of the EU exports to Mercosur.

In terms of EU imports, the low tariffs applied in the products under analysis anticipates lower impacts. In the conservative scenario, EU imports from Mercosur of machinery will grow by 17% and imports of electronic equipment and manufactures nec by 15%. In the conservative scenario, on the other hand, imports of machinery from Mercosur will increase by 24% and imports of electronic equipment and manufacture nec by almost 22%. Despite the low impacts, these products (especially machinery) represent a relatively large share of the EU imports from Mercosur, which indicates that the total impact is not negligible.

Table 82: EU-Mercosur bilateral trade changes in the machinery and electronic equipment and manufactures nec (percentage change with respect to baseline)

	EU imports from Mercosur	EU exports to Mercosur
Conservative scenario		
Machinery	17.3	78.4
Electronic equipment and manufactures nec	15.7	109.3
Ambitious scenario		
Machinery	24	100.5
Electronic equipment and manufactures nec	21.6	148.7

The changes in bilateral trade trigger output and total trade effects in all countries. Table 83 shows the main results. In the EU, in the conservative scenario, output of machinery will grow by 0.4% and of electronic equipment will contract by 0.3%. In the ambitious scenario, output will increase by 0.5% in machinery and it will contract by 0.4% in electronic equipment and manufactures nec.

In Mercosur, output of machinery in the conservative scenario will contract by 3.8% and 1.9% in Brazil and Argentina (the most important producers). However, output of electronic equipment and manufactures nec will expand by 1.6% and 2.1% in Brazil and Argentina respectively. The effects are amplified in the ambitious scenario. Output of machinery will fall by 5.1% and 2.9%

in Brazil and Argentina and it will increase by 2.2% and 2.7% in the case of electronic equipment and manufactures nec.

Total exports of machinery and electronic equipment in the EU are expected to increase by 1.3% and decrease by 0.1%, respectively in the conservative scenario. In the ambitious scenario, exports of machinery will expand by 1.7% and exports of electronic equipment will remain constant.

In Mercosur, total exports of machinery are expected to expand by 12% in Brazil and by 1.5% in Argentina in the conservative scenario. Exports of electronic equipment will expand by 14% and 9% in Brazil and Argentina, respectively. In the ambitious scenario, total exports of machinery will expand by 16.4% in Brazil and 2.6% in Argentina. Exports of electronic equipment will expand by 20% and 13% in Brazil and Argentina, respectively.

All these results suggest a very mixed picture of the effects of the agreement beyond the increases of bilateral trade. They also suggest a quite complex structure of productive and trade relations in the Mercosur and the EU. In the case of Mercosur, even if EU tariffs reductions are not significantly, Mercosur tariffs reduction is likely to have significant competitiveness effects that will facilitate the expansion of exports. Cheaper inputs, intermediates and machinery are likely to boost exports. Within each sector, it is expected an heterogeneous effect with some firms contracting their output whilst other expand it. However, the effect on output is, on machinery, negative on the aggregate.

Table 83: Output and total trade changes in the machinery and electronic equipment and manufactures nec (percentage change with respect to baseline)

		EU28	Brazil	Argentina	Uruguay	Paraguay
Conservative scenario						
Machinery	Output	0.4	-3.8	-1.9	-1	-3.2
	Total exports	1.3	12	1.5	-3.8	-11.8
	Total imports	1.6	4.1	1.6	0.7	-0.2
Electronic equipment and manufactures nec	Output	-0.3	1.6	2.1	1.6	0.4
	Total exports	-0.1	14.4	9.4	6.2	-0.5
	Total imports	0.8	-3.6	-1.2	-0.3	-0.1
Ambitious scenario						
Machinery	Output	0.5	-5.1	-2.9	-1.4	-4.5
	Total exports	1.7	16.5	2.6	-6.6	-14.9
	Total imports	1.6	4.1	1.6	0.7	-0.2
Electronic equipment and manufactures nec	Output	-0.4	2.2	2.7	1.8	0.8
	Total exports	0	20.4	13.1	7	0
	Total imports	1	-5	-1.9	0	-0.2

Technical norms

In the EU, safety of machinery is legislated at the product level, while in Brazil (and to the extent they have legislation, in the other Mercosur countries), it is regulated as part of workplace safety legislation. So there is no regulation at the product level, only at the point when it is installed and put into service. Much EU machinery legislation is subject to Self-Declaration of Conformity by the manufacturer (SDoC). If the MCS producer uses EU harmonised standards to build the product, there is a presumption of conformity with the technical regulations. However, sometimes certain tests need to be done in accredited labs. These can be sub-contracted to local labs if they have a contractual relationship with an EU notified body. However, this option is not available in all cases. Thus, there is an additional cost associated with access to the EU market that does not necessarily apply to the Mercosur market in the same way.

Government procurement

The agreement will facilitate the participation of European firms in Mercosur countries' tendering process. As none of the Mercosur countries are member of the WTO Government Procurement Agreement, currently non-Mercosur companies enjoy no legal rights to participate to Government procurement processes. The agreement could allow EU producers and traders of machinery to compete for contracts in Mercosur countries under non-discriminatory terms with Nationals in Mercosur countries. Similarly, Mercosur companies will acquire the legal right to bid for EU contracts under non-discriminatory terms.

Social impact

The economic effect may lead to social impacts. Changes in household income and prices are likely to affect poverty levels. In the case of prices, given that machinery and electronic equipment are not consumed by households, we should not expect significant changes in consumer prices that can affect poverty. However, the changes in output may trigger changes in employment that could affect the income of the people directly employed in these sectors.

In Mercosur, there is more mixed picture. In the machinery sector, employment is expected to fall in all countries. For unskilled labour, employment will fall by 4.1% and 2.1% in Brazil and Argentina respectively, in the conservative scenario and it will fall by 5.5% and 3.2% in the ambitious scenario. For skilled labour, employment will fall by 4.1% in Brazil and 2% in Argentina.

Employment is expected to expand in the case of electronic equipment in Mercosur. In the case of unskilled labour, employment will increase by 1.2% and 1.4% in the conservative scenario in Brazil and Argentina, respectively. In the ambitious scenario, unskilled employment will increase by 1.7% and 1.8% in the two countries. Skilled labour will register a similar increase in Mercosur.

Table 84 presents the impact on employment in the EU and Mercosur countries. In the case of the EU, employment of unskilled labour is expected to rise in the machinery sector by 0.3%/0.4% in the conservative/ambitious scenario. On the other hand, in the case of the electronic equipment sector, employment of unskilled labour will contract by 0.4%/0.5% in the conservative/ambitious scenario. The skilled labour is expected to behave in similar way.

In Mercosur, there is more mixed picture. In the machinery sector, employment is expected to fall in all countries. For unskilled labour, employment will fall by 4.1% and 2.1% in Brazil and Argentina respectively, in the conservative scenario and it will fall by 5.5% and 3.2% in the ambitious scenario. For skilled labour, employment will fall by 4.1% in Brazil and 2% in Argentina.

Employment is expected to expand in the case of electronic equipment in Mercosur. In the case of unskilled labour, employment will increase by 1.2% and 1.4% in the conservative scenario in Brazil and Argentina, respectively. In the ambitious scenario, unskilled employment will increase by 1.7% and 1.8% in the two countries. Skilled labour will register a similar increase in Mercosur.

Table 84. Labour demand changes in the machinery and electronic equipment and manufactures nec (percentage change with respect to baseline)

	EU 28	Brazil	Argentina	Uruguay	Paraguay
Unskilled Employment					
<i>Conservative scenario</i>					
Machinery	0.3	-4.1	-2.1	-1.5	-3.3
Electronic equipment and other manufacture	-0.4	1.2	1.4	1	0.3
<i>Ambitious scenario</i>					
Machinery	0.5	-5.5	-3.2	-2.3	-4.7
Electronic equipment and other manufacture	-0.5	1.7	1.8	0.9	0.7
Skilled Employment					
<i>Conservative scenario</i>					
Machinery	0.4	-4.1	-2	-1.2	-3.2
Electronic equipment and other manufacture	-0.4	1.2	1.5	1.3	0.5
<i>Ambitious scenario</i>					
Machinery	0.5	-5.5	-3	-1.7	-4.5
Electronic equipment and other manufacture	-0.5	1.7	2	1.5	0.9

This suggests a very mixed picture. It is possible that some workers employed in contracting firm may be reallocated to one expanding. This is possible as it is likely that both sectors, machinery and electronic equipment, may share similar technical needs. Therefore, workers from contracting machinery sector in Mercosur, for example, may reallocate into the expanding electronic equipment. This is more likely to occur within the unskilled workers rather than the skilled ones. This possible movement is likely to reduce the general effect of employment in both sectors. The final effect depends on the relative sizes between both sectors and their respective labour intensity. Based on the value of their total exports, the expanding sector (I.e. electronic equipment) is smaller than the contracting one. Therefore, the absorption effect on redundant staff is likely to be limited.

Environment and human rights impact

We could not identify clear implications human rights impact associated to the implementation of the agreement in this sector. In terms of environment, the potential harmonisation of technical norms, many of which related environmental standards, may imply the agreement to have a positive impact on the environment in the long term. However, this will strictly depend on whether norms are effectively harmonised for local production. The experience in Mercosur is that processes are really long. For example, Argentina and Brazil, despite Mercosur trade agreements, do not yet share common standards.

Impact on SMEs

Both sectors are very heterogeneous in terms of firm size. In the case of the EU, there are significant global players and SMEs in both sectors. The same can be said about Mercosur with many firms, particularly the largest, owned by European companies. However, productivity is the main differences between firms on both trading partners.

In Argentina SMEs represent a large share of employment in Machinery and Equipment and Electrical Equipment, respectively 56% and 52% in 2011. In Brazil, the share of SMEs is 42% in Machinery and Equipment and 16% in Electrical Equipment. In the EU, instead the share is lower: 24% for Machinery and Equipment and 18% for Electrical Equipment

In the EU, SMEs are quite used to face foreign competition which has facilitated their increase in productivity and competitiveness. This put them in a quite advantageous position, relatively to the larger firms who are more used to compete globally, to take advantage of the agreement. The reduction of Mercosur tariffs will increase further the competitiveness in this market, and it may facilitate the beginning of exports of other SMEs into Mercosur.

In Mercosur, the situation is different. There is a high degree of heterogeneity among SMEs. Some may be competitive enough to take advantage of a small reduction in EU tariffs. Existing SMEs, which are already meeting EU technical standards, are likely to be the main beneficiaries. However, the large majority of SMEs in Mercosur are not productive and competitive enough to meet EU technical standards and benefit from the agreement. Moreover, many of them rely on the Mercosur tariff protection. Consequently, it is likely that SMEs in the Mercosur's machinery sector, as a whole, are going to be negatively impacted by the agreement. At the same time, the reduction of tariffs in Mercosur will facilitate the increase in productivity and competitiveness of SMEs by reducing the prices of inputs, intermediates and capital goods.

Impact on Consumers

Since the majority of products in machinery and electronic equipment are within capital goods and inputs, the agreement may only indirectly affect consumers; it will depend on market structure downstream, subsidies and value chain integration. The direct effect of the Agreement on consumer goods is expected to be marginal for these sectors.

Impact on LDCs and OMRs

Export of machinery and equipment from LDCs and OMRs to the EU are marginal. No effect on the agreement between EU-Mercosur could be anticipated here.

Policy Recommendations

- **Mercosur members should put in place appropriate welfare measures to counter the potential negative social effects.** This includes social protection measures (social safety nets) to counterbalance the potential changes in production of machinery, which could increase economic concentration and inequality. This could also mean introduce programmes to accelerate job creation in other sectors for those who may be losing their jobs due to increased concentration of production.
- **Mercosur members should aim to facilitate the transition of workers from the machinery into the electronic equipment sector.** This will facilitate the absorption of workers with compatible skills from the machinery contracting sector into the expanding electronic equipment.
- **Mercosur members should facilitate the adoption, compliance and certification of EU technical standards.** This should include programmes for SMEs aimed to increase the number of exporters that can benefit from the agreement.
- **Mercosur members should negotiate a gradual implementation of the tariffs reductions.** This should provide additional time for firms to accommodate and adjust.
- **Both parties should work in increase the number of local accredited labs and testing facilities in Mercosur to certify EU standards.** The establishment of partnerships with similar institutions in the EU, should facilitate the certification of Mercosur standards by EU exporters as well.

6.4.4. Motor Vehicle Sector

Sector overview*Relevance of the automotive industry*

The motor vehicle sector plays a key role for the European region as well as in Argentina and Brazil, while its size is negligible in Paraguay and Uruguay. This determines the focus of our analysis on Argentina and Brazil. The share of the automotive industry in the manufacturing value added averaged, between 2010 and 2016, 4.9% in Argentina, 10.2% in Brazil, and 9.9% in EU-28. Similarly, the participation in the manufacturing employment was relatively high, as it reached an average of 6.6% in Argentina, 4.1% in Brazil, and 7.3% in the EU.

The recent evolution of the automotive industry in the two regions has contrasted in the last few years: whereas Europe recovered from the drop suffered during the global economic crisis, in 2009, the sector experienced a significant drop in Argentina and Brazil as a result of a contraction in the economic activity. This situation has unveiled some structural weaknesses of the automotive sector in these two countries.

In regards to the auto parts segment, in 2016, in Brazil it registered revenues of BRL 63.1bn (estimated) – equivalent to Euros 13bn. This value was distributed as follows: carmakers operating in the domestic market 57.5% of the total; aftermarket 23.7%; exports 12.9%; and intra-industry, 5.9%²²⁹. The trade balance of the segment reported a deficit of Euros 3.8bn. As a result of the contraction in domestic vehicle demand, the auto parts segment experienced a

²²⁹ See *Sindipecas Abipeças*: <http://www.virapagina.com.br/sindipecas2017/index.html>

sharp drop in the last few years. In regards to employment, total jobs fell from 229,700 in 2011 to 162,200 persons, in 2016 –an accumulated drop of 29.4%. Idle capacity levels reached 34.9% in 2016 – up from 26.1% in 2015. Investment levels in the sector totalled, in 2016, Euros 325mn – down from Euros 864mn in 2014 and Euros 411mn in 2015. According to SINDIPEÇAS and ABIPEÇAS, there are 590 auto part firms in Brazil (excluding units with less than 15 employees).

In the case of Argentina, according to the Observatory of Employment and Business Dynamics (OEDE), the auto part sector registered 39,735 employees in 2016, down from 47,263 in 2011 (a fall of 15.9%), and 1,217 firms in 2015 – down from 1,237 in 2014.

The dimension of the auto parts sector in Europe is not only much bigger than that in Mercosur countries, but also showed an expanding trend. According to Eurostat, the EU auto part industry registered 10,200 firms in 2015. The major contributors were firms with less than 10 employees which reported a share of 56% of total firms. The remaining groups were firms with employees between 10 and 19 persons (9.2%), firms with employees between 20 and 49 persons (9.5%), firms with employees between 50 and 249 persons (15.1%) and firms with more than 250 employees (10.2%). The auto part industry employed 1,200,328 persons. This represents a growth of 11.6% compared to 2011, when the sector employed 1,060,900 people.

Automotive normative frame

Despite the liberalising reforms adopted in the 1990s and the advance towards the creation of a customs union in the region, both Argentina and Brazil established a special scheme to regulate bilateral vehicle trade flows. The two countries maintained their autonomy to adopt domestic policies, but they agreed on some common rules.

In 2000, the two countries defined a schedule to establish a CET on motor vehicles, fixed at a level of 35% – which is the maximum bound tariff for industrial products agreed on by the two countries at the World Trade Organization. In the case of auto parts, a schedule covering the period 2001-2006 was set by each country, establishing the tariff scale to be applied to different types of products. At the end of the period, tariffs in Argentina and Brazil converged to 14-18%. The auto parts that were not produced in Mercosur and were imported from non-member countries were charged with a tariff of 2%. The level of 35% is high in relation to high-income countries – including the EU-28 – but, as can be seen in the figures below, it is comparable to that applied by other developing countries. It is also interesting to notice, from the figures below, that the EU-28 has relatively high tariffs compared to other high-income countries.

Table 85: Applied tariffs in the automotive industry (selected countries, %, 2016)

Country/Region	Harmonised System Code			
	Motor Vehicles for Public Transport	Motor Vehicles for Person Transportation	Motor Vehicles for Goods Transportation	Auto Parts
Argentina	31.3	33.3	31.0	15.4
Brazil	35.0	35.0	31.0	15.4
EU-28	12.3	9.8	12.1	3.8

Source: WTO

In the case of Mercosur, Argentina and Brazil have so far opted for regulating intra-regional trade flows. The intention has been that of favouring the integration of the industry in the two

countries, whereas, at the same time, avoiding large imbalances that could jeopardise the survival of domestic producers.

The foundation of the current normative frame (ACE N°14 – Protocolo 42) was established in 2001, and since then has been regularly renegotiated by the two countries. The basic rule is the 'export deviation coefficient' (the so-called 'flex' index). The 'flex' index is a ratio between the value of exports and imports that cannot be exceeded by any of the signing countries. The value of the flex index changed over the years. Currently, it is set at a level of 1.50 (from July 2019 it was raised to 1.70). The flex index is monitored at industry level. However, when global bilateral trade goes beyond the established limits the foreign trade balance sheets of individual companies are examined. Those firms exceeding the limits of the flex rule are charged with a tariff equivalent to 70-75% of the current tariff.

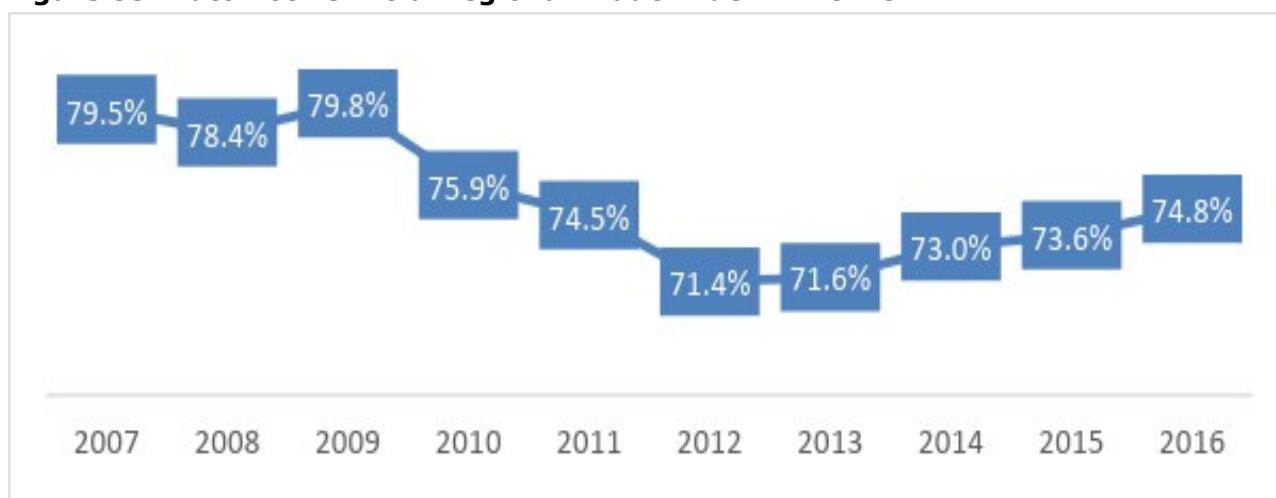
In order to be able to be freely traded between Argentina and Brazil (within the limits of the flex), products have to comply with a regional rule of origin requirement that applies to vehicles, systems and sub-systems. The regional content rule is defined by the following formula that set a limit of 40% to extra-region content:

$$1 - \text{value of the auto parts imported from non-member countries CIF Ex works value of the good before taxes} \leq 60\%$$

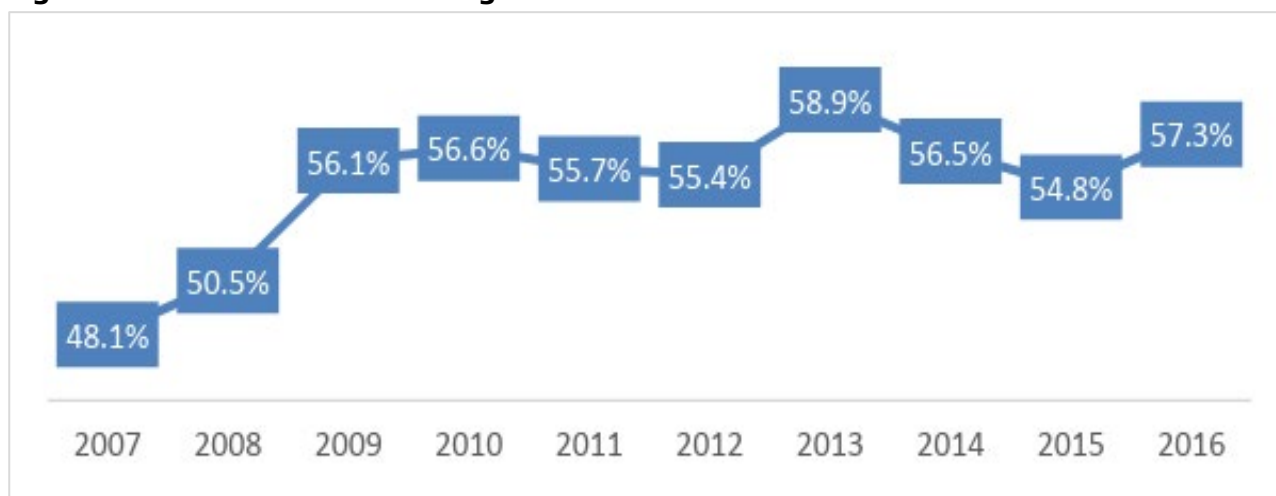
The current scheme was agreed to be in force until 2020, when motor vehicle trade is expected to be fully liberalised within Mercosur. It should be highlighted, however, that the establishment of free trade has been systematically postponed since 1998, which was supposed to be the first deadline for the establishment of a common automotive market.

The regulatory environment and the business strategies adopted by largest carmakers favoured the configuration of 'regional automotive spaces' (Carrillo et al., 2004; Jullien and Lung, 2011; Sturgeon et al., 2009), in Mercosur and the EU, as reflected by the intra-regional trade flows of major vehicle producers.

Figure 85: Automotive Intra-Regional Trade Index in EU-28



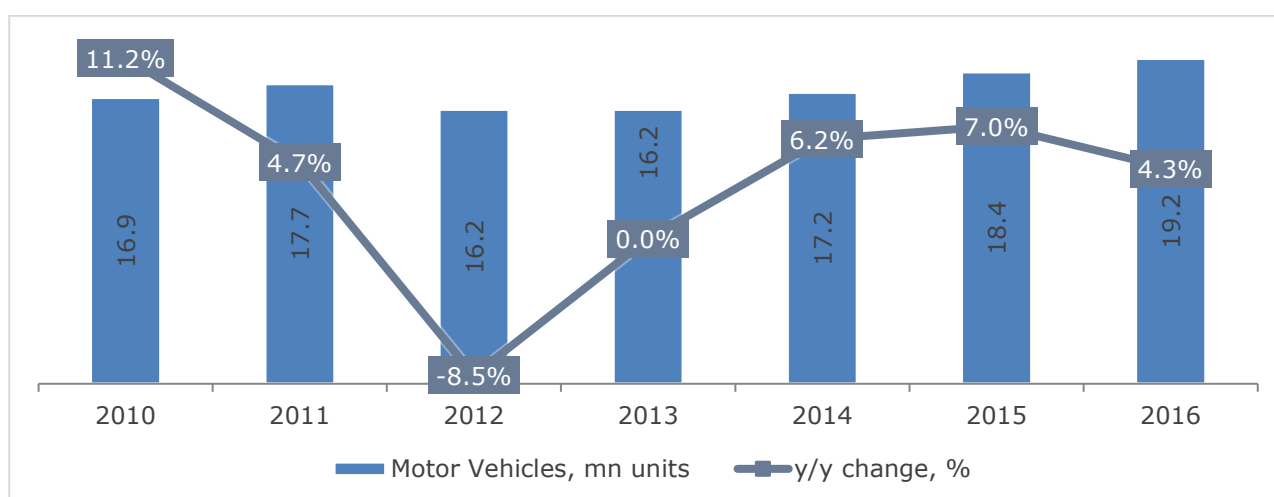
Source: EuroStat. Note: The intra-regional trade index is defined as the ratio of intra-regional automotive exports and imports over total automotive exports and imports. HS Codes: 8702, 8703, 8704, 8708.

Figure 86: Automotive Intra-Regional Trade Index in Mercosur

Source: UN Comtrade. Note: The intra-regional trade index is defined as the ratio of intra-regional automotive exports and imports over total automotive exports and imports. HS Codes: 8702, 8703, 8704, 8708.

Production and sales

The EU-28 is, after China, the largest manufacturer of vehicles in the world. Motor vehicle production in the EU-28 expanded at a compound annual growth rate (CAGR) of 2.1% over the period 2010-2016 reaching an output of 19.2mn units and an annual growth of 4.3% in 2016. Although it has been a dynamic performance, other major motor vehicle manufacturers outgrew EU-28 over the period 2010-2016. The most dynamic motor vehicle manufacturer was the United States with a CAGR of 7.9%, followed by China (7.5%) and Mexico (7.4%). On the other hand, other major producers such as Japan and South Korea reported average an annual fall of 0.7% and 0.2%, respectively.

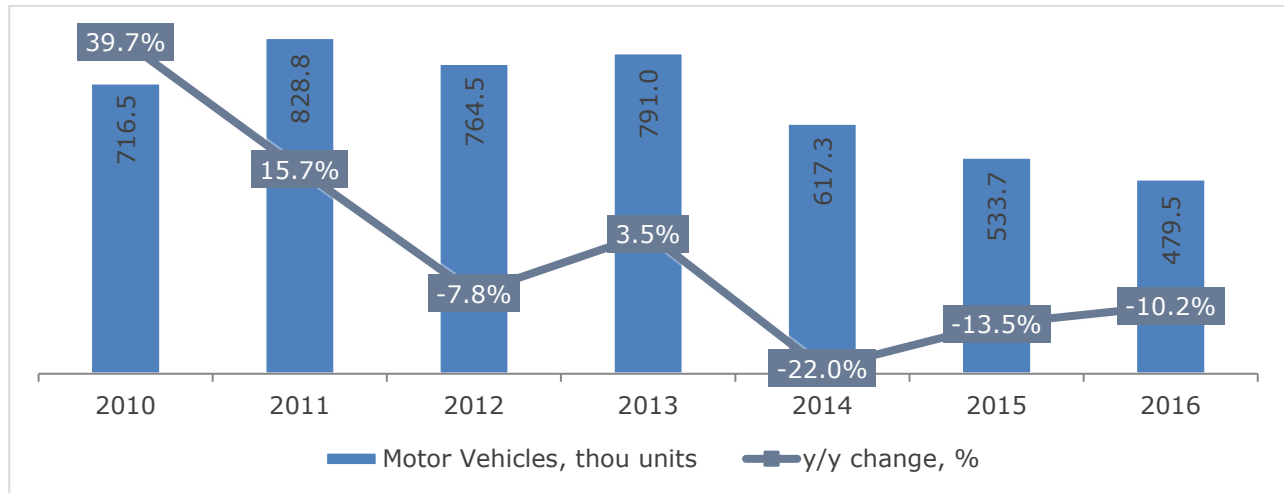
Figure 87: EU-28 - Motor Vehicle Production

Source: ACEA

In contrast with the performance of EU-28, the importance of Mercosur as a motor vehicle production centre declined substantially between 2013 and 2016 as output fell from 4.5mn units to 2.6mn. This was mainly due to an economic deceleration in the region, particularly in Brazil and Argentina. The former is the largest producer in Mercosur and the tenth largest car manufacturer in the world. Brazilian motor vehicle output fell at an annual average rate of 16.8% over 2013-2016 and, as a result, the country lost positions in the world ranking – in 2013 Brazil was the seventh world's largest producer. Argentina showed a similar evolution as output

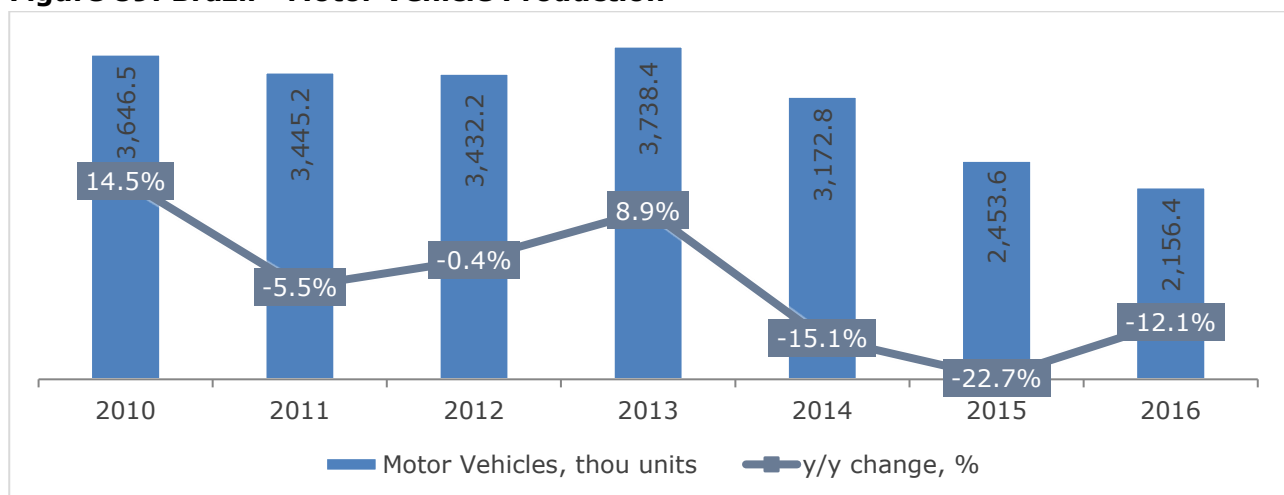
registered an annual average fall of 15.4% over 2013-2016, albeit its position in the world ranking is less important, as it occupies the 26th position.

Figure 88: Argentina - Motor Vehicle Production



Source: ADEFA

Figure 89: Brazil - Motor Vehicle Production

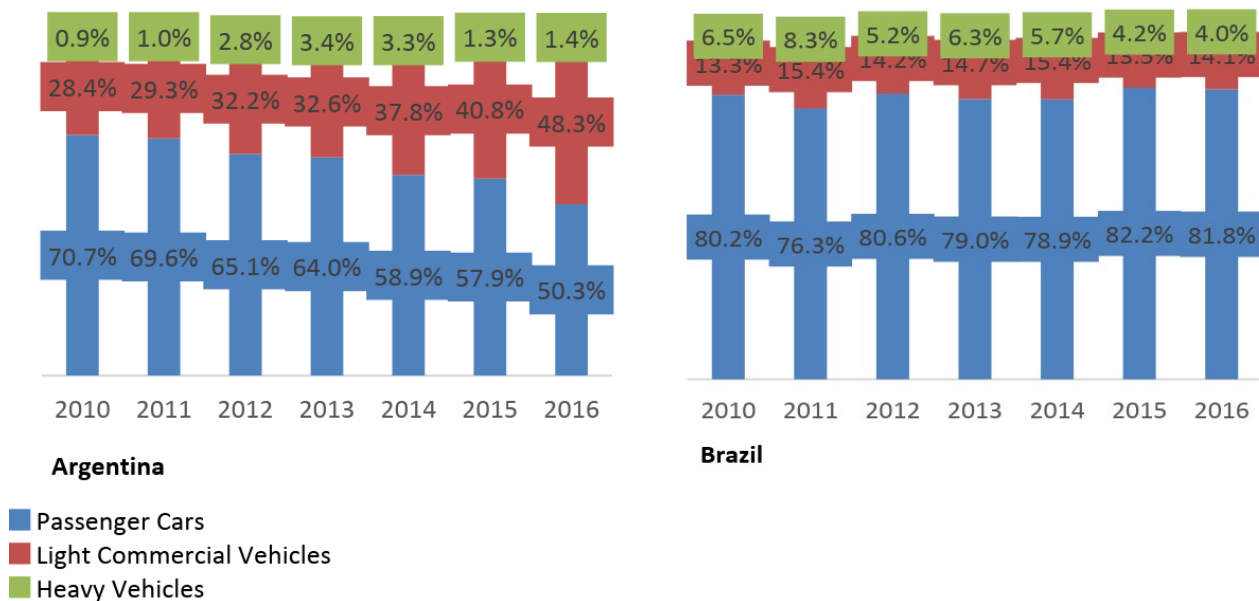


Source: ANFAVEA

An important feature of the Argentinean and Brazilian motor vehicle industry is the relevance of vehicle manufacturers of European origin. In Argentina, there are 10 manufacturing plants from which six are European: Volkswagen, Renault, Peugeot-Citroen, FCA, Mercedes-Benz and Iveco. The first four companies represented 46.4% of total production in 2016. In Brazil, 13 European companies have manufacturing facilities in the country: FCA, Volkswagen, Renault, Peugeot-Citroen, MAN, Scania, Volvo, DAF, Audi, BMW, Iveco, Jaguar Land Rover, and Mercedes-Benz. The first eight companies had a combined share of 47.8% in 2016.

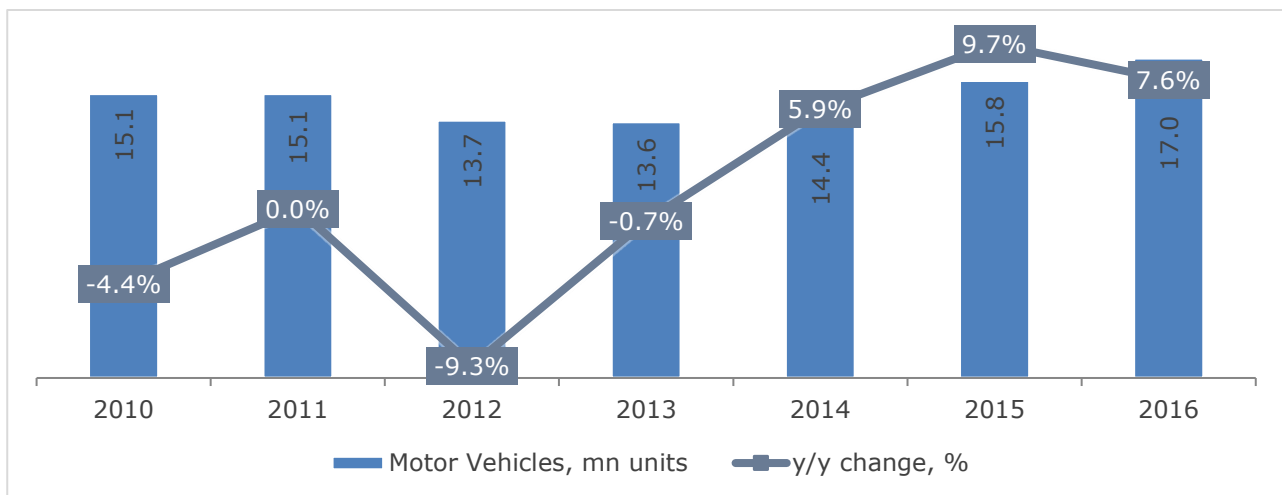
Over the period 2010-2016, motor vehicle registrations in EU-28 grew at a CAGR of 2%. However, the growth rate accelerated in the last years reporting a CAGR of 7.7% over 2013-2016. In line with this, new registrations grew 7.6% y/y reaching 17mn units sold in 2016. Moreover, EU-28 outgrew most of the largest motor vehicle markets in the world over 2013-2016 as India reported a CAGR of 4.2%, followed by the United States (4%), Canada (3.7%) and Japan (-2.6%). The only major vehicle market that overcame the growth rate of EU-28 was China with a CAGR of 8.4%.

Figure 90: Motor Vehicle Production by Type



Source: ADEFA, ANFAVEA

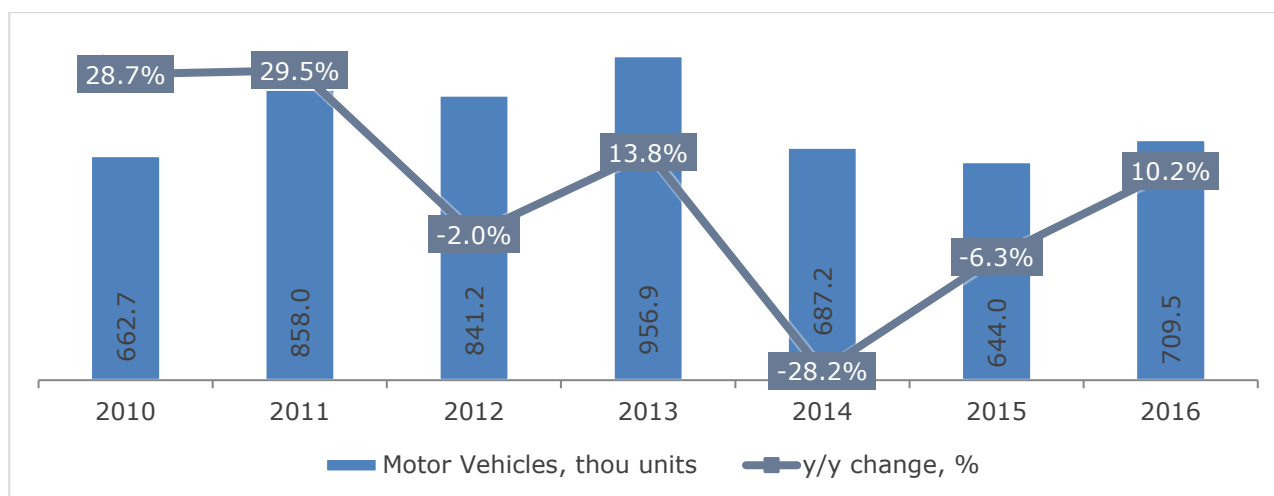
Figure 91: EU-28 - Motor Vehicle Registrations



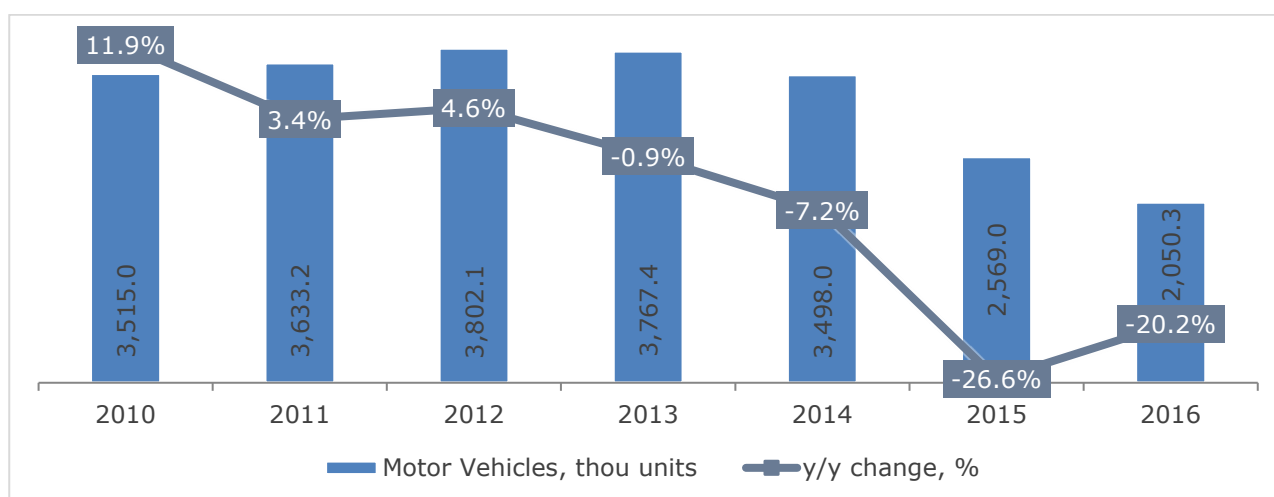
Source: ACEA

The performance of motor vehicle sales in Mercosur showed the same negative performance as production, as a result of the contraction in purchasing power caused by economic recession. In 2013, the region had reached a record high in sales with 4.8mn registered. From then, the annual average fall over 2013-2016 stood at 16.2%. In 2016, new registrations reached 2.8mn.

At international level, the Brazilian motor vehicle market lost positions among the largest markets in the world – down from 4th in 2014 to 8th in 2016 – Brazilian new motor vehicle registrations fell at an annual average rate of 14.3% between 2012 and 2016. Similarly, Argentina's motor vehicle market fell at an annual average rate of 9.5% over 2013-2016, however, in 2016 the local market showed the first signs of recovery with an annual increase of 9.5%. In this recovery, the contribution of Brazilian imports has been a critical issue as intra-regional trade is still the main import source. Moreover, the Brazilian market also shows the first signs of rebound over 2017 which will become an import growth driver for Argentinean exports.

Figure 92: Argentina - Motor Vehicle Sales

Source: ACARA

Figure 93: Brazil - Motor Vehicle Sales

Source: ANFAVEA

European brands are important players in the domestic markets of Mercosur countries. In Argentina, they had a market share of 56.5% with six brands (Volkswagen, Renault, FCA, Peugeot, Citroën and Mercedes-Benz) among the top 10. In Brazil, the share of European brands scaled to 41.2% in 2016. The Uruguayan motor vehicle market also was dominated by European companies that accounted for 42.7% of domestic sales with FCA, Volkswagen, Renault and Peugeot among the top 10 sellers. Finally, the contribution of European carmakers in Paraguay is the lowest among Mercosur members with a share of 13.9% - Volkswagen was the only European brand among the top 10.

External Trade

In 2016, commercial exchange of EU with non-EU countries was an important source of value for European and foreign carmakers, where exports to non-EU countries reached a value of EUR 135.9bn in 2016, and imports from non-EU countries registered a value of EUR 46.2bn. However, over the period 2010-2016, imports performed better than exports as import value grew at a CAGR of 20.7% while export value grew at a CAGR of 3.8%.

Figure 94: EU-28 External Trade in Motor Vehicles (excluding intra-regional trade), EUR mn

Source: EuroStat. Note: HS Codes: 8702, 8703, 8704. Exports (FOB), Imports (CIF).

In 2016, the main import source of EU-28 was Turkey with a share of 25.9%, followed by Japan (20%), United States (16.1%), South Korea (10.5%) and South Africa (7.8%). Concerning exports, the United States was the main export destination with a share of 28.4%. The top 5 was completed by China (14.7%), Turkey (6.4%), Switzerland (6.1%) and Japan (5.4%).

Automotive trade of Mercosur with non-Mercosur countries show a chronic deficit which, however, showed a declining trend from 2011. The import value of motor vehicles from non-Mercosur countries fell at an annual average rate of 18% over 2011-2016 (this last year, the fall reached 30.6%), reflecting the negative effects of economic deceleration in Argentina and Brazil on vehicle demand. On the other hand, exports registered a declining trend over 2010-2014 – an average annual fall of 6.6% –, followed by a positive performance in 2015 (26.5%) and 2016 (23.8%).

Figure 95: Mercosur - External Trade in Motor Vehicles (excluding intra-regional trade), EUR mn

Source: UN Comtrade. Note: HS Codes: 8702, 8703, 8704. Exports (FOB), Imports (CIF). Data retrieved in USD. Conversion rate: EUR/USD exchange rate, period-end.

In 2016, the main export destination of Mercosur was Mexico with a share of 24.3%, followed by United States (15.3%), Chile (14.8%), Colombia (8.8%) and Peru (8.5%). The EU-28 was the second largest import sources, with a share of 24.5%, after Mexico with 37.2%. The top-5 was completed with South Korea (11.5%), Japan (10%) and United States (5.9%).

Commercial relationships of EU with non-EU countries in auto parts showed a sustained trade surplus, which averaged EUR 20.9bn over 2010-2016. After a peak of EUR 24bn in 2013, trade surplus initiated a declining trend, mostly in 2015 (-13.2% y/y), reaching a value of EUR 20bn in 2016. This was mainly due to an increasing growth in imports which reported a CAGR of 8.5% over 2010-2016, while exports grew at a CAGR of 5.6%.

Figure 96: EU-28 External Trade in Auto Parts (excl. intra-regional trade), EUR mn



Source: EuroStat. Note: HS Code: 8708. Exports (FOB), Imports (CIF).

By contrast, Mercosur was a net importer of auto parts over the period 2010-2016. In Argentina, trade deficit in auto parts stabilised around EUR 5.7bn between 2012 and 2016. In a context of an overall contraction of the automotive industry, auto parts imports fell at an annual average rate of 3.6% over 2011-2016. However, this fall was not as sharp as in the case of vehicles –to some extent, because a portion of the imports corresponds to spare parts serving the after-sale market. In regards to exports, they fell at an annual average rate of 3.9% over 2010-2016. The relatively low competitiveness of the auto part industry limits the range of export destination markets which are focused on Brazil with the exception of certain sub-sectors that are competitive and oriented more towards world markets such as gear boxes.

Figure 97: Argentina, External & intra-regional Trade in Auto Parts, EUR mn

Source: AFAC. Note: Exports (FOB), Imports (CIF). Data retrieved in USD. Conversion rate: EUR/USD exchange rate, period-end.

Brazil was also a net importer of auto parts over 2010-2016 with a peak of EUR 7.4bn in 2014. However, the contraction of the automotive industry resulted in a reduction of the deficit to EUR 5bn in 2016. This was mainly explained by a drop in imports in 2015 (-15.4% y/y) and 2016 (-7.2% y/y). Exports also had a bad performance as they fell at an annual average rate of 6.8% between 2011 and 2016.

Figure 98: Brazil - External Trade in Auto Parts,* EUR mn

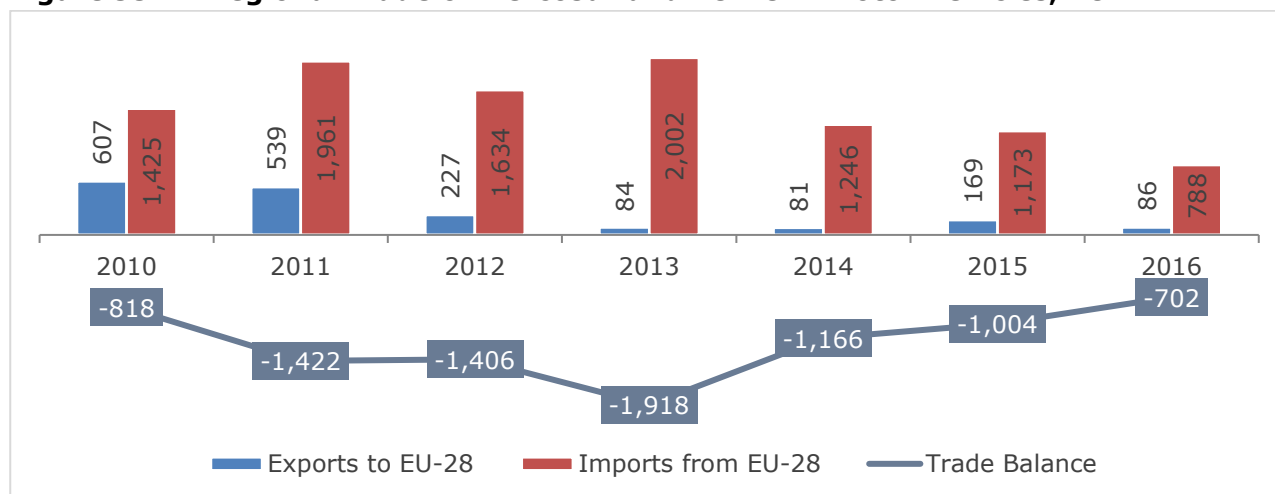
Source: SINDIPECAS. Note: Exports (FOB), Imports (CIF). Data retrieved in USD. Conversion rate: EUR/USD exchange rate, period-end.

Bi-regional trade Mercosur-European Union

The EU is a net exporter of motor vehicles to Mercosur, which reflects the notable differences in terms of competitiveness conditions between the two regions. In the last few years, the magnitude of the gap narrowed from EUR 1.9bn, in 2013, to EUR 702.3mn, in 2016, as imports shrunk in Argentina and Brazil. Exports from Mercosur to EU also registered a declining trend – down from EUR 607mn in 2010 to EUR 86mn in 2016. This was a result of the increasing importance of intra-regional exports over 2010-2013, and the difficulties of exporting to

European markets since 2014 since the global importance of Europe as an automotive production hub shows trends towards decline.²³⁰

Figure 99: Bi-regional Trade of Mercosur and EU-28 in Motor Vehicles, EUR mn



Source: EuroStat. Note: HS Codes: 8702, 8703, 8704. Exports (FOB), Imports (CIF).

In terms of market participation, the relationship between the two regions is largely asymmetric and showed a declining trend between 2010 and 2016. On the one hand, Mercosur had a marginal participation in EU-28 extra regional trade over the period 2010-2016: the share of Mercosur in EU-28 exports fell from 1.7%, in 2010, to 0.6%, in 2016. Similarly, EU-28 imports from Mercosur represented only 0.2% of total imports – down from 2.3% in 2010. On the other hand, the EU-28 accounted for 2.8% of Mercosur extra-regional motor vehicle exports, which represents a sharp fall compared to the 23.5% reached in 2010, and 24.5% extra-regional imports – down from 25% in 2010.

The EU-28 is a large net exporter of auto parts to Argentina and Brazil. In 2016, Argentina exported auto parts to EU-28 for a value of EUR 218.3mn in 2016, representing 15.3% of total auto part exports – Brazil, Argentina's largest trade partner accounted for 58.6%. On the other hand, auto part imports from the EU-28 reached a value of EUR 1.7bn in 2016 with a share of 24.1% of total auto part imports – Brazil was the main import source with 37.1%. As a result, the trade deficit with the EU-28 was of EUR 1.5bn with EU-28 in 2016.

Brazil's auto part exports to EU-28, including all European countries, reached a value of EUR 1.5bn in 2016. This represented 24.1% of total auto part exports, revealing the importance of the European market for Brazilian exports. The main export destinations were South America with 39.5% – Argentina is the main individual partner with 28.1% – and North America with 26.2%. Europe was the second largest import source of Brazil with a value of EUR 3.9bn and a share of 34.7% of total imports. South America represented only 8.2%; Argentina had a share of 6.2%.

As observed in the case of motor vehicles, the relationship between the two regions is highly asymmetric. However, the importance of Mercosur in the EU trade basket is higher in the auto parts segment as is the importance of the European market as a destination for Mercosur exports. European auto part exports to Mercosur represented 5.6% of EU-28 extra-regional exports,

²³⁰ See Copenhagen Economics, 2014. *The impact of trade liberalisation on the EU automotive industry: trends and prospects*. https://trade.ec.europa.eu/doclib/docs/2016/march/tradoc_154340.pdf.

whereas imports from Mercosur had a share of 1.6% of EU-28 extra-regional imports. However, it should be noticed that both indicators registered a declining trend over the period 2010-2016, suggesting a progressive substitution of the South American for other trade partners. On the other hand, in 2016, Mercosur auto part exports to EU-28 represented 35.4% of Mercosur extra-regional exports, while imports from EU-28 had a share of 36.8% of Mercosur extra-regional imports.

Environmentally-friendly vehicles

Some of the issues that dominate the innovation agenda have been settled by the growing concerns about climate change, which pushed manufacturers to develop new technologies that contribute to reduce pollution levels and improve energy efficiency. With this purpose, carmakers have, for instance, developed electric and hybrid cars, made efforts to downsize vehicle engines, developed supercharging technologies, and introduced aerodynamic improvements.

Although neither the EU nor the Mercosur are currently major producers of electric vehicles, the EU has already adopted policies to advance in this direction. The EU has recently adopted ambitious targets for CO₂ emissions for passengers' cars. By 2030, EU fleet-wide emissions for new cars will have to be reduced by 37.5%. Some countries already announced its intention to ban petrol and diesel vehicles within the next two decades (for instance, France and the United Kingdom in 2040, the Netherlands and Germany in 2030) and put in place policies and incentives to increase the share of e-vehicles in their vehicle fleet.

In contrast with the current trend in high-income countries, as well as in some developing countries which also enacted policies oriented to foster the domestic production of vehicles with cleaner technologies, such as Thailand and Indonesia, Argentina and Brazil are lagging behind with regards to these new developments. It has been only recently that both countries have adopted some measures to promote the use of environmentally-friendly vehicles.

The Brazilian government enacted some policies to incentivise the use of environmentally-friendly vehicles. In September 2014, the Ministry of Development, Industry and External Trade lowered the import tariffs of hybrid vehicles from 35% to a range of 0% to 5%. The reach of the import tariff depends on the national content and the efficiency of the vehicle. In October 2015, the import tariffs of electric vehicles were reduced from 35% to between 0% and 7%, depending on the fuel efficiency of the unit.

In May 2017, the Argentinean government reduced the import tariffs over an annual quota of 6,000 motor vehicles powered by alternative energy sources. The new tariff ranges between 0% and 5% – down from 35%, depending on the category of the vehicles: CKD and CBU hybrid vehicles, CKD and CBU fully electric vehicles, and CKD and CBU electric vehicles powered by hydrogen cells. It is important to note that the lower import tariff will be applicable only to companies with manufacturing presence in Argentina and to motor vehicles that are approved by the National Institute of Industrial Technology (INTI).

Assessing the impact of the Agreement

Economic impact

It is clear that an ambitious removal of tariffs and some degree of harmonisation or mutual recognition of standards will affect the current configuration of the automotive spaces in the two regions. Lower trade costs will raise stimuli for the expansion of bi-regional trade flows as well

as for higher consumption levels. As Mercosur vehicle makers are protected with higher tariff levels, firms in this region will be more affected by the higher competition resulting from the agreement. The quantitative analysis is in line with this argument, as shown by the output, trade and employment figures.

Table 86: Changes in the Motor Vehicle Sector

	EU-28	Brazil	Argentina	Uruguay	Paraguay
Output					
Conservative scenario	0.5	-1.7	-2.8	-11.5	-2.7
Ambitious scenario	0.6	-1.8	-3.2	-14.4	-3.3
Exports (total)					
Conservative scenario	1.6	0.9	-1.6	-16.1	2.6
Ambitious scenario	1.9	1.9	-1.5	-20.1	4.0
Imports (total)					
Conservative scenario	1.6	3.8	2.0	-0.9	-0.5
Ambitious scenario	2.0	4.3	2.2	-0.9	-0.8
Unskilled employment					
Conservative scenario	0.4	-2.0	-3.4	-11.9	-2.8
Ambitious scenario	0.5	-2.2	-4.1	-15.0	-3.4
Skilled employment					
Conservative scenario	0.5	-2.0	-3.3	-11.6	-2.7
Ambitious scenario	0.5	-2.1	-3.9	-14.5	-3.2

Source: CGE Modelling Results.

In addition, the CGE modelling predicts that EU exports to Mercosur of vehicles and parts will increase by 95% in the conservative scenario and 114% in the ambitious scenario, while Mercosur exports of cars and parts to the EU will increase by 41% in the conservative scenario and 48% in the ambitious scenario.

The scope of the overall industry reshaping in Mercosur is, however, far from being clear. As discussed above, geography still matters in the automotive industry. For a number of economic, normative and technical reasons, carmakers have shown preference for organizing their activities around regional spaces rather than serving a large market, such as that of Mercosur, from a distant region.

The impact of additional competition will likely be less strong in Argentina is currently in a better position to handle the situation, since it has progressively specialised in the segment of commercial vehicles, in particular pickup trucks, in which competition is less intense.

Environmental impact

Based on the discussion on environmentally-friendly vehicles, it could be expected that the agreement will promote the adoption of cleaner mobility options in the Mercosur region with a positive impact on environment. However, the extent of the impact will depend on how far this sector develops in the two regions.

Impact on gender equality, social issues and human rights

We could not identify clear implications for gender and human rights impact associated to the implementation of the agreement in this sector.

In 2019, approximately 411,800 of Brazil's 519,800 automotive workers were men, amounting to 79% (ILO). Albeit the smaller size of the industry in Uruguay, the share of male workers was comparable with 75%. Men could therefore potentially be more affected than women.²³¹

There is going to be a significant increase in competition from vehicles and parts producers from the EU. Consequently, the agreement may generate some negative effects in output in the sector as a whole in Mercosur. In particular, in the many SMEs that participate in the auto part segment in virtue of the additional competition from the EU. This could lead to reduction in output, downsizing, closure and reform of some companies in Mercosur. This is expected to have some significant effects in terms of the demand for labour as well as in its composition.

The CGE analysis suggests some important impacts. In the conservative scenario, unskilled labour may fall between 2% (Brazil) and 11.9% (Uruguay) and skilled labour, between 2% and 11.6%. In Argentina, the second largest producer within Mercosur, unskilled labour will fall by 3.4% and the skilled labour by 3.3%. In the ambitious scenario, unskilled labour may fall by 2.2% (Brazil) and 15% (Uruguay); and skilled labour would fall by 2.1% (Brazil) and 14.5% (Uruguay). In Argentina, the unskilled labour will fall by 3.3% and the skilled by 3.9% in this scenario.

In this sense, it is critical that the affected companies have sufficient time and support to accommodate to the new situation. This may require additional investment with the aim of increasing productivity and remain competitive with respect to their EU competitors. At the same time, some measures may need to be adopted to protect affected workers and to facilitate their relocation to other expanding firms within and outside this sector. The Governments could consider some tax reductions with the aim of addressing some of the competitions concerns that these firms regularly face.

Impact on SMEs

The presence of SMEs is exclusively concentrated in the auto parts segment. The current configuration of the EU-Mercosur bilateral trade leads us to conclude that it is highly likely that the agreement will have a higher effect on firms in Argentina and Brazil as a result of competition with firms localised in Europe. However, the magnitude of the effect is likely to be lower than in the case of car manufacturers, as the auto parts industry already has lower tariffs (14-18%).

Nonetheless, it is important to note that the auto parts industry is very heterogeneous (both at Mercosur level and within member countries). Therefore, it is likely that a contraction will be experienced in less competitive segments of the sectors whereas, on the other hand, globally competitive players will manage to benefit from the agreement and gain new markets overseas. As a result, the auto parts sector in Mercosur with its many SMEs would have a higher level of specialisation and be more globally integrated.

²³¹ Note: No data available on Paraguay and Argentina.

Impact on consumers

As indicated by the economic modelling analysis, consumers will benefit from the higher levels of competition favoured by the agreement. In this case, the impact will be more significant in the case of Mercosur member countries, where the current tariff levels are higher than in the EU-28, CGE results predict positive effects on consumption in the sector across all parties, but particularly in Mercosur.

Table 87: Changes in private consumption

	EU28	Brazil	Argentina	Uruguay	Paraguay
Conservative scenario	0.1	0.6	1.7	0.9	0.4
Ambitious scenario	0.2	0.8	2.2	1.5	0.5

Source: CGE Modelling Results.

Impact on LDCs and OMRs

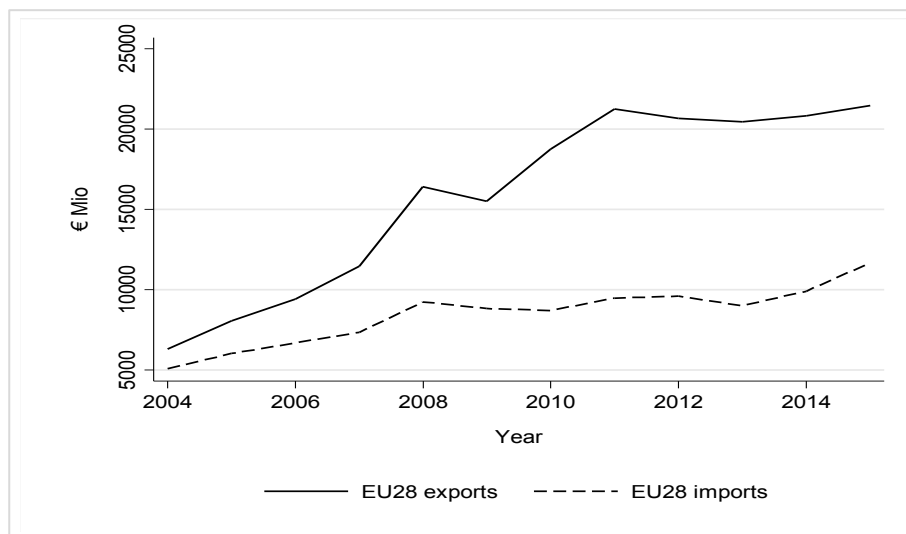
No effect from the agreement between EU-Mercosur could be anticipated here. The Mercosur region has neither exported nor imported automotive goods to/from LDCs and outermost regions.

Policy Recommendations

- **Mercosur countries should gradually implement the elimination of duties in this sector** to help local companies to adjust, transform their production processes and become more competitive.
- **Mercosur countries should aim to address some of the additional competitiveness issues that firms in these sectors tend to face.** For example, some targeted tax reductions could contribute to offset some of the loss of competitiveness.
- **Mercosur countries should monitor and follow the evolution of the sector.** Moreover, they should facilitate the development of the skills to those workers that may be affected by the agreement and consider providing support to workers that either cannot be re-trained or that cannot be easily be rehired by other companies.

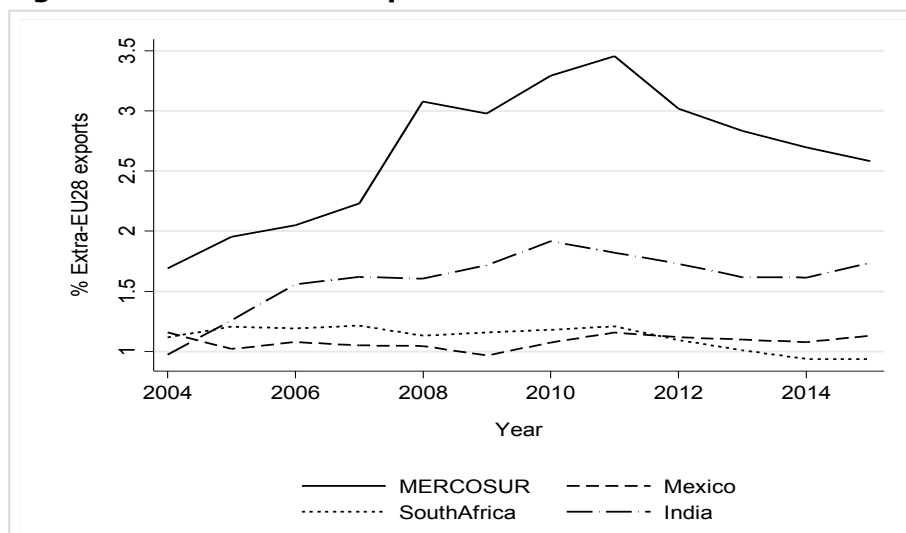
6.5. Sectoral analysis: Services***Sector overview***

We now turn to a description of trade in services between the EU and Mercosur. Figure 100 shows the evolution of exports and imports over the period 2004 to 2015. Both EU services exports and imports to and from Mercosur have seen a much stronger increase than trade in goods and currently stand at €21.5 billion exports and €11.7 billion imports in 2015. The EU thus runs a substantial trade surplus in trade in services with Mercosur.

Figure 100: EU service exports and imports to/from Mercosur

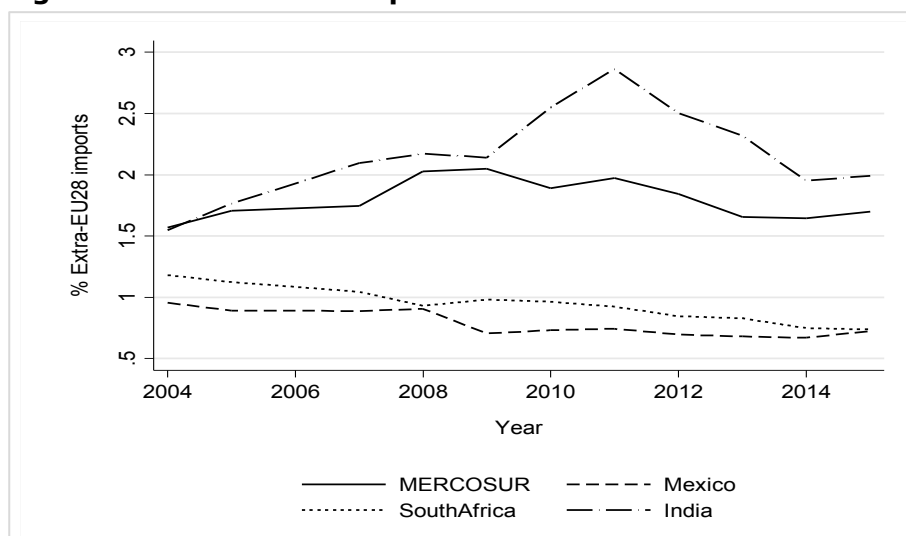
Notes: Figure shows EU service exports and imports to/from Mercosur (in € millions, current prices). Source: Eurostat.

Figure 101 shows that EU service exports to Mercosur accounted for approximately 2.5% of overall extra-EU28 service exports, a share that is similar to EU goods trade with Mercosur countries. Interestingly, Mercosur is substantially more important as an export destination than the reference countries India, Mexico and South Africa. The picture is slightly different on the import side where Mercosur is a less important source, accounting for 1.7% of EU imports, compared to 2% for India. Similar to goods trade, the EU is a much more important trading partner for Mercosur than vice-versa. In 2015, it accounted for 25.3% of Mercosur service exports and 24.6% of service imports.²³²

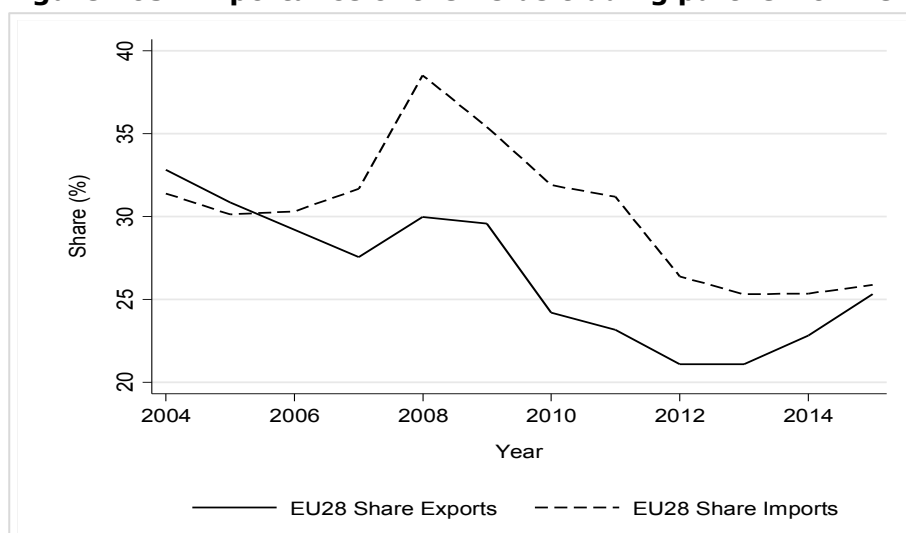
Figure 101: EU service exports to selected countries

Notes: Figure shows EU service exports to Mercosur, Mexico, South Africa and India (% of total extra-EU28 exports). Source: Eurostat.

²³² The Mercosur countries currently do not report a geographical breakdown of the trade in services component of their balances of payments. Thus, it is not possible to provide a comparison of the relative importance of different markets such as the US and China. The EU's share was calculated by combining total Mercosur exports and imports of services (from the UN Service Trade Database) with exports and imports to/from Mercosur as reported by Eurostat.

Figure 102: EU service imports from selected countries

Notes: Figure shows EU service imports from Mercosur, Mexico, South Africa and India (% of total extra-EU28 imports).
Source: Eurostat.

Figure 103: Importance of the EU as trading partner for Mercosur (services)

Notes: Figure shows Mercosur service exports and imports to/from the EU (% of total Mercosur exports and imports).
Sources: UN Service Trade Database and Eurostat

6.5.1. Business and Professional Services

Overview

Table 88 and Table 89 provide a breakdown of EU-Mercosur service exports and imports by service type. For comparison, we also show the importance of individual service types for EU services exports and imports in general. Transport and other business services account for a quarter of EU service exports to Mercosur each, followed by travel services, which stand at a share of 20%. We note that the shares for transport and travel services are substantially higher than for overall EU exports. On the import side, other business services account for 37% of EU imports from Mercosur, followed by transport (25%) and travel services (21%).

Table 88: Composition of EU exports to Mercosur by service type

Service Type	Share in EU28 Exports to Mercosur	Share in EU28 Exports to Extra-EU28 destinations
Transport	24.5%	18.3%
Other business services	24.0%	26.8%
Travel	20.2%	14.0%
Telecommunications, computer, and information services	12.1%	12.4%
Charges for the use of intellectual property n.i.e.	7.3%	6.5%
Financial services	3.5%	10.5%
Insurance and pension services	1.6%	3.8%
Maintenance and repair services n.i.e.	1.6%	1.3%
Construction	1.6%	1.7%
Manufacturing services on physical inputs owned by others	1.0%	2.6%
Personal, cultural, and recreational services	1.0%	1.0%
Government goods and services n.i.e.	0.8%	1.0%
Services not allocated	0.7%	0.1%

Source: Eurostat.2015. Notes: Table shows shares of different service types in EU exports to Mercosur and to all extra-EU28 destinations, respectively.

Table 89: Composition of EU imports from Mercosur by service type

Service Type	Share in EU28 Imports from Mercosur	Share in EU28 Imports from Extra-EU28 destinations
Other business services	36.9%	28.9%
Transport	24.6%	20.0%
Travel	21.0%	15.7%
Telecommunications, computer, and information services	5.9%	8.9%
Financial services	2.9%	6.4%
Insurance and pension services	2.0%	2.1%
Charges for the use of intellectual property n.i.e.	1.5%	11.6%
Maintenance and repair services n.i.e.	1.5%	1.4%
Government goods and services n.i.e.	1.1%	1.0%
Construction	1.0%	0.9%
Manufacturing services on physical inputs owned by others	0.8%	1.3%
Personal, cultural, and recreational services	0.7%	1.8%
Services not allocated	0.0%	0.0%

Source: Eurostat. 2015. Notes: Table shows shares of different service types in EU imports from Mercosur and from all extra-EU28 destinations, respectively.

General overview of existing trade barriers for business services

Information on barriers to service trade is still scarce for non-OECD countries. In Table 90, we present information on trade and investment (commercial presence) barriers for other business services, transport services and telecommunications services from the World Bank's Service Trade Restrictiveness Index (STRI). This is the only source currently available which also covers the Mercosur countries, albeit only for a subset of the services types shown.²³³ The STRI measures barriers in services trade on a scale from 0 to 100, with 0 corresponding to no barriers and 100 to a sector which is completely closed to foreign trade.

Providers of (other) business services (here: accounting, auditing and legal services) face on average the highest restrictions in both the EU and the Mercosur countries, although there is some variation. For example, Uruguay and Paraguay are relatively open compared to Argentina, Brazil or the EU. EU restrictions on transport services (an average of air, ship, road and rail) are also relatively high, whereas Mercosur providers of telecommunications services face few barriers only. Argentina has a similar barrier profile to the EU, but there are substantial differences with the remaining Mercosur countries which tend to be more protectionist.

For the services analysis, we account for existing GATS commitments that are provided by schedules for all modes of services trade, i.e.:

- Cross-border supply (Mode 1): the possibility for non-resident service suppliers to supply services cross-border into the Member's territory.
- Consumption abroad (Mode 2): the freedom for the Member's residents to purchase services in the territory of another Member.
- Commercial presence (Mode 3): the opportunities for foreign service suppliers to establish, operate or expand a commercial presence in the Member's territory, such as a branch, agency, or wholly-owned subsidiary.
- Presence of natural persons (Mode 4): the possibilities offered for the entry and temporary stay in the Member's territory of foreign individuals in order to supply a service.

Table 90: Service Trade Barriers for Selected Service Types²³⁴

Country/Mode	Other business services	Transport	Telecommunications, computer, and information services
Overall - EU20²³⁵	54	37	0
Mode 1	42	13	N/A
Mode 3	50	46	0
Mode 4	60	N/A	N/A
Overall - Argentina	49	22	0
Mode 1	0	25	N/A
Mode 3	50	22	0
Mode 4	60	N/A	N/A

²³³ The World Bank's STRI also contains information on the average barriers imposed by 20 EU countries on non-EU service providers (entry "EU-20"). The STRI also provides a breakdown by GATS mode, but it does not cover Mode 2.

²³⁴ The reference year is 2008 for Argentina, Paraguay and Uruguay and 2011 for Brazil.

²³⁵ EU20 is an artificial entity of 20 EU member states created by World Bank STRD to capture their policies as applicable to non-EU providers.

Overall - Brazil	58	10	0
Mode 1	100	25	N/A
Mode 3	50	13	0
Mode 4	50	N/A	N/A
Overall - Uruguay	11	41	63
Mode 1	0	13	N/A
Mode 3	0	47	63
Mode 4	25	N/A	N/A
Overall - Paraguay	25	5	38
Mode 1	100	25	N/A
Mode 3	5	0	38
Mode 4	25	N/A	N/A

Notes: Table shows trade barriers to service trade as measured by the World Bank's Service Trade Restrictiveness Index (0: no barriers, 100: sector closed to trade, N/A: no data available) Source: World Bank STRI.

Domestic production of business services in Mercosur countries

For all Mercosur countries, the importance of services trade has been rising constantly over the past three decades. Even though services trade is still less pronounced than in most EU countries, Argentina and Brazil already show relatively high levels of services production in their economies. At the same time, lower production shares are registered for services in Paraguay and Uruguay.

For Argentina, recent OECD data indicate that services production accounts for 61% of national GDP, of which 23% comes from other services including business services (Table 91). Brazil's economy shows an even larger share of services in total GDP, whereby professional and business services account for about 7% of Brazil's annual GDP. In Paraguay, services account for 50% of national GDP (agriculture: 20%, manufacturing: 30%). In Uruguay, services account for 64% of national GDP (agriculture: 7%, manufacturing: 29%).²³⁶

Table 91: National composition of GDP, Argentina

Production of Services in per cent of GDP	
Total Services	60.6%
Construction Services	4.0%
Wholesale and retail services	20.0%
Other services	22.8%

Source: OECD.

Table 92: National composition of GDP, Brazil

Production of Services in per cent of GDP	
Total Services	69.1%
Construction Services	5.5%
Distributive trade, repair, transport, accommodation and food services	18.5%

²³⁶ According to 2016 World Bank Data. Note that national services production data are not available at disaggregated level for Paraguay and Uruguay.

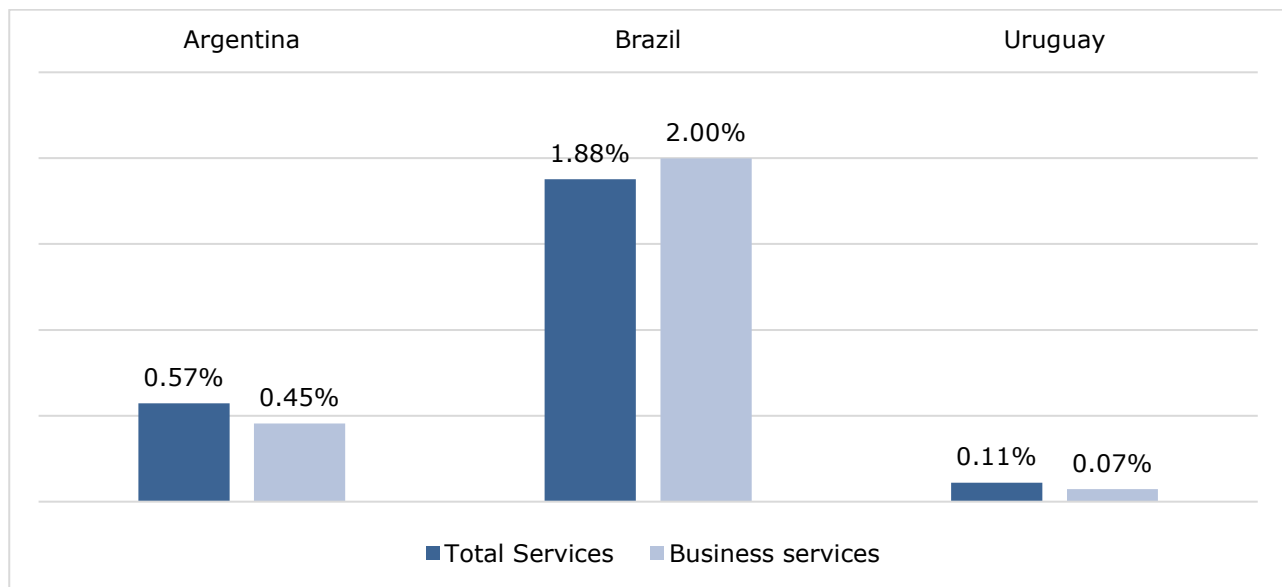
Information and communication services	3.0%
Real estate services	8.3%
Professional, technical, administrative and scientific services	7.2%
Public administration services	18.1%
Other services	2.7%

Source: OECD.

Shares of Extra-EU business services trade with individual Mercosur countries

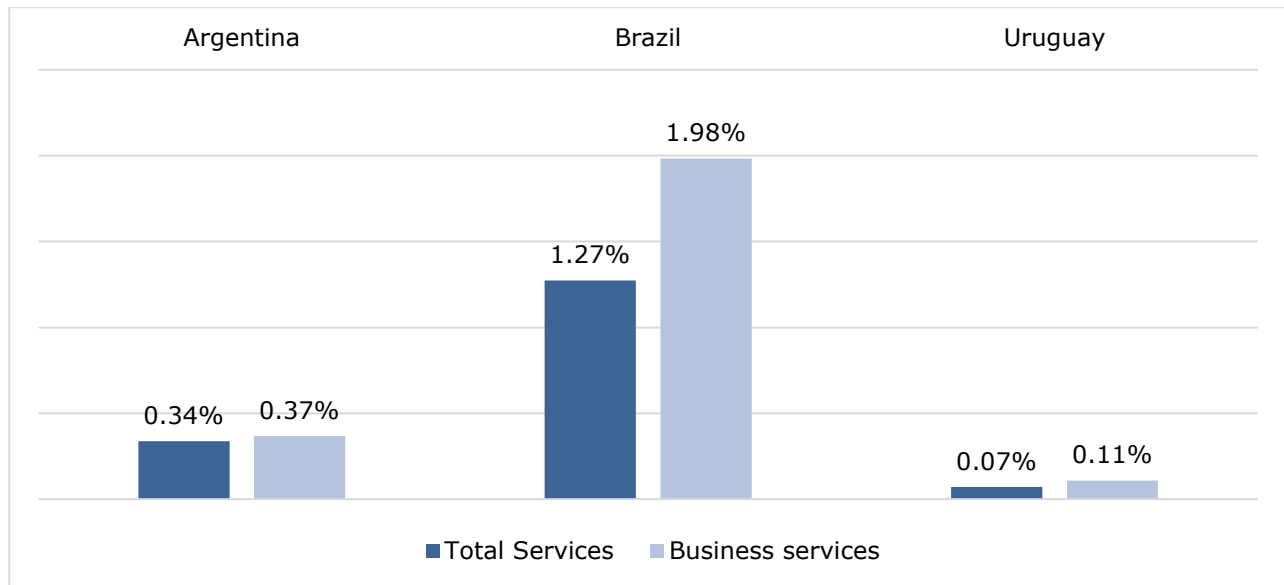
As shown by Figures 104 and 105, individual Mercosur countries' share in total EU services trade (exports and imports) is relatively low. For the EU, the most important individual Mercosur country is Brazil, accounting for 1.9% of total EU services exports and 1.3% of total EU services imports. These numbers are generally mirrored by trade volumes for business and financial services. In 2015, Brazil is the most important Mercosur destination for EU other business services exports²³⁷, accounting for 2% of total EU other business services exports, respectively. The second most important trading partner in the Mercosur region is Argentina. For EU imports of other business services, a similar pattern applies.

Figure 104: Share in total Extra-EU28, exports, other business services, 2015



Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided).

²³⁷ The 'other business services' category contains three sub-categories, namely: research and development (R&D) services, professional and management consulting services and technical, trade-related and other business services.

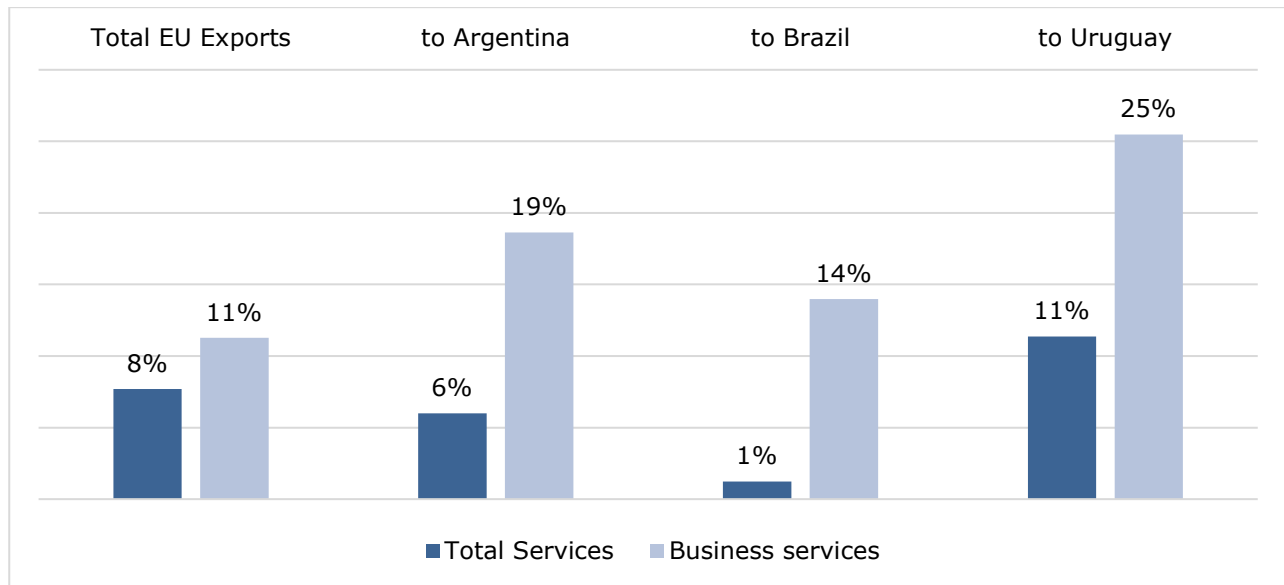
Figure 105: Share in total Extra-EU28 imports by sector, 2015

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided).

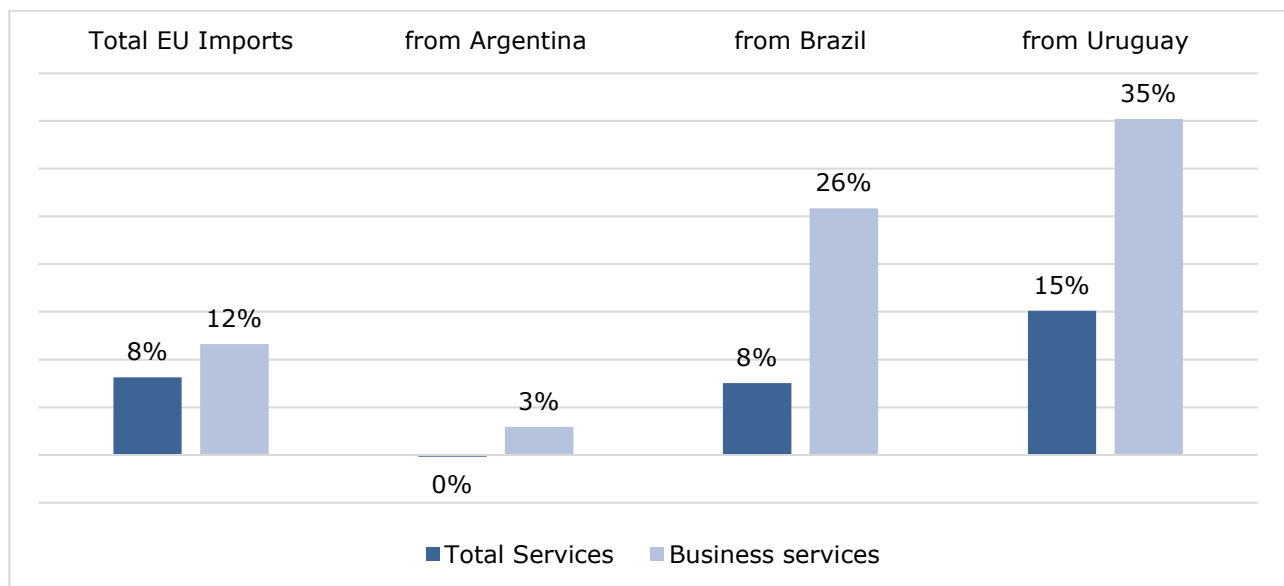
Growth of Extra-EU trade in other business services with individual Mercosur countries

Even though individual Mercosur countries' overall shares in Extra-EU trade are still relatively low compared to the EU's major trading partners, EU services suppliers could substantially benefit from greater levels of market access due to Mercosur countries economic catch-up process and rising trade volumes over time. Between 2010 and 2015, total services trade with individual Mercosur countries already increased at an average annual rate of 8% (for both EU exports to and EU imports from Mercosur countries), with business services showing the highest annual EU export growth rates for all Mercosur countries for which data are available.²³⁸

²³⁸ Note that Eurostat database does not provide international services trade data for EU trade with Paraguay. Overall, total services trade between the EU and Paraguay remains relatively modest. Total exports of services from the EU to Paraguay have remained at approximately 0.2 billion Euros from 2012 to 2015. Overall, EU total services imports from Paraguay have stayed at 0.1 billion Euros from 2012 to 2015.

Figure 106: Average annual growth rate of EU services exports, 2010 - 2015

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided). Overall, total services trade between the EU and Paraguay remains relatively modest. Total exports of services from the EU to Paraguay have remained at approximately 0.2 billion Euros from 2012 to 2015. Overall, EU total services imports from Paraguay have stayed at 0.1 billion Euros from 2012 to 2015.

Figure 107: Average annual growth rate of EU services imports, 2010 - 2015

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided).

Table 93: Other business services trade between the EU and individual Mercosur countries: EU exports

2015, in million EUR	Total EU28 services trade					EU services exports to Mercosur					
Sector/sub-sector	Extra EU28					Argentina		Brazil		Uruguay	
	Total EU imports	In % of total services imports	Total EU exports	In % of total services exports	Trade Balance	Total exports	In % of total EU services exports	Total exports	In % of total EU services exports	Total exports	In % of total EU services exports
Total Services	685,656.5	100%	831,528.5	100%	145,872.0	4,755.2	0.6%	15,610.0	1.9%	922.2	0.1%
Business services	207,350.3	30%	235,003.6	28%	27,653.3	1,067.7	0.1%	4,698.4	0.6%	171.7	0.0%
Research and development services	49,801.0	7%	35,791.1	4%	-14,009.9	33.5	0.0%	142.0	0.0%	2.6	0.0%
Work undertaken on a systematic basis to increase the stock of knowledge	47,357.0	7%	32,140.1	4%	-15,216.9	23.4	0.0%	108.4	0.0%	2.6	0.0%
Provision of customised and non-customised research and development services	36,289.7	5%	31,103.1	4%	-5,186.6	16.4	0.0%	102.2	0.0%	2.6	0.0%
Sale of proprietary rights arising from research and development	11,066.3	2%	1,037.0	0%	-10,029.3	7.0	0.0%	5.1	0.0%	0.0	0.0%
Research and development services other than work undertaken on a systematic basis to increase the stock of knowledge	2,444.2	0%	3,651.1	0%	1,206.9	8.1	0.0%	31.4	0.0%	0.0	0.0%
Professional and management consulting services	57,047.4	8%	63,847.8	8%	6,800.4	179.9	0.0%	849.4	0.1%	34.7	0.0%
Legal, accounting, management consulting, and public relations services	37,922.3	6%	48,124.5	6%	10,202.2	148.0	0.0%	789.6	0.1%	28.6	0.0%
Legal services	3,601.1	1%	7,137.5	1%	3,536.4	3.3	0.0%	121.3	0.0%	1.4	0.0%
Accounting, auditing, bookkeeping, and tax consulting services	3,461.9	1%	5,479.3	1%	2,017.4	11.9	0.0%	20.8	0.0%	3.6	0.0%
Business and management consulting and public relations services	30,855.2	5%	35,508.0	4%	4,652.8	132.8	0.0%	647.7	0.1%	22.6	0.0%
Advertising, market research, and polling services	19,126.0	3%	15,722.1	2%	-3,403.9	30.7	0.0%	58.6	0.0%	6.1	0.0%

Technical, trade-related, and other business services	100,502.7	15%	135,366.8	16%	34,864.1	853.3	0.1%	3,706.9	0.4%	132.4	0.0%
Architectural, engineering, scientific, and other technical services	16,075.1	2%	39,378.1	5%	23,303.0	164.0	0.0%	776.8	0.1%	48.5	0.0%
Architectural services	147.4	0%	981.3	0%	833.9	5.1	0.0%	1.9	0.0%	0.0	0.0%
Engineering services	6,944.9	1%	25,675.2	3%	18,730.3	85.2	0.0%	617.1	0.1%	41.8	0.0%
Scientific and other technical services	8,980.6	1%	12,719.5	2%	3,738.9	72.7	0.0%	157.0	0.0%	6.7	0.0%
Waste treatment and de-pollution, agricultural and mining services	4,184.8	1%	9,699.5	1%	5,514.7	142.2	0.0%	649.1	0.1%	9.0	0.0%
Waste treatment and de-pollution	127.8	0%	203.8	0%	76.0	0.1	0.0%	0.5	0.0%	0.0	0.0%
Operating leasing services	9,100.2	1%	14,848.4	2%	5,748.2	209.7	0.0%	1,081.7	0.1%	47.2	0.0%
Trade-related services	22,233.9	3%	10,657.7	1%	-11,576.2	28.0	0.0%	108.5	0.0%	7.4	0.0%
Other business services	48,906.6	7%	60,783.8	7%	11,877.2	310.6	0.0%	1,090.5	0.1%	19.3	0.0%

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided). Overall, total services trade between the EU and Paraguay remains relatively modest. Total exports of services from the EU to Paraguay have remained at approximately 0.2 billion Euros from 2012 to 2015. Overall, EU total services imports from Paraguay have stayed at 0.1 billion Euros from 2012 to 2015.

Table 94: Other business services trade between the EU and individual Mercosur countries: EU imports

2015, in million EUR	Total EU services trade					EU services imports from Mercosur					
Sector/sub-sector	EU					Argentina		Brazil		Uruguay	
	Total EU imports	In % of total services imports	Total EU exports	In % of total services exports	Trade Balance	Total imports	In % of total EU services imports	Total imports	In % of total EU services imports	Total imports	In % of total EU services imports
Total Services	685,656.5	100%	831,528.5	100%	145,872.0	2,314.8	0.3%	8,727.3	1.0%	488.4	0.1%
Business services	207,350.3	30%	235,003.6	28%	27,653.3	760.0	0.1%	4,113.4	0.5%	225.1	0.0%
Research and development services	49,801.0	7%	35,791.1	4%	-14,009.9	92.4	0.0%	286.2	0.0%	36.3	0.0%
Work undertaken on a systematic basis to increase the stock of knowledge	47,357.0	7%	32,140.1	4%	-15,216.9	86.0	0.0%	278.9	0.0%	36.3	0.0%
Provision of customised and non-customised research and development services	36,289.7	5%	31,103.1	4%	-5,186.6	85.8	0.0%	276.3	0.0%	36.3	0.0%
Sale of proprietary rights arising from research and development	11,066.3	2%	1,037.0	0%	-10,029.3	0.2	0.0%	2.6	0.0%	0.0	0.0%
Research and development services other than work undertaken on a systematic basis to increase the stock of knowledge	2,444.2	0%	3,651.1	0%	1,206.9	6.4	0.0%	6.2	0.0%	0.0	0.0%
Professional and management consulting services	57,047.4	8%	63,847.8	8%	6,800.4	397.8	0.0%	873.1	0.1%	47.8	0.0%
Legal, accounting, management consulting, and public relations services	37,922.3	6%	48,124.5	6%	10,202.2	296.6	0.0%	613.9	0.1%	30.6	0.0%
Legal services	3,601.1	1%	7,137.5	1%	3,536.4	11.1	0.0%	145.6	0.0%	3.3	0.0%
Accounting, auditing, bookkeeping, and tax consulting services	3,461.9	1%	5,479.3	1%	2,017.4	58.6	0.0%	34.4	0.0%	1.3	0.0%
Business and management consulting and public relations services	30,855.2	5%	35,508.0	4%	4,652.8	227.0	0.0%	432.8	0.1%	25.0	0.0%
Advertising, market research, and polling services	19,126.0	3%	15,722.1	2%	-3,403.9	100.0	0.0%	256.0	0.0%	17.1	0.0%

Technical, trade-related, and other business services	100,502.7	15%	135,366.8	16%	34,864.1	273.9	0.0%	2,956.0	0.4%	142.1	0.0%
Architectural, engineering, scientific, and other technical services	16,075.1	2%	39,378.1	5%	23,303.0	44.1	0.0%	156.0	0.0%	78.5	0.0%
Architectural services	147.4	0%	981.3	0%	833.9	2.0	0.0%	0.0	0.0%	0.0	0.0%
Engineering services	6,944.9	1%	25,675.2	3%	18,730.3	23.9	0.0%	83.9	0.0%	2.1	0.0%
Scientific and other technical services	8,980.6	1%	12,719.5	2%	3,738.9	17.0	0.0%	70.9	0.0%	76.4	0.0%
Waste treatment and de-pollution, agricultural and mining services	4,184.8	1%	9,699.5	1%	5,514.7	3.2	0.0%	343.8	0.0%	0.0	0.0%
Operating leasing services	9,100.2	1%	14,848.4	2%	5,748.2	3.1	0.0%	1,320.1	0.2%	9.3	0.0%
Trade-related services	22,233.9	3%	10,657.7	1%	-11,576.2	77.1	0.0%	281.6	0.0%	21.3	0.0%
Other business services	48,906.6	7%	60,783.8	7%	11,877.2	142.0	0.0%	851.1	0.1%	29.8	0.0%

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided).

In the following, we provide a more detailed analyses of relevant CGE modelling results and existing policy barriers for business services trade between the EU and individual Mercosur countries. Our analyses of policy barriers are based on services trade restrictiveness data provided by the World Bank, the OECD (for Brazil) and existing schedules for country-specific commitments under the WTO GATS agreement. For both business and financial services, we account for existing GATS commitments that are provided by schedules for all modes of services trade.

Assessment of the impact

The business and professional services sector comprises a wide range of sub-services, including computer-related services, research and development, advertising, architectural services, engineering services (see below), legal services, accounting and business management services. All of these services are highly important for the process of economic development, supporting structural economic change and economic renewal.

Business services can often play an enabling and facilitating role for economic activity and trade. Like other services sectors such as financial services, business services provide direct inputs that are crucial for manufacturing when it comes to productivity growth and competitiveness in exporting manufactured commodities. This importance of services trade is even higher if the trends of growing servicification of manufacturing as well as the increasing digitalisation of services are taken into consideration.

Enabling market access for services is also an important factor for promoting the transfer of knowledge.²³⁹ Many business services are closely linked to activities related to R&D, which in turn play an important role for productivity and the overall competitiveness of exports. The business services sector is an important sector of the Mercosur market, which is expected to make significant gains from a trade agreement with the EU. There is no common services policy in Mercosur, and levels of protection currently differ markedly between its individual Mercosur countries. Accordingly, there are a number of barriers which hinder the provision of business and professional services, which can be classified as follows: the enforcement of national technical standards; the requirement of licenses from professional bodies to practice in a given professional field; difficulties arising from specific legal, administrative and bureaucratic issues; a lack of transparency in regulation and its implementation.

Economic analysis

The 2009, EU-Mercosur SIA anticipates that liberalisation of professional and business services trade with the EU would overall have positive impacts for both Mercosur countries and the EU. From the perspective of Mercosur countries, liberalisation of Mode 1 (i.e. cross-border supply) would allow providers of business and professional services easier access the EU market. This would result in a greater presence of EU services providers in the Mercosur market and greater competition for local providers, forcing existing providers to adapt and restructure to compete with the EU companies. Accordingly, in the longer term, Mercosur economies would benefit from

²³⁹ OECD, 2004. *Service Trade Liberalization: Identifying Opportunities & Gains*. OECD Trade Policy Working Paper No. 1, 61.

efficiency gains and greater levels of competitiveness, which is expected to stimulate general economic activity in the Mercosur region and with it growth of Mercosur exports of services.

These mechanisms are largely reflected by the results of the CGE modelling performed by the European Commission for this SIA (Table 95 and Table 96). The modelling was conducted on the basis of a conservative and an ambitious scenario. According to the modelling results, EU output of communication and business services²⁴⁰ would largely remain unchanged (estimates changes below the perception threshold under both scenarios). Output of communication and business services would slightly increase for individual Mercosur countries under both scenarios, with highest (but still low) percentage changes in Argentina (up to 0.9%) and Brazil (up to 0.6%). Under the conservative scenario, EU exports of communication and business services would slightly decrease, while EU imports of communication and business services would slightly rise. The modelling results are more pronounced (though still low) for the ambitious scenario with EU exports of communication and business services falling by up to 0.86%. Brazilian exports of communication and business services are estimated to rise by about 9% under the ambitious scenarios, while Argentinian exports of communication and business services are estimated to rise by up to 4.7%. Both Paraguay and Uruguay show relatively low changes in export and import volumes. The long-term impact of business services liberalisation on the development of skilled labour is relatively low, but largely positive. The decline of skilled labour in Argentina (-0.14% under the ambitious scenario) is below the perception threshold.

Table 95: CGE-model results in the communication and business services sector in the conservative scenario (all numbers are in % changes relative to baseline)

Sectors	EU28	BRA	ARG	URY	PRY
Output	-0.01	0.53	0.83	0.63	0.06
Private	0.06	0.06	0.27	-0.22	-0.06
Exports	-0.63	3.58	0.96	1.82	1.26
Import	0.30	-1.42	-0.30	-0.41	-0.62
Unskilled	-0.09	-0.26	-0.29	-0.01	-0.05
Skilled	-0.07	0.17	-0.14	0.39	0.13

Source: CGE Modelling Results.

Table 96: CGE-model results in the communication and business services sector in the ambitious scenario (all numbers are in % changes relative to baseline)

Sectors	EU28	BRA	ARG	URY	PRY
Output	-0.05	0.71	0.94	0.78	0.04
Private	0.10	0.09	0.46	-0.28	-0.10
Exports	-0.86	9.23	4.69	3.29	2.59
Import	0.48	-2.77	-0.91	-0.09	-0.49
Unskilled	-0.07	0.17	-0.14	0.39	0.13
Skilled	-0.13	-0.26	-0.42	-0.18	-0.09

Source: CGE Modelling Results.

²⁴⁰ In the CGE modelling business services and communication services are given as a singly services sector category.

Assessment of barriers and existing levels of market access

Providers of business and professional services face on average the highest restrictions in both the EU and Mercosur countries. At the same time, there is great divergence between the individual members of Mercosur. For example, the overall EU score of 54 is comparable with the profiles of Argentina and Brazil, standing at 49 and 58 respectively. However, both Uruguay and Paraguay score significantly lower overall, standing at 11 and 25 respectively. Across the different modes of supply, there is great variation. Argentina has no barriers to trade in business and professional services for mode 1, but higher than average restrictions for Modes 3 and 4. For Mode 1, Brazil's business and professional services sector is entirely closed to trade, and for Modes 3 and 4 major restrictions apply. By comparison, Uruguay has no barriers to trade in business and professional services for Modes 1 and 2, and minor restrictions for Mode 4. For Mode 1, Paraguay is entirely closed to trade in the business and professional services sector but contains virtually no restrictions for Modes 3 and 4.

The following section analyses existing barriers and the level of existing market access for each Mercosur country in detail, outlining important issues and areas where additional liberalisation could be realised. We will also discuss the potential impact of increased liberalisation in the business services sector, taking into account the social and environmental dimensions of the analysis. The assessment focuses on current GATS commitments and analyses where barriers remain. Furthermore, it lays a focus on the level of applied barriers in the countries in question, relying on existing data on trade restrictiveness as well as an overview of key regulatory barriers and relevant legislation.

Argentina

Argentina's current commitments under the WTO GATS agreement are generally unlimited, especially when it comes to computer and related services and other business services. As a horizontal commitment, there are market access limitations for Modes 1, 3 and 4. Persons seeking to practice professional services must obtain recognition of their professional degree, enrol in the relevant college and establish legal domicile in Argentina.

Table 97: Argentina's current commitments under the WTO GATS agreement in business services²⁴¹

	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
1. Business services								
<u>A Professional services</u>								
Legal services	P	F	P	P	F	F	F	P
Accounting, auditing and book-keeping services	P	F	P	P	F	F	F	P
Architectural services	P	F	P	P	F	F	F	P
Engineering services	P	F	P	P	F	F	F	P
<u>B Computer and related services</u>								

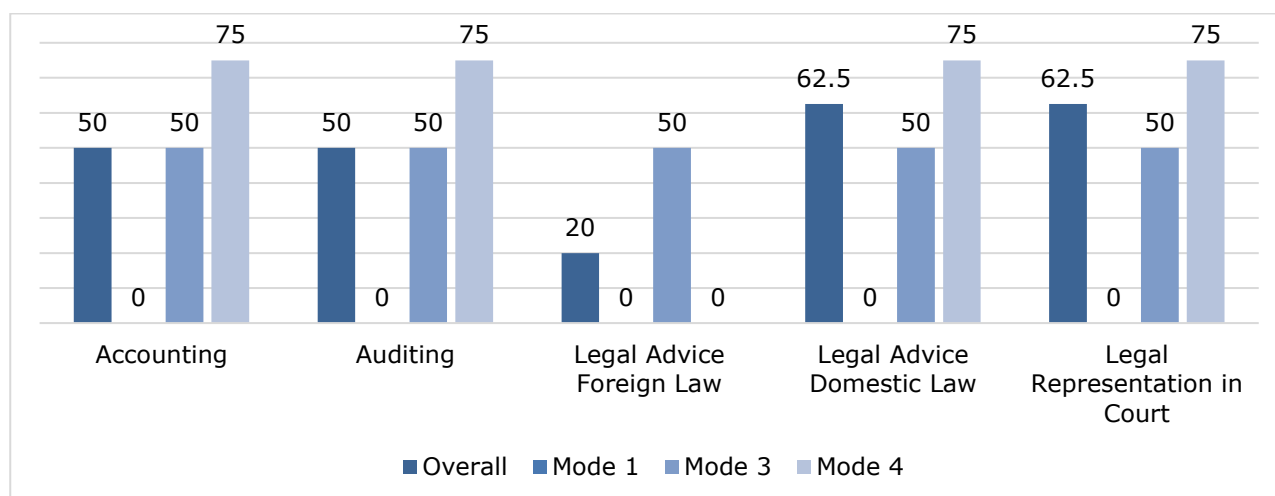
²⁴¹ M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See: WTO, 1994. GATS/SC/4. Available at: https://www.wto.org/english/tratop_e/serv_e/serv_commitments_e.htm.

Consultancy services related to the installation of	F	F	F	P	F	F	F	P
Software implementation services	F	F	F	P	F	F	F	P
Data processing services	F	F	F	P	F	F	F	P
Database services	F	F	F	P	F	F	F	P
Other	F	F	F	P	F	F	F	P
F Other business services								
Advertising services	F	F	F	P	F	F	F	P
Market research and public opinion polling services	F	F	F	P	F	F	F	P
Management consulting services	F	F	F	P	F	F	F	P
Services incidental to mining	F	F	F	P	F	F	F	P
Building cleaning services	F	F	F	P	F	F	F	P
Assembly or convention services	F	F	F	P	F	F	F	P
Other	F	F	F	P	F	F	F	P

Source: WTO.

Figure 108 provides a more detailed overview of barriers identified in the World Bank STRI database in different sub-sectors. These data also indicate high barriers on mode 4 and the existence of significant barriers in mode 3 with regard to different professional services.

Figure 108: Services trade restrictiveness (STRI) for professional services in Argentina



Source: World Bank STRI Data

Brazil

Brazil's market is characterised by both market access and national treatment limitations for mode 3 for accounting, auditing and bookkeeping services. Participation of non-residents in juridical persons controlled by Brazilian nationals is not permitted. Furthermore, a foreign service supplier is not allowed to use its foreign name but may cede it to Brazilian professionals who will constitute and exercise full participation in a new juridical person within Brazil. Accountants who intend to audit financial institutions, and savings and loans associations are required to undergo a special registration. Brazilian accounting and auditing standards must be followed. Note that there are no commitments for legal services included in the schedule.

For architectural services, engineering services, industrial engineering, engineering design, other engineering services and urban planning, there are restrictive market access limitations in Mode 3. Foreign service suppliers are obliged to form a specific type of legal entity (*consórcio*) with Brazilian service suppliers. In this arrangement, Brazilian partners retain leadership. There are no commitments for the computer and related services sub-sector.

Under the category of “other business services”, the Brazilian government applies a heavily regulated set of limitations relating to the provision of advertising services. There is a mode 1 market access limitation requiring advertising films to be in the Portuguese language, unless the use of a foreign language is demanded by the subject of the film. Moreover, foreign participation in the production is restricted to one third of the footage of advertising films. Any greater participation is subject to the use of Brazilian talent and a Brazilian production house.

A mode 3 market access limitation restricts foreign participation to 49% of the capital of companies established in Brazil, and for leadership to remain with Brazilian partners. Professionals must adhere to the Brazilian Code of Ethics of Advertising Professionals. A mode 3 national treatment limitation requires foreign producers to live for at least three years in Brazil before being authorised to produce films. For the provision of services related to management consulting project management, there is a mode 3 market access limitation requiring companies to be registered with the Regional Council of Administrators.

Table 98: Brazil’s current commitments under the WTO GATS agreement in business services²⁴²

	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
1. Business services								
<u>A Professional services</u>								
Legal services	-	-	-	-	-	-	-	-
Accounting, auditing and book-keeping services	P	U	P	P	U	U	P	P
Architectural services	U	U	P	P	U	U	F	P
Engineering services, including advisory and consultative engineering services, industrial engineering, engineering design, other engineering services, and urban planning	U	U	P	P	U	U	F	P
<u>B Computer and related services</u>								
Consultancy services related to the installation of computer hardware	-	-	-	-	-	-	-	-
Software implementation services	-	-	-	-	-	-	-	-
Data processing services	-	-	-	-	-	-	-	-
Database services	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
<u>F Other business services</u>								

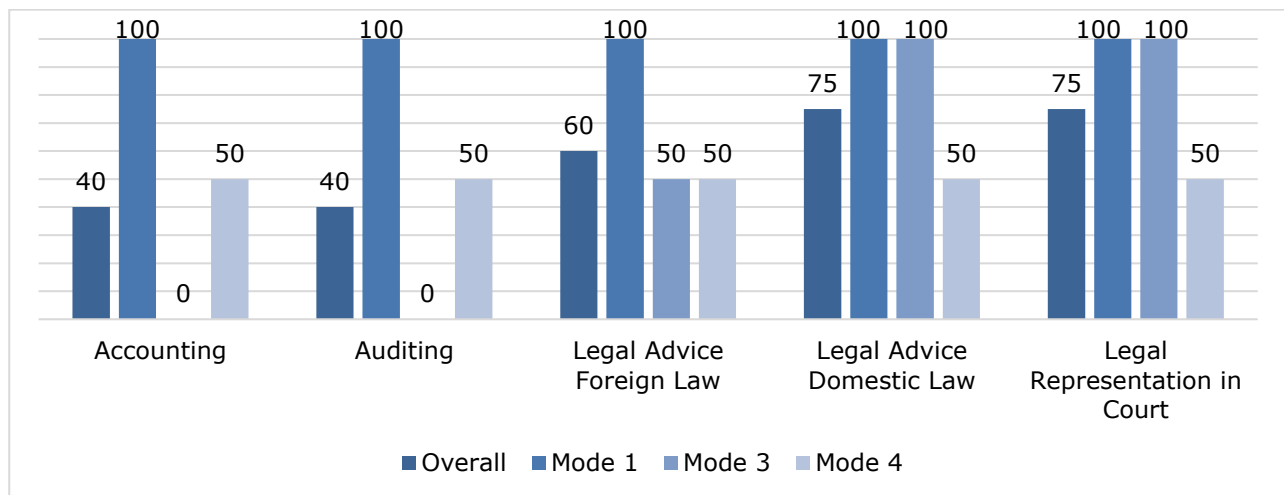
²⁴² M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See: WTO, 1994. GATS/SC/13. Available at: https://www.wto.org/english/tratop_e/serv_e/serv_commitments_e.htm.

Advertising services	P	U	P	P	U	U	P	P
Market research and public opinion polling services	U	U	F	P	U	U	F	P
Management consulting services	U	U	F	P	U	U	F	P
Services related to management consulting: project management	U	U	P	P	U	U	F	P
Building cleaning services	U	U	F	P	U	U	F	P
Other: Translation and interpretation services (excluding official translators)	U	U	F	P	U	U	F	P

Source: WTO.

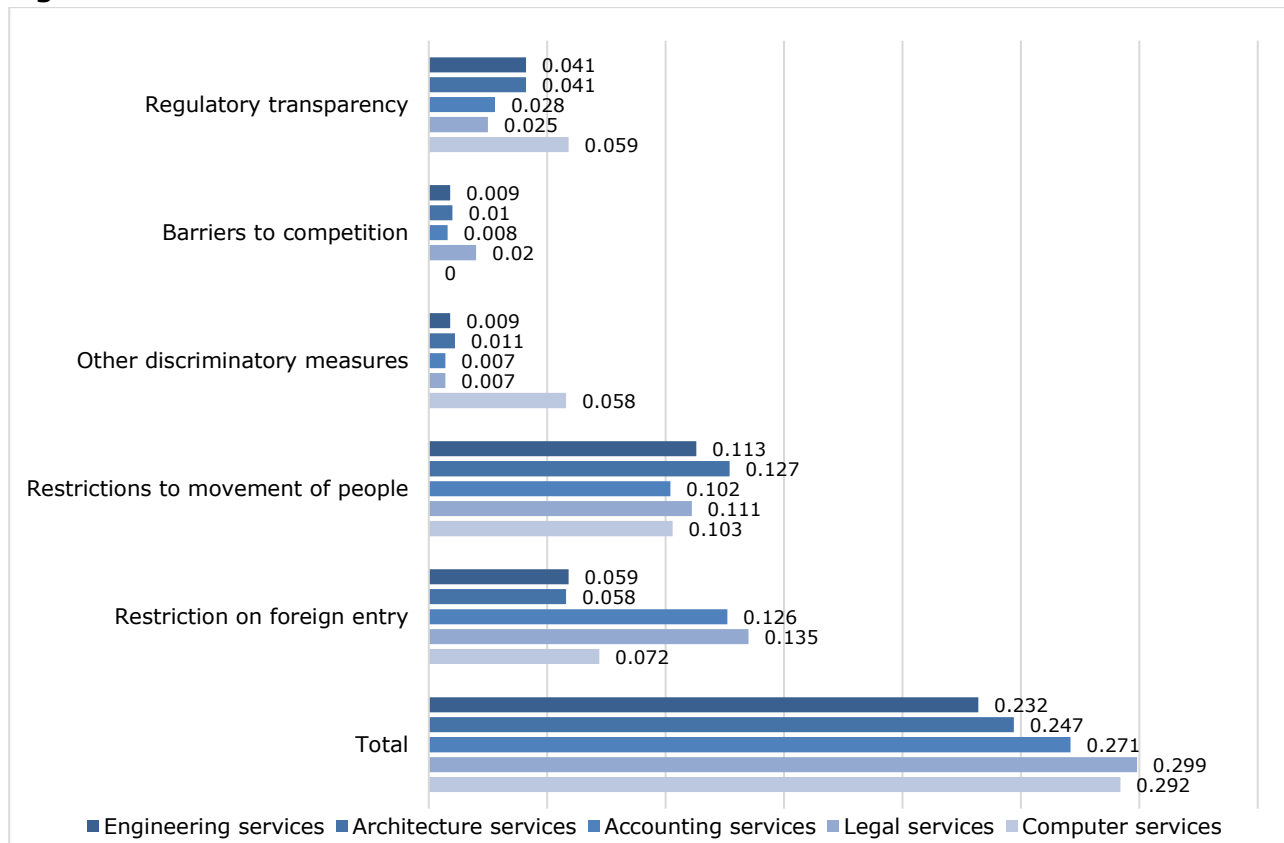
Figure 109 outlines services trade restrictiveness numbers for different professional services sectors in Brazil. There are significant barriers in mode 4 for all sectors. The highest barriers can be found in mode 1 for all sectors, and for mode 3 services with respect to legal advice regarding domestic law and legal representation in court.

Figure 109: Services trade restrictiveness (STRI) for professional services in Brazil



Source: World Bank STRI Data.

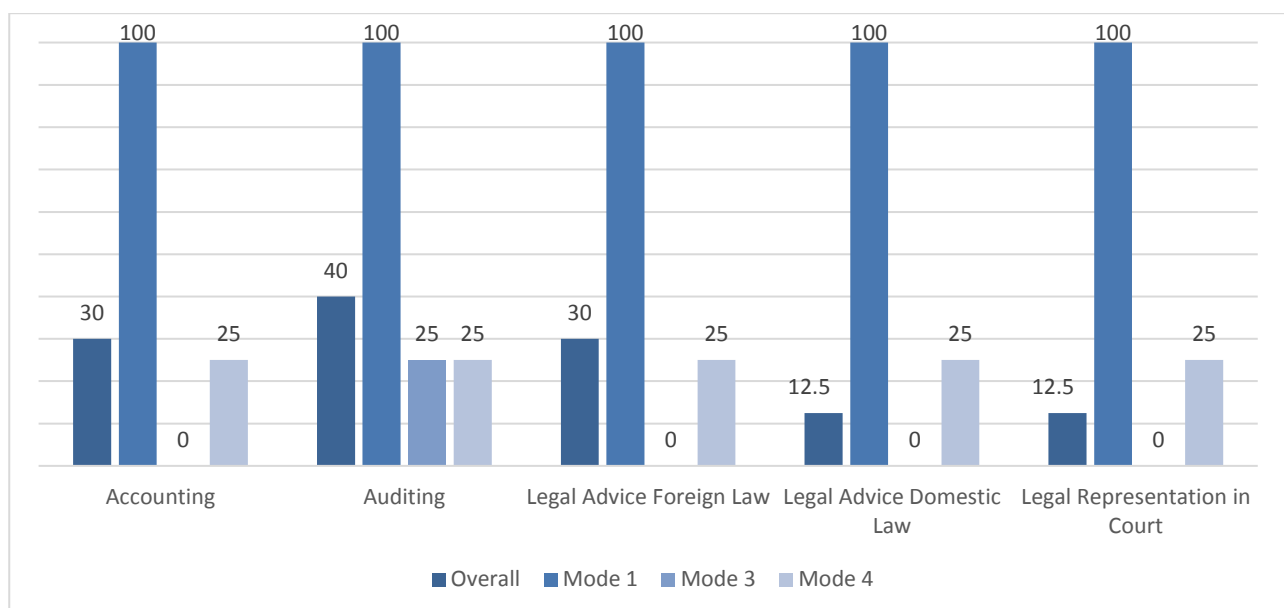
Furthermore, the OECD STRI database measures the restrictiveness of a number of sub-sectors in Brazil's business services sector from 0 to 1, 1 being most restrictive. Overall, business services are relatively open when compared to other Brazilian services sectors analysed in the STRI database. Furthermore, especially legal, and accounting services show lower scores than the average score of the 44 countries analysed by the database. In addition, architecture services show levels slightly below the average. This demonstrates that overall the sectors included in the OECD STRI database can be characterised as relatively open. Among those barriers that exist, restrictions to the movement of people are most significant across all of these sectors.

Figure 110: Brazil's services trade restrictiveness in the business services sector

Source: OECD STRI Data.

Paraguay

Business services are not included in Paraguay's GATS schedule. Figure 111 below outlines trade barriers in a number of professional services sectors. Note that there are especially high barriers in mode 1 across all of these professional services sectors.

Figure 111. Services trade restrictiveness (STRI) for professional services in Paraguay

Source: World Bank STRI Data.

Uruguay

Uruguay does not apply general regulations on the exercise of professions, which are regulated through the approval of study programmes used to obtain qualifications and compliance with legal standards. Any professional qualification gained abroad is revalidated by the Regulation on the Revalidation and Recognition of Qualifications, Academic Grades and Foreign Study Certificates.

Academic grades and qualifications may be revalidated and recognised by the Central Administrative Council of the University of the Republic. To practice accountancy services in Uruguay, persons who obtained professional qualifications abroad must seek the revalidation of these qualifications in Uruguay. Foreign accounting firms may be established and practice in Uruguay, but balances must be certified by a chartered accountant, and must comply with international accounting rules.

Table 99: Uruguay's current commitments under the WTO GATS agreement in business services²⁴³

	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
1. Business services								
<u>A Professional services</u>								
Legal services	-	-	-	-	-	-	-	-
Accounting, auditing and book-keeping services	-	-	-	-	-	-	-	-
Architectural services	-	-	-	-	-	-	-	-
Engineering services	-	-	-	-	-	-	-	-
<u>B Computer and related services</u>								
Consultancy services related to the installation of computer hardware	F	F	F	P	F	F	F	P
Software implementation services	F	F	F	P	F	F	F	P
Data processing services	F	F	F	P	F	F	F	P
Database services	F	F	F	P	F	F	F	P
Other	F	F	F	P	F	F	F	P
<u>D Real estate services</u>								
Involving own or leased property	F	F	F	P	F	F	F	P
On a fee or contract basis	F	F	F	P	F	F	F	P
<u>E Rental/leasing services without operators</u>								
Relative to private cars without operator	F	F	F	P	F	F	F	P
Relating to other machinery and equipment without operator	F	F	F	P	F	F	F	P
Other	F	F	F	P	F	F	F	P

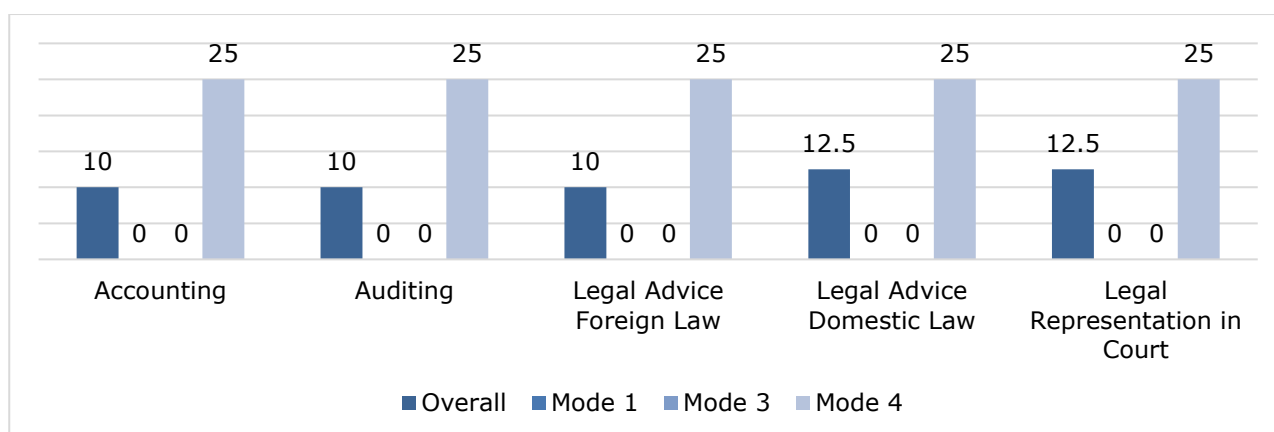
²⁴³ M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See: WTO, 1994. GATS/SC/91. Available at: https://www.wto.org/english/tratop_e/serv_e/serv_commitments_e.htm.

F Other business services								
Advertising services	-	-	-	-	-	-	-	-
Market research and polling services	F	F	F	P	F	F	F	P
Management consulting services	F	F	F	P	F	F	F	P
Services related to management consulting	F	F	F	P	F	F	F	P
Placement and supply services of personnel	F	F	F	P	F	F	F	P
Other business services, including translation and interpretation services, and interior design services	F	F	F	P	F	F	F	P

Source: WTO.

According to the World Bank STRI database, Uruguay is largely open with regard to modes 1 and 3 in the professional services analysed. Only minor barriers can be observed in the case of mode 4.

Figure 112: Services trade restrictiveness (STRI) for professional services in Uruguay



Source: World Bank STRI Data.

Summary economic impact

EU exports to Argentina, Brazil and Uruguay in business services have increased at relatively high rates between 2010 and 2015. Furthermore, EU imports of business services especially from Brazil and Uruguay have experienced high growth rates. Despite a growing importance of EU-Mercosur trade in business services, the above analysis has shown that several trade barriers still prevail for business services traded between the EU and Mercosur.

Stakeholders consulted by the authors confirmed a number of sectorial priorities in relation to an EU-Mercosur agreement. According to World Bank and OECD data as well as stakeholder feedback, significant barriers still exist for mode 4 services supply across Mercosur countries. Stakeholders mentioned that the movement of services providers on a temporary basis is important for the effective operation of services companies. Stakeholders also stressed the need to be able to send their personnel to Mercosur countries to subsidiaries, branches and clients.

In addition, restrictions on foreign entry remain especially for accounting and legal services in Brazil. Uruguay and Paraguay have limited commitments in professional services in their GATS schedules. Again, stakeholders stressed that increased levels of liberalisation in professional services sub-sectors would improve market access in Brazil, Paraguay and Uruguay. Stakeholders also pointed to Brazil's mode 3 national treatment restrictions requiring special

registration for foreign accountants, as well as a market access limitations prohibiting non-residents from participating in juridical person controlled by Brazilian nationals.

Considering the dynamic effects resulting from trade liberalisation, such as increasing competition and increased innovative activity, a liberalisation of business services trade between the EU and Mercosur is likely to result in higher levels of economic activity in both regions. This is particularly true for Mercosur countries which find themselves in an economic catch-up process and generally benefit from a more efficient allocation of resources, as is reflected by estimated static gains from trade liberalisation. Furthermore, higher levels of industry output and export volumes are estimated for Mercosur countries as a result of business services trade liberalisation. As business services are increasingly linked to manufacturing, the long-term dynamic effects from business services liberalisation potentially contribute significantly to the overall economic benefits.

Individual Mercosur countries are also expected to derive significant medium- to long-term economic benefits, which can be attributed to increases in domestic competition, greater access to innovative services and the adoption of innovative services by domestic downstream sectors. In other words, Mercosur countries would import productivity from EU suppliers: liberalisation of trade and investment in business and professional services would likely contribute to increases in the productivity of manufacturing and agriculture and raise the international competitiveness of Mercosur countries' manufacturing and agriculture companies. This in turn can lead to additional creation of jobs, resulting in higher tax revenues and beneficial social impacts in the medium- to long-term.

Generally, both the EU and individual Mercosur countries would gain from the liberalisation of business and professional services. Given the differences in the state of economic development, the nature and magnitude of the benefits would be different. Liberalisation of business services trade between the EU and Mercosur would result in higher levels of trade and investment in all services categories. Since business and professional services are important inputs to production for almost all sectors of the economy, ranging from agriculture to other services sectors, positive spill-overs can be expected for productivity and economic activity in all regions, including the EU.

Businesses and consumers in Mercosur countries would largely benefit from improved access to a greater portfolio of a wide range of modern business and professional services, including ICT services, consulting services and professional services. Due to greater access to these services and greater competition in the domestic marketplace, business and final consumers in Mercosur countries would benefit from greater choice, higher quality and more competitive prices.

For the EU, the positive impacts would largely result from increased exports of modern business and professional services and growing investment activities by European firms in Mercosur countries, including by SMEs operating in these sectors.

Environmental Impact

In addition to the social impacts outlined, no significant environmental impact is expected.

Social and Human Rights Impacts

Liberalisation in the business services sector could have additional positive effects for the productivity in manufacturing and the competitiveness of Mercosur countries' manufacturing

exports. This can in turn have a positive effect on overall economic activity and lead to an additional creation of jobs. Higher levels of economic activity would result in higher tax revenues and therefore beneficial social impacts in the medium- to long-term. In general, social impacts, e.g. the effect on skilled and unskilled employment are estimated to be marginal. Furthermore, the liberalisation of EU-Mercosur business services trade would not have a significant impact on human rights.

Impact on SMEs

High degrees of regulatory heterogeneity also puts SMEs at a systematic competitive disadvantage to larger services suppliers as SMEs generally lack specialised human resources to overcome regulatory differences. Therefore, EU-Mercosur trade in business services would generally benefit from higher degrees of regulatory alignment.

Impact on Consumers

Incentives and opportunities in other economic sectors will be affected by the removal of trade barriers in the business services sector, which could potentially have significant effects across the economy. In addition, the removal of trade barriers in the business services sector also creates new market opportunities. This will affect the economic behaviour of enterprises in B2B and B2C markets, resulting in changes also for producers in other sectors as well as final consumers and households.

Impact on LDCs

No specific impact on LDCs is previewed.

Impact on OMRs

No specific impact on OMRs in previewed.

Policy Recommendations

- **Mercosur and EU policymakers should generally aim to liberalise business and professional services trade** in all modes of supply.
- **Both parties should address visa restrictions that prevent professional and business services.** Significant barriers still exist for mode 4 services supply across Mercosur countries. Affecting both EU and Mercosur exporters and investors, visa restrictions prevent the provision of many professional and business services, particularly in modes 3 and 4, and the realisation of the positive gains from the agreement respectively.
- **Both parties should align their service industry standards to benefit from greater levels of regulatory cooperation between trading partners.** Differences in standards for professional and business services providers as well as licensing requirements prevent trade and investment. We recommend to aim for greater levels of regulatory harmonisation of sector-specific regulations and/or seek for greater use of mutual recognition of standards where equivalence of standards is recognised by the negotiating parties. We also recommend that equivalence decisions are guided by the principle of non-discrimination.

- **Both parties should eliminate licensing requirements which prevent trade and investment.** We recommend to tackle existing restrictions from licensing. Existing and future licensing requirements should not discriminate against other parties' operators.
- **Both parties should maintain high levels of consumer protection.** Equivalence decisions should be based on evidence regarding the impact on legitimate public policy objectives, particularly consumer safety and, where applicable, public health and environmental protection.

6.5.2. Financial services

Overview

Table 100 and Table 101 provide a breakdown of EU-Mercosur exports and imports of financial and insurance services. Financial services account for 3.5% of EU service exports to Mercosur, while insurance services account for 1.6%. It should be noted that these shares significantly lower than for overall EU services exports. On the import side, financial services imports account for 2.9% of EU services imports from Mercosur, while imports of insurance services account for 2.0%.

Table 100: Composition of EU services exports to Mercosur by service type

Service Type	Share in EU28 Exports to Mercosur	Share in EU28 Exports to Extra-EU28 destinations
Financial services	3.5%	10.5%
Insurance and pension services	1.6%	3.8%

Source: Eurostat. 2015. Notes: Table shows shares of different service types in EU exports to Mercosur and to all extra-EU28 destinations, respectively.

Table 101: Composition of EU services imports from Mercosur by service type

Service Type	Share in EU28 Imports from Mercosur	Share in EU28 Imports from Extra-EU28 destinations
Financial services	2.9%	6.4%
Insurance and pension services	2.0%	2.1%

Source: Eurostat. 2015. Notes: Table shows shares of different service types in EU imports from Mercosur and from all extra-EU28 destinations, respectively.

General overview of existing trade barriers for financial and insurance services

Information on barriers to service trade is still scarce for non-OECD countries. Table 102 presents information on trade and investment (commercial presence) barriers for financial and insurance services from the World Bank's Service Trade Restrictiveness Index (STRI).

Generally, Argentina has a similar barrier profile to the EU. At the same time, there are substantial differences with the remaining Mercosur countries which tend to be more protectionist in financial and insurance services.

Table 102: Service Trade Barriers for Selected Service Types

Country/Mode	Financial services	Insurance and pension services
Overall - EU20²⁴⁴	4	5
Mode 1	25	50
Mode 3	0	0
Mode 4	N/A	N/A
Overall - Argentina	9	7
Mode 1	63	67
Mode 3	0	0
Mode 4	N/A	N/A
Overall - Brazil	46	20
Mode 1	25	67
Mode 3	50	8
Mode 4	N/A	N/A
Overall - Uruguay	43	50
Mode 1	0	100
Mode 3	50	25
Mode 4	N/A	N/A
Overall - Paraguay	21	23
Mode 1	0	67
Mode 3	25	25
Mode 4	N/A	N/A

Source: World Bank STRI. Notes: Table shows trade barriers to service trade as measured by the World Bank's Service Trade Restrictiveness Index (0: no barriers, 100: sector closed to trade, N/A: no data available)

Domestic production of financial services in Mercosur countries

For Argentina, recent OECD data indicate that services production accounts for 61% of national GDP, of which financial services account for 14% of Argentina's GDP (Table 103). Brazil's economy shows an even larger share of services in total GDP (Table 104), whereby financial services production accounts for about 6% of GDP.

Table 103: National composition of GDP, Argentina

Argentina	2016
Production of Services in per cent of GDP	
Total Services	60.6%
Financial and insurance services	13.8%
Other services	22.8%

Source: OECD.

²⁴⁴ EU20 is an artificial entity of 20 EU member states created by World Bank STRD to capture their policies as applicable to non-EU providers.

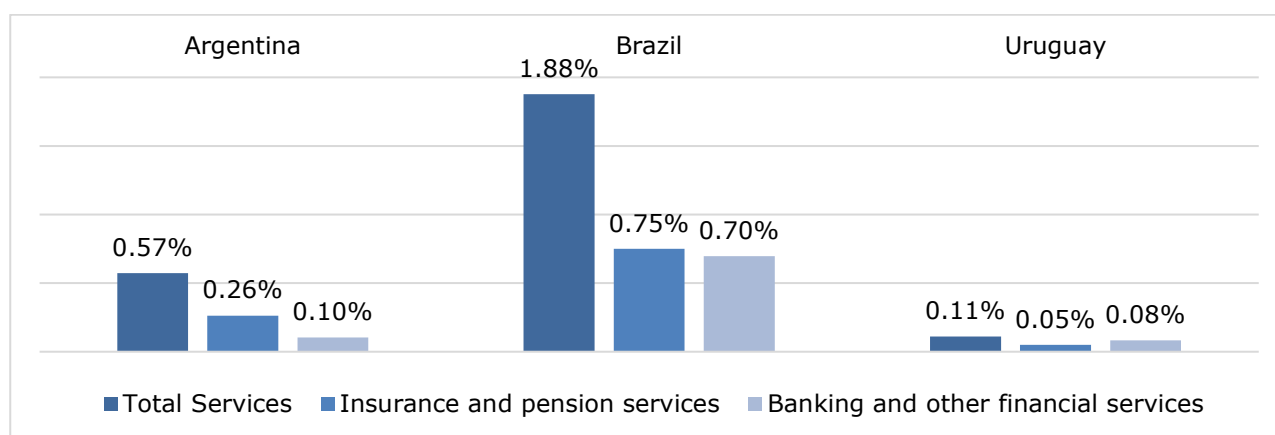
Table 104: National composition of GDP, Brazil

Brazil	2014
Production of Services in per cent of GDP	
Total Services	69.1%
Financial and insurance services	5.7%

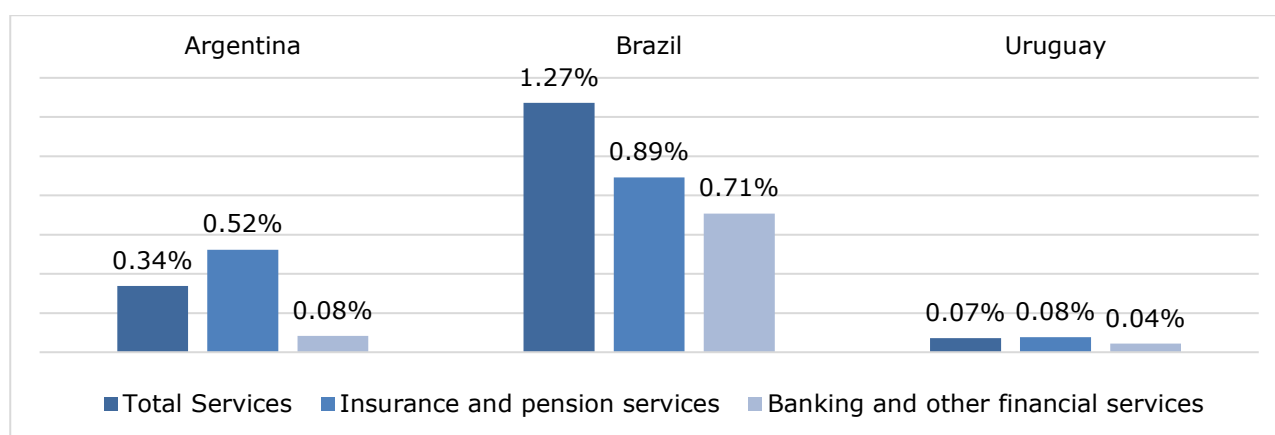
Source: OECD.

Shares of Extra-EU financial services trade with individual Mercosur countries

As shown by Figure 113 and 114, individual Mercosur countries' share in total EU services trade (exports and imports) is still relatively low. This pattern is generally mirrored by trade volumes for financial and insurance services. Brazil is the most important Mercosur destination for EU financial and insurance services exports, accounting for 1.88% of total EU services exports. The second most important trading partner in the Mercosur region is Argentina. For EU imports of financial services, similar patterns apply (Figure 114).

Figure 113: Share in total Extra-EU28 exports, financial and insurance services, 2015

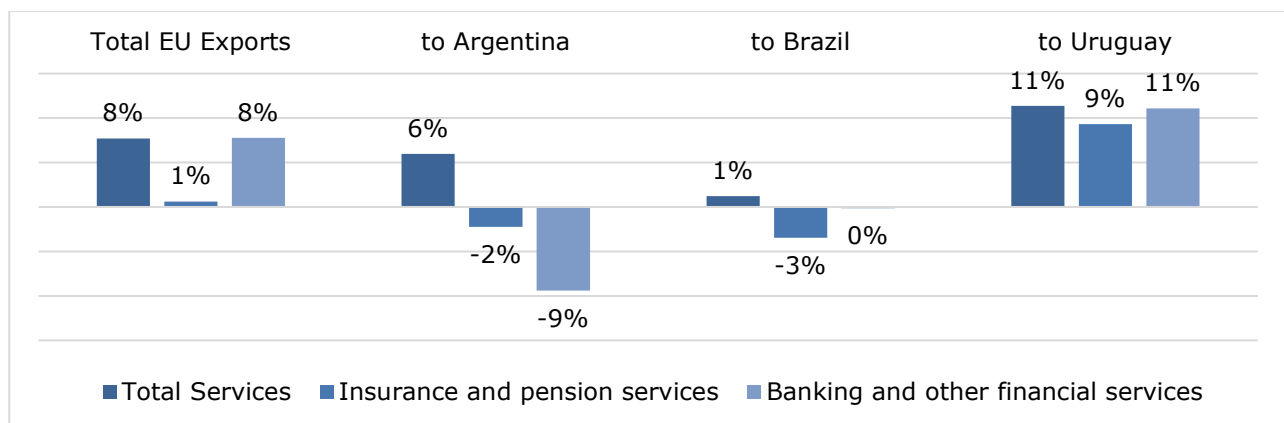
Source: Eurostat. Note: Eurostat does not provide international services trade data for EU trade with Paraguay.

Figure 114: Share in total Extra-EU28 imports, financial and insurance services, 2015

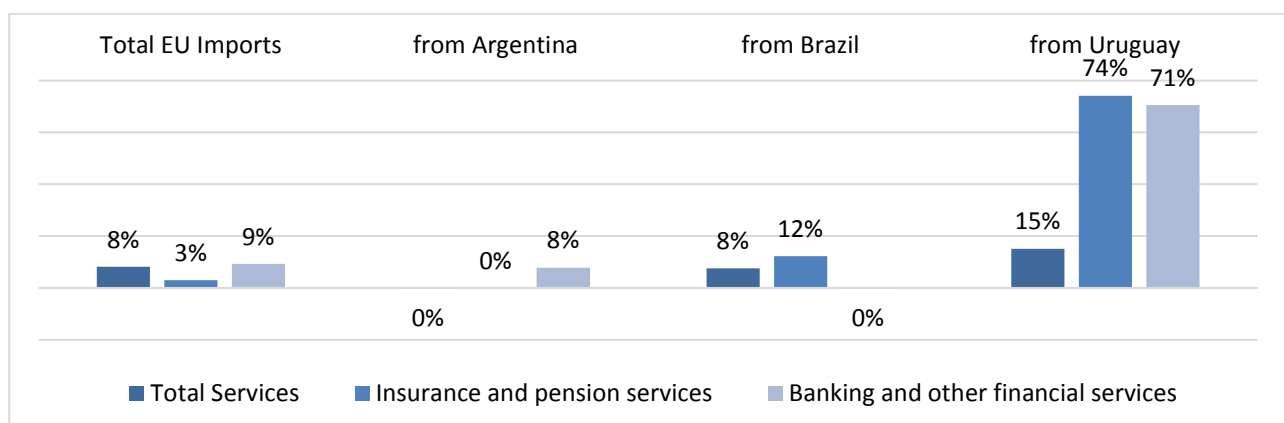
Source: Eurostat. Note: Eurostat does not provide international services trade data for EU trade with Paraguay.

Growth of Extra-EU trade in financial services with individual Mercosur countries

Even though individual Mercosur countries' overall shares in Extra-EU trade are still relatively low compared to the EU's major trading partners, EU financial services suppliers could substantially benefit from greater levels of market access due to Mercosur countries economic catch-up process and rising trade volumes over time. Between 2010 and 2015, total services trade with individual Mercosur countries already increased at an average annual rate of 8% (for both EU exports to and EU imports from Mercosur countries)²⁴⁵. While EU financial services exports to Argentina and Brazil declined somewhat between 2010 and 2015, financial services exports to Uruguay increased by about 10% per year. At the same time, Uruguay itself registered a strong growth in financial services exports, mainly driven by (freight) insurance and reinsurance services, but also relatively low base values for the year 2010 (Figure 115; Figure 116; Table 105, and Table 106).

Figure 115: Average annual growth rate of EU exports, 2010 - 2015

Source: Eurostat. Note: Eurostat does not provide international services trade data for EU trade with Paraguay. Note that Eurostat database does not provide international services trade data for EU trade with Paraguay. Overall, total services trade between the EU and Paraguay remains relatively modest. Total exports of services from the EU to Paraguay have remained at approximately 0.2 billion Euros from 2012 to 2015. Overall, EU total services imports from Paraguay have stayed at 0.1 billion Euros from 2012 to 2015.

Figure 116: Average annual growth rate of EU imports, 2010 - 2015

Source: Eurostat. Note: Eurostat does not provide international services trade data for EU trade with Paraguay.

²⁴⁵ Note that Eurostat database does not provide international services trade data for EU trade with Paraguay. Overall, total services trade between the EU and Paraguay remains relatively modest. Total exports of services from the EU to Paraguay have remained at approximately 0.2 billion Euros from 2012 to 2015. Overall, EU total services imports from Paraguay have stayed at 0.1 billion Euros from 2012 to 2015.

**Table 105: Financial and insurance services trade between the EU and individual Mercosur countries: EU exports**

2015, in million EUR	Total EU services exports					EU services exports to Mercosur					
Sector/sub-sector	EU					Argentina		Brazil		Uruguay	
	Total EU imports	In % of total services imports	Total EU exports	In % of total services exports	Trade Balance	Total exports	In % of total EU services exports	Total exports	In % of total EU services exports	Total exports	In % of total EU services exports
Total Services	685,656.5	100%	831,528.5	100%	145,872.0	4,755.2	0.6%	15,610.0	1.9%	922.2	0.1%
Insurance and pension services	14,351.7	2%	25,947.0	3%	11,595.3	68.2	0.0%	194.6	0.0%	13.1	0.0%
Direct insurance	4,051.0	1%	13,684.1	2%	9,633.1	16.6	0.0%	46.1	0.0%	0.3	0.0%
Life insurance	1,446.4	0%	1,418.0	0%	-28.4	0.1	0.0%	3.3	0.0%	0.0	0.0%
Freight insurance	1,899.8	0%	957.6	0%	-942.2	14.1	0.0%	23.9	0.0%	0.2	0.0%
Direct insurance other than life and freight insurance	701.6	0%	11,310.5	1%	10,608.9	1.3	0.0%	19.8	0.0%	0.1	0.0%
Reinsurance	4,490.7	1%	6,468.3	1%	1,977.6	26.1	0.0%	107.4	0.0%	6.7	0.0%
Auxiliary insurance services	5,804.7	1%	5,495.3	1%	-309.4	24.7	0.0%	47.6	0.0%	6.1	0.0%
Pension and standardised guarantee services	5.6	0%	298.4	0%	292.8	0.9	0.0%	-5.6	0.0%	0.1	0.0%
Pension services	6.7	0%	39.2	0%	32.5	0.9	0.0%	1.4	0.0%	0.0	0.0%
Standardised guarantee services	-0.1	0%	259.2	0%	259.3	0.0	0.0%	-7.0	0.0%	0.1	0.0%
Financial services	40,945.0	6%	87,351.1	11%	46,406.1	98.7	0.0%	609.2	0.1%	71.4	0.0%
Financial services explicitly charged and other financial services	35,509.3	5%	70,204.3	8%	34,695.0	90.3	0.0%	401.9	0.0%	64.5	0.0%
Financial intermediation services indirectly measured (FISIM)	5,435.8	1%	17,147.7	2%	11,711.9						

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided).

**Table 106: Financial and insurance services trade between the EU and individual Mercosur countries: EU imports**

2015, in million EUR	Total EU services exports					EU services imports from Mercosur					
Sector/sub-sector	EU					Argentina		Brazil		Uruguay	
	Total EU imports	In % of total services imports	Total EU exports	In % of total services exports	Trade Balance	Total imports	In % of total EU services imports	Total imports	In % of total EU services imports	Total imports	In % of total EU services imports
Total Services	685,656.5	100%	831,528.5	100%	145,872.0	2,314.8	0.3%	8,727.3	1.0%	488.4	0.1%
Insurance and pension services	14,351.7	2%	25,947.0	3%	11,595.3	75.1	0.0%	127.9	0.0%	10.9	0.0%
Direct insurance	4,051.0	1%	13,684.1	2%	9,633.1	7.7	0.0%	22.8	0.0%	1.7	0.0%
Life insurance	1,446.4	0%	1,418.0	0%	-28.4	0.0	0.0%	0.1	0.0%	0.0	0.0%
Freight insurance	1,899.8	0%	957.6	0%	-942.2	7.7	0.0%	21.0	0.0%	1.7	0.0%
Direct insurance other than life and freight insurance	701.6	0%	11,310.5	1%	10,608.9	0.1	0.0%	0.8	0.0%	0.0	0.0%
Reinsurance	4,490.7	1%	6,468.3	1%	1,977.6	2.1	0.0%	24.7	0.0%	2.0	0.0%
Auxiliary insurance services	5,804.7	1%	5,495.3	1%	-309.4	64.1	0.0%	79.4	0.0%	7.1	0.0%
Pension and standardised guarantee services	5.6	0%	298.4	0%	292.8	0.0	0.0%	0.0	0.0%	0.0	0.0%
Pension services	6.7	0%	39.2	0%	32.5	0.0	0.0%	0.0	0.0%	0.0	0.0%
Standardised guarantee services	-0.1	0%	259.2	0%	259.3	0.0	0.0%	0.0	0.0%	0.0	0.0%
Financial services	40,945.0	6%	87,351.1	11%	46,406.1	34.2	0.0%	289.8	0.0%	17.8	0.0%
Financial services explicitly charged and other financial services	35,509.3	5%	70,204.3	8%	34,695.0	29.9	0.0%	224.1	0.0%	17.7	0.0%
Financial intermediation services indirectly measured (FISIM)	5,435.8	1%	17,147.7	2%	11,711.9						

Source: Eurostat. Note: Eurostat does not provide a breakdown by service type for the international services trade data for EU trade with Paraguay (only total services are provided).

Assessment of the impact

In the following, we provide a more detailed analyses of relevant CGE modelling results and existing policy barriers financial and insurance services trade between the EU and individual Mercosur countries. Our analyses of policy barriers are based on services trade restrictiveness data provided by the World Bank, the OECD (for Brazil) and existing schedules for country-specific commitments under the WTO GATS agreement.

According to Article 5 of the financial services Annex of the General Agreement on Trade in Services (GATS), financial services include insurance and insurance-related services as well as banking and other financial services (excluding insurance).

Banking and other financial services cover all financial service activities and auxiliary services related to banking operations, including the acceptance of deposits, lending operations, payment and transmission services, security trading, and foreign exchange operations, but also asset management and financial advisory services. Insurance and insurance-related services include direct insurance (including life and non-life, and co-insurance), reinsurance and retrocession, insurance intermediation (such as brokerage and agency) and services auxiliary to insurance (such as consultancy, actuarial services, risk assessment and claim settlement services).

Economic analysis

The modelling results suggest that EU output of financial services would largely remain unchanged (changes below the perception threshold under both scenarios; Table 107 and Table 108). Output of financial services would slightly increase for individual Mercosur countries under both scenarios, with highest (but still low) percentage changes in Argentina (up to 0.9%). Under the conservative scenario, EU financial services exports would slightly decrease, while EU imports would slightly increase. The modelling results are more pronounced (though still low) for the ambitious scenario with EU exports of financial services falling by up to 1%. Brazilian exports of financial services would rise by about 9% under the ambitious scenario, while Argentinian exports of financial services would rise by up to 3.3%. Both Paraguay and Uruguay show relatively low changes in export and import volumes. The long-term impact of financial services liberalisation on the development of skilled labour is estimated to be negative, but generally below the perception threshold.

Table 107: CGE-model results in the financial services and insurance sector in the conservative scenario (all numbers are in % changes relative to baseline)

Sectors	EU	BRA	ARG	URY	PRY
Output	-0.14	0.12	0.37	0.14	-0.06
Private	0.04	0.07	0.14	-0.28	-0.11
Exports	-0.73	3.51	-0.02	1.47	0.81
Import	0.22	-1.61	0.34	-0.32	-0.60
Unskilled	-0.18	-0.56	-0.15	-0.27	-0.14
Skilled	-0.16	-0.13	0.00	0.13	0.04

Source: CGE Modelling Results.

Table 108: CGE-model results in the financial services and insurance sector in the ambitious scenario (all numbers are in % changes relative to baseline)

Sectors	EU	BRA	ARG	URY	PRY
Output	-0.20	0.21	0.57	0.20	-0.19
Private	0.06	0.12	0.28	-0.37	-0.15
Exports	-1.05	9.26	3.32	2.81	1.98
Import	0.35	-3.19	-0.22	-0.53	-0.23
Unskilled	-0.16	-0.13	0.00	0.13	0.04
Skilled	-0.28	-0.67	-0.25	-0.48	-0.32

Source: CGE Modelling Results.

Assessment of barriers and existing levels of market access

Many financial services are characterised by a considerable overlap between Mode 1 and Mode 2 supply, whereby the dividing line between these two modes of supply is not always clear. As financial services are intangible, assigning a geographic location to their provision across borders is generally prone to discretion. Some analysts therefore combine modes 1, 2 and 4 into a single category of cross-border trade, defined as “the provision of financial services by a financial firm located in one country to a customer residing in another country without the establishment of a commercial presence” (OECD, 1999). It should be noted that a country where a financial services provider is located is not necessarily the country where it is headquartered, but may be a third country where the company has a subsidiary or a branch office.

Mode 3 trade in financial services differs from the other three modes of supply in that it does require a commercial presence. Mode 3 trade also differs from the other three modes in the extent that it depends on cross-border capital transfers. While cross-border trade in financial services (particularly Mode 1) generally requires a high degree of national capital account opening, e.g. capital exports or capital imports (free movement of capital), it does not (necessarily) rely on a commercial presence and the national regulations attached to foreign investment in national financial services sectors. Accordingly, commitments to Mode 3 trade (investment) require the liberalisation of capital inflows related to the foreign investment, while Mode 1 trade in financial services requires liberalisation of both capital inflows and capital outflows.

The EU-Mercosur negotiations aim for commitments for services trade liberalisation that go beyond those that have been made under the GATS agreement considering that market access conditions for financial services and the application of the GATS' basic principles – national and MFN treatment – are provided by different country-specific schedules.

Generally, the barriers to trade in financial services are typically those defined in GATS Article XVI:

- *Presence of natural persons (Mode 4): the possibilities offered for the entry and temporary stay in the Member's territory of foreign individuals in order to supply a service.*
- *Limitations on the number of service suppliers*
- *Limitations on the value of service transactions or assets*
- *Limitations on the number of service operations or quantity of output*
- *Limitations on the number of people employed in a particular service*
- *Measures which restrict the types of organisation that may supply a service*
- *Limitations on the participation of foreign capital, in terms of a limit on foreign shareholding or the total value of individual or aggregate foreign investment*

For banking and insurance services, Mercosur countries' specific commitment schedules indicate that these countries still maintain different commitments and several regulatory exemptions for market access and national treatment for all modes of financial services supply. Therefore, EU suppliers of banking, insurance and reinsurance services face numerous regulatory barriers impeding and in some cases even preventing them from operating in individual Mercosur countries. A discussion of key policy barriers is provided below.

Argentina

Banking Services

According to Argentina's Schedule of Specific Commitments under the GTAS agreement, financial operations by the Government and State-owned enterprises are generally excluded from the conditions specified in its schedule.²⁴⁶ In addition, as shown by Figure 117, Argentina is still free to introduce or maintain measures for Mode 1 and Mode 4 services that are inconsistent with both market access and national treatment for a great number of banking services, including depository operations, lending operations and other common banking services like payment and trading services. No limitations on market access and national treatment apply for financial advisory services as well as the provision of and processing of financial information. In accordance with the principle of equal treatment between both national and foreign capital, the Argentinian law sets no restrictions on the nationality of the investors who wish to participate in the local financial system nor on the operations that the entities in which they participate can perform.

²⁴⁶ Argentina's Schedule of Specific Commitments, GATS/SC/4, 15 April 1994.

Table 109: Current commitments under the WTO GTAS agreement, financial services, Argentina²⁴⁷

	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
7. Financial services								
<u>A All insurance services and insurance-related services</u>								
Life, accident and health insurance services	U	U	U	P	U	U	F	P
Non-life insurance services	U	U	U	P	U	U	F	P
Maritime and air transport insurance services	F	F	U	P	F	F	F	P
Reinsurance and retrocession services	F	F	U	P	F	F	F	P
<u>B Banking and other financial services (excluding insurance)</u>								
Acceptance of deposits and other repayable funds from the public	U	F	F	P	U	F	F	P
Lending of all types including consumer credit, mortgage credit, factoring and financing of commercial transactions	U	F	F	P	U	F	F	P
Financial leasing services	U	F	F	P	U	F	F	P
Payment and money transmission services	U	F	F	P	U	F	F	P
Guarantees and commitments	U	F	F	P	U	F	F	P
Trading on own account or for clients, whether on an exchange or not, or in any other form, of the following: money market instruments, foreign exchange, derivative products, exchange rate and interest rate instruments, transferable securities, other negotiable instruments and financial assets.	U	F	F	P	U	F	F	P
Participation in issues of all kinds of securities	U	F	F	P	U	F	F	P
Money broking	U	F	F	P	U	F	F	P
Asset management	U	F	F	P	U	F	F	P
Settlement and clearing services for financial assets	U	F	F	P	U	F	F	P
Advisory and other auxiliary financial services	F	F	F	P	F	F	F	P
Provision and transfer of financial information	F	F	F	U	F	F	F	P
New Financial Services	F	F	F	U	F	F	F	P

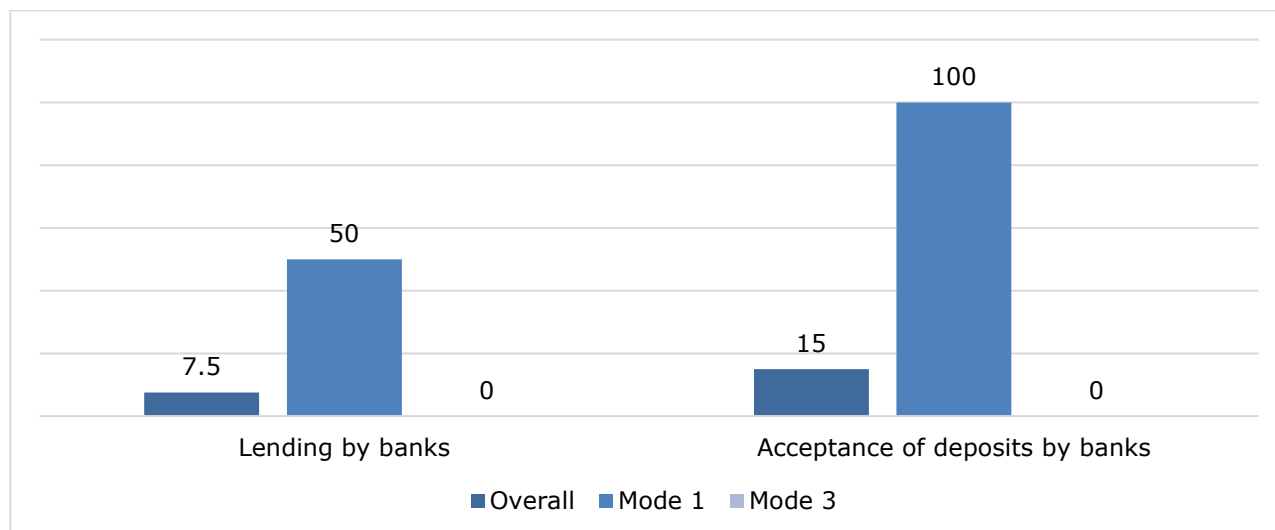
Source: Argentina's Schedule of Specific Commitments, GATS/SC/4, 15 April 1994.

In practice, as outlined by the World Bank, the Argentinian market for lending services and deposit banking services is either closed or highly restricted for foreign (non-resident) service suppliers (see Figure 117). Any banking or financial intermediation and/or solicitation of funds activities performed in Argentina require registration and licensing with the Argentine Central Bank (ACB). Registration and licensing do not apply if the banking activities are performed entirely from outside Argentina, but any foreign financial entity willing to promote its banking

²⁴⁷ M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See Argentina's Schedule of Specific Commitments, GATS/SC/4, 15 April 1994.

services and products in Argentina must first request for the ACB's authorisation. A foreign bank's representative may not perform specific banking activities, including any actions that directly or indirectly enable the representative to intermediate or raise funds in the local market. Argentina has no financial services passporting arrangements with any other jurisdiction.

Figure 117: Services trade restrictiveness (STRI) for banking services in Argentina



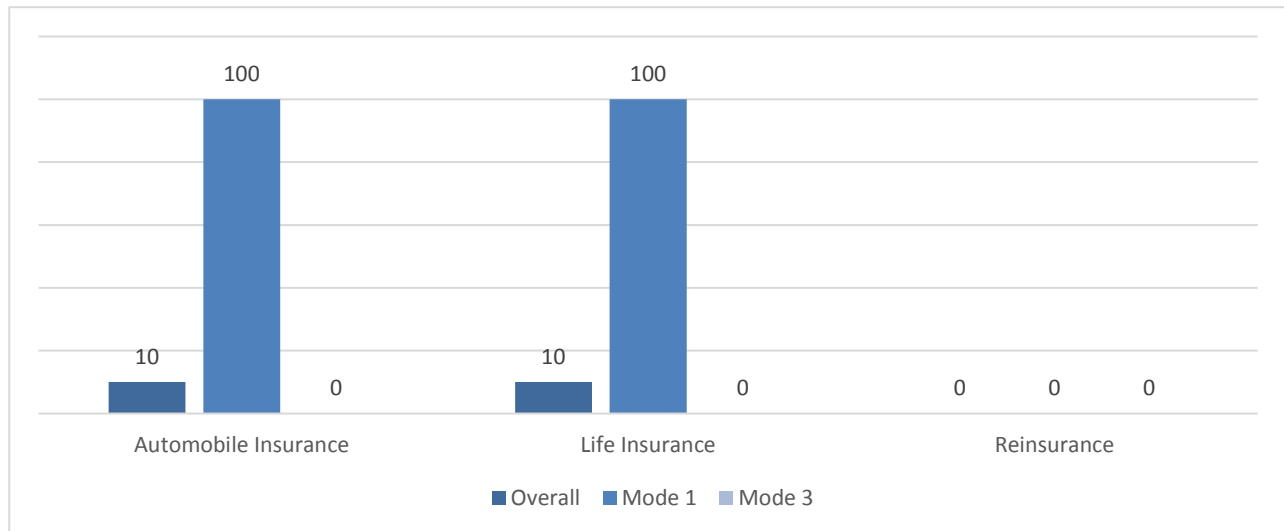
Source: World Bank STRI Data.

Insurance and Reinsurance Services

According to Argentina's Schedule of Specific Commitments under the GTAS agreement, Argentina is still free to introduce or maintain measures that are inconsistent with market access or national treatment for almost all insurance and reinsurance services sectors, incl. life, accident and health insurance series, but also maritime and air transport services and reinsurance and concession services.²⁴⁸ In practice, as outlined by the World Bank, the Argentinian market for vehicle and life insurance services are still closed, while restrictions apply for foreign (non-resident) reinsurance suppliers. For insurance and reinsurance providers wishing to set up a commercial presence in Argentina (Mode 3), no restrictions apply beyond capital requirement regulations.

European reinsurance suppliers raise several concerns regarding market access to Argentina's insurance markets (Insurance Europe, 2017a). After 2011, the Argentinian government started to introduce a number of regulations for foreign insurance companies, including a limitation to provide coverage for a portion of a risk of more than 50 million USD and for retrocession services. Some regulations were relaxed in 2016 to reopen reinsurance markets, but several limitations still apply. For example, local insurers are only allowed to place up to 75% of their ceded premiums per contract with admitted foreign reinsurers directly from July 2019 onwards, effectively implying discrimination vis-à-vis domestic reinsurance companies. In addition, minimum capital requirements exist for foreign insurance companies aiming to set up a subsidiary or branch in Argentina. Regarding Mode 1 restrictions, local reinsurers are not allowed to transfer abroad more than 75% of premiums to subsidiaries or companies belonging to the same financial conglomerate.

²⁴⁸ Argentina's Schedule of Specific Commitments, GATS/SC/4, 15 April 1994.

Figure 118: Services trade restrictiveness (STRI) for insurance services in Argentina

Source: World Bank STRI Data.

Brazil

Banking Services

According to Brazil's Schedule of Specific Commitments under the GTAS agreement, the establishment of new branches and subsidiaries of foreign financial institutions, as well as increases in the participation of foreign persons in the capital of financial institutions incorporated under Brazilian law, is only permitted when subject to a case-by-case authorisation by the Executive Branch, by means of a Presidential decree.²⁴⁹

A commercial presence of a non-financial institution providing financial services, legal persons must be incorporated under Brazilian law. Clearing services providers must be incorporated as "sociedades anônima". The Brazilian government is still largely free to introduce or maintain policies for that are inconsistent with both market access and national treatment for a great number of banking services (particularly Mode 1 and 2 restrictions), including depository operations, lending operations and other common banking services like payment and trading services. No limitations on market access and national treatment apply for financial advisory services as well as the provision of and processing of financial information.

²⁴⁹ Brazil's Schedule of Specific Commitments, GATS/SC/13, 27 June 2016.

Table 110: Current commitments under the WTO GTAS agreement, financial services, Brazil²⁵⁰

	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
7. Financial services								
<u>A All insurance services and insurance-related services</u>								
Life, accident and health insurance services	U	U	U	P	U	U	F	P
Non-life insurance services	U	U	U	P	U	U	F	P
Maritime and air transport insurance services	F	F	U	P	F	F	F	P
Reinsurance and retrocession services	F	F	U	P	F	F	F	P
<u>B Banking and other financial services (excluding insurance)</u>								
Acceptance of deposits and other repayable funds from the public	U	F	F	P	U	F	F	P
Lending of all types including consumer credit, mortgage credit, factoring and financing of commercial transactions	U	F	F	P	U	F	F	P
Financial leasing services	U	F	F	P	U	F	F	P
Payment and money transmission services	U	F	F	P	U	F	F	P
Guarantees and commitments	U	F	F	P	U	F	F	P
Trading on own account or for clients, whether on an exchange or not, or in any other form, of the following: money market instruments, foreign exchange, derivative products, exchange rate and interest rate instruments, transferable securities, other negotiable instruments and financial assets.	U	F	F	P	U	F	F	P
Participation in issues of all kinds of securities	U	F	F	P	U	F	F	P
Money broking	U	F	F	P	U	F	F	P
Asset management	U	F	F	P	U	F	F	P
Settlement and clearing services for financial assets	U	F	F	P	U	F	F	P
Advisory and other auxiliary financial services	F	F	F	P	F	F	F	P
Provision and transfer of financial information	F	F	F	U	F	F	F	P
New Financial Services	F	F	F	U	F	F	F	P

Source: Brazil's Schedule of Specific Commitments, GATS/SC/13, 27 June 2016.

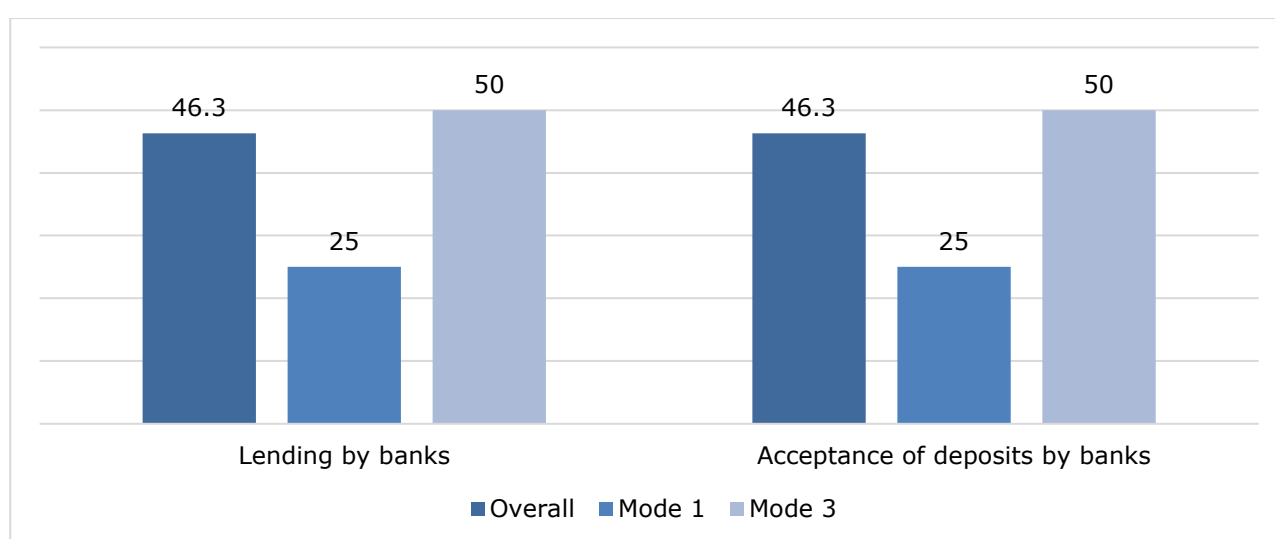
In practice, as outlined by the World Bank, the Brazilian market for lending services and deposit banking services is still highly restricted for foreign (non-resident) banking service suppliers, but also for those institutions aiming to set up a commercial presence in Brazil. As concerns the latter, business approvals and licenses for specific services generally depend on judgements of the Brazilian Central Bank, the bank regulator, and the office of the Brazilian President.

²⁵⁰ M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See Brazil's Schedule of Specific Commitments, GATS/SC/13, 27 June 2016.

In addition, some activities are “exclusive of financial institutions” and as such, may be performed only by licensed financial institutions in Brazil. The “exclusive activities of financial institutions” encompass the collection, intermediation or allocation of their own or third parties’ funds in the local or foreign currency (which generically encompasses all banking and financial services) (McKenzie, 2016).

Some cross-border lending services of foreign entities that are provided to persons domiciled in Brazil do not depend on local licenses for the foreign parties entering into the transactions (e.g. the lending bank or the foreign investor). However, these businesses usually require local registrations, and enrolment with the taxpayer’s registry. Brazil does not have any financial services “passporting” arrangements with other countries.

Figure 119: Services trade restrictiveness (STRI) for banking services in Brazil



Source: World Bank STRI Data.

Insurance and Reinsurance Services

According to Brazil’s Schedule of Specific Commitments under the GTAS agreement, all foreign insurance and reinsurance companies are required to incorporate under Brazilian law in the form of a “sociedade anônima”.²⁵¹ In addition, the enactment of a Presidential decree is required. Brazil is still free to introduce or maintain measures that are inconsistent with market access or national treatment for almost all insurance and reinsurance services sectors, incl. life, accident and health insurance series, but also maritime and air transport services and reinsurance and concession services.

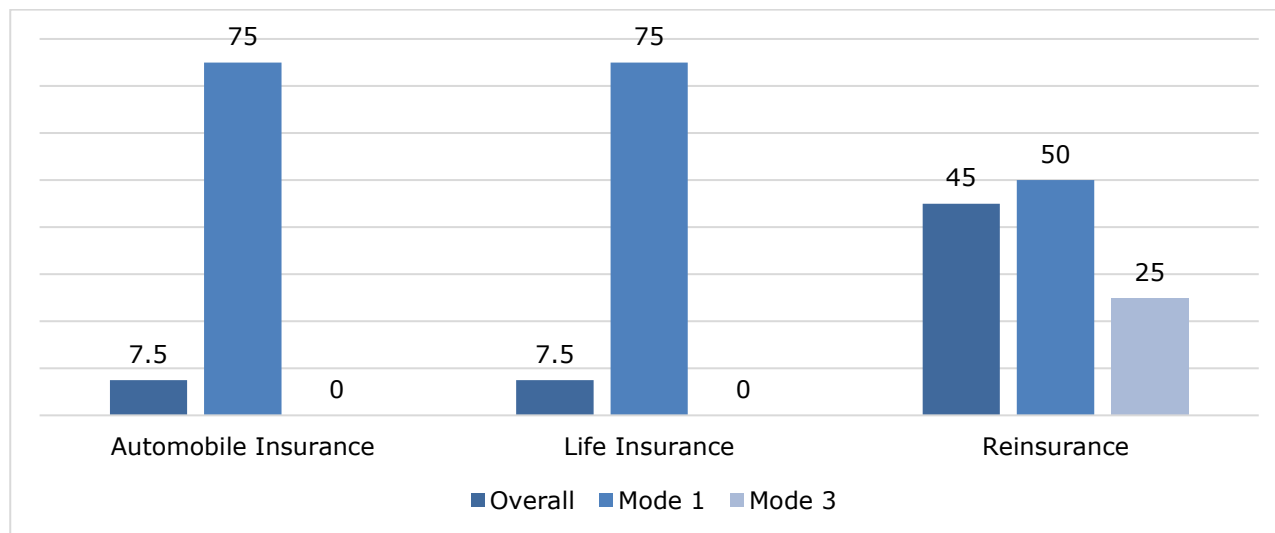
In practice, as outlined by the World Bank, the Brazilian market for vehicle, life insurance and reinsurance services still highly regulated for foreign suppliers. Several restrictions apply for foreign (non-resident) insurance and reinsurance suppliers that both trade or own a commercial presence in Brazil, incl. local needs test for vehicle insurance services, cession thresholds and legal form (incorporation) requirements and “hire national” requirements.

Even though the Brazilian government gradually opened insurance markets for foreign insurance companies after 2015, European reinsurance suppliers raise several concerns regarding market

²⁵¹ Brazil’s Schedule of Specific Commitments, GATS/SC/13, 27 June 2016.

access to Brazil's insurance markets (Insurance Europe, 2017b). There are, for example, still limits on reinsurance cessions to foreign affiliates by local (re)insurers, effectively implying discrimination against domestic providers. Regarding the level of reinsurance that must be placed with local reinsurers, market opening measures do not result in a level playing field between domestic and foreign companies.

Figure 120: Services trade restrictiveness (STRI) for insurance services in Brazil



Source: World Bank STRI Data.

Paraguay

Banking Services

Banks and finance companies are regulated by the Banking Superintendent, which is housed within, and under the direction of, the Central Bank of Paraguay. There is also a large credit union sector in Paraguay, which is quasi-regulated and does not fall under the purview of the Central Bank.²⁵²

According to Paraguay's Schedule of Specific Commitments under the GTAS agreement, the government of Paraguay is generally free to introduce or maintain measures that are inconsistent with both market access and national treatment for Mode 1, Mode 2 and Mode 4 supply of almost all banking services.²⁵³ At the same time, Mode 3 supply is generally free of any restrictions that are inconsistent with GATS market access and national treatment obligations. Mode 1, 2 and 4 restrictions apply for deposit banking and lending services. Except for Mode 4 supply, no limitations on market access or national treatment are imposed on services "auxiliary" to financial intermediation.

²⁵² See US Export.gov information on "Paraguay - Banking Systems" of 8 July 2017, available at: <https://www.export.gov/article?id=Paraguay-banking-systems>.

²⁵³ Paraguay's Schedule of Specific Commitments, GATS/SC/68, 15 April 1994.

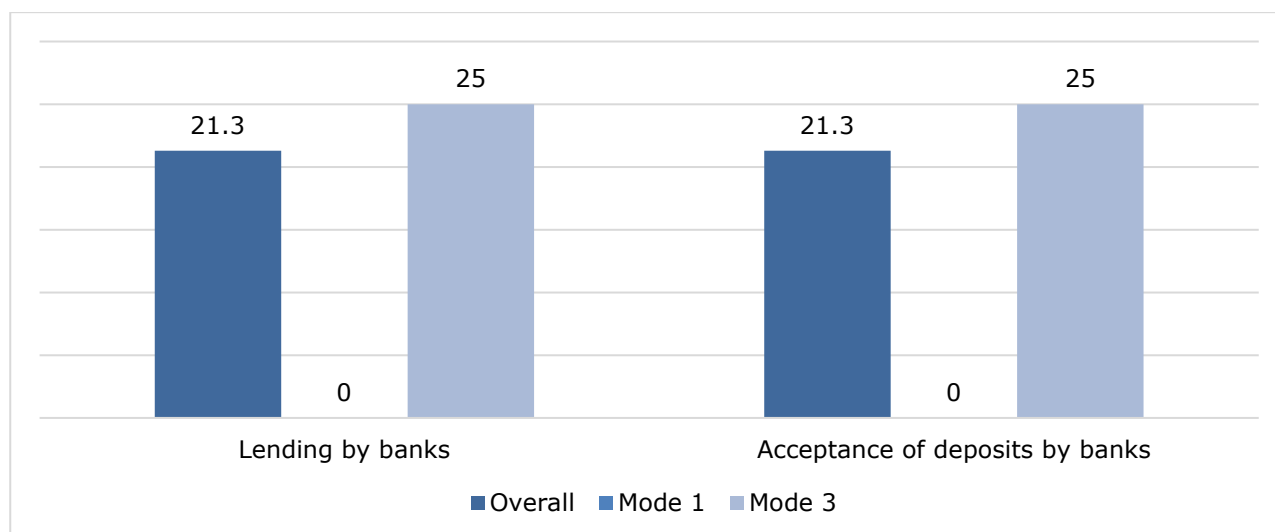
Table 111: Current commitments under the WTO GATS agreement, financial services, Paraguay²⁵⁴

	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
7. Financial services								
<u>A All insurance services and insurance-related services</u>								
Life, freight, property, medical care, liability, body and machinery insurance services	P	U	P	P	P	U	F	P
Work accident insurance services	U	U	P	P	U	U	U	U
Reinsurance and retrocession services	U	U	P	P	U	U	U	U
Auxiliary services - agencies and brokers	U	U	P	P	U	U	F	P
Auxiliary services - consultancy, actuarial and surveys	F	F	F	P	F	F	F	P
<u>B Banking and other financial services (excluding insurance)</u>								
Acceptance of deposits and other repayable funds from the public	U	U	P	P	U	U	F	P
Lending of all types including consumer credit, mortgage credit, factoring and financing of commercial transactions	U	U	P	P	U	U	F	P
Financial leasing services	U	U	P	P	U	U	F	P
Payment and money transmission services	U	U	P	P	U	U	F	P
Guarantees and commitments	U	U	P	P	U	U	F	P
Trading on own account or for clients, whether on an exchange or not, or in any other form, of the following: money market instruments, foreign exchange, derivative products, exchange rate and interest rate instruments, transferable securities, other negotiable instruments and financial assets.	U	U	P	P	U	U	F	P
Participation in issues of all kinds of securities	U	U	P	P	U	U	F	P
Money brokerage	U	U	P	P	U	U	F	P
Asset management	U	U	P	P	U	U	F	P
Settlement and clearing services for financial assets	U	U	P	P	U	U	F	P
Advisory and other auxiliary financial services	U	U	P	P	U	U	F	P
Portfolio management services	U	U	P	P	U	U	F	P

Source: Paraguay's Schedule of Specific Commitments, GATS/SC/68, 15 April 1994.

In practice, as outlined by the World Bank, Paraguay's market for lending services and deposit banking services is relatively open for foreign (non-resident) service suppliers. A key restrictive policy measure is, however, that the repatriation of earnings for foreign suppliers with a commercial presence in Paraguay, requires the authorisation of the Bank Superintendent's Office.

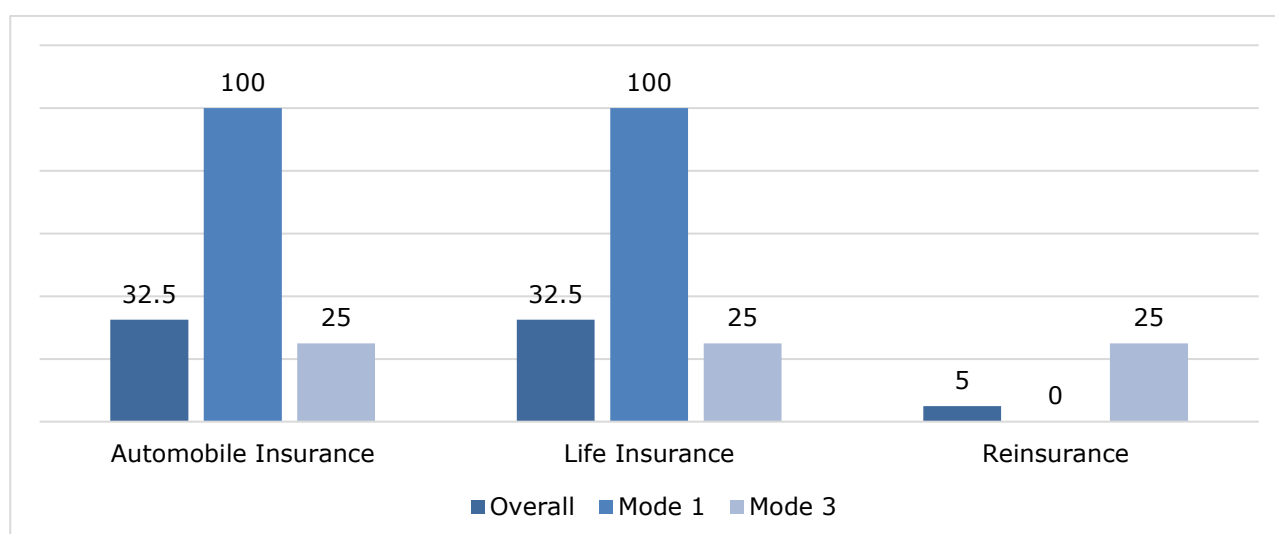
²⁵⁴ M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See Paraguay's Schedule of Specific Commitments, GATS/SC/68, 15 April 1994.

Figure 121: Services trade restrictiveness (STRI) for banking services in Paraguay

Source: World Bank STRI Data.

Insurance and Reinsurance Services

Paraguay's insurance and reinsurance market comes with several discriminatory requirements for foreign services suppliers and is therefore relatively restricted. According to the country's Schedule of Specific Commitments under the GTAS agreement, the government of Paraguay is still free to introduce or maintain measures that are inconsistent with market access or national treatment for almost all insurance and reinsurance services sectors.²⁵⁵ As outlined by the World Bank, the markets for vehicle and life insurance services is still closed to foreigners in Mode 1, while foreign reinsurers are allowed to access the market for reinsurance services from abroad. For foreigners wishing to set up a commercial presence in Paraguay restrictions for companies' board members apply.

Figure 122: Services trade restrictiveness (STRI) for insurance services in Paraguay

Source: World Bank STRI Data.

²⁵⁵ See Paraguay's Schedule of Specific Commitments, GATS/SC/68, 15 April 1994.

Uruguay**Banking Services**

According to Uruguay's Schedule of Specific Commitments under the GTAS agreement, the country's markets for banking services are relatively open for foreign services suppliers.²⁵⁶ The government of Uruguay is generally free to introduce or maintain some measures that are inconsistent with both market access and national treatment for banking services proceed under Mode 3 and 4. At the same time, however, and contrary to other Mercosur countries, no restrictions exist for Modes 1 and 2.

Table 112: Current commitments under the WTO GTAS agreement, financial services, Uruguay²⁵⁷

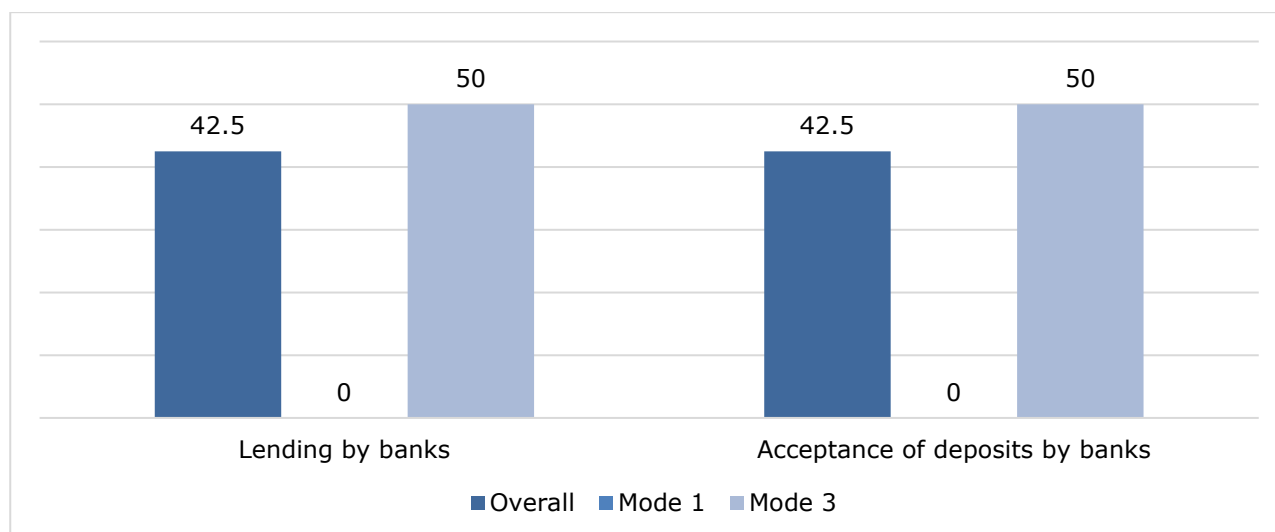
	Market access				National treatment			
	M1	M2	M3	M4	M1	M2	M3	M4
7. Financial services								
<u>A All insurance services and insurance-related services</u>								
Insurance (excluding reinsurance and retrocession)	U	U	F	P	U	U	F	P
Reinsurance and retrocession services	F	F	F	P	F	F	F	P
<u>B Banking and other financial services (excluding insurance)</u>								
Acceptance of deposits and other repayable funds from the public	U	U	F	P	U	U	F	P
Lending of all types including consumer credit, mortgage credit etc.	U	U	F	P	U	U	F	P
Other services auxiliary to financial intermediation	U	U	F	P	U	U	F	P

Source: Uruguay's Schedule of Specific Commitments, GATS/SC/91, 26 February 1998.

In practice, as outlined by the World Bank, Uruguay's market for lending services and deposit banking services is open for foreign service suppliers under Mode 1. For those who wish to set up a commercial presence, a key restrictive policy measure is the requirement to obtain a business licence, which are limited by a maximum number of licenses issued per annum. In addition, to set up a new branch, authorisation of the Central Bank is always required.

²⁵⁶ Uruguay's Schedule of Specific Commitments, GATS/SC/91, 26 February 1998.

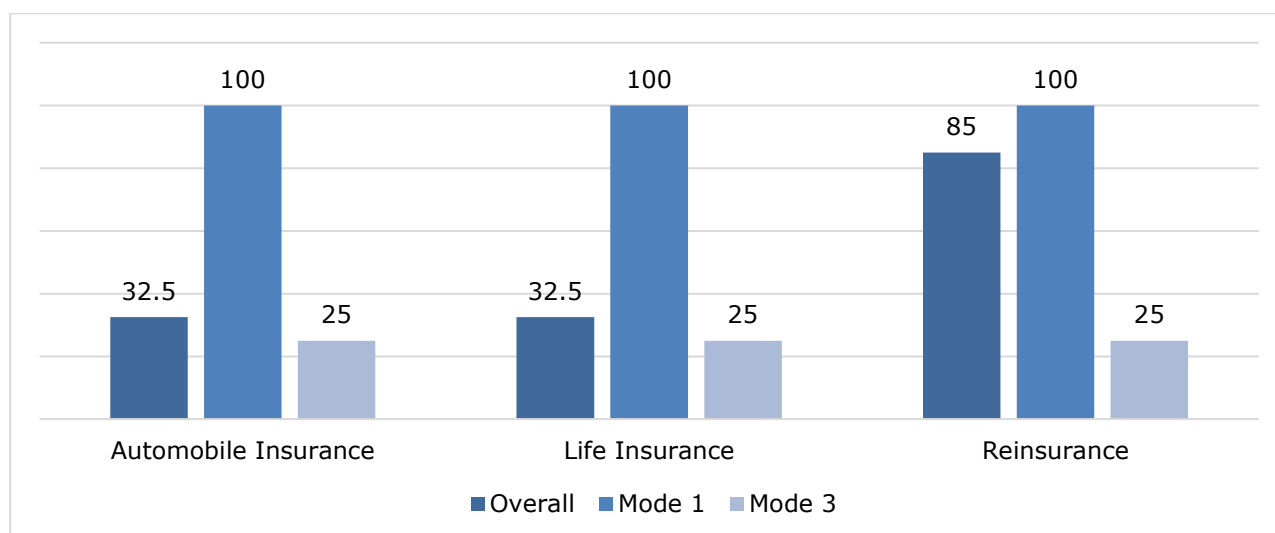
²⁵⁷ M1-M4 illustrate different modes of services supply (M1: cross-border supply, M2: consumption abroad, M3: commercial presence, M4: presence of natural persons). F, P, and U illustrate the type of commitments (F: full commitment, P: partial commitment, U: unbound), - illustrates that the sub-sector is not included in the schedule. See Uruguay's Schedule of Specific Commitments, GATS/SC/91, 26 February 1998.

Figure 123: Services trade restrictiveness (STRI) for Banking services in Uruguay

Source: World Bank STRI Data.

Insurance and Reinsurance Services

The government of Uruguay is still free to introduce or maintain measures that are inconsistent with market access or national treatment for almost all insurance and reinsurance services sectors. As outlined by the World Bank, and contrary to Uruguay's markets for banking services, the country's markets for insurance and reinsurance services are closed for suppliers from abroad (Mode 1). For foreign companies wishing to set up a commercial presence in Uruguay (Mode 3), entry through a branch is generally not allowed. In addition, "hire local" regulations apply.

Figure 124: Services trade restrictiveness (STRI) for insurance services in Uruguay

Source: World Bank STRI Data.

Summary of economic impact

Foreign suppliers of financial services wishing to set up a commercial presence abroad usually have to abide by domestic regulations, which are normally imposed on a national treatment

basis. For EU cross-border transactions with Mercosur countries, however, difficulties arise for the extent to which domestic regulations apply on a non-discriminatory basis.

As outlined above, Mercosur countries are still largely free to regulate their financial services markets in ways that impede market access or stand in opposition to national treatment. Dealing with regulators and complying with financial market regulations is costly and may put either domestic or foreign suppliers at a competitive disadvantage with respect to the other.

As regulatory heterogeneity often creates loopholes regarding the application of foreign regulations, it tends to distort the incentives for financial services trade and investment, impeding financial market supervision and monitoring. A lack of harmonisation may therefore contribute to increase systemic risks. Accordingly, the development and alignment of effective regulatory policies and mechanisms between the EU and individual Mercosur countries would not only be a key factor of financial services trade liberalisation, particularly for Modes 1, 2 and 4; it would also be an opportunity to tackle international regulatory forum shopping to reduce (systemic) risks inherent in international financial markets.

EU providers of financial services stand to gain from increased market penetration by both trade and investment. Taking into consideration dynamic effects from trade liberalisation, further liberalisation of financial services between the EU and Mercosur can potentially result in higher economic activity in both regions, particularly Mercosur countries (with estimated static gains from trade liberalisation). As financial services contribute to value-added in other sectors, such as manufacturing, higher levels of financial services trade potentially contribute significantly to the overall economic benefits, e.g. improvements in the resource allocation, innovation and productivity in and beyond manufacturing sectors.

For individual Mercosur countries, the main economic benefits from a liberalisation of trade in financial services with the EU are expected to arise from long term dynamic effects, such as increased inward investment and competition, which improve consumer welfare (access to modern, low cost financial services), increased access to innovation (e.g. cheaper and more secure payment services, FinTech innovation) and increased access to capital. Accordingly, improved market access for financial services would support growth in economic activities and contribute to structural economic change and in Mercosur countries.

Liberalisation of financial services trade between the EU and Mercosur is likely to result in higher levels of trade and investment in these services categories. Generally, EU providers of banking and insurance services are expected to gain from increased market penetration through more bilateral trade and investment. Individual Mercosur countries are expected to derive various economic benefits from greater access to modern financial services and improved access to capital.

Since both banking and (re)insurance services are important inputs to production for most sectors of the economy, ranging from agriculture to other services sectors, positive spill-overs can be expected for economic activity in all regions. Businesses in Mercosur countries would largely benefit from access to a greater portfolio of modern financial services, including retail banking, business banking, asset management and insurance services. Due to greater access to these services and greater competition in the domestic marketplace, business and final consumers in Mercosur countries would benefit from greater choice, higher qualities at more competitive prices, e.g. lower commission fees and lower transaction fees. For the EU, liberalising measures would likely result in increased exports of financial services across companies and increased investment, mainly by large European financial services providers.

Individual Mercosur countries are expected to derive significant medium- to long-term economic benefits, which can be attributed to increases in domestic competition, greater access to innovative financial services and payment networks, and the adoption of innovative services by domestic downstream companies. Mercosur countries would also benefit from the positive effect of improved access to financial service on the facilitation of commerce, growth in economic activities and job growth across sectors, resulting in higher tax revenues for Mercosur governments and beneficial social impacts in the medium- to long-term.

Environmental Impact

No significant environmental impact is expected.

Social and Human Rights Impacts

Higher economic activity resulting from trade liberalisation in financial services would come with higher tax revenues and therefore beneficial social impacts in the medium- to long-term. Social impacts in the EU, such as the impact on skilled and unskilled labour tend to be marginal.

For individual Mercosur countries, the long term dynamic effects, structural economic change and growth in general economic activity mentioned above is expected to make a significant long-term contribution to reducing poverty.

The liberalisation of EU-Mercosur financial services trade would not have a significant impact on human rights.

Impact on SMEs

High degrees of regulatory heterogeneity also put financial services SMEs at a systematic competitive disadvantage to larger financial services suppliers as SMEs generally lack specialised human resources to overcome regulatory differences. Therefore, EU-Mercosur trade in financial services would generally significantly benefit from higher degrees of regulatory alignment, regulatory harmonisation or greater degrees of mutual recognition of national regulatory policies, including passporting regimes for certain types of financial services.

Impact on Consumers

Changes within the financial services sector will affect incentives and opportunities in other economic sectors that use financial services, with potentially significant effects across the entire economy. The removal of trade barriers will alter the structure of incentives and open-up new market opportunities. It would induce changes in the economic behaviour of enterprises serving B2B and B2C markets (producers from other sectors and final consumers and households).

Impact on LDCs

No specific impact on LDCs is previewed.

Impact on OMRs

No specific impact on OMRs in previewed.

Policy Recommendations

- **Mercosur and EU policymakers should generally aim to liberalise financial and insurance services trade in all modes of supply.** An EU-Mercosur agreement that liberalises trade and investment in financial, banking and insurance services can lead to improved efficiency in payments, transactions, (insured) risk allocation and the management of capital, with broader benefits for the economy as a whole.
- **Both parties should reduce visa restrictions that affect exporters and investors in the EU and Mercosur.** Visa restrictions prevent the provision of certain financial and insurance services, particularly in modes 3 and 4, and the realisation of the positive gains from the agreement respectively.
- **Mercosur and EU negotiators should aim for greater levels of regulatory harmonisation of sector-specific regulation,** e.g. capital requirements, fees' regulations, and consumer protection policies. Trading partners would benefit from regulatory cooperation in both financial and (re)insurance services and a greater alignment of regulatory standards. Differences in standards for financial and insurance services providers as well as licensing requirements prevent trade and investment. Regulatory cooperation should be extended to the design of new laws and regulations, e.g. in response to new services and the increased use of digital technologies in financial services.
- **Mercosur and EU trading partners should rely more on mutual recognition of industry standards** where equivalence of standards is recognised by the negotiating parties, e.g. in the area of consumer policies in retail banking and (re)insurance, if harmonisation proves difficult to achieve. Equivalence decisions should generally be guided by the principle of non-discrimination.
- **Both parties should either reduce or eliminate licensing requirements. Licensing requirements should be reduced or eliminated.** Licensing requirements prevent trade and investment. In case they exist, these should not discriminate against the negotiating parties' operators.
- **Both parties should base their equivalence decisions on evidence about their impact on legitimate public policy objectives,** particularly consumer safety, and where applicable, public health and environmental protection. Other impacts that should be considered by negotiators are financial stability issues, e.g. in the area of capital requirements and the distribution of risks among financial market participants.

7. Consultation Process

The LSE-led team has given substantial importance to the stakeholder consultation which lies at the heart of the SIA. This process has been carried out as widely as possible in Mercosur partner countries and EU member states in order to reach the highest participation rate. We have ensured that all stakeholder activities are consistent with the guiding principles and meet the minimum standards laid out by the Commission (European Commission, 2015).

The results of this consultation thus far have allowed us to identify key issues and priorities to feed into different parts of our report. This section outlines the consultation process and presents how it is continuously incorporated into the ongoing analyses.

The objectives of stakeholder consultation as defined by the European Commission (2016) are three-fold: 1) engaging all interested parties; 2) contributing to the transparency of the SIA analysis; and 3) helping to identify key issues in trade negotiations.

7.1. Roundtables

LSE Consulting ensures to gather information and evidence from relevant stakeholders who are not captured by the open online public consultation and/or the workshops through targeted Interviews. The team organised four roundtables in Brussels in March 2018 and two events in Brazil and Argentina, covering the selected sectors and range of sustainability issues. The events covering issues concerning the manufacturing sector, agricultural sector, service sector, and issues surrounding sustainability issues were open to public registration, inviting representatives across all four sectors to each meeting. The findings of each roundtable discussion that took place in Brussels, Buenos Aires, and Sao Paulo have been utilised as components of each of this report's aspects of analysis. A summary of the findings are provided in Table 113 and Table 114 below, while the minutes of each meeting can be found in Annex 2.

Table 113: Stakeholder Consultation Brussels Roundtables - Findings

Thematic Area	Findings
Human Rights; Environmental Concerns; Social Issues	<ul style="list-style-type: none"> Concerns over animal welfare missing from analysis. Suggestions for analysis to investigate what kind of industry liberalisation will stimulate more extensive animal production and intensive practices Concerns regarding SMEs feeling competitive pressure which in turn may affect informal employment and the informal economy Concerns over the assessment of persons with disabilities missing from analysis. Evident inequality is present between social classes in Mercosur and is disproportionately felt by persons with disabilities. Concerns over increasing access to market potentially increasing illegal trade of animal and wildlife products.
Agricultural Sector	<ul style="list-style-type: none"> Concern in regards to social and environmental aspects, notably in regard to land use and GHG emissions. Concern over Mercosur standards, which may not have the same costs as EU standards, so that EU and Mercosur producers will not be competing on a level playing field Concerns over the impact of quotas for beef, ethanol and sugar Concerns among the leather industry over Mercosur's application of export restrictions representing significant barriers The need for reciprocity in any concession on garlic.

	<ul style="list-style-type: none"> ▪ Concerns over fresh frozen orange juice from Brazil.
Manufacturing Sector	<ul style="list-style-type: none"> ▪ Support for a compromise where a phasing out of Mercosur's tariffs on footwear takes place over a 15-year period, allowing for a gradual reduction in tariffs from the current level of 35%. ▪ Support for tariff elimination on EU machinery products to help Mercosur industrialise, but concerns over insufficient resources for third-party certification ▪ Concerns among the leather industry because of Mercosur export restrictions causing difficulties for EU producers to access raw materials (hides and skins), while simultaneously raising the market price for raw materials
Service Sector	<ul style="list-style-type: none"> ▪ Maritime transport was underlined as an important sector for the service industry ▪ Public procurement should refer to all services – not only goods. ▪ Concerns regarding regulatory issues in Uruguay and Argentina including licensing costs ▪ Support for GDPR data privacy and for negotiations to allow for data to flow both ways rather than only to other countries from the EU.

Table 114: Stakeholder Consultation Partner Country Roundtables – Findings

Location	Findings
Buenos Aires, Argentina	<ul style="list-style-type: none"> ▪ Concerns were expressed about the transparency of the process and highlighted that industry-representing bodies should be more involved. ▪ Concern was communicated over the balance of tariff reductions between the EU and Mercosur, particularly vis-à-vis ethanol. ▪ The importance of the human rights dimension, and the need to look at the different dimensions of the study through a human rights perspective, was underlined. ▪ The need for compensation measures was highlighted to compensate certain sectors in MERCOSUR countries in case they are negatively affected by the agreement. ▪ The delicate situation of the Brazilian manufacturing industry was flagged. ▪ Concerns over insufficient information was expressed in regards to agriculture and industrial sectors ▪ Despite concerns, it was agreed that the agreement could have a long-term positive impact on the region ▪ Apprehensions were communicated regarding geographic indications (GIs) and protected denomination of origin (PDOs) in Mercosur, especially in the dairy sector. ▪ The impact that the agreement may have on forests was urged to be further explored.
Sao Paulo, Brazil	<ul style="list-style-type: none"> ▪ Concerns were expressed over the potential impact of including a public procurement chapter and how this is to be implemented. ▪ Apprehensions were communicated about the entry of Argentinian wine into the EU. ▪ Concerns were expressed about transparency and the availability of information regarding the process. ▪ It was questioned how animal welfare is included in the study. It was underlined that Argentina is lagging behind in terms of standards in the area.

7.2. Civil Society Dialogue Meetings

Both the inception and interim reports have been presented in meetings of DG Trade's Civil Society Dialogue (CSD) at their draft stages in order to invite stakeholders to contribute to the finals. The presentations provided a comprehensive overview of all the progress made in the project and provided a space for civil society to comment on and address any concerns throughout the project. The results of the two presentations that have already taken place for the draft inception and interim reports can be found in Table 115 below, while the minutes are presented in Annex 3.

Table 115: Civil Society Dialogue Meetings - Findings

CSD	Main Findings
Draft Inception Report CSD	<ul style="list-style-type: none"> ▪ Support for the report's reference to consumers and animal welfare. Suggested consideration of animal welfare standards in Mercosur in terms of transport, slaughtering, PMSG in Uruguay, and the treatment of horsemeat as a by-product. ▪ Support for specific chapter on sugar covering the impact on LDCs as well as working and environmental conditions in the production of sugar in Mercosur. ▪ Concerns regarding the joint assessment of sugar and ethanol in the analysis and also noting that sugar is an important export of the outermost regions. ▪ Support for the agreement among the mechanical engineering industry. It was noted that car parts and machinery should be treated jointly. ▪ Support among the automotive industry for the report's value-chain approach
Draft Interim Report CSD	<ul style="list-style-type: none"> ▪ Appreciation was expressed for the inclusion of the animal welfare heading in the agricultural analysis section, specifically when discussing beef. However, several other findings in the interim report should include analysis on animal welfare as well. ▪ The importance of specific sources of beef was underlined, including dairy and specialised productions of meat as well as distinguishing between cuts of different value. ▪ Concerns over Brazil's exports of sugar as reducing tariffs will have a large impact on the market price. ▪ Support for sugar imports creating some activity in employment and refineries. ▪ Support for the focus on SMEs ▪ Concerns regarding lack of analysis on enforcement mechanisms. ▪ Suggested researchers to consider impact on maritime services as an effect on market access in next report. ▪ Concerns over underestimated impacts of beef imports into the EU with recognition that the populations who will suffer most from the impacts will most likely include small environmentally friendly pasture farmers

7.3. Written comments

In addition to comments received directly at the Civil Society Dialogue meetings held in Brussels, stakeholders are given the opportunity to submit further comments via official statements, positions, concerns, words of support, etc. for two weeks after each CSD. A summary of the views submitted via our dedicated email address in response to the CSD presenting the interim report is presented in Table 116 below (full documents can be found in Annex 4). Contributions and suggested edits by civil society have been incorporated into the analyses throughout this Final Report.

Table 116: Online Consultation responses to the Interim Report CSD

Stakeholder Group	Summary of Statement
European Footwear Confederation	<ul style="list-style-type: none"> Not all footwear categories have been included in the trade agreement, but leather footwear, which represent approximately 75% of current EU footwear exports to Mercosur and a few other subheadings are part of the agreement. The report should thus include footwear in its analysis. The fact that leather goods have remained excluded from the agreement in terms of EU exports is a missed opportunity for the EU.
Syndicat du sucre de la Réunion (SSR)	The group provided a few suggestions for the SIA's analysis on the Outermost Regions. The comments were taken into consideration and integrated in section 6.3.3. of this report.
European Renewable Ethanol (ePURE)	<ul style="list-style-type: none"> Policy framework should be correctly reflected; The fact that since the original offer, the EU ethanol market has not grown significantly to allow the absorption of the agreed Tariff Rate Quota (TRQ) which corresponds to close to 12% of the entire market; The claim that unlike the EU, Brazil has a remarkable ability to protect and support its industry and farmers; In 2018, European ethanol achieved a certified 71% GHG emissions reduction on average which is comparable to the Brazilian ethanol performance; Renewable ethanol is economically positive for Europe if produced domestically.
Eurogroup for Animals	<ul style="list-style-type: none"> The Sustainability Impact Assessment should recognise the animal welfare dimension of sustainability, and the role improving animal welfare can play in ensuring that trade contributes to the achievement of SDGs. The SIA should increase consideration of the differences existing between animal welfare standards and practices established by both partners, and analyse findings related to animal agriculture using that lens. The SIA should also make recommendations based on the positive impact the association agreement can have on the sustainability of agricultural practices, on antimicrobial resistance or more generally on the environmental crisis, thanks to the cooperation mechanisms it includes. The SIA should, among others, call the EU to put sufficient resources into animal welfare cooperation. Specifically, the group suggests two policy recommendations to be included in the final report: <ul style="list-style-type: none"> The EU should establish serious cooperation mechanisms with Mercosur countries to address animal welfare issues. The aim should be regulatory alignment, but the EU could also learn from Mercosur countries where good practices exist. The terms of the Association Agreement should be reviewed to avoid negative impacts on emissions. A small increase is not acceptable in the face of the challenges faced.
Asociación de Productores Europeos de Banana y plátano (APEB)	The Association of European Banana and Plantain Producers warned that while Brazil is the only Mercosur country to export bananas to the EU market and its current export quantities are currently small, Brazilian banana production has great agronomic potential. Being one of the main exporters of fresh fruits and vegetables to the EU market, it has the necessary infrastructure and experience to increase its banana exports if a commercial opportunity arises. The tariff

	reduction of the association agreement could lead to an increase in Brazilian banana imports to the EU, which would further accentuate the current over-supply of the European banana market, whose total volume has increased between 2012 and 2018 from 5.1 million tons to 6.5 million tons. In turn, this excess supply increases the risk of falling prices to an unsustainable level for European banana producers.
Interbev	Interbev requested to better understand on what basis the likely change in the volume of beef imports resulting from the Agreement was assessed. Interbev likewise questioned if the team has considered the probability of production capacity to increase beef exports and therefore cause lower average tariffs on total exported volumes.
Fern; ClientEarth; Conservation International	<p>The three groups gathered together to raise a few key points in response to the draft interim report:</p> <ul style="list-style-type: none"> ▪ Given that negotiations closed in June 2019, the timing of the draft interim report raises questions about the extent to which the (ongoing) SIA process has actually fed into the work of the negotiators. This is even more questionable since the present SIA draft interim report devotes only an extremely brief analysis of the likely agreement impacts, particularly on the environment and indigenous peoples' rights. ▪ The absence of preliminary findings restrains stakeholders' possibility to respond to proposed recommendations before the SIA is finalised. ▪ The baseline scenario does not take recent data or events into account, and thus risks creating incorrect and biased results, particularly across the different parts of the environmental analysis. ▪ Finally, the group requested the researchers to take the results of the trade negotiations into account when modelling impacts rather than providing the two scenarios: conservative and ambitious.
Climate Action Network	<p>CAN submitted concerns regarding the interim report's analysis of the potential impact on the climate. They have requested for the final report to include:</p> <ul style="list-style-type: none"> ▪ The current political situation in Brazil under President Bolsonaro with particular focus on his position on the Paris Agreement and on climate change. ▪ Recent data and events regarding the effects on deforestation, as well as the effects of agriculture on deforestation and biodiversity. ▪ An assessment of all GHG emissions, not only CO2 emissions. The assessment of emissions should include land use, land-use change and forestry (LULUCF) as well as from increased transportation.
iETHANOL	The European Industrial Ethanol Association communicated that they strongly disagree with the interim report's figures on ethanol. As such, they have submitted both to the LSE as well as DG Trade, a position paper with relevant data with the justification that the current text of the EU-Mercosur agreement endangers the non-fuel ethanol producers in Europe, of which more than half are SMEs. Concerns were raised regarding the concentration of the TRQ on the industrial market.
GreenPeace	<p>Green Peace highlighted several issues on the interim report:</p> <ul style="list-style-type: none"> ▪ Most of the information given on Brazilian forests is outdated (2010-2015), and ignores the fact that deforestation was increasing even before the fires of August 2019. In addition the SIA should further cover the

	<p>situation of forests in Argentina and Paraguay as well as the impact of the Mercosur Agreement on forest biodiversity.</p> <ul style="list-style-type: none"> ▪ The SIA ignores the fact that other EU Free Trade Agreements are or have been negotiated in parallel and will have impacts on the issues which are covered by EU-Mercosur SIA as well. ▪ The draft SIA's coverage of consumer impact is reduced to effects on prices. This means quality and especially consumer protection issues are not covered and should be further explored in the final report. ▪ The SIA's case studies should be based on EU-Mercosur specific case studies considering that the EU-Mercosur FTA is the biggest so far, at least in the case of covered population. It is not evident that basing case studies on other EU FTAs could present sufficient similarities for comparison. ▪ It is questionable how relevant the results of this EU-Mercosur SIA really are for the negotiations seeing as the draft interim report was published three months after the political conclusion of the agreement and the final report will be published in early 2020 during the legal scrubbing and translations of the final text.
The Veblen Institute for Economic Reforms; Fondation Nicolas Hulot	<p>The Veblen Institute for Economic Reforms and Fondation Nicolas Hulot submitted various remarks.</p> <ul style="list-style-type: none"> ▪ The narrow objective limited to policy recommendations and flanking measures impedes the interest of the SIA as it is no longer possible at this stage to consider proposals to amend the content of the agreement. It is equally regrettable that the interim report does not include recommendations, giving the opportunity to stakeholders to react on the proposed recommendations before the SIA is finalised. ▪ The interim report often relies on data that is 5 years old or older which may bias results, particularly regarding Brazil's recent policy towards Amazon and environmental regulation. ▪ The assessment of the economic and social impacts of the agreement relies on the CGE model which has been widely criticised for its inherent limitations, yet the interim report only mentions the limitations when the results are particularly worrying. ▪ More generally, the interim report seems to minimise the potential negative impacts of the agreement – fiscal loss for States, deforestation, infringements of the rights of indigenous populations, GHG emissions, etc. - while overly insisting on the hypothetical economic and social gains. ▪ Finally, the structure of the interim report makes it difficult to identify all the expected impacts of the agreement. The report devotes long developments on baselines/sector overviews and include long sectorial tables while being overly brief on the actual analysis of the impact of the agreement.
CIBE; CEFS; and ePURE	<p>CIBE, CEFS, and ePURE submitted a joint letter commenting that Chapter 7.1.3 of the draft interim report on sugar and ethanol understates the negative impact of Mercosur concessions on the European sugar and ethanol sectors which represent a serious medium and long term threat to EU industries. The groups have requested that the final report revise the subsections detailing the EU's legislative framework regarding ethanol and sugar, as well as economic, environmental, and social impacts of the sector and reflecting differences in standards between the EU and Mercosur.</p>

7.4. Questionnaires

In addition to bilateral/group meetings, as described in the ToR, the team also developed a public online consultation through three online questionnaires:

1. Economic and Sectoral Survey
2. SME Survey
3. Human Rights, Social and Environmental Impact Survey

The consultation began in the first quarter of 2018 and remained open until the fall of 2019. The results of the consultation will be incorporated into the different sections of the final report.

The team consulted with national and regional administrations, social partners, including trade unions, civil society organisations, and international organisations throughout implementation of the SIA. Organisations were sourced from previous consultations of the Commission with civil society, position papers on the EU-Mercosur negotiations, and a wide number of EU and international resources. The Economic and Sectoral Survey received 110 responses, the Human Rights, Social and Environmental Impact Survey received 81 responses, and finally 51 respondents engaged with the SME Survey. Contributions consisted of binary as well as open ended questions. All responses were integrated into the relevant analyses, and reference to specific stakeholder concerns can be found throughout the chapters.

7.5. Sao Paulo and Buenos Aires Workshops and Consultation Activities

Further to the ToR, LSE Consulting organised a one-day workshop of 50 participants in Sao Paulo, Brazil. This event gathered the views of, and other information from, stakeholders (in particular businesses, national and regional administrations, social partners including trade unions, international organisations present on the ground, and civil society). In addition, a roundtable was held in Buenos Aires.

The preliminary results of the Sao Paulo and partner country consultation activities have been incorporated into the analytical components of the interim report but will be further assessed in the final report. Table 117 below presents the main findings of the activities in Sao Paulo and Buenos Aires.

Table 117: In-country activities - Main Findings

Roundtable	Main comments
Sao Paulo, Brazil Workshop	<ul style="list-style-type: none"> ▪ Concerns over transparency throughout the negotiations. ▪ Concerns from the FCES perspective regarding the impact on SMEs, which won't be able to cope with competitive pressures; horizontal issues such as intellectual property rights, patents, and Geographical Indications; and impact on least developed countries ▪ Concerns over relevance of stakeholder consultations considering timeline of negotiations ▪ Suggestions for a balance in terms of the tariff reductions between the EU and Mercosur ▪ Ethanol is a key issue for Brazil. ▪ Suggestions for a holistic approach to be applied to an SIA in consideration of inherent interlinkages across chapters ▪ Concerns over the potential for data protection to be regulated in a trade agreement. ▪ Concerns over European stakeholders targeting deforestation and pesticides as key environmental issues in Brazil but neither informed by the agreement ▪ Concerns over exacerbations of informality in certain sectors in Brazil reaching very high proportions.
Buenos Aires, Argentina Workshop	<ul style="list-style-type: none"> ▪ Concerns regarding transparency throughout negotiations. ▪ Concerns over the potential impact of inclusion of a public procurement chapter and how this is to be implemented. ▪ Concerns of impacts on soybean trade causing loss of biodiversity, and potential displacement of indigenous people. ▪ Concerns that Mercosur agreed to the EU Rules of Origin proposals without a further discussion among stakeholders as the outcome of this chapter is particularly important for the impact on SMEs. ▪ Concerns regarding pharma/chemicals; patents and IPR; demand of different data; subsidies; RoO; textiles, shoes and leather. ▪ Concerns over Argentina's progress on animal welfare standards and implications of trade agreement ▪ Concerns over rules regarding genetically modified organisms and biofuels ▪ Suggestions for assistance in terms of certification and the importance of mutual recognition across sectors

8. Policy Recommendations

Following the analysis undertaken in this report, recommendations for policy or flanking measures have been developed to promote sustainability and to mitigate negative impacts. The recommendations derive from the analyses of the different economic, social, environmental, human rights as well as sectoral elements of the SIA and also draw on relevant recommendations put forward by stakeholders during the consultations. Suitable and practical policy recommendations have been prepared jointly by the team so that they cut across the different analysis and consider all aspects. This section presents the main policy recommendations derived from the different impact areas analysed above.

8.1. Recommendations based on the Economic Analysis

- **Mercosur should implement a gradual introduction of the related tariff changes** to give the involved actors enough time to accommodate and mitigate the negative effects in the output of vehicles and machinery.
- **The EU should consider the use of quotas and partial liberalisation to minimise the impact in sectors such as beef, poultry and sugar.** This will allow farmers and producers to reduce their exposure and limit the impact of the agreement.
- **Mercosur members should introduce re-training policies to smooth the transition of workers between sectors.** This would help tackling the structural changes brought by the agreement to Mercosur economies, such as contracting industrial sectors and expanding agriculture (including food production) and services.

8.2. Recommendations based on the Social Analysis

The record of Mercosur countries over the past decade shows that trade openness can be compatible with stronger enforcement of labour standards provided there is political will and adequate resources (whether domestic funding or foreign aid). The following recommendations are designed to help trading parties maximise the positive impact of the agreement and mitigate its potential risks.

- **Mercosur countries, particularly Brazil, should maintain their support for anti-poverty and redistributive programs** with a view to reducing inequality and mitigating the potential losses incurring from increased competition in the manufacturing sector. Countries in general should maintain a strong commitment to eliminate poverty.
- **Mercosur countries should design effective adjustment programs and strengthen retraining and upskilling programmes** to facilitate labour mobility for workers in the most impacted industrial sectors, such as machinery.
- **Mercosur countries, especially Brazil and Argentina, should strengthen the enforcement of labour laws to protect freedom of association and the right to collective bargaining.** In congruence with parties' commitment to the ILO fundamental conventions laid out in the TSD chapter, Brazil should ratify ILO Convention 87 on Freedom of Association and Protection of the Right to Organise Convention with a view to strengthening international cooperation, bringing visibility to cases of anti-union practices, and helping to overcome monitoring and enforcement problems, given the crucial role played by the ILO in enforcing commitments on labour standards and measuring policy outcomes.

- **Mercosur countries should reinforce labour inspection programs** to capitalise on their notable achievements in the region, including Brazil's success in rolling back forced labour through CONATRAE and the Special Mobile Inspection Group (GEFM), as well Argentina's significant progress in labour formalisation.
- **Mercosur countries should provide sufficient support for prevention programs to eliminate all forms of child labour** (e.g. Paraguay's National Strategy for the Prevention of Forced Labour and Argentina's National Plan for the Prevention and Elimination of Child Labour).
- **The EU could help develop monitoring and enforcement programs to tackle child labour with the collaboration of Mercosur government and local society groups** to carry out the European Commission President Ursula von der Leyen's "zero-tolerance approach to child labour" in EU trade policy.²⁵⁸
- **The EU should adopt EU-wide due diligence measures and promote Responsible Business Conducts/Corporate Social Responsibility to strengthen labour rights.** European companies should be held accountable for monitoring responsible value chains, with a particular focus on child labour, forced labour and the elimination of discrimination at work.²⁵⁹ Particular attention should be devoted to increasing women's participation in decision-making, an area where the WTO's new Trade and Gender Focal Point – created after the Buenos Aires Declaration on Trade and Women's Economic Empowerment – could provide valuable technical assistance.
- **Mercosur countries should consolidate labour formalisation policies that have proved successful in the region and replicate best practices.** These include tax incentives encouraging hiring, labour inspection measures, social protection policies and active labour market reforms.
- **The EU should maximise the positive effects of the EU-Mercosur AA's TSD chapter in line with the new Commission's commitment to the enforcement of labour provisions in trade agreements.**²⁶⁰ To achieve this, the following measures are suggested:
 - a more assertive use of dispute settlement e.g. in response to concerns over violations of freedom of association;
 - more open public accountability mechanisms that feed into dispute resolution. Here, the parties would benefit from clarifying the relations between Domestic Advisory Groups and bilateral institutions like the subcommittee on trade and sustainable development;
 - targeted and effective ex-post monitoring processes, that are essential to the implementation of the TSD chapter and the protection of core labour standards. Here, the TSD subcommittee could play a structuring role to identify, coordinate

²⁵⁸ See Ursula von der Leyen (2019), "Mission Letter to Trade Commissioner Phil Hogan," available from: https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-phil-hogan-2019_en.pdf

²⁵⁹ The Netherlands' 2019 "Child Labour Due Diligence Law" is an example of such measures. Delphine Moralis (2019), "A child labour free Europe: How the new Commission can make it happen" Euractiv, available from: <https://www.euractiv.com/section/global-europe/opinion/a-child-labour-free-europe-how-the-new-commission-can-make-it-happen/>

²⁶⁰ See Ursula von der Leyen (2019), "Mission Letter to Trade Commissioner Phil Hogan," available from: https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-phil-hogan-2019_en.pdf

and monitor core programs implemented on a two or three-year period in collaboration with international bodies and civil society stakeholders.²⁶¹

8.3. Recommendations based on the Environmental Analysis

- **Mercosur countries should convert existing degraded pasturelands into land destined to sustainable agriculture** to prevent the clearing and degradation of forest land to achieve the expected expansion of agricultural production.
- **Mercosur countries should aim at closing up the gaps in agricultural productivity that is observed across regions.** This can be achieved by increasing efficiency in sustainable agricultural production, partly by following the successful examples of land transformation achieved in certain regions, e.g. the Cerrado.
- **Brazil should improve anti-deforestation policies and law enforcement activities** to detect illegal logging and expand monitoring along the supply chain. Brazil should renew the policy environment that allowed the decrease in deforestation observed up to 2012. Successful measures that have worked in the past include the “Soy Moratorium” as well as the broader anti-deforestation policies undertaken by the Ministry of the Environment in the first decade of the twenty-first century. Brazil should encourage private sector operators to extend the Soy Moratorium to the Cerrado and to improve the effectiveness of the Beef Moratorium by, for example, expanding monitoring to all properties in the supply chain. The government should reinvest in Ibama to replenish its workforce and reassert its authority over inspections. The government should also make use of the available information on illegal logging, regularly collected using satellite imagery, to target law enforcement activities.
- **Argentina should aim at an effective implementation of the proposed National Action Plan on Forests and Climate Change (PANByCC) objectives** to decrease deforestation and prevent agriculture-related forest degradation.
- **Paraguay should maintain the commitment to sustainable forest management,** for example, by increasing the enforcement of the Zero Deforestation Law across all regions.
- **Mercosur countries should aim at achieving greater harmonisation of deforestation regulations and monitoring across regions** to prevent shifting deforestation towards weaker regulated and monitored areas.
- **Mercosur and the EU should fulfil their Paris Agreement commitments** and achieve their GHG emissions targets as detailed by their Nationally Determined Contributions.
- **Mercosur countries should engage in a comprehensive reassessment of fertilisers and pesticides** (as well as related subsidies and tax exemptions) to limit possible harmful effects on human and animal health and the local ecosystem from agriculture and establish a monitoring programme for pesticide residues in waterways and air.

²⁶¹ The environmental section of this report offers a more detailed discussion of enforcement of TSD provisions.

- **Mercosur countries should design smart and democratic pricing systems** to encourage a more efficient use of water in agriculture and preserve natural resources and biodiversity.
- **Mercosur and the EU should promote cooperation in the development and transfer of green technology.** Some local content requirements for green technology are adopted in Mercosur countries. In the wind sector in Brazil, for example, local content requirements are imposed in order to access subsidised loans from the Brazil's National Development Bank. Local content requirements in the wind industry are also used in Argentina and Uruguay (Kuntze and Moerenhout, 2013)²⁶². While these measures can promote green growth, they can also limit competition and raises costs in the sector. Hence, their removal is likely to favour greater transfer of green technology.
- **The EU, Brazil and Argentina should continue engaging in the All Atlantic Ocean Research Community** to promote the sustainable management of the Atlantic Ocean. Uruguay should also join this international research community.
- **Mercosur countries should consider giving the right priority to the circular economy and waste management and disposal** in a way that is safe for human health and the environment. They should also continue on the path of solid waste management optimisation.
- **Mercosur and the EU should adopt a multi-faceted approach to the enforcement of TSD provisions** by complementing the benefits of dialogue with an assertive use of dispute settlement, more open public accountability mechanisms, as well as targeted and effective ex-post monitoring processes that capitalise on the expertise and experience of local stakeholders, governments and multilateral bodies. Civil society mechanisms should be reinforced to build trust in TSD enforcement and facilitate each party's compliance with MEAs.

8.4. Recommendations based on the Human Rights Analysis

- **Mercosur and EU governments should continuously monitor the enjoyment of all the four rights** and use the instruments available under the Agreement to flag changes in the human rights situation. With proper accountability mechanisms, as well as adequate flanking measures in place, the AA has the potential to provide important benefits to the participating countries.

Right to an Adequate Standard of Living

- **Mercosur and EU governments should require businesses to present a plan on the provision of adequate living and working conditions** for employees prior to the approval of investment projects that are expected to require a large labour force in an underdeveloped area.
- **Paraguay should implement land reforms so as to enhance resource access** for small-holder farms and distribute trade benefits.

²⁶² Kuntze, Jan-Christoph, and Tom Moerenhout. "Local Content Requirements and the Renewable Energy Industry-A Good Match?." (2013).

Right to Health

- **All parties should take steps in reducing risks of increasing obesity**, possibly with measures such as information campaigns, educational programmes, front of package (FOP) nutrition labelling.
- **All parties should make sure that physician exchange programs under mode 4 ensure balanced female participation** and distribute participants proportionally across rural and urban areas.
- **All parties should cooperate on matters related to incentivising research and development of new medicines** while providing access to affordable medicinal products.
- **All Mercosur countries, particularly Argentina and Brazil, should establish physician exchange programs** to place EU professionals in rural areas and increase healthcare services.
- **Mercosur countries, with the support of the EU, should implement programs to retain their domestic health workforce** and mitigate “brain drain” concerns.

Rights of Indigenous peoples

- **The governments of Argentina, Brazil, and Paraguay should strengthen their institutional frameworks for the protection of indigenous peoples.**
 - **Argentina should provide necessary resources for the National Institute of Indigenous Affairs** to expedite activities for the completion the Territorial Survey of Indigenous Communities so as to avoid post-investment land disputes.
 - **Brazil should consider retracting its proposed bill to open indigenous lands for natural resources** and re-prioritise the demarcation of indigenous lands as well as providing FUNAI with adequate resources to protect lands.
 - **All three countries should prioritise mechanisms to implement the right to prior, free, and informed consent, particularly among municipal governments in states with large indigenous populations.** The EU’s consultation strategies provide examples of good practices. Mercosur governments should establish regular roundtables, and a civil society dialogue so that proposed investment projects are presented prior to their approval.
- **The EU should encourage European businesses to engage in consultations with indigenous communities before investing.** Given the issues surrounding local enforcement of PFIC and impact assessments, such efforts will help recognise the rights of indigenous peoples while avoiding land disputes months into planned investments as has been evident in past cases in Argentina and Brazil.
- **The EU should encourage EU businesses to consider human rights impacts alongside cost-benefit analyses prior to approval of large-scale investments.** Such assessments could employ stated/revealed preference methods to capture the impacts on non-market values inherent to indigenous traditions (OECD, 2018) and could give consideration to protective or compensating measures including infrastructure development, capacity building and skill training, etc.

Gender Equality

- **Mercosur countries should invest in rural development programs in support of female-headed farms** to tackle the traditional skewness towards male-owned land. A similar approach as Brazil's My House My Life program²⁶³ could be considered, but for female headed households to purchase land rather than property.
- **Mercosur countries should invest in capacity building and training programmes** specifically targeting women across agricultural and manufacturing sectors to tackle potential job loss due to skill upgrading, and historical difficulties in accessing training.
- **Argentina and Brazil should provide further resources for campaigns fighting domestic violence.**

8.5. Recommendations for the Agriculture Sector

The following actions are suggested to increase positive impacts and mitigate risks across the studied agricultural products:

Beef

- **Mercosur countries should aim to increase productivity to limit the effects that additional production may have on land use.** For example, measures to increase the weight of slaughtered animals can contribute to increase beef without increasing substantially the number of animals.
- **Both parties should pursue effective implementation of their commitments under the Paris Agreement** and in particular their commitments on forests and GHG emissions.
- **Both parties should make use of the frameworks for dialogue and cooperation created by the agreement** and the other cooperation frameworks that exist on the area of animal welfare.
- **The EU should cooperate and support the design of adequate animal welfare legislation in countries with weak legal frameworks in this matter.** The improvement in the enforcement of legislation in this topic and will benefit from support and collaboration between the EU and Mercosur countries.

Dairy

- **Uruguay should secure support to affected farmers to accommodate to the new market conditions.**
- **Mercosur countries should work in improving quality and strengthening its system of denomination of origin and geographic indicators.** The expertise of the EU in this area is extremely valuable and it could contribute that in the long run, more Mercosur exporters could benefit from the agreement.

²⁶³ <http://worldpolicy.org/2016/07/07/brazil-my-house-my-life/>

Sugar and Ethanol

- **Mercosur countries with support from the EU should implement policies to manage social impacts and to increase environmental efficiency** in order to mitigate the potential adverse effect of the expansion of sugar production and maximise the economics gains from the FTA. Mercosur countries will also need to address challenges related to the proper enforcement of adjustment policies.
- **Brazil should ensure that its biofuels policy effectively addresses liberalisation issues to have positive social impacts.** For instance, organisational support can facilitate the involvement of small farmers through contract farming or cooperatives (EC, 2010).
- **Mercosur countries should manage the environmental consequences of trade liberalisation through the FTA.** They should increase investment in more modern plants that use cleaner technology or invest in development of certification systems addressing biodiversity and climate change to counter potential soil and water degradation.
- **The EU should provide technical assistance in the form of supporting the development of newer and cleaner technologies in Mercosur,** as well as research programmes and policies aimed at improving productivity in the agricultural areas, and sharing of best-practices such as management techniques for better resource use and better agro-chemical usage.

Beverages

- **Both parties should address the NTMs in the beverages sector.** Affecting both EU and Mercosur beverages exporters, these barriers could prevent the realisation of some of the positive gains from the agreement. In particular, labelling and packaging standards, certification requirements, tax discrimination, SPS issues should be addressed.
- **Both parties should ensure legal protection** for both EU and Mercosur products requiring PDO and GI and ensure that different varieties are treated like different products.
- **Mercosur members should put in place appropriate welfare measures to counter the potential negative social effects.** This includes social protection measures (social safety nets) to counterbalance the potential changes in production of beverages, which could increase economic concentration and inequality. This could also mean introduce programmes to accelerate job creation in other sectors for those who may be losing their jobs due to increased concentration of production.
- **Both parties should consider introducing measures to promote responsible consumption of certain beverages,** especially alcoholic and sugary drinks. This also includes introducing educational campaigns of the health risks of certain drinks and strengthening the national health systems to deal with this issue.

8.6. Recommendations for the Manufacturing Sector

The following actions are suggested to increase positive impacts and mitigate risks across the specific industries:

Textile and Garments

- **Mercosur and EU countries should work to minimise the negative environmental implication of increased trade in T&G products.** While increases in production of T&G products will be limited, trade among the EU and Mercosur will increase. Therefore, the environmental implications linked to increased transport and trade need to be taken into account, and minimised where possible. This could include introducing and enforcing stricter regulations on transport sector emissions both in the EU and in Mercosur and encouraging cooperation on environmental standards related to transport.
- **Both parties should implement measures to protect informal workers in the textile and garment sector.** We lack precise information on the informal workers in the textile and garment sector in both the EU and Mercosur. However, simulations show potential job losses in these sectors in the EU and Paraguay, and in a smaller measure in Argentina – and we can assume that these trends will affect both the formal and the informal sector. The EU, Paraguay and Argentina should therefore strive to support extend social safety nets to protect informal sector workers.
- **Both parties should improve their understanding of the role of SMEs and establish monitoring strategies to ensure timely support measures.** SMEs play an important role in the textile and garment sector, especially in some of the EU and Mercosur countries. However, there is limited understanding of how trade impacts SMEs. Therefore, it is recommended to closely monitor the effects in the years following the entry into force of the agreement to potentially intervene with mitigation measures for the negative impact.

Chemicals and Pharmaceuticals

- **Mercosur countries should aim to gradually introduce changes in the tariff schedule.** This will allow companies to adjust to the new competition by increasing their productivity and competitiveness, as well as tackling the negative effects on output and employment that the agreement is expected to generate in the chemicals and pharmaceutical sector.
- **Mercosur countries should support the re-training of workers with the aim of facilitating transition to other sectors.** In addition, the provision of income support should be considered for the affected workers.

Machinery

- **Mercosur members should put in place appropriate welfare measures to counter the potential negative social effects.** This includes social protection measures (social safety nets) to counterbalance the potential changes in production of machinery, which could increase economic concentration and inequality. This could also mean introducing programmes to accelerate job creation in other sectors for those who may be losing their jobs due to increased concentration of production.
- **Mercosur members should aim to facilitate the transition of workers from the machinery into the electronic equipment sector.** This will facilitate the absorption of

workers with compatible skills from the machinery contracting sector into the expanding electronic equipment.

- **Mercosur members should facilitate the adoption, compliance and certification of EU technical standards.** This should include programmes for SMEs aimed to increase the number of exporters that can benefit from the agreement.
- **Mercosur members should negotiate a gradual implementation of the tariffs reductions.** This should provide additional time for firms to accommodate and adjust.

Both parties should work in increase the number of local accredited labs and testing facilities in Mercosur to certify EU standards. The establishment of partnerships with similar institutions in the EU, should facilitate the certification of Mercosur standards by EU exporters as well.

Motor Vehicle Sector

- **Mercosur countries should gradually implement the elimination of duties in this sector** to help local companies to adjust, transform their production processes and become more competitive.
- **Mercosur countries should aim to address some of the additional competitiveness issues that firms in these sectors tend to face.** For example, some targeted tax reductions could contribute to offset some of the loss of competitiveness.
- **Mercosur countries should monitor and follow the evolution of the sector.** Moreover, they should facilitate the development of the skills to those workers that may be affected by the agreement and consider providing support to workers that either cannot be re-trained or that cannot be easily be rehired by other companies.

8.7. Recommendations for the Services Sector

Policy recommendations for the studied sectors are:

Business and Professional Services

- **Mercosur and EU policymakers should generally aim to liberalise business and professional services trade** in all modes of supply.
- **Both parties should address visa restrictions that prevent professional and business services.** Significant barriers still exist for mode 4 services supply across Mercosur countries. Affecting both EU and Mercosur exporters and investors, visa restrictions prevent the provision of many professional and business services, particularly in modes 3 and 4, and the realisation of the positive gains from the agreement respectively.
- **Both parties should align their service industry standards to benefit from greater levels of regulatory cooperation between trading partners.** Differences in standards for professional and business services providers as well as licensing requirements prevent trade and investment. We recommend to aim for greater levels of regulatory harmonisation of sector-specific regulations and/or seek for greater use of mutual recognition of standards where equivalence of standards is recognised by the negotiating parties. We also recommend that equivalence decisions are guided by the principle of non-discrimination.

- **Both parties should eliminate licensing requirements which prevent trade and investment.** We recommend to tackle existing restrictions from licensing. Existing and future licensing requirements should not discriminate against other parties' operators.
- **Both parties should maintain high levels of consumer protection.** Equivalence decisions should be based on evidence regarding the impact on legitimate public policy objectives, particularly consumer safety and, where applicable, public health and environmental protection.

Financial Services

- **Mercosur and EU policymakers should generally aim to liberalise financial and insurance services trade in all modes of supply.** An EU-Mercosur agreement that liberalises trade and investment in financial, banking and insurance services can lead to improved efficiency in payments, transactions, (insured) risk allocation and the management of capital, with broader benefits for the economy as a whole.
- **Both parties should reduce visa restrictions that affect exporters and investors in the EU and Mercosur.** Visa restrictions prevent the provision of certain financial and insurance services, particularly in modes 3 and 4, and the realisation of the positive gains from the agreement respectively.
- **Mercosur and EU negotiators should aim for greater levels of regulatory harmonisation of sector-specific regulation,** e.g. capital requirements, fees' regulations, and consumer protection policies. Trading partners would benefit from regulatory cooperation in both financial and (re)insurance services and a greater alignment of regulatory standards. Differences in standards for financial and insurance services providers as well as licensing requirements prevent trade and investment. Regulatory cooperation should be extended to the design of new laws and regulations, e.g. in response to new services and the increased use of digital technologies in financial services.
- **Mercosur and EU trading partners should rely more on mutual recognition of industry standards** where equivalence of standards is recognised by the negotiating parties, e.g. in the area of consumer policies in retail banking and (re)insurance, if harmonisation proves difficult to achieve. Equivalence decisions should generally be guided by the principle of non-discrimination.
- **Both parties should either reduce or eliminate licensing requirements. Licensing requirements should be reduced or eliminated.** Licensing requirements prevent trade and investment. In case they exist, these should not discriminate against the negotiating parties' operators.
- **Both parties should base their equivalence decisions on evidence about their impact on legitimate public policy objectives,** particularly consumer safety, and where applicable, public health and environmental protection. Other impacts that should be considered by negotiators are financial stability issues, e.g. in the area of capital requirements and the distribution of risks among financial market participants.

Bibliography

Aaronson Susan, and Chaffour, Jean Pierre, 2011. 'The Wedding of Trade and Human Rights: Marriage of Convenience or Permanent Match?', World Trade Organisation. Available at: https://www.wto.org/english/res_e/publications_e/wtr11_forum_e/wtr11_15feb11_e.htm#fnt1

ABSugar, 2016. Brazil Case Study. Available at: <https://www.absugar.com/sugar-markets/case-studies/brazil>

Aghajanzadeh-Darzi, P., Bellora, C., Bureau, J.C. and Doburdhun, A., 2015. Assessing EU trade preferences for developing countries' development and food security (No. 2201-2019-1557).

Alpha Invesco, 2018. Indian Sugar and Ethanol Industry. Available at <http://alphainvesco.blob.core.uk>

Alvaredo, Facundo and Gasparini, Leonardo, 2015. Chapter 9 – Recent Trends in Inequality and Poverty in Developing Countries, Handbook of income distribution, Vol. 2, pp. 697-805.

Bacchetta, Marc, Ernst, Ekkehard and Bustamante, Juana P., 2009. Globalization and Informal Jobs in Developing Countries, a joint study of the ILO and the Secretariat of the WTO. WTO Publications, Geneva.

Baker McKenzie, 2016. Global Financial Services Regulatory Guide. Available at: <https://www.bakermckenzie.com/en/insight/publications/2016/07/fsrapp>

Bastian-Pinto, C., Brandão, L. and Hahn, W.J., 2009. Flexibility as a source of value in the production of alternative fuels: The ethanol case. Energy Economics, 31(3), pp.411-422.

Betranou, Fabio and Casanova, Luis, 2016. Labour Institutions and Labour Market Performance in Argentina. ILO, 2016.

Bianco Docente, Carlos, and Mariela Bembi. "Acuerdo de Asociación Birregional Entre El Mercosur y La Unión Europea: Impacto Del Capítulo de Propiedad Intelectual Sobre Las Compras Públicas de Medicamentos En La República Argentina." Buenos Aires: Fundación Grupo Efecto Positivo, 2017.

Bohara, Alok, Gawande, Kishore, and Sanguinetti, Pablo, 2004. Trade diversion and declining tariffs: evidence from Mercosur. Journal of International Economics. 64: 1, pp. 65-88

Botero, Juan C., Djankov, Simeon, La Porta, Rafael, Lopez-deSilane, Florencio and Andrei Shleifer, 2004. The Regulation of Labor. Quarterly Journal of Economics, 119 (November 2004), 1339-82.

Boza, Sofia and Fernandes, Felipe, 2016. World Trade Organization members' participation in mechanisms under the sanitary and phytosanitary agreement, International Journal of Trade and Global Markets, 9:3, pp. 212-230.

Brambilla, Irene, 2005. A Customs Union with Multinational Firms: The Automobile Market in Argentina and Brazil. NBER Working Papers 11745, National Bureau of Economic Research, Inc.

- BSR, 2017. Empowering Female Workers in the Apparel Industry: Three Areas for Business Action. Available at:
https://www.bsr.org/reports/BSR_Empowering_Female_Workers_in_the_Apparel_Industry.pdf
- Burgess, Katrina, 2010. Global Pressures, National Policies, and Labor Rights in Latin America. *Studies in Comparative International Development*, 45: 198. <https://doi.org/10.1007/s12116-010-9063-y>
- Burrell et al. 2011 Potential EU-Mercosur Free Trade Agreement: Impact Assessment. Available at: <http://publications.jrc.ec.europa.eu/repository/handle/JRC67394>
- Cali, Massimiliano, Ellis, Karen, and Willem te Velde, Dirk, 2008. *The Contribution of Services to Development and the Role of Trade Liberalisation and Regulation*. Overseas Development Institute. London, UK
- Carbon Brief, 2015. Paris 2015: Tracking country climate pledges. Available at: <https://www.carbonbrief.org/paris-2015-tracking-country-climate-pledges>
- Carrillo, Jorge, Lung, Yannick and Tulder, Rob van (eds), 2004. *Cars, Carriers of Regionalism?* Palgrave Macmillan UK. [Doi://10.1057/9780230523852](https://doi.org/10.1057/9780230523852)
- CEFS, 2016. CEFS Sugar Statistics 2015. Available at <https://cefs.org/wp-content/uploads/2016/03/SUGAR-STATISTICS-2015.pdf>.
- CELADE, 2018. REDATAM Sistema de Indicadores Sociodemograficos de Poblaciones y Pueblos Indigenas. Available at: <https://redatam.org/redbin/RpWebEngine.exe/Portal?BASE=SISPPI>
- CELCAA, 2016. The EU should seek Mercosur's commitment to the prompt removal of the existing SPS and non-tariff barriers, 20 April 2016, Available at: <http://www.celcaa.eu/files/PRESSRELEASE20042016.pdf>
- Cernat, Lucian and Kutlina-Dimitrova, Zornitsa, 2014. *Thinking in A Box: A 'Mode 5' Approach To Service Trade*, Issue 1. Available from:
http://trade.ec.europa.eu/doclib/docs/2014/march/tradoc_152237.pdf
- Chang, Won and Winters, L. Alan, 1999. How regional blocs affect excluded countries - the price effects of MERCOSUR, Policy Research Working Paper Series 2157, The World Bank.
- Chaves, Gabriela Costa, Walter Britto Gaspar, and Marcela Fogaça Vieira. "Mercosur-EU Free Trade Agreement: Impact Analysis of TRIPS-plus Measures Proposed by the EU on Public Purchases and Domestic Production of HIV and Hepatitis C Medicines in Brazil." Rio de Janeiro: Fiocruz, 2017.
- Clarke, P., 2013. Martinique Rums, Imbibe Magazine, 13 June 2013. Available at: <http://imbibemagazine.com/martinique-rums/>
- Climate Action Tracker, 2015. Brazil Assessment. Available at: <http://climateactiontracker.org/countries/brazil>
- Commission on Intellectual Property Rights. *Integrating Intellectual Property Rights and Development Policy*. Commission on Intellectual Property Rights, 2002.

Costa, Patrícia T. M., 2019. Fighting Forced Labour: The Example of Brazil. International Labour Office. Available at: http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_111297.pdf

Council of Ministers of the EU, 1999. Interregional Framework Cooperation Agreement between the European Community and Mercosur. Council Decision 1999/279/EC [adoption consultation CNS/1995/0261. OJ L 112 of 29.04.1999.

Council of the European Union, 2012. EU Strategic Framework and Action Plan on Human Rights and Democracy, Luxembourg.

Dang, Hai-Anh and Lanjouw, Peter, 2015. Poverty Dynamics in India between 2004-2012: Insights from Longitudinal Analysis Using Synthetic Panel Data". World Bank Policy Research Paper # 7270. Washington DC: The World Bank.

Dang, Hai-Anh, Lanjouw, Peter, Luoto, Jill and McKenzie, David, 2014. Using repeated cross-sections to explore movements into and out of poverty. Journal of Development Economics, 107, pp. 112-128. <https://doi.org/10.1016/j.jdeveco.2013.10.008>

de Oliveira Bordonal, R., Carvalho, J.L.N., Lal, R., de Figueiredo, E.B., de Oliveira, B.G. and La Scala, N., 2018. Sustainability of sugarcane production in Brazil. A review. Agronomy for sustainable development, 38(2), p.13

Decreux, Yvan and Fontagne, Lionel, 2011. Economic Impact of Potential Outcome of the DDA. CEPII Working Paper No. 2011-23. Available at: SSRN: <https://ssrn.com/abstract=2004831> or <http://dx.doi.org/10.2139/ssrn.2004831>

Deere, Carmen Diana and Leon, Magdalena, 2003. The Gender Asset Gap: Land in Latin America', World Development Journal, 31:6, pp. 925-947.

Development Solutions et al, 2009. EU-Andean Trade Sustainability Impact Assessment, a study prepared for the European Commission -- DG Trade, Reading UK. Available at: http://trade.ec.europa.eu/doclib/docs/2010/april/tradoc_146014.pdf

Dix-Carneiro, Rafael and Kovak, Brian K., 2017. Margins of Labor Market Adjustment to Trade, NBER Working Paper 23595, July 2017.

E. Aguayo-Tellez, 2011. The impact of trade liberalisation policies and FDI on gender inequalities: A literature review, background paper (World Bank). Available at: <https://openknowledge.worldbank.org/handle/10986/9220>

EFFAT, 2017. EU-Mercosur negotiations: Stand up for EU sugar and ethanol. European Federation of Food, Agriculture and Tourism Trade.

Equality and Human Rights Commission, 2019. The right to an adequate standard of living: for ombudsman schemes. Available at: <https://www.equalityhumanrights.com/en/advice-and-guidance-human-rights-multipage-guide/right-adequate-standard-living-ombudsman-schemes>

Equality and Human Rights Commission, 2019. The right to health: for ombudsman schemes. Available at: <https://www.equalityhumanrights.com/en/advice-and-guidance-human-rights-multipage-guide/right-health-ombudsman-schemes>

Estrades, Carmen, 2012. Is MERCOSUR's external agenda pro-poor?: An assessment of the European Union-MERCOSUR free-trade agreement on poverty in Uruguay applying MIRAGE," IFPRI discussion papers 1219, International Food Policy Research Institute (IFPRI). Available at: <https://ideas.repec.org/p/fpr/ifprid/1219.html>

Estrades, Carmen, 2016. Is MERCOSUR external agenda pro-poor? An assessment of the EU-MERCOSUR free trade agreement on Uruguayan poverty applying MIRAGE. Available at: https://www.cepal.org/sites/default/files/events/files/documento_carmen_estrades_ifpri.pdf

Euratex, 2016. European Textiles and Fashion: Facts & Figures.

European Commission, 2001. EU-MERCOSUR Agriculture Relations, MEMO/01/309, Brussels, 3 October 2001.

European Commission, 2007. Trade SIA of the Association Agreement under Negotiation between the European Community and Mercosur: Update of the Overall Preliminary Trade SIA EU-Mercosur. Available at: http://trade.ec.europa.eu/doclib/docs/2008/february/tradoc_137833.pdf

European Commission, 2010. Position paper on Trade Sustainability Impact Assessment (SIA) of the Association Agreement under Negotiation between the European Community and Mercosur. Available at: http://trade.ec.europa.eu/doclib/docs/2010/july/tradoc_146386.pdf

European Commission, 2012. 'Trade Sustainability Impact Assessment of the Association agreement under between the European Community and Mercosur'. The University of Manchester. Available at http://trade.ec.europa.eu/doclib/docs/2009/april/tradoc_142927.pdf

European Commission, 2014. EU dairy farms report 2013.

European Commission, 2015c. Small and Medium Sized Enterprises and the Transatlantic Trade and Investment Partnership. Available at: http://trade.ec.europa.eu/doclib/docs/2015/april/tradoc_153348.pdf

European Commission, 2015b. Strategic Engagement for Gender Equality 2016-2019. Available at: http://ec.europa.eu/justice/gender-equality/files/documents/151203_strategic_engagement_en.pdf

European Commission, 2015a. Trade for All. Towards a more responsible trade and investment policy. Available at: http://trade.ec.europa.eu/doclib/docs/2015/october/tradoc_153846.pdf

European Commission, 2016a. Handbook for Trade Sustainability Impact Assessments, Second edition.

European Commission, 2016b. The competitive position of the European food and drink industry, Final Report by the ECSIP consortium, February 2016.

European Commission, 2017a. The end of the sugar production quotas in the EU. Available at http://europa.eu/rapid/press-release_MEMO-17-3488_en.htm.

European Commission, 2017b. Report from the XXVIIIth round of negotiations of the Trade Part of the Association Agreement between the European Union and Mercosur. Available at: http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155779.pdf.

European Commission, 2017c. Textile and clothing in the EU. Available at: https://ec.europa.eu/growth/sectors/fashion/textiles-clothing/eu_en

European Commission, 2018. EU Agricultural outlook for markets and income 2018-2030. Mid-term outlook report. Available at https://ec.europa.eu/agriculture/markets-and-prices/medium-term-outlook_en.

European Parliament, 2015. Women and Education in the EU, March 2015. Available at: [http://www.europarl.europa.eu/RegData/etudes/ATAG/2015/551301/EPRS_ATAG\(2015\)551301_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/ATAG/2015/551301/EPRS_ATAG(2015)551301_EN.pdf).

European Parliament, 2016. Research for Agri Committee- The Post-Quotas EU Sugar Sector. Agriculture and Rural Development. Available at [http://www.europarl.europa.eu/RegData/etudes/STUD/2016/573446/IPOL_STU\(2016\)573446_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2016/573446/IPOL_STU(2016)573446_EN.pdf)

European Union External Action Service, 2013. Framework Agreement for Cooperation between the European Economic Community and the Eastern Republic of Uruguay, 02 November 2013
<http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=421>

FAO, 2015. General situation of world fish stocks United Nations Food and Agriculture Organization, FAO Rome.

FAO, 2016. Global forest resources Assessment 2015. How are the world's forests changing? Second edition, FAO Rome.

FAO, 2018. Forests and forestry sector in Brazil. FAO Rome.

Floro, Maria, 1995. Economic Restructuring, Gender and the Allocation of Time. World Development, 23:11, pp. 1913-29.

Fontana, Marzia and Wood, Adrian, 2000. Modeling the Effects of Trade on Women, at Work and at Home, World Development, 28:7.

Food Drink Europe, 2016. Data & Trends, EU Food and Drink Industry 2016. Available at: http://www.fooddrinkeurope.eu/uploads/publications_documents/Data_and_trends_Interactive_PDF_NEW.pdf

Foreign Trade Information Systems, Acuerdo de Complementacion Economica Colombia-Mercosur, Organization of American States. Available at: http://www.sice.oas.org/TPD/MER_MAR/Negotiations/AcuerdoMarco_s.pdf

Foreign Trade Information Systems, Acuerdo de Complementacion Economica Bolivia-Mercosur, Organization of American States. Available at: http://www.sice.oas.org/Trade/MRCSBO/MERBO_S.ASP

Foreign Trade Information Systems, Acuerdo de Complementacion N54 Entre Mexico y Mercosur, Organization of American States. Available at:
http://www.sice.oas.org/Trade/MERCOSURMexACE54/MERMex_s.asp

Foreign Trade Information Systems, Acuerdo de Libre Comercio Entre Chile y Mercosur, Organization of American States. Available at
<http://www.sice.oas.org/Trade/MSCH/MSCHIND.asp>

Foreign Trade Information Systems, Acuerdo Marco de Comercio Entre Mercosur y el Reino de Marruecos, Organization of American States. Available at:
http://www.sice.oas.org/Trade/COL_MER/COL_MER_index_s.asp

Foreign Trade Information Systems, Preferential Trade Agreement between Mercosur and SACU, Organization of American States. Available at:
http://www.sice.oas.org/Trade/MRSRSACU/Text_2008_e.pdf

Foreign Trade Information Systems, Preferential Trade Agreement Mercosur-India, Organization of American States. Available at:
http://www.sice.oas.org/Trade/MRCSRIndia/Index_e.asp

Foreign Trade Information Systems, Tratado de Libre Comercio Entre Mercosur y Peru, Organization of American States. Available at
<http://www.sice.oas.org/Trade/MRCSRPerACE58/ACE.asp>

Francois, Joseph, Narayanan, Badri, Norberg, Hanna, Porto, Guido and Walmsley, Terrie, 2010. Assessing the Economic Impact of the Trade Agreement between the European Union and Signatory Countries of the Andean Community, European Commission report prepared under Framework Contract Trade TRADE10/A2/A16.

Gárriz, Ana Inés and Panigo, Demian Tupac, 2015. Prebisch y el principio de reciprocidad. Una aplicación para el caso de la Política Automotriz Común entre Argentina y Brasil, Ensayos Economics, 73: 117.

Gerber, P.J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A. & Tempio, G., 2013. Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities. Food and Agriculture Organization of the United Nations (FAO), Rome.

Giordano, P., M. Méndez Parra, and M. Watanuki, 2007. Andean Countries at a Crossroads: Evaluating Pro-Poor Trade Integration Options. Paper presented at the 2007 GTAP Conference, Purdue University.

Giupponi, M. Belén Olmos, 2017. Rethinking Free Trade, Economic Integration and Human Rights in the Americas, Oxford/Portland: Hart Publishing.

Goldberg, Pinelopi and Nina Pavcnik. 2003. The Response of the Informal Sector to Trade Liberalisation. Journal of Development Economics, 72, pp. 463-496.

Government of Brazil. (2015). Federative Republic of Brazil Intended Nationally Determined Contribution.

Hamilton, Daniel and Quinlan, Joseph, 2015. *The Transatlantic Economy 2015: Annual Survey of Jobs, Trade and Investment between the United States and Europe*, Center for Transatlantic Relations, Johns Hopkins University.

Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend. 2013. "Hansen/UMD/Google/USGS/NASA Tree Cover Loss and Gain Area." University of Maryland, Google, USGS, and NASA. Accessed through Global Forest Watch on [date]. www.globalforestwatch.org.

Hertel, Thomas (ed), 1997. *Global Trade Analysis: Modeling and Applications*. Cambridge University Press. Available at: <https://doi.org/10.1017/CBO9781139174688>.

Hinojosa, Leonith, 2009. EU-Mercosur Trade Agreement: Potential Impacts on Rural Livelihoods and Gender (with Focus on Bio-fuels Feedstock Expansion), *Sustainability*, pp. 1120-1143.

Hoffmann, Andrea Ribeiro, 2015. At Last: Protection and Promotion of Human Rights by Mercosur. In: Börzel T.A., van Hüllen V. (eds) *Governance Transfer by Regional Organizations. Governance and Limited Statehood Series*. Palgrave Macmillan, London.

Hoornweg, D., and Bhada-Tata, P. (2012). *What a waste: a global review of solid waste management*. Urban Development & Local Government Unit, World Bank.

Hsu, Angel et al., 2016. 2016 Environmental Performance Index. New Haven, CT: Yale University. Available at: <http://www.cornellpress.cornell.edu/book/?GCOI=80140100916710>

Hummels, David and Schaur, Georg, 2013. Time as a Trade Barrier, *American Economic Review*, 103, pp. 1-27.

IEDOM, 2011. *Martinique Annual Report 2010*. Paris: IEDOM.

ILO, 2007. *Discrimination at work in the Americas*. Available at: http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_decl_fs_91_en.pdf

ILO, 2008. *Declaration on Social Justice for a Fair Globalization*, Geneva, 10 June 2008. Available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/genericdocument/wcms_371208.pdf

ILO, 2012. *The ILO and the EU, partners for decent work and social justice. Impact of ten years of cooperation*. November 2012. Available at: http://www.ilo.org/wcmsp5/groups/public/@europe/@ro-geneva/@ilo-brussels/documents/publication/wcms_195135.pdf

ILO, 2013. *The Informal Economy and Decent Work: A Policy Resource Guide Supporting Transitions to Formality*, esp. section 2.1 on "Measurement of the Informal Economy". Available at: http://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_policy/documents/publication/wcms_210443.pdf

ILO, 2014. FORLAC (Programme for the Promotion of Formalisation in Latin America and the Caribbean), Reduction of Informal Employment in Uruguay: Policies and Outcomes.

ILO, 2016a. Application of International Labour Standards (up to 31st December 2015), Report 3 part II. Available at: [http://www.ilo.org/public/libdoc/ilo/P/09661/09661\(2016-105-2\).pdf](http://www.ilo.org/public/libdoc/ilo/P/09661/09661(2016-105-2).pdf)

ILO, 2016b. Assessment of Labour provisions in trade and investment arrangements. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_498944.pdf

ILO, 2018. Application of International Labour Standards. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_617065.pdf

ILO, 2018. Empowering Women Working in the Informal Economy. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_618166.pdf

ILO-UNICEF, 2017. Child labour in Argentina, public policies and the development of sectoral and local experiments, cited in CEACR, Observations, 2017. Regional files by country – Americas. Available at: <https://www.ioe-emp.org/index.php?eID=dumpFile&t=f&f=132062&token=eae0e89b338edba78dc319a22cdd7d7e35e69f7&L=0>

INE Chile, 2018. Estadísticas de informalidad laboral: Marco conceptual y manual metodológico. Available at: <https://www.ine.cl/docs/default-source/laborales/informalidad-laboral/antecedentes-metodologicos/manual-conceptual-y-metodol%C3%B3gico-informalidad-laboral.pdf?sfvrsn=9>

Infocampo, 2017. La faena bovina aumento un 10,6% con respecto a 2016. Available at: <https://www.infocampo.com.ar/la-faena-bovina-aumento-un-106-con-respecto-a-2016/>

Insurance Europe (2017a). Market access and trade barriers faced by European insurers and reinsurers in foreign jurisdictions (August 2017): Argentina.

Insurance Europe (2017b). Market access and trade barriers faced by European insurers and reinsurers in foreign jurisdictions (August 2017): Brazil.

International Labour Office, "Forced Labour in Latin America," Cornell University ILR School, January 2005. Available at: <https://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1018&context=forcedlabor>

IPEC, 2014. Compendium of good practices on addressing child labour in agriculture", International Labour Organisation. Available at: <https://www.ilo.org/ipec/areas/Agriculture/lang--en/index.htm>

IWGIA, 2018. The Indigenous World 2018. Available at: <https://www.iwgia.org/images/documents/indigenous-world/indigenous-world-2018.pdf>

Jean, S., Laborde, D., & Martin, W., 2010. Formulas and Flexibility in Trade Negotiations: Sensitive Agricultural Products in the World Trade Organization's Doha Agenda. The World

Bank Economic Review, 24(3), 500-519. Retrieved from
<http://www.jstor.org/stable/23029703>.

Jelin, Elizabeth, 1993. About Women, about Human Rights. Lima: Entre Mujeres. Diálogo Sur-Norte.

Jullien, B. & Y. Lung (2011) L'automobile à la croisée des chemins. Paris, La Documentation Française.

Kee, Hiau Looi, Nicita, Alessandro and Olarreaga, Marcelo, 2009. Estimating Trade Restrictiveness Indices. Economic Journal, Royal Economic Society, 119:534, pp. 172-199.

Labour Asociados Consultores, 2007. Study on Child Labour and Protection of Young Workers in the European Union, Report prepared for the European Commission, DG Employment, Social Affairs and Equal Opportunities. Available at:
<http://ec.europa.eu/social/main.jsp?catId=706andlangId=enandintPageId=209>

Liu, Ming, and Sumner La Croix. "A Cross-Country Index of Intellectual Property Rights in Pharmaceutical Inventions." Research Policy 44, no. 1 (February 2015): 206-16.
<https://doi.org/10.1016/j.respol.2014.07.004>.

Maskus, Keith E., and William Ridley. "Intellectual Property-Related Preferential Trade Agreements and the Composition of Trade." Working Paper, 2016. Available at:
<http://cadmus.eui.eu//handle/1814/43244>.

Menezes-Filho, Naercio and Marc-Andreas Muendler, 2011. Labor Reallocation in Response to Trade Reform. NBER Working Paper (17372).

Michael A. Gordon, Michael E. Gordon, Lowell Turner, 2000. Transnational Cooperation among Labor Unions. First Edition. ILR Press.

Ministerio da Saude, 2018. Novo Protocolo garante tratamento de hepatite C para todos os brasileiros. Publicado: 15.03.2018. Available at: www.aids.gov.br/pt-br/noticias/novo-protocolo-garante-tratamento-de-hepatite-c-para-todos-os-brasileiros

Ministerio de Ciencia y Tecnica, 2016. "Sector Lacteo", Analisis Tecnologicos y Prospectivos Sectoriales.

Narayanan, Badri, and Pandey, Pratima, 2017. Assessment of Impact of Food-Safety Measures on Exports: A Gravity and CGE Analysis Focusing on India. In book: Theorizing International Trade. Available at: DOI: 10.1007/978-981-10-1759-9_9.

Narayanan, Badri, and Walmsley, Terrie L. (eds) 2008. Global Trade, Assistance, and Production: The GTAP 7 Data Base. Center for Global Trade Analysis, Purdue University.

Narayanan, Badri, Cuiyak, Dan and Singh, Harsha, 2016. Quantifying Mega-Trade Agreements: A review of Literature, Available at:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2611025

Nascimento, Natalia M. et al., 2016. Textile industry in Brazil. International Interdisciplinary Journal of Young Scientists from the Faculty of Textile Technology, vol. 6, 68-75.

Notess, Laura and Veit Peter, 2018. As Indigenous Groups Wait Decades for Land Titles, Companies Are Acquiring Their Territories. World Resources Institute. Available at: <https://www.wri.org/blog/2018/07/indigenous-groups-wait-decades-land-titles-companies-are-acquiring-their-territories>

Notess, Laura, Veit, Peter, Iliana Monterroso, Andiko, Emmanuel Sulle, Anne M. Larson, Anne-Sophie Gindroz, Julia Quaedvlieg and Andrew Williams, 2018. The Scramble for Land Rights. World Resources Institute, Available at: <https://www.wri.org/publication/scramble-for-land-rights>

Notess, Laura, 2018. For Indigenous Peoples, Losing Land Can Mean Losing Lives. World Resources Institute. Available at: <https://www.wri.org/blog/2018/05/indigenous-peoples-losing-land-can-mean-losing-lives>

Novy, Dennis, 2013. Gravity Redux: Measuring International Trade Costs with Panel Data. *Economic Inquiry*, 51, pp. 101–121. doi:10.1111/j.1465-7295.2011.00439.

ODI, 2009. Gender vulnerabilities, food price shocks and social protection responses. Available at: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/4287.pdf>

OECD, 1999. Insurance and Private Pensions Compendium for Emerging Economies, Book 1, Part 1:6)c, Cross-Border Trade in Financial Services: Economics and Regulation. OECD Secretariat, Paris.

OECD, 2004. Service Trade Liberalisation: Identifying Opportunities & Gains. OECD Trade Policy Working Paper No. 1, 61. OECD Publishing, Paris.

OECD, 2008. Environmental Performance of Agriculture at a Glance. OECD Publishing, Paris.

OECD, 2013. A Literature Review on Trade and Informal Labour Markets in Developing Countries. OECD Publishing, Paris.

OECD, 2015. OECD Environmental Performance Reviews: Brazil 2015, OECD Publishing, Paris.

OECD, 2016. OECD Review of Fisheries: Country Statistics 2015. OECD Publishing, Paris.

OECD-FAO, 2015. Brazilian agriculture: Prospects and challenges, in OECD/FAO, Agricultural Outlook 2015. OECD Publishing, Paris.

Official Journal of the European Communities, 2000. Charter of Fundamental Rights of the EU. Available at: http://www.europarl.europa.eu/charter/pdf/text_en.pdf

OHCHR, 2012. Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque.

OHCHR, 2015. Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context.

OHCHR, WHO, The Right to Health Fact Sheet No. 31. Available at: <https://www.ohchr.org/Documents/Publications/Factsheet31.pdf>

Oxford Economics, 2014. Industry case study: Argentina. Available at:
<https://www.oxfordeconomics.com/my-oxford/publications/428843>

Parris, Kevin, 2011. Impact of Agriculture on Water Pollution in OECD Countries: Recent Trends and Future Prospects. *International Journal of Water Resources Development*, 27:1, pp. 33-52. DOI: 10.1080/07900627.2010.531898

Paz, Lourenço S., 2014. The impacts of trade liberalisation on informal labor markets: A theoretical and empirical evaluation of the Brazilian case. *Journal of International Economics*, 92, pp. 330–348.

Peiretti, Roberto and Dumanski, Julian, 2014. The transformation of agriculture in Argentina through soil conservation. *International Soil and Water Conservation Research*, 2:1, pp. 14-20.

Petri, Peter and Plummer, Michael 2016. The Economic Effects of the Trans-Pacific Partnership: New Estimates. *PIIE WP*, 1:2.

Philippidis, G. and Sanjuan, A.I., 2007. An Analysis of Mercosur's Regional Trading Arrangements. *The World Economy*, 30: 503-531.

Phillips, T., 2007. 'Brazil's ethanol slaves: 200,000 migrant sugar cutters who prop up renewable energy boom'. Available at
<https://www.theguardian.com/world/2007/mar/09/brazil.renewableenergy>

Quijano, José, 2009. El Comercio de Servicios en el MERCOSUR. Multi-Year Expert Meeting on Services, Development and Trade: The Regulatory and Institutional Dimension, Geneva, 17-19 March 2009. Available at: https://unctad.org/sections/wcmu/docs/c1mem3p25_sp.pdf

Reuters. 'Argentina Lifts Beef Export Quotas, Agriculture Secretary Says'. 11 January 2016.
<https://www.reuters.com/article/argentina-beef-idUSL8N14V4NC20160111>.

Rico, I., Dries, L., Jongeneel, R. Venus, T, 2017. The EU Cattle Sector: Challenges and Opportunities – Milk and Meat, European Parliament.

Riker, David, 2015. Export-Intensive Industries Pay More on Average: An Update. US International Trade Commission. Available at:
<https://www.usitc.gov/publications/332/ec201504a.pdf>

Ritche, Hannah, and Roser, Max, 2018. Mental Health. Our World in Data. Available at:
<https://ourworldindata.org/mental-health#risk-factors-for-mental-health>

Roberts, Kenneth, 2014. Changing Course in Latin America. Party Systems in the Neoliberal Era. New York: Cambridge UP, pp. 72-73.

Rovira, Joan, Ismail Abbas, and Miguel Cortés. "Guide to the IPRIA (Intellectual Property Rights Impact Aggregate) Model." Geneva: International Centre for Trade and Sustainable Development, 2009. <https://www.ictsd.org/sites/default/files/event/2010/03/guide-to-the-ipria-model.pdf>.

Rozemberg, R., and Gayá, Romina, 2015. Oportunidades y desafíos del comercio de servicios para el MERCOSUR. Buenos Aires: Cámara de Exportadores de la República Argentina (CERA). Cited in: Gayá, 2017. Strengthening Knowledge Based Services in Argentina. *RAM, Rev. Adm.*

Mackenzie, 18:6. São Paulo Nov./Dec. 2017. Available at:
http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1678-69712017000600096

Rueda-Cantuche and Nuno Sousa, 2016. EU Exports to the World: Overview of effects on employment and income. Chief Economist Note. Issue 1, February 2016. Available at:
http://trade.ec.europa.eu/doclib/docs/2016/february/tradoc_154244.pdf

Sajn, Nikolina, 2019. Environmental impact of the textile and clothing industry: What consumers need to know. European Parliamentary Research Service, PE633.143. European Parliament.

Seuba, Xavier. "Intellectual Property in Preferential Trade Agreements: What Treaties, What Content?" *The Journal of World Intellectual Property* 16, no. 5–6 (December 1, 2013): 240–61. <https://doi.org/10.1002/jwip.12015>.

Shaikh, Owais H. "Index of Data Exclusivity and Access (IDEAS): Free Trade Agreements." In *Access to Medicine Versus Test Data Exclusivity*, 129–92. Munich Studies on Innovation and Competition. Springer, Berlin, Heidelberg, 2016. https://doi.org/10.1007/978-3-662-49655-8_5.

Skoufias, Emmanuel, Nakamura, Shohei, Mayer Gukovas, Renata. 2017. Safeguarding against a reversal in social gains during the economic crisis in Brazil (English). Washington, D.C. : World Bank Group. Available from:
<http://documents.worldbank.org/curated/en/567101487328295113/Safeguarding-against-a-reversal-in-social-gains-during-the-economic-crisis-in-Brazil>

SOMO, 2011. Gender aspects in the Latin American garment industry. Available at:
<https://www.somo.nl/wp-content/uploads/2011/04/Gender-aspects-in-the-Latin-American-garment-industry.pdf>

Spirits Europe, 2017. Trade Review 2017: Stand up for Trade. Available at:
<http://spirits.eu/upload/files/publications/Trade%20Brochure%202017.PDF>

Powell, Stephen J., 2008. Humanizing Trade's Economic Benefits: An Analysis of MERCOSUR's Effects on the Environment, Labor Standards, Indigenous Populations, and Health, Ninth Annual Legal and Policy Issues in the Americas Conference, May 26-28, 2008, Rio de Janeiro: https://www.law.ufl.edu/pdf/academics/centers/cgr/9th_conference/Stephen_Powell_MERCO_SUR_Human_Rights_Paper.pdf

Sturgeon, Timothy J., Memedovic, Olga, Van Biesebeek, Johannes, Gereffi, Gary, 2009. Globalisation of the automotive industry: main features and trends. *Int. J. Technological Learning, Innovation and Development*. 2: 1/2.

Sugarcaneorg, 2017. Policies in the European Union; EU Sugar Policy. Available at:
<https://sugarcane.org/sugar-policy-in-the-european-union/>

Sugarcaneorg, 2018. Policies in the European Union; EU Ethanol Policy. Available at:
<https://sugarcane.org/ethanol-policy-in-the-european-union/>

Traistaru, I. and Martincus, C.V., 2003. Economic Integration and Manufacturing Concentration Patterns: Evidence from Mercosur, University of Bonn, Center for European Integration Studies.

UN Women, Convention on the Elimination on all Forms of Discrimination against Women. Available at: <http://www.un.org/womenwatch/daw/cedaw/>

UNCTAD-ICTSD. Resource Book on TRIPS and Development. Cambridge University Press, 2005.

UNESA, n.d. Declaration on the Rights of Indigenous Peoples. Available at: <https://www.un.org/esa/socdev/unpfii/documents/FAQsindigenousdeclaration.pdf>

United Nations Human Rights Office of the High Commissioner, Ratification Status for Argentina. Available at: http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=7&Lang=EN

UNOHCHR, Ratification Status for Argentina. Available at: http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=7&Lang=EN

UNWomen, 2009. Convention on the Elimination of all forms of Discrimination against Women. Available at: <https://www.un.org/womenwatch/daw/cedaw/>

USAID, 2011. LandLinks, Brazil. Available at: <https://www.land-links.org/country-profile/brazil/#land>

Vakis, Renos, Rigolini, Iamele P., Lucchetti, Leonardo Ramiro, 2016. Left behind: chronic poverty in Latin America and the Caribbean (English). Latin America Development Forum. Washington, D.C: World Bank Group. <http://documents.worldbank.org/curated/en/334891469074274116/Left-behind-chronic-poverty-in-Latin-America-and-the-Caribbean>

Van Bekum, S. (2015) 'Prospects of an EU-Mercosur trade agreement for the Dutch agrifood sector', Wageningen, LEI Wageningen University & Research Centre, LEI Report 2015-036.

World Bank Group. 2016. Argentina Country Environmental Analysis. World Bank, Washington, DC. Available at: <https://openknowledge.worldbank.org/handle/10986/25775> License: CC BY 3.0 IGO.

World Bank, 2014. Brazil Censo Demographico 2010, September 20, 2014. Available at: <http://microdata.worldbank.org/index.php/catalog/2078/datafile/F1/V58>

World Population Review, 2019. Uruguay Population. Available at: <http://worldpopulationreview.com/countries/uruguay-population/>

Annex 1. Indicators and Data Sources

We will also make use of the extensive data sources available to our research team through the LSE.

Table 118: Selected indicators

Dimension	Themes	Indicators
Economic	<ul style="list-style-type: none"> - Macro-economy - Labour market - Functioning of markets for businesses - Implications for consumers - RoW - SMEs 	GDP, trade and investment flows, household income, consumption, terms of trade, sectoral output; employment, wages, real GDP growth per capita; consumer prices (rents, imports), product quality, consumer choice, consumer safety and protection issues
Social	<ul style="list-style-type: none"> - Decent work (full and productive employment, rights at work, social protection and social dialogue) - Education - Health/public health - Equality (e.g. gender equality, discrimination, people with disabilities, consumer protection) - Security - Population 	Employment, real wages, Public expenditure; healthcare cost as share of GDP; Workforce participation rate; unemployment; Gini coefficient; wage gap (gender); Level of compliance with ILO conventions
Environment	<ul style="list-style-type: none"> - Air and climate - Land - Water, oceans, seas and coast - Biodiversity - Energy - Waste - Transport - Chemicals 	Energy intensity by sector; resource use and efficiency; CO2 emissions; GHG emissions (CH4 and N2O); Energy intensity by sector; Resource use and efficiency: level of deforestation waste intensity; Level of protection of threatened species, use of fertilisers and pesticides in agriculture; compliance with Multilateral Environmental Agreements
Human rights	<ul style="list-style-type: none"> - Adequate standard of living - Property - Fair trial - Freedom of expression and opinion - Privacy - Cultural life - Indigenous peoples - Right to water - Right to highest attainable standard of physical and mental health. - Gender equality 	Human rights compliance record; Stakeholder consultation processes in place; Inclusion of human rights' clauses in trade agreements

Aside from commonly consulted sources (UN COMTRADE, OECD, Eurostat, UK's Office for National Statistics, European publications and UK Trade Info) the research will involve:

Table 119: Primary and secondary data sources

Type of data	Sources
Primary data	Instituto Nacional de Estadística y Censos (Argentina) Instituto Brasileiro de Geografia e Estatística (Brazil) Dirección General de Estadística, Encuestas y Censos (Paraguay) Instituto Nacional de Estadística (Uruguay) World Input-Output Database WTO-OECD TiVA Database (Trade in Value Added) Amadeus, European subset of Orbis (Source: Bureau Van Dijk) The Economist Intelligence Unit's Country Profiles EIU Country Data Eurostat New Cronos - ESDS International
Secondary data	Cahiers des Amériques latines Economics and politics Enoikos European company and financial law review European competition journal European diversity and autonomy papers European environmental law review European human rights reports European integration online papers European journal of international relations European journal of political economy European journal of political research European journal of political theory European political science European taxation European Union politics Índice General de Expectativas Económicas (IGEE) Informe de Empleo y Desarrollo Social (IEDS) International journal of political economy International journal of public administration International political science review Journal of development studies Journal of health politics, policy and law Journal of international development Journal of Latin American Studies Journal of political economy Journal of politics Latin American Economic Review Maastricht journal of European and comparative law Policy and politics Policy review Policy sciences

Policy studies
 Policy studies journal
 Political communication
 Political science
 Political studies
 Political theory
 Politics & policy
 Politics & society
 Public policy and administration
 Regional science and urban economics
 Regional studies
 Review of European Community & international environmental law
 Revista Análisis
 Revista Brasileira de Economia

Annex 2. Roundtable Summaries

STAKEHOLDER CONSULTATION ROUNDTABLE

Buenos Aires, Argentina

SIA IN SUPPORT OF ASSOCIATION AGREEMENT NEGOTIATIONS BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 16 March 2018

Location: Sheraton Hotel & Convention Centre

Lead Participants: LSE Consulting

Chair: LSE Consulting

All Participants:

Organisation

FABA

FABA

INAI

Senadi de la Nacion

Camara Argentina de Comercio y Servicios

Cefeidas Group

ABECEB²⁶⁴

LSE Consulting

Cefeidas Group

Ministero de Production

Cefeidas Group

COPAL

Senado de la Nacion, Eurolat

Red Mundial de Medicos Veterinarios Espesialistas en Bienstar Animal

Cefeidas Group

Camara de Exportadores de la Republica Argentina (CERA)

LSE Consulting

Fundacion Amigos de la Tierra Argentina

Camara de Industriales de Maiz

Grupo Paisos Productores del Sur

Sociedad Rural Argentina

Camara de Exportadores de la Republica Argentina (CERA)

CADIEEL

CENIT

²⁶⁴ Face-to-face meeting.

The LSE Consulting team, Dr Maximilano Mendez-Parra and Dr Elitsa Garnizova, provided a short introduction to the SIA process and the importance of stakeholder input to the different aspects of the analysis. Maximilano explained briefly the process of the SIA and its key components and posed questions to the roundtable on what are key issues of concern, what are channels of impact and how to mitigate that.

CADIEEL (Camara Argentina de Industrias Electronicas, Electromecanicas and Luminotecnicas) raised a number of points regarding the impact of the agreement on Argentina. On one hand, it pointed out that the Chamber is worried about the potential impact of inclusion of a public procurement chapter and how this is to be implemented. The Chamber highlighted existing EU rules of public procurement, as well as rules of origin and manufacturing practices and expressed the concern that these will all have to be taken as they are. The Chamber has done a study on public procurement and will send the results to the team.

The team took note and thanked for the opportunity to access the findings.

Camara de Industriales de Maiz described the current membership and coverage of the Chamber and explained the key issues of concern. Most importantly, the representative highlighted the desire to enter in the EU market at zero tariff but how no evidence has been given yet that this is on the agenda. The Chamber has also done a report, which will be sent to the team members.

Fundacion Amigos de la Tierra Argentina also highlighted the existence of studies and publications on the impact of increased industrial production on the environment. The representative pointed out in particular the importance of soybean, potential loss of biodiversity, potential displacement of indigenous people. The organisation remains available to provide further information.

Grupo Paises Productores del Sur enquired about the methodology for addressing environmental impacts as well as how the existing regulatory framework is factored in the model. The Group has done a number of studies looking into greenhouse gases and deforestation and would like to check what data the SIA is based on.

CERA (Camara de Exportadores de la Republica Argentina) brought the issue about the different private standards that have come up as a result of different studies. CERA also raised the point about special and differential treatment, especially vis-a-vis intellectual property.

COPAL (Coordinadora de las Industrias de Productos Alimenticios) expressed a concern about the entry of Argentinian wine into the EU. The organisation has done studies on the possible impact, particularly Rules of Origin, about the impact of certain food imports from the EU such as olive oil.

Camara Argentina de Comercio y Servicios expressed concern that Mercosur would agree to the approach by the EU on Rules of Origin without a further discussion among stakeholders. The representative outlined the different rules and regulation that Argentina has put in place for certifying and exporting products and asked whether the RoO chapter has already been agreed.

CERA reiterated the points made by COPAL and Camara Argentina de Comercio y Servicios and highlighted that the outcome of this chapter is particularly important for the impact of SMEs.

CERA clarified that the wording of the chapter on certification will have major significance for its impact.

Camara Argentina de Comercio y Servicios followed up to highlight that different development stages in the region should be taken into consideration and should be taken very seriously, as well as certification issues.

Representatives from **Senado de la Nacion** contributed a more political perspective to the issues raised. The representative explained that the Foreign affairs committee has already discussed the agreement in an event and similar issues have been raised there. These include: the need to seek for longer transition period; mechanisms to assess trade-offs between industries; measures to assist those production sectors that may suffer; relevance of the new industries / and government procurement; as well as the procurement of the provinces. The participant also mentioned that the most important topics raised were: pharma/chemicals; patents and IPR; demand of different data; subsidies; RoO; textiles, shoes and leather.

COPAL raised issues on the parliamentary scrutiny of the agreement. The representative highlighted that the same process of impact assessments does not exist in Argentina and it is also unclear what is the process which follows.

Grupo Paises Productores del Sur commented that the Ministry of Production has done an impact study but the data used has not been published and the impacts are not defined by sector.

Camara Argentina de Comercio y Servicios also raised the issue of the availability of information.

The team clarified how stakeholders can provide further input to the process.

COPAL raised another point about the wine sector and possible impact. The representative also asked about the different scenarios covered in the report.

The team clarified the two scenarios + baseline used for the study and the timeline for the different reports. The team will send the participants link to the website and the questionnaires.

FABA (Fundacion Argentina de Bienestar Animal) asked how animal welfare is included in the study and commented that Argentina is lagging behind in terms of standards in the area. FABA will submit additional information to the team to clarify the issues.

The team reiterated that similar concerns have been raised in Brussels and that animal welfare cuts across different elements of the analysis, particularly environmental impacts.

Camara Argentina de Comercio y Servicios & CERA raised the issue of cargo reserves, which needs to be explored further, as well as port services.

Red Mundial de Medicos Veterinarios called for a clearer conceptual understanding and separation between animal protection and animal welfare. The representative called for a better understanding of the different dimensions of animal welfare and how Argentina can do more, based on the experience of the EU and in the region.

FABA clarified on animal welfare that there has been recent progress in Argentina and much is being done to develop a legal framework in the future.

Cefeidas Group raised the issue of genetically modified organisms and the rules, which will guide their exportation in the future. Similarly the representative raised concerns on biofuels and the respective regulatory framework to regulate them. The representative followed up to explain the need to reach a minimum standard when exporting to the EU.

The team clarified that at this stage there is only coordination and exchange of information on the issue of GMOs in Europe. Maximilano clarified that the theme is highly problematic and there is no consensus.

Fundacion Amigos de la Tierra Argentina added that GMOs are also important for their social and environmental impact. The representative highlighted the treat of the use of glyposphates and pesticides; as well as the production of biodiesel and the threat to consumers through the use of such products.

Grupo Paises Productores del Sur explained that there should be stronger movement towards Good Agricultural Practices – already implemented in Cordoba; as well as legislation on dealing with agro-chemicals, which are both steps in the right direction.

The team explained that the agreement can incentivise cooperation in certain areas via different practices and how it can bring to a higher level the standards in EU and Mercosur.

Grupo Paises Productores del Sur enquired about the SIA factoring the impact of Brexit and explaining its importance for the deal and for Mercosur.

The team explained that Brexit is not factored in since the UK is still a member of the EU and it is difficult to model when it is not yet clear what form Brexit will take. This raised some doubts from participants on the usefulness of the study.

Red Mundial de Medicos Veterinarios added a complementary point on the different sentiment and attitudes in the EU and Argentina on the importance of animal welfare. Participant advised the inclusion of elements from the European Barometer Report to the study.

Camara Argentina de Comercio y Servicios & CERA raised a further point on the need for assistance for sectors in terms of certification. They highlighted the importance of mutual recognition for different sectors and that progress will not be immediate.

Camara de Industriales de Maiz brought the attention of the team to a study done by IPEA in Brazil and the importance of having something similar for Argentina.

The representatives of the Senado noted an upcoming event discussing the EU-Mercosur Agreement and the potential for further involvement.

The team closed the session with a reminder of the different opportunities to contribute.

STAKEHOLDER CONSULTATION ROUNDTABLE

Sao Paulo, Brazil

SIA IN SUPPORT OF ASSOCIATION AGREEMENT NEGOTIATIONS BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 13 March 2018

Location: Pullman Hotel Sao Paulo Ibirapuera

Lead Participants: LSE Consulting

Chair: LSE Consulting

All Participants:

Organisation
ABPA- Associação Brasileira de Proteína Animal ²⁶⁵
Abit
Brazilian Institute of Cachaca – IBRAC
Cámara Española de Comercio
Humane Society International
Confederação Nacional da Indústria - CNI
Centro de Integração do Mercosul/Universidade Federal de Pelotas
Terranova Consultoria
LSE Consulting
Confederação Nacional da Indústria
Brazilian Confederation of Agriculture and Livestock (CNA)
Universidad Católica del Uruguay
UNICA
CitrusBR
Red Mundial de Médicos Veterinarios Especialistas en Bienestar Animal ²⁶⁶
Secretaría General Iberoamericana (SEGIB)
Fundación CENIT
LSE Consulting
Forest Coalition
Brazilian Council of Foreign Trade
Associação Brasileira das Indústrias do Milho

²⁶⁵ Face-to-face meeting.

²⁶⁶ Attended Buenos Aires roundtable.

Delegation of the European Union to Brazil
Derechos Digitales
Apex-Brasil
Sociedad Rural Argentina ²⁶⁷
Uruguayan Exporters` Association
Cámara de Industrias del Uruguay
FCES
World Animal Protection
Consulado Geral da Austria ²⁶⁸
FIESP ²⁶⁹

Morning session: the SIA of EU-Mercosur FTA in a broader perspective

The team, represented by Dr Maximiliano Mendez-Parra and Ms Elitsa Garnizova, introduced the aims and objectives of the sustainability impact assessment, gave an overview of the consultation process and set out the agenda for the day. The team presented the **methodological approach to the different components of the SIA**, outlining the quantitative and qualitative tools used to assess the potential impact of the agreement. The team highlighted the importance of stakeholder input to assessing comprehensively all channels of impact of the potential agreement and encouraged participants to provide further evidence and data to the team. In addition to collecting comments on channels of impact, the team also encouraged discussion on any mitigating and flanking measures, which can increase the benefits of the agreement and also strengthen implementation.

The second intervention in the morning session was by **the Delegation of the European Union to Brazil**. He provided a background to the SIA process in the European Union and the importance of stakeholder engagement. He highlighted the key benefits of the agreement for both regions, in particular through the contribution of the negotiations to sustaining growth in Europe and in Latin America. He highlighted as well that Mercosur countries are the only ones in Latin America not to have an agreement with the EU and how linking the two regions will result in **significant efficiency gains and increase in well-being**. He then illustrated different ways, in which the agreement can be beneficial to Mercosur and more specifically to Brazil. He concluded with the importance of **transparency in the process and active engagement by stakeholders**.

The final speaker in the morning was **from the Foro Consultativo Económico-Social of Mercosur**. He focused on the institutional context surrounding the negotiations and highlighted the issue of transparency. He added that some lack of transparency is justified, but in the current case the FCES as the social partners' representatives in the region have not seen any specific results. He further highlighted that besides comments from the press, the actual progress with the negotiations is not clear. He also identified a number of concerns from the FCES perspective **including the impact on SMEs**, which won't be able to cope with the competitive pressures; **horizontal issues such as intellectual property rights, patents, and Geographical**

²⁶⁷ Attended Buenos Aires roundtable.

²⁶⁸ Face-to-face meeting.

²⁶⁹ Face-to-face meeting.

Indications; and impact on least developed countries. He also expressed a concern that there are few studies on the impact on the region and sectoral effects still have not been reviewed in depth.

The three interventions were followed by a question and answer session:

The **Camara de Industrias del Uruguay** reiterated the comments from FCES about the transparency of the process and highlighted that as industry-representing body they should be more involved. **Participant from Universidad Catolica del Uruguay** enquired about the methodology of the study and particularly the quantification for services and non-tariff barriers. **UNICA** asked about the timeline of stakeholder consultation activities and how the input from stakeholders is integrated in the study.

The team outlined the approach to the economic modelling and quantification of NTBs. The team leader explained that the event in Sao Paulo is only one opportunity to provide input to the stakeholder consultation and that participants can fill in the questionnaire, as well as send comments on the specific reports. EEAS-Brasilia briefly touched upon the transparency point highlighting that there have been different initiatives in the region for stakeholders to provide input.

In the second round of questions, **particioant from the Universidad Catolica del Uruguay** enquired about the timeline of signature, ratification and legal review. The **Camara de Industrias del Uruguay** underlined that they would like to see balance in the negotiations between EU and Mercosur. **UNICA** (the Brazilian sugarcane industry association) highlighted as well that there should be a balance in terms of the tariff reductions between the EU and Mercosur, particularly vis-à-vis ethanol, which is a key issue for Brazil. **Fundacion CENIT** commented on the different spillover effects between EU-Mercosur discussions and internal resolution of issues within Mercosur. He raised the point that for a long time any conflicts within Mercosur have been resolved through temporary patches rather than permanent solutions and in this sense, the agreement can help to deepen the Mercosur integration process.

The LSE team leader explained that the EU will not change any of its standards but the agreement will address non-tariff barriers to trade. He also commented on the long process through which deep integration elements are achieved.

Further interventions were made by Marcos Acle, Secretariat General Iberoamericana, on the importance of the human rights dimension and the need to look at the different dimensions of the study through a human rights perspective. He pointed out that the SIA can launch a stronger discussion within the EU and Mercosur on how to assess the impact on human rights.

Afternoon sessions: specific impacts of EU-Mercosur FTA

Session 1: Manufacturing industry. Moderator: Martín Obaya

Participants: Camara de Industrias del Uruguay; Centro de Integracao do Mercosul; Terranova Consultatoria; CNI; CNI; Brazilian Council of Foreign Trade

The discussion addressed a wide range of issues related to the Association Agreement, which raised concern among MERCOSUR stakeholders. The first question regarded the need to design some kind of measure to compensate certain sectors in MERCOSUR countries in case they are negatively affected by the agreement. The table discussed different alternatives, including the

access to EU cooperation funds –currently, Argentina, Brazil and Uruguay are non-eligible to EU bilateral cooperation and development programmes, as they are “graduated” upper middle-income level countries. Another proposal made reference to possibility of adopting a domestic scheme, similar to the US ‘trade adjustment assistance’ programme. In essence, it is a federal programme that “provides a path for employment growth and opportunity through aid to US workers who have lost their jobs as a result of foreign trade”.

A second issue of concern was related to the delicate situation of the Brazilian manufacturing industry. It was argued that, although in the last five years the country adopted protectionist trade policy, it was negatively affected by the high exchange rate. Although the Brazilian industry is highly heterogeneous, there are defensive concerns among certain sectors.

Thirdly, some participants commented that insufficient information was available in regard to agriculture and also industrial sectors.

Another relevant issue was related to the political situation in the two parties to the negotiation, and, in particular, how it could affect the timing of the negotiation and the scope of the current window of opportunity to reach an agreement.

Despite the concerns raised by participants, in general it was mostly agreed that the agreement could have a long-term positive impact on the region, as MERCOSUR maintained for many years a protectionist trade policy that affected its competitive position in the world economy.

Session 2: Agriculture, moderator: Maximiliano Mendez Parra

Participants: Universidad Católica del Uruguay, Uruguayan Exporters’ Association, Associação Brasileira das Indústrias do Milho, Global, Forest Coalition, Brazilian Confederation of Agriculture and Livestock (CNA), Brazilian Institute of Cachaca – IBRAC

The discussion in the roundtable covered a range of interesting points with all of the present engaging. The main points of discussion were around economic and trade issues related to the market access into the EU and in Mercosur and environmental and social aspects related to agriculture.

With respect to market access, participants raised concerns regarding geographic indications (GIs) and protected denomination of origin (PDOs) in Mercosur, especially in the dairy sector. Names such as Parmesan, Gruyere, Gorgonzola, Fontina, etc. have a history of being used by European immigrants to Mercosur. Some argued that the agreement should be limited to the enforcement of GIs or PDOs in trade between the EU and Mercosur. Brazil, on the other hand, would like to see that the denomination of some of their spiritis (e.g. Cachaça) receive also protection in the EU market. In this sense, the participants recommended to look into existing EU agreements such as the negotiated with Mexico in the treatment given to tequila.

There was also some concern about the volume of the quotas being negotiated and whether the quotas in cereals, flours, beef, sugar and rice (in Uruguay) will be sufficient to constitute an opportunity for the Mercosur producers and what they consider an unfair treatment in virtue of the existing domestic support that EU’s farmers receive.

On the other hand, there were some concern about the effects that increased competition from the EU in areas such as olive oil and wine may have in the producers as a result of the preference erosion in Mercosur.

There was a discussion about the impact that the agreement may have on the forest. In this sense, it was desired that the study should highlight the social implications of those environmental effects notably for people living in forest areas.

Regarding greenhouse gases emissions and other environmental measures, the need to take account of the significant increase in planted forests in Uruguay and other Mercosur countries and the use of natural pastures in livestock farming were raised. Participants considered that existing methodologies tend to overestimate the environmental damage of agriculture in Mercosur as it is not considering these elements.

Session 3: Sustainability issues, moderator: Elitsa Garnizova

Participants: UNICA; CitrusBR; SEGIB; Derechos Digitales; Abit; FCES; Human Society International; World Animal Protection; Apex- Brazil

The participants discussed how best to apply a holistic approach to an SIA: they agreed that it is probably easier for analytical purposes to divide different dimensions into separate chapters, but raised the point that all aspects are closely interrelated and separating them misses some of the issues; this also linked to the call by one of the participants for a human rights impact assessment closer to the SDGs and moving away from trade-related aspects; since this goes beyond the scope of the SIA, he suggested that this will give a boost to any proper human rights impact assessment.

Another point raised included whether FTAs are the right venue for addressing all non-trade issues. This was raised particularly with regards to data privacy and the potential for data protection to be regulated in a trade agreement. Participants expressed concern of such a forum shifting approach and advised that data privacy and protection should be dealt with different forms, which engage plurilateral or multilateral fora. Similarly to this, there was a discussion on how CSR platforms where multiple businesses are engaged, can take further part in the process.

A further point discussed was about the biases, which exist on the side of both partners and the difficulty to challenge existing perceptions. For example, it is often the case that European stakeholders target deforestation and pesticides as key environmental issues in Brazil but both are not informed by the actual legislature and practice.

Similarly the discussion aimed to understand better what is a progressive trade agenda and how it can aim for higher standards, particularly when it comes to animal welfare and human rights. The roundtable took note of the issues in the field of animal welfare and how can the FTA contribute to the increased standards on both sides. What was mentioned is that in many areas Mercosur countries have high standards de facto, but they are not backed by a legal framework while in the case of the EU it could be the opposite – high level of legalization, but little implementation.

Vis-à-vis animal welfare in particular, the participants suggested that the SIA include a comparison between EU provisions in different FTAs.

Finally, the roundtable discussed two points: impact on gender and impact on the informal economy. Participants explained that in some sectors the two are interrelated and informality in certain sectors in Brazil can reach very high proportions. The roundtable concluded with the discussion of mitigating measures.

STAKEHOLDER CONSULTATION ROUNDTABLE
Human Rights, Social Issues, & Environmental Concerns
SIA IN SUPPORT OF ASSOCIATION AGREEMENT NEGOTIATIONS
BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 20 March 2018

Time: 11:00-12:30

Location: EESC, Rue Van Maerlant 2 - 1040 Brussels, Belgium (2nd floor, VMA3)

Lead Participants: LSE Consulting; TRADE/C3 Latin America, Directorate-General for Trade;

Chair: LSE Consulting

All Participants:

Organisation
Humane Society International/Europe
CBM
GIZ
BASF
T&E
COTANCE
Friedrich-Ebert-Stiftung
CTA de los Trabajadores
EESC
European Fruit Juice Association
Eurogroup for Animals
LSE Consulting
DG TRADE

Europe for Animals expressed concern that the topic of animal welfare is missing in the SIA reports. The representative mentioned that it is usually linked to consumer preferences but should not be. She suggested the consultants to look into several topics, including what kind of industry liberalisation will stimulate as more extensive animal production may lead to more intensive practices. The representative urged that assessing differences in environmental standards is key including issues of animal welfare. She suggested identifying EU practices that could be exported to the Mercosur block regarding emissions, animal welfare, biodiversity, and deforestation.

LSE Consulting responded that in correspondence with the TORs, the team will look into animal welfare as well as such environmental concerns from the production standpoint as well as for potential links with MEAs.

The European Economic and Social Committee expressed concern regarding competition from Mercosur where the region has difficulties understanding the EU. The representative explained that the offensive position has detrimental effects in the EU because SMEs are feeling competitive pressure which in turn affects informal employment and the informal economy. The representative urged that if a possibility for reciprocity exists, appropriate parameters must be developed and communicated to mitigate difficulties for SMEs.

CBM urged that the rights of disabled persons must be promoted. The representative explained that the evident inequality that is present between social classes in Mercosur is disproportionately felt by persons with disabilities as the structural inequalities they face can have negative consequences on their enjoyment of human rights. The impacts of such inequalities are significant in scope as they have a direct impact regardless of country. The representative argued that some issues could be improved through mechanisms in trade agreements, citing discrimination in the workplace as a possible area which could improve in Mercosur through the association agreement. In addition, environmental issues disproportionately affect vulnerable populations such as those living in poverty as well as persons with disabilities. In light of this, the representative called for the SIA to assess more than bilateral improvements for persons with disabilities but also present an analysis for the promotion for good practices that will mitigate negative effects felt by indirect causes as disabled persons suffer a multiplication of issues – especially campesinos and those in rural areas.

LSE Consulting responded that trade has direct links and incorporates institutional mechanisms that can be utilised in tackling numerous of the issues raised by the representative of CBM. However, the consultant questioned how such mechanisms could be designed for best practices to be enforced - what tools and incentive structures would appropriately enforce such respect for human rights? The EU commonly works with a cooperative approach where stakeholder input is needed to assess which areas require improvement as the existing evidence on labour rights is not satisfactory.

CBM suggested that a mention of the Sustainable Development Goals (SDGs) to reduce inequality among countries as well as a textual inclusion of non-discrimination should be included in the trade and development chapter.

Humane Society International/Europe brought up the issue of sustainability and intensive animal agriculture explaining that it is an issue that tends to be ignored even though animal production is a major contributor to emission levels. The issue of biodiversity must be underlined in the SIA as it is clearly made relevant by various MEAs and the Convention on Biodiversity. However, the representative cautioned that these agreements only cover legal trade issues. Increasing access to market has the potential of increasing illegal trade of animal and wildlife products as well. The representative questioned whether the consultants would be highlighting these issues and whether the SIA would also take fishing subsidies into consideration as they are a crucial aspect of sustainability and environmental protection. The EU is the third top consumer of wildlife products in the world, and Mercosur countries have an important role to play in preventing the illegal trade of wildlife products, particularly reptile skins and wild birds. The last topic of concern brought forward is the impact of the agreement on chemical and pharmaceutical trade seeing as these often use animal testing. Will regulatory cooperation between the two blocs be secured?

LSE Consulting explained that using a WTO matrix, the SIA examines trade related MEAs breaking them down in four categories: nature, biodiversity, waste, and chemicals. The team

looks at MEA trade interactions and uses the results from our qualitative and quantitative analyses to assess what the implications are for their enforcement. The consultant agreed on the importance of fisheries.

The European Economic and Social Committee pointed to the interest in organising a mixed committee. Mercosur and the EU should continue organizing CSDs discussing these issues beyond the negotiations. The representative argued that it cannot be possible that these consultations happen during the negotiations but then end once the agreement is accepted and stakeholders are not consulted any longer.

LSE Consulting responded that the next generation of trade agreements are called living agreements where they are alive after the ratification. In this scenario NGOs have a space to be consulted and the agreement continues to be improved regarding environmental standards, labour, conditions, and economic impacts among other aspects.

DG Trade added that it is important to trace a clear causal link between a possible impact and the free trade agreement (FTA). That is the way the consultants are commissioned to make this SIA exercise. It is a two way process between the contractor, LSE Consulting, and civil society to make this process as concrete and rigorous as possible. The representative additionally expressed his interest in noting these possible concerns and models of agricultural production and the impacts that these could have both on animal welfare and diversity.

Europe for Animals raised the concern that the EU may lose the leverage of market access by entering into this agreement and may risk stimulating production of fossil fuels or animal products.

STAKEHOLDER CONSULTATION ROUNDTABLE

Service Sector

SIA IN SUPPORT OF ASSOCIATION AGREEMENT NEGOTIATIONS BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 21 March 2018

Time: 10:45-12:15

Location: European Services Forum, Avenue de Cortenbergh 168, B-1000 Brussels, Belgium

Lead Participants: LSE Consulting; TRADE/C3 Latin America, Directorate-General for Trade

Chair: LSE Consulting

All Participants:

Organisation
Telefonica
Insurance Europe
ECSA
Business Europe
Law Society of England and Wales
HSBC
European Services Forum
Deutscher Industrie- und Handelskammertag - DIHK e.V.
DG Trade
LSE Consulting

The European Services Forum opened by expressing their support for the agreement and their desire for it to conclude as it is overdue. Even if it turns out to be less ambitious than desired, the ESF would nevertheless like to see it concluded because the commitment of the Mercosur countries in the GATS agreements are very low. The forum looks forward to seeing an improvement through the negotiations. The representative specifically identified maritime transport as an important sector for the service industry and would like to see it in the negotiations. The representative expressed concern that an agreement would only focus on agriculture because it does not reflect the state of the economy in the negotiating countries. ESF then spoke to public procurement where it should not refer to only goods but to all services as well – telecom, cleaning, etc. The representative underlined the importance of these in the public market, as well as those related to infrastructure including engineering services, construction, architecture, etc.

HSBC requested background on estimated impacts as in the current state, it is in support of the agreement. HSCB is the largest bank in international trade, and thus it specifically advocates for ease in trade and shipping.

DG Trade agreed in that the negotiations are overdue to be concluded and an improvement to the current GATS commitments by Mercosur countries. In regards to maritime transport, it seems that this sector may see market access improvements as compared to the current situation. There is no standardisation in regards to transport. There is no progressive regulatory cooperation chapter in this agreement.

Insurance Europe noted that Argentina is attempting to restructure everything in the insurance sector and thus expressed support for regulatory cooperation in this light.

DG Trade responded that this is not typically up for negotiation recognizing that the trade negotiations with Japan were an exception because the negotiating parties reflected very like-minded sectors.

Telefonica expressed concern with a number of issues in Mercosur having a long presence in the region. Specifically the representative cited problems with regulators in Uruguay and Argentina recognizing that not all can be solved through the negotiations. Telefonica faces a number of regulatory issues including licensing costs. The representative concluded that its main concern remains the independence of regulators.

Insurance Europe acknowledged that while market access does not face too many difficulties, some cross border barriers do remain. She explained that at a GATS level, such barriers would not be permitted, and thus she underlined that legal clarity would be helpful.

LSE Consulting explained that for two years, the type of digital trade provisions have been expanded by upgrading these elements from ecommerce to full digital trade titles. A main concern is that Mercosur members have differing domestic legislation. Each member sees different e-commerce legislation that is not as progressive in comparison to EU legislation. Mercosur at this point does not support the application of e-commerce disciplines to the telecom sector or to the financial services sector.

Business Europe affirmed support for the Agreement and for expanding market access in the area of services. The representative underlined that Mercosur is unlike Canada or Japan in that the EU would be the first major economy to establish an FTA with the block.

Telefonica expressed support for GDPR alongside two of the commission's articles regarding data privacy providing an effective way to ensure that data can flow from the EU to Mercosur while respecting privacy rights in both. The representative argued that a foreign service provider in any country should not be able to handle data or extract value from data in ways that local providers cannot simply because they think local data privacy laws do not apply if they are extracted in another location. The representative expressed concern that this has been happening for years. The representative underlined his support for GDPR and its value. Having said that, he does not see a place for such provisions in the EU-Mercosur AA if it has not been included in the agreement with Japan. The representative made clear that Telefonica would like the AA to allow for data to flow both ways rather than the current situation where data only flows to other countries from the EU.

STAKEHOLDER CONSULTATION ROUNDTABLE

Manufacturing Sector

SIA IN SUPPORT OF ASSOCIATION AGREEMENT NEGOTIATIONS BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 21 March 2018

Time: 14:30-16:00

Location: VDMA European Office, Bluepoint Building, Bd.A.Reyers 80, B-1030 Bruxelles

Lead Participants: LSE Consulting; TRADE/C3 Latin America, Directorate-General for Trade

Chair: LSE Consulting

All Participants:

Organisation

The Confederation of National Associations of Tanners and Dressers of the European Community (COTANCE)

ASSOCALZATURIFICI (Italian Footwear Manufacturers Association)

Rolls-Royce International Limited

VDMA

DG Trade

LSE Consulting

Assocalzaturifici, the Italian Footwear Manufacturers Association expressed concern over the high tariff barriers that constrain exports to Mercosur. He explained that the EU is the world's largest footwear exporter, but Mercosur only accounts for 0.8% of the EU's exports. He lamented that the Mercosur countries do not want to open their markets to EU exports - in particular Argentina. He was of the opinion that there is a different mindset in Mercosur where emphasis on producing for the local market which is protected by customs barriers and technical barriers to trade. He expressed support for an option where a phasing out of Mercosur's tariffs on footwear takes place over a 15-year period, allowing for a gradual reduction in tariffs from the current level of 35%. The representative added that the main non-tariff barriers affecting footwear exports to Mercosur are related to the import license regime in Argentina, where importing footwear (along with a range of other products) requires a non-automatic license. This has already been condemned by the WTO. As it stands, the EU-Mercosur AA would be the first agreement without a clear benefit for the footwear industry in the EU.

VDMA introduced its positions by explaining that EU trade with Mercosur in machinery has expanded rapidly over the past 15 years which is a good example of what could be achieved through an EU-Mercosur AA. He added that production and trade in Mercosur is constrained by several issues including a lack of modern technology, and prevalent corruption. The representative expressed that there is need for an international agreement that binds the Mercosur countries together for further internal integration within Mercosur. He cited the EU-Mercosur AA as a possible tool that can have an important impact in helping to integrate

Mercosur. In regards to EU exports, the representative added that it is not only tariffs that are constraining EU exports to Brazil, but also taxes introduced by President Lula that raise the cost of EU products in the Brazilian market and local content requirements (linked to the value and weight of products produced in Brazil). There is a scheme for the reduction of import duties in operation in Brazil, but very few EU exporters use it. The representative underlined that eliminating tariffs on EU machinery products would help Mercosur to industrialise as these are not products in which EU and Mercosur producers compete. He added that South Korea is another good example of positive impacts as trade increased in both directions in markets supplied by VDMA companies. He concluded by acknowledging that while Mercosur states want to follow the EU legislative framework on third party certification, they do not always have the resources to do so. Thus, they would benefit from support to apply and use TBT as well as from regulatory dialogue.

Rolls-Royce International Ltd. acknowledged that there is some element of apprehension within Mercosur towards international agreements of this nature. The representative highlighted that there are risks in operating in Mercosur markets related to export finance (linked to local content requirements) and intellectual property (IP) protection. While the representative stated that Rolls Royce would like to have a stronger IP environment in Mercosur, he recognised that keeping Mercosur as an ally is of strategic importance for the EU. The main reason for having access to Mercosur markets is their potential, and thus EU negotiators should look to achieve the highest possible standards while not risking the negotiations.

The Confederation of National Associations of Tanners and Dressers of the European Community expressed concern over Mercosur's export restrictions on raw materials for the leather sector highlighting that export duties are applied across the board, but are highest in Argentina. This adversely affects EU leather producers in two ways. First, it creates difficulties for EU producers to access raw materials (hides and skins). Second, it raises the market price for raw materials – and means prices for raw material inputs are 40% lower in Argentina, restricting external competition and providing an advantage to downstream domestic leather producers. Pointing out that Mercosur accounts for 12-14% of world production volumes of bovine hides and skins, the representative urged that there is thus a need to open the market for raw materials in Mercosur. Cotance has been involved in a social dialogue meeting and issued a common statement calling on the EU to act in this direction. The representative underlined that it would be a failure if the SIA did not make an economic assessment of the impact of the Mercosur export taxes on affected sectors. He added that the dismantling of protection must be reciprocal and symmetrical as EU producers cannot afford a dismantling period of 10 years for Mercosur export taxes in leather. The representative concluded by providing several policy recommendations for the AA including a reduction of tariffs, harmonisation of rules of origin, realistic timeframes for reforms (5-10 years) and simple, coherent rules for SMEs.

DG Trade commented that where necessary rules of origin can be factored into the qualitative exercise for the SIA, as can export taxes, but they are not part of the quantitative modelling exercise).

STAKEHOLDER CONSULTATION ROUNDTABLE

Agricultural Sector

SIA IN SUPPORT OF ASSOCIATION AGREEMENT NEGOTIATIONS BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 22 March 2018

Time: 9:30-11:00

Location: EPPA, 2 Place du Luxembourg, 1050 Brussels, Belgium

Lead Participants: LSE Consulting; TRADE/C3 Latin America, Directorate-General for Trade

Chair: LSE Consulting

All Participants:

Organisation
European Public Health Alliance
Consejería de Agricultura Gobierno de Canarias
FoodDrinkEurope
INTERBEV - French Interbranch Organisation Livestock and Meats
European Confederation of the Leather Industry (COTANCE)
C.I.B.E. - International Confederation of European Beet Growers
AVEC
European Dairy Association
Industrial Ethanol Association
Deutscher Industrie- und Handelskammertag - DIHK e.V.
AIJN.European Fruit Juice Association
CECCM : Confederation of European Community Cigarette Manufacturers
CEFS - European Association of Sugar Manufacturers
European Livestock and Meat Trading Union (UECBV)
Irish Farmers Association
MTK Central Union of Agricultural Producers and Forest Owners
European Fruit and Vegetables Trade Association (EUCOFEL)
FRESHFEL Europe
Committee of European Sugar Users / EPPA
European Sugar Refineries Association (ESRA)
DG Trade
LSE Consulting

The Irish Farmers Association opened by questioning the timing of the report and whether it will have an impact on the negotiations. He added that the SIA results will be rather weak without

accounting for the impacts of Brexit. He continued that in regards to social and environmental aspects, the beef sector will present significant issues including land destruction and intensification of the sector. This is of significant consideration as the livestock sector is of high importance in the peripheral regions of Europe. The representative concluded by underlining that farmers in Europe are at an unfair disadvantage in competitiveness as costs of compliance and regulatory processes are higher for European farmers than those in Mercosur. In addition, Mercosur exporters have committed fraud in the past when claiming to be in compliance with quality standards.

LSE Consulting responded that it is important to keep in mind that the analysis is a separate objective from the negotiations, and thus tweaking parts of the methodology continuously throughout the study to adjust to political realities is not feasible as doing so may undermine the robustness of the analysis. In that light, the team is working under the assumption of EU28 configuration without assessing implications of Brexit. The team lead added that this is not just an issue of adjusting to political realities, but that also it is very complicated to understand the implications of Brexit, since it is not yet known what form it will take.

The team lead reminded participants that the analysis does not measure changes in production as a whole in Mercosur but rather it specifically measures the changes in production directly resulting from the EU-Mercosur AA. In regards to environmental and social concerns, the team lead reassured the IFA that the SIA team is assessing these issues in the analysis. However, in response to concerns over competitiveness and costs of compliance, the study considers that EU farmers are not necessarily at a disadvantage because Mercosur exporters will also need to meet EU standards in order to export into the EU market. The team lead underlined that there is not going to be a relaxation of standards. However, he recognised that there could be an issue of fraud and enforcement but this regards monitoring mechanisms which is a different conversation.

DG Trade added that it is important to trace a clear causal link between a possible impact and the free trade agreement (FTA). That is the nature of the SIA exercise. The consultants are looking at the impacts of the negotiation in terms of sectoral change. The EU is not lowering its standards as part of the negotiation.

The European Dairy Association added that fraud is an important issue in both the EU and Mercosur block, underlining that the EU is not perfect in regards to compliance either. These are enforcement issues that take place in both regions.

The Irish Farmers Association expressed hope for the SPS chapter to be strict enough to appropriately address compliance, enforcement, and monitoring. The representative inquired as to which assumptions the study works with when looking at the economic assessment of market access - specifically asking if TRQs are considered.

LSE Consulting explained that impacts are assessed via comparison of estimated changes to the baseline in both a conservative as well as ambitious scenario. Market access concessions for sensitive products will of course be considered in the analysis.

The Industrial Ethanol Association expressed concern about the proposed quota for Mercosur, especially to the extent that it will be concentrated on the market for industrial uses. The representative urged that this places EU producers at an unfair advantage. He argued that the quota should be used to develop new production capacity and not displace what is already taking place in the EU market. It should go towards second generation or advanced ethanol which would be consistent with the Commission's strategy on bioethanol.

The Committee of European Sugar Users, representing 1500 sugar using companies, argued for a large TRQ that is additionally duty free. The representative noted that a sugar reform has taken place during the negotiations which has created more coherence between the world market and European market than before. She explained that the entire sugar supply chain is struggling with the new quota system where impacts are stronger than were expected. Of most importance, sugar users would like a sustainable and reliable sugar supply and a variety of sources from which to acquire it. The EU is currently the most important supplier, and CIUS sees it as a priority to ensure that neither refiners nor producers are crowded out as a consequence of the AA.

LSE Consulting responded that the team is considering the sugar regime as an input of the analysis.

The European Sugar Refineries Association (ESRA) backed the statement made by the Committee of European Sugar Users noting the important effect that the reform of the EU quota system had had on trade. The representative called for a TRQ under the agreement that would not be attached to a quota duty. In regards to sustainability issues, the representative highlighted that while imports from the North East and South Central areas of Brazil are very important for access to a diversity of suppliers, these areas also host some of the poorest farmers in the world. On the European side, changes to the sugar market where access to duty free sugar cane is blocked will cause jobs in the sugar industry to disappear as they are already running at an unsustainable level of less than 40% capacity.

The European Confederation of the Leather Industry (COTANCE) expressed concern that the SIA will not be assessing export restrictions in its analysis and that there will not be a sectoral analysis on leather. The representative explained that the leather industry is one of the most affected by this trade agreement as the impacts are contingent on the impacts to the beef sector. Mercosur's application of export restrictions represent significant barriers as they make it impossible to import any leather skins from its members. The representative highlighted that this allows Mercosur countries to become more competitive in the EU markets supplying the same sectors such as the automotive industry. He concluded that if the beef sector risks becoming unsustainable in Europe, it affects the supply of associated European raw materials.

LSE Consulting responded that the impact of leather production will not be tied to exportation of beef from Mercosur but instead will be tied to beef production and leather production within the EU. If beef exportations increase from Argentina to the EU for example, it does not mean that leather exportation will also increase as beef is exported to the EU without the skin.

The European Fruit and Vegetables Trade Association (EUCOFEL) stated that it has two matters of major concern. First, the representative expressed concern over levels of garlic exportation from Argentina and requested that the Commission apply reciprocity in regards to the tariff treatment of garlic as the duties are not identical at the moment. The second concern regarded fresh frozen orange juice from Brazil as it is a big competitor in the EU market.

LSE Consulting responded that fresh orange juice is currently being incorporated in the trade statistics of the SIA analysis, but that the team will begin looking into garlic as it was not aware of this concern.

The European Dairy Association of EU Dairy Processors expressed support for the trade agreement seeing it as an opportunity to solve certain bilateral issues. Specifically, the association finds that Mercosur countries are very protectionist at the moment. The

representative added that the association hopes the agreement will be helpful to resolve the issues of both tariff and non-tariff barriers.

LSE Consulting responded highlighting Mercosur's mostly defensive stance in this sector. The team lead explained that Mercosur is also concerned over the issue of GIs as they would like to supply the domestic market where there is a high consumption of products in Mercosur. The SIA looks at both offensive and defensive interests in the dairy sectoral analysis.

Food Drink Europe introduced itself as a representative of 25 national federations and a range of large companies. The association is conscious of the different views across the industries and while it prioritises striking a balance, it does have offensive interests in regards to exporting. The representative expressed its support for increased market integration in Mercosur as a block, desiring its exports to circulate freely which is not currently the case. The disparities in regulatory measures within Mercosur make it a fragmented market that presents many NTBs including product registration, SPS checks, labelling, etc. The representative added that the offensive interests for market access include canned foods, vegetables, chocolate, bakery, french fries, pasta, and dairy. The representative additionally inquired if anti-dumping cases for certain product categories will be addressed in the SIA and the negotiations. Regarding spirit exports there are tax discriminations in Mercosur, particularly in Argentina and Brazil.

LSE Consulting agreed that Mercosur is an imperfect customs union. The agreement has the potential to trigger some reforms within Mercosur in this area.

The International Confederation of European Beet Growers argued that the balance in the EU has changed and less imports will be required than in the past and thus the beet industry has restructured to improve its competitiveness. However, the refiners did not restructure which is why they face a supply issue. The representative disagreed with the refiners in that the EU does not require as many imports as it used to and should not increase import volumes. The representative added that the EU has a strong market open to 78 countries with duty free TRQ, and thus reforms within the EU must first be managed. The representative expressed concern over the fact that the SIA is not accounting for Brexit as it will skew the analysis. The playing field is not level between Brazilian and EU producers because Brazil is the world leader in sugar and ethanol and its national legislation supports its sugar cane industries. When discussing a possible deal with Mercosur the SIA should reflect this difference. Brazil has recently concluded a massive program to boost renewable energy, which in turn is expected to boost the sugar industry while the European ethanol policy is not expanding. The representative added that Brazilian currency can devalue 30% within 6 months which gives an advantage in competitiveness, and thus the EU must protect its sugar producers with a duty.

LSE Consulting responded that considering Brexit in the analysis is impossible at this stage because nothing is confirmed - the UK may not even lose access to sugar from the EU. In regards to support of the Brazilian sugar industry, national legislation will of course be taken into account in the analysis of the impact. Regarding currency fluctuation, the team lead agreed that this is clearly a disruption but it is very hard to assess in a bilateral negotiation. In any event, these prices are transmitted immediately to the consumer prices so the advantage to the real exchange rate tends to be short lived.

The International Confederation of European Beet Growers added that in regards to the analysis of sustainability issues, there are severe labour and human rights violations in the sugar cane industry in Brazil.

LSE Consulting assured participants that this is already being considered in the human rights analysis of the SIA

The European Association of Sugar Manufacturers expressed its support for the comments made by the International Confederation of European Beet Growers

The European Livestock and Meat Trading Union expressed its support for the statements made by the Irish Farmers Association where the union is quite pessimistic about the outcome of the negotiations. Over 75% of beef imports to the EU came from Mercosur countries which is 250,000 tons a year. The representative added that the union likewise seconds the statements made by the International Confederation of European Beet Growers that Brexit should be included in the assessment as the UK imports high volumes of beef from Brazil. He argued that Brexit is already estimated to decrease jobs in the meat sector by 32,000, specifically in rural areas where vulnerable peoples live. The main producers of meat are local family farmers as they represent 60% of producers. The representative then questioned whether Mercosur producers will be able to meet the EU standards and inquired whether it would be possible to introduce EU checks here on EU borders for enforcement purposes.

Dr Maximiliano Mendez Parra, Team Lead, LSE Consulting responded that many Mercosur producers already meet SPS standards and that standards, compliance systems, and regulatory checks will not change as a result of the negotiations. He reiterated that it was as yet not known what form Brexit will take.

Annex 3. Civil Society Dialogue Minutes

CIVIL SOCIETY DIALOGUE – INCEPTION REPORT

SIA IN SUPPORT OF ASSOCIATION AGREEMENT (AA) NEGOTIATIONS BETWEEN THE EUROPEAN UNION AND MERCOSUR

Date: 13 October 2017

Time: 15:00-17:00

Location: Charlemagne building, room Roy Jenkins, 190 rue de la Loi, Brussels

Lead Participants: TRADE/C3 Latin America, Directorate-General for Trade; TRADE/A5 Transparency and Evaluation, Directorate-General for Trade; LSE Consulting

Moderator: TRADE/A3 Information, Communication and Civil Society, Directorate-General for Trade

1. Presentation by the Consultant on the content of draft inception report

Presentation by the Consultant on the content of draft inception report

Presentation published on the website of the Contractor
(<http://www.eumercosursia.com/consultations.html>)

Discussion / Questions / Responses

Eurogroup for Animals expressed support for the fact the SIA inception report makes reference to consumers and animal welfare and noted that this section of the analysis should take into consideration the standards in Mercosur both in terms of transport and slaughtering. The representative also noted the issues of PMSG in Uruguay and the treatment of horsemeat as a by-product.

EPPA on behalf of the Committee of European Sugar Users (CIUS) noted that the sectoral report on sugar in the SIA should consider the position of the buyers and users of sugar in the food and drink industry. The representative pointed out that earlier JSC report on the agricultural sector in the EU did not assess the impact on the food and drink industry. EPPA also enquired whether the assumptions behind the adjustments in the modelling of sugar and beef could be shared with stakeholders.

Greenpeace European Unit enquired about the scope of the environmental case studies and about the issues, which would be covered in-depth. The organisation also commented on the extensive coverage of human rights issues in the inception report but prompted the Contractor to consider a broader definition of human rights with more focus on the impact on the environment.

The Contractor welcomed the suggestions to contact animal welfare organisations. The representative also pointed out that concerning sugar, the use of sugar as a cheap input is very important and it would be considered in the analysis of the sector; at the same time on the adjustments, this reflects the change of policy on the EU side since the previous study. The Contractor also explained that the environmental analysis will focus on a number of key issues

such as biodiversity in Uruguay and Argentina, on fisheries in Argentina, on water resources in Paraguay, and on forestry in all four countries. If further issues are revealed during the screening, the team will address them as well.

DG TRADE clarified that the first CSD meeting on the SIA focuses on the methodology. The team also noted the participant's concerns vis-à-vis animal welfare and highlighted that the issue is tackled via a number of channels – both bilaterally and during the negotiations. DG TRADE highlighted that the goal of the SIA is to assess whether the AA can have an impact on this in the first place.

International Confederation of European Beet Growers emphasised that the confederation also finds important that the SIA looks into sustainable standards and the production techniques. The representative welcomed that there is a specific chapter on sugar and also noted that the impact on LDCs will be especially important as well as the working and environmental conditions in the production of sugar in Mercosur.

Irish Farmers Association asked about the contribution of the current SIA to the negotiations, given the fast-pace of the negotiations. IFA also underlined that agriculture is a key sector for sustainability and biodiversity in Europe and the importance of European farmers in managing the environment.

CEEV – Comité Européen des Entreprises Vins noted that they have an offensive interest in the agreement and enquired about the type of beverages, which will be included in the agreement.

The German Mechanical Engineering Industry Association expressed support for the agreement and highlighted that the industry has an offensive interest in the negotiations. The representative clarified that despite recognising the importance of the agricultural industry, the impact on the beef sector will be less pronounced in per capita terms. The Association also noted that car parts and machinery should be treated jointly.

The Contractor explained that the team is taking a balanced approach between the economic analysis and other dimensions and also looking to include all the different groups of stakeholders. The Contractor recognised that beef is a sensitive issue and that also Mercosur is a historical supplier, and that is why beef will be reviewed in depth. In terms of beverages, the team is looking into orange juice and wine production on both sides. The Contractor explained that after initial analysis of the sectors, cars and car parts are put together since the team is taking a value chain approach to the process.

DG TRADE recognised existing concerns in terms of the timeline of negotiations and sensitive issues. The representative highlighted that the end of the year is the timeline for the conclusion of the negotiations but there will still be the time and resources for the SIA and stakeholder consultations to feed into the negotiations and especially mitigating measures. The SIA is also an ongoing process with the draft interim report expected still before the end of the year.

Interbev expressed similar concerns in terms of the timeline and noted that even with an interim report in December, stakeholders would not have any of the information before conclusion of the agreement. The representative also enquired about the estimates used for TRQs.

Orgalime enquired about the scope of the sectoral study on machinery and electrical appliances.

European Sugar Refineries Association (ESRA) commented on the structure of the report, expressing concern whether sugar and ethanol should be combined in the analysis and also noting that at this stage ethanol is mentioned only on one occasion. The representative also enquired about the analysis of fruit and sugar from the outermost regions, noting that outermost regions export refined sugar.

The Contractor explained that the team is trying to provide as much input as possible to the negotiations but this is a question for the negotiators. In terms of machinery, the representative explained that the team is not looking into consumer goods but electrical machinery and that it combines sugar and ethanol because Brazilian ethanol is primarily sugarcane based. The Contractor also noted the comment on outermost regions and this will be taken into consideration.

DG TRADE underlined that negotiators are going to take into consideration what is feasible in the negotiations. At this stage the negotiators cannot proceed with specific TRQs, but use previewed tariff cuts. The aim is to achieve something which is realistic but also captures the impact.

European renewable ethanol association (ePURE) asked whether the team is looking into volumes, besides tariff cuts.

DG TRADE clarified that methodologically it is very challenging to model TRQs so the Commission captures the possible impact with the tariff cuts.

Friedrich-Ebert-Stiftung expressed interest in the analysis of social impacts and enquired about the timeline and number of roundtables as well as the balance between events in Brussels and partner countries.

CLEPA - European Association of Automotive Suppliers welcomed the agreement and the SIA, which is being conducted and expressed support for the value chain approach.

EPPA on behalf of the Committee of European Sugar Users (CIUS) made a methodological point on the calculation of tariffs versus TRQs for sugar. The representative noted that the tariff is completely prohibitive at the moment so no realistic trade flows as a starting point. EPPA also noted the importance of the security of supply and the impact on LDCs.

The Contractor clarified the timeline of events. There will be a workshop in Sao Paulo and a workshop in Buenos Aires in February/March 2018). These events would be designed to capture substantive input within the partner countries. The Contractor also explained that there will be a number of roundtables in Brussels, focusing on sustainability and sectoral issues.

ABPA – Brazilian Association of Animal Protein asked whether the chemical sectoral study also includes pesticides. The Contractor noted that the team focuses on pharmaceuticals.

CIVIL SOCIETY DIALOGUE – INTERIM REPORT**SIA IN SUPPORT OF ASSOCIATION AGREEMENT (AA) NEGOTIATIONS
BETWEEN THE EUROPEAN UNION AND MERCOSUR**

Date: 15 October 2019

Time: 14h – 16h

Location: Charlemagne Building, 170 Rue de la Loi, Brussels

DG Trade of the Commission (COM) opened the meeting by introducing the panellists and thanking civil society representatives for participating and stressing the importance of discussing trade negotiations with civil society. COM stressed that the purpose of the meeting was to discuss the SIA Draft Interim Report rather than the Agreement in the abstract, which has been discussed on other occasions.

DG Trade followed with an update on the EU-Mercosur trade negotiations, noting that a political agreement was reached at the end of June 2019. While the Agreement in Principle and majority of the text was published at that time, market access schedules are still yet to be published. Dr Jean-Baptiste Velut followed by introducing the LSE Consulting team and delivering a power point presentation on the report's findings.

Discussion / Questions / Responses

Eurogroup for Animals - thanked LSE Consulting for the various interactions they have had at the various roundtable focus groups and stakeholder consultation events. They commented that they appreciate the animal welfare heading in the agricultural analysis section, specifically when discussing beef. However, they underlined that it is too short as there are several findings in the interim report that could have included analysis on animal welfare. For instance, the estimated predictions of increased beef outputs in Mercosur could have an impact on animal welfare, but this is not mentioned in the report. The report also mentions that the density of animals could increase, and productivity in the dairy sector could also have an impact. It would be important for animal welfare to assess how these effects take place. Eurogroup for Animals (EGA) likewise noted that the report estimates emission increases to be negligible, but this is not enough. Trade agreements should help contribute to climate change mitigation. Finally, the last point made, was that EGA was surprised that there was no mention of antimicrobial resistance in the report as studies have recently pointed to a big surge especially in developing countries such as Brazil and Uruguay.

COPA COGECA – had five main points in response to the draft interim report. First, they asked whether the report's analysis takes into account the agreed market access between the two parties. The group questioned the relevance of the hypothesis of full liberalisation for sectors such as dairy in the ambitious scenario, given that dairy is subject to TRQ treatment under the Agreement. It was suggested that the report should note that while the dairy sector will benefit substantially in the EU, access will not compensate the beef sector. Second, the group also questioned how climate commitments are calculated for 2025 and 2030 in Brazil as the Paris Agreement is not meant to start until 2021 or 2022. If Brazil does not respect the agreement, how will this be translated into the trade agreement? Third, they questioned why wage impacts were not presented specifically for agriculture. Fourthly, COPA COGECA underlined the importance of recognizing two specific sources of beef, including dairy and specialised

productions of meat as well as distinguishing between normal cuts, special cuts, and the rest of the carcass. The representative asked whether it would be possible to make an analysis specifically on this as it would provide a more complete picture of the effect on the EU market. Finally, the group noted that as Brazil is already an exporter of sugar, reducing tariffs will have a huge impact on the market price. It would be interesting to see additional costs of production for EU farmers to comply with standards.

COMITE EUROPEEN des FABRICANTS de SUCRE (CEFS) – asked how the analysis was conducted for the impact on the EU sugar market and if the consequence of the past reforms, notably the abolition of quotas, have been taken into account – and if so, how? CEFS considers that the report underestimates the impacts on the agricultural, environmental, and social standards.

LSE Consulting - clarified that as the Terms of Reference (TOR) require labour and environmental issues to be cross-cutting, the team does not generally highlight or separate animal welfare as opposed to social or environmental issues. However, animal welfare is discussed in the section on beef and this will be expanded upon in the final report. As regards GHG, LSE Consulting will be developing this part of the analysis further in the next version when investigating the linkage between MEA compliance and sectoral effects. The team noted that the conversation on which institutional mechanisms work and which don't will be of importance, but it is likewise important to keep in mind themes that are realistically related to trade, and recognise when some are beyond trade issues as there are limits and opportunities to trade mechanisms.

In response to COPA COGECA, LSE Consulting clarified that the team must stand behind their methodological approach at this point, as it has been a long and complex process to model the included sectors across four partner countries and the EU. LSE Consulting noted we must be careful to not transform this SIA into the different type of model and IA that the commission conducts internally for an agreement that has already been negotiated. Now, this does not mean there should not be a link, but rather remarks comparing the modelled scenarios and actual agreement results should be taken into account as part of the stakeholder consultation instead of re-designing the model. Finally, LSE Consulting noted that while modelling costs for EU farmers to comply with EU standards is relevant, it is not the purpose or focus of the SIA.

Finally, in response to EU sugar manufacturers, LSE Consulting noted that the team systematically tries to look at cross-cutting issues for environmental and labour standards.

Deutscher Industrie- und Handelskammertag e.V. – noted their support for the focus on SMEs and improvements in the Rules of Origin chapter. The representative noted that in the German economy, the trade landscape has darkened as companies are faced with more trade barriers. However, numerous German companies are considering a move back from China to Germany to make use of this agreement with Mercosur.

EU Sugar Refineries Association (ESRA) – noted that imports of sugar would create some activity in employment and refineries. The group questioned whether the effects of sugar imports on employment were considered when modelling the EU's output in the sugar sector.

European Economic and Social Committee (Ecosoc) – questioned why the report does not consider different scenarios regarding labour provisions instead of assuming the existing approach on enforcement. The representative noted that indicators focus on wages, but not on working conditions. It was suggested that the report needs to be broader with a more

comprehensive judgement about such situations. Additionally, the representative questioned why the report only makes reference to business and financial services as there is a big impact on maritime services as an effect on market access. It was asked whether this could be integrated into the next report.

European Economic and Social Committee (Ecosoc) – the Ecosoc representative for farmers argued that the report underestimates the impacts of beef imports into the EU. It was suggested that the populations who will suffer most from the impacts should be identified as they will most likely include environmentally friendly pasture farmers in the extremities of the EU. Farmers will be less competitive if the cost of complying with EU regulations are underestimated, which could result in massive land abandonment and undermining biodiversity. Finally, it was noted that most South American countries have very weak compliance mechanisms for animal identification and AMR.

LSE Consulting – considering a range of scenarios for TSD enforcement is not envisaged. With regard to ECOSOC's comment on considering working conditions, LSE Consulting clarified that the team does tackle this by taking the ILO Conventions on freedom of association; child labour; and forced labour into consideration. LSE Consulting noted the requests to disaggregate beef cuts. In regards to the methodology of services section, LSE Consulting clarified that sector selection had been done before the Agreement in Principle at the start of the project as it is one of the crucial parts in defining the scope of an SIA.

Association Nationale Interprofessionnelle du Bétail et des Viandes (Interbev) – also noted the need to reflect the segmentation of the beef market. The group questioned how the assumptions in the current version of the report were made.

Greenpeace – highlighted that other trade agreements might also have an impact on the agricultural sector. Thus, the group questioned whether this SIA was only looking narrowly at Mercosur or if it includes the trade agreement with New Zealand for example. On beef and consumer impacts, Greenpeace pointed out that the report does not discuss consumer protection. It was underlined that many scandals have taken place with beef and poultry in Brazil, where at times exports have been halted in response. As such, Greenpeace suggested it would be important for the report to mention consumer protection specifically in light of the SPS chapter not including the precautionary principle. Greenpeace then directed itself towards the Commission to ask about the market schedule on biodiesel.

COPA COGECA – requested some clarity on the impact on SMEs in the agricultural sector

LSE Consulting – responded to the comment on the methodology for the beef sector analysis by echoing its stance that as the team is constrained by the TOR, the report cannot re-design its modelling, but the team will ensure to include it as feedback and part of the qualitative discussion. As regards the agreements that were factored into the modelling analysis, they only include agreements that are concluded, not negotiations that are still ongoing. With regard to consumer protection the team will bring this to the attention of the expert on the agricultural analysis. Finally, in response to SMEs in the agricultural sector, the team recognised that the report does frame the impact on SMEs with a focus on those in the manufacturing sector so it is another methodological point the team will consider.

DG Trade – clarified that DG Trade is conducting legal revisions at the moment. Once this has been done, the text will be translated and proposed to the Council and Parliament for

consideration. This will be ready in the second half of next year. Regarding details of the outcome of the negotiation, this meeting focussed on the SIA was not the right forum for those issues.

Humane Society International – highlighted that everyone is making static assumptions when it comes to things like the beef market. However, recognizing that society is having to reduce the consumption of meat in response to climate change mitigation, the Humane Society questioned how such societal transformations could be incorporated into the scenario projections.

Eurogroup for Animals – questioned whether the final report would reflect figures from the final agreement instead of the assumed scenarios.

Conservation International – questioned how the interim report support the negotiations and what the purpose of the final report's recommendations would be. The group likewise requested clarity on employment effects.

LSE Consulting – responded that the analytical model does not consider societal transformations such as possible impacts on meat consumption for sustainability purposes. It is important to recognise effects that are due to trade and those that are not. In response to the question on the purpose of policy recommendations, LSE Consulting views these as opportunities to combine stakeholder feedback with the resulting analysis to formulate evidence-based recommendations to contribute to ongoing debates about trade policy. Regarding employment, LSE Consulting responded that the team considers the sectoral level results more informative and thus work at the sectoral level rather than with an aggregate. The models tend to show, especially for the EU, positive impacts, albeit marginal.

DG Trade – clarified that through the SIA and the workshops and dialogues it enables on both sides of the Atlantic, the Commission receives input from civil society throughout the negotiation. The SIA is thus important as a participatory process rather than just a finished product. The economic modelling exercise will not be revisited for the purposes of this report, but the conservative scenario is fairly close to the negotiated outcome for most sectors.

European Economic and Social Committee – requested LSE Consulting to please explain why consumer price in the EU will increase. Additionally, the representative questioned whether there was any analysis done on public administration effects - particularly public procurement.

LSE Consulting – responded that the team will discuss integrating public procurement into the analysis as a cross-sector component rather than as a sectoral issue and noted the question on consumer prices.

Annex 4: Economic modelling results

As seen in Table 120, private consumption increases in all commodities in the EU and in most of the Argentinian commodities, but it decreases in many of them in Brazil, Uruguay and Paraguay. This is partly because EU can now import goods at lower prices, but it is also more because of the expansion in the EU GDP as a whole and the increase in real wages vis-à-vis prices that fall overall. Mercosur countries export more to the EU by diverting a small part of domestic consumption to exports and they also consume less of agricultural, mineral and other primary (or less value-added) goods and more transportation goods, machinery and other goods and services from high value-added sectors. In addition, they devote more resources to investment.

Table 120: Sectoral Private Consumption changes in the Conservative Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	0.0	-0.1	0.0	0.0	0.0
Rice	0.0	0.0	0.0	0.0	0.0
Vegetables, fruit, nuts	0.0	-0.1	-0.1	-0.1	0.0
Oil seeds, vegetable oils	0.1	-0.1	-0.1	0.3	0.0
Sugar	0.1	-0.1	0.0	0.0	0.0
Plant and animal fibres	0.1	-0.2	-0.2	-0.2	0.0
Processed foods, fish	0.1	-0.1	0.1	-0.1	0.1
Beef and sheep meat	0.2	-0.2	-0.1	-0.4	0.0
Poultry meat, pork	0.1	-0.2	0.0	-0.3	0.0
Other animal products	0.1	-0.4	-0.2	-0.5	0.0
Beverages and tobacco	0.1	0.0	0.1	0.1	0.1
Dairy products	0.1	-0.1	0.0	-0.2	0.0
Wood and paper	0.1	0.1	0.5	-0.1	0.1
Coal	0.2	-0.9	-0.4	-0.4	-0.1
Oil	0.3	-0.8	-0.4	-0.5	-0.1
Gas	0.2	-0.3	0.0	-0.2	0.1
Minerals	0.3	-0.8	-0.7	-0.5	-0.2
Textiles, apparel, leather	0.2	-0.1	0.2	-0.2	0.0
Chemicals, rubber, plastic	0.2	0.0	0.3	0.1	0.2
Petroleum, coal products	0.3	-0.8	-0.3	-0.5	-0.1
Metal products	0.1	0.3	1.0	1.0	0.2
Non-metallic minerals	0.2	-0.3	0.0	-0.1	-0.1
Vehicles, transport equipment	0.1	0.6	1.7	0.9	0.4
Machinery	0.1	0.7	0.8	0.0	0.2
Electronic equipment	0.2	0.0	0.2	-0.3	-0.1
Electricity	0.2	-0.1	-0.3	-0.5	-0.1
Utilities	0.1	0.0	0.3	-0.2	-0.2
Transport	0.2	-0.4	-0.1	-0.4	-0.1
Telecoms, business services	0.1	0.1	0.4	-0.2	-0.1
Financial services	0.0	0.1	0.3	-0.3	-0.1
Other services	0.0	0.0	0.3	-0.2	-0.1

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Much more conspicuous changes are seen in both exports and imports. It can be seen from Table **121** read together with Table **120** that in some but not all cases an increase in output in a Mercosur country is offset by an increase in exports resulting in a small decrease in private consumption.

Table 121: Sectoral Exports changes in the Conservative Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.6	3.0	0.1	0.2	0.6
Rice	-0.5	7.3	0.5	-0.3	-1.6
Vegetables, fruit, nuts	-0.1	10.8	8.6	15.7	1.1
Oil seeds, vegetable oils	0.5	5.3	1.5	0.4	0.2
Sugar	-2.5	5.0	3.6	5.5	3.0
Plant and animal fibres	-0.2	5.2	0.0	-2.9	1.1
Processed foods, fish	-0.2	37.2	6.6	3.8	-1.2
Beef and sheep meat	-1.5	9.1	10.1	3.0	0.7
Poultry meat, pork	-1.1	7.5	2.6	0.1	1.3
Other animal products	-0.2	2.2	10.2	6.7	0.3
Beverages and tobacco	0.1	7.7	1.8	-4.7	0.0
Dairy products	-0.6	9.7	1.8	-1.8	1.5
Wood and paper	0.3	9.3	1.3	3.1	-5.5
Coal	-0.2	0.8	-0.4	0.5	-1.1
Oil	-0.1	0.1	-0.5	0.6	0.4
Gas	-0.1	39.3	15.8	9.2	0.0
Minerals	-0.2	0.3	-0.7	0.3	-1.8
Textiles, apparel, leather	3.2	17.6	9.4	6.7	-2.4
Chemicals, rubber, plastic	0.7	7.7	1.9	-1.3	-3.0
Petroleum, coal products	0.0	0.2	-0.1	0.1	-0.1
Metal products	0.4	7.7	6.6	-3.4	-6.2
Non-metallic minerals	0.7	4.2	0.7	-1.6	-5.0
Vehicles, transport equipment	1.6	0.9	-1.6	-16.1	2.6
Machinery	1.3	12.0	1.5	-3.8	-11.8
Electronic equipment	-0.1	14.4	9.4	6.2	-0.5
Electricity	-0.9	8.1	-1.9	0.9	0.9
Utilities	-1.0	6.8	4.9	2.8	0.1
Transport	-0.4	4.0	2.4	1.2	0.6
Telecoms, business services	-1.0	7.5	5.6	2.6	1.4
Financial services	-0.9	7.6	5.1	2.3	1.0
Other services	-1.1	7.0	4.7	2.5	1.2

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Import changes are large in Mercosur countries, relatively speaking. Table 122 shows that they all witness increases in most imports, with a few exceptions – these also happen to be the sectors that see a decline in private consumption (e.g. rice, bovine meat and energy products in Brazil). These sectors see a reduction in imports due to the combination of these factors: lack of policy space to boost imports as the tariffs are already relatively small in these sectors, a small drop in private consumption and expansion in domestic output due to cheaper imports in inputs used by these sectors.

Table 122: Sectoral Imports changes in the Conservative Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	1.1	0.4	0.9	0.0	0.1
Rice	1.1	-3.1	-0.2	2.2	-0.9
Vegetables, fruit, nuts	1.8	0.4	2.6	2.7	-0.7
Oil seeds, vegetable oils	1.5	10.2	5.4	4.1	3.5
Sugar	3.5	3.2	-1.0	0.2	1.6
Plant and animal fibres	0.6	-0.1	1.2	2.3	-1.0
Processed foods, fish	2.8	0.7	2.9	1.6	1.6
Beef and sheep meat	9.3	-2.8	0.5	3.9	0.0
Poultry meat, pork	10.7	19.5	11.9	14.4	5.8
Other animal products	0.7	0.1	0.5	3.0	0.1
Beverages and tobacco	1.6	3.5	5.3	6.2	3.6
Dairy products	1.4	3.5	13.8	18.4	2.9
Wood and paper	1.4	6.5	5.3	3.0	2.6
Coal	0.1	-0.3	0.1	-1.1	-0.2
Oil	0.1	0.1	0.5	-0.3	-0.1
Gas	0.5	-1.8	-1.7	-0.7	1.2
Minerals	0.3	-0.5	0.0	0.0	0.7
Textiles, apparel, leather	0.7	-1.3	-0.1	-0.1	-0.4
Chemicals, rubber, plastic	1.0	1.4	1.0	-0.4	-0.8
Petroleum, coal products	0.1	-0.1	0.2	-0.1	0.0
Metal products	1.5	11.9	11.4	5.1	3.3
Non-metallic minerals	0.8	-0.5	1.4	0.5	1.4
Vehicles, transport equipment	1.6	3.8	2.0	-0.9	-0.5
Machinery	1.6	4.1	1.6	0.7	-0.2
Electronic equipment	0.8	-3.6	-1.2	-0.3	-0.1
Electricity	1.4	-1.5	0.3	1.7	-0.7
Utilities	1.1	-2.7	-1.4	-0.8	0.3
Transport	0.3	-2.0	-0.9	0.0	-0.3
Telecoms, business services	0.8	-3.0	-1.8	-0.9	-0.7
Financial services	0.7	-3.3	-1.8	-0.4	-0.6
Other services	0.8	-3.2	-1.8	-0.7	-0.6

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 123: Sectoral Private Consumption changes in the Ambitious Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	0.0	-0.1	-0.1	0.0	0.0
Rice	0.0	0.0	0.0	0.0	0.0
Vegetables, fruit, nuts	0.0	-0.1	-0.1	-0.1	0.0
Oil seeds, vegetable oils	0.2	-0.1	-0.1	0.5	0.0
Sugar	0.1	-0.1	0.0	0.2	0.0
Plant and animal fibres	0.2	-0.2	-0.2	-0.2	0.0
Processed foods, fish	0.2	-0.2	0.1	0.1	0.1
Beef and sheep meat	0.3	-0.2	-0.1	-0.5	-0.1
Poultry meat, pork	0.2	-0.3	0.0	-0.3	-0.1
Other animal products	0.2	-0.5	-0.3	-0.6	-0.1
Beverages and tobacco	0.1	0.1	0.1	0.3	0.1
Dairy products	0.1	-0.1	0.1	-0.1	0.0
Wood and paper	0.1	0.2	0.6	0.1	0.1
Coal	0.3	-1.1	-0.5	-0.2	-0.2
Oil	0.4	-1.1	-0.5	-0.3	-0.2
Gas	0.2	-0.1	0.0	0.5	0.4
Minerals	0.3	-1.1	-0.8	-0.3	-0.3
Textiles, apparel, leather	0.2	-0.1	0.3	-0.1	0.0
Chemicals, rubber, plastic	0.2	0.0	0.5	0.5	0.2
Petroleum, coal products	0.3	-1.1	-0.4	-0.3	-0.2
Metal products	0.2	0.5	1.3	1.5	0.2
Non-metallic minerals	0.2	-0.4	0.1	0.1	-0.1
Vehicles, transport equipment	0.2	0.8	2.2	1.5	0.5
Machinery	0.2	1.0	1.1	0.3	0.3
Electronic equipment	0.2	0.0	0.2	-0.1	-0.2
Electricity	0.2	0.0	-0.3	-0.3	-0.1
Utilities	0.1	0.1	0.5	0.0	-0.2
Transport	0.3	-0.4	0.0	-0.2	-0.1
Telecoms, business services	0.1	0.2	0.6	-0.1	-0.1
Financial services	0.1	0.3	0.5	-0.2	-0.1
Other services	0.1	0.1	0.4	-0.1	-0.1

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 124: Sectoral Exports changes in the Ambitious Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.6	4.4	0.5	-0.2	1.1
Rice	-0.6	10.5	0.8	-0.9	-2.1
Vegetables, fruit, nuts	-0.1	11.9	8.5	14.9	0.9
Oil seeds, vegetable oils	0.5	7.5	2.0	-0.1	0.4
Sugar	-3.4	7.2	5.5	8.2	5.5
Plant and animal fibres	-0.3	6.3	-0.3	-4.6	1.4
Processed foods, fish	-0.2	39.5	7.4	3.4	-1.8
Beef and sheep meat	-1.7	14.8	20.2	5.8	2.1
Poultry meat, pork	-1.3	11.4	4.2	-1.5	2.1
Other animal products	-0.2	2.6	10.2	5.9	0.5
Beverages and tobacco	0.2	8.9	2.0	-6.2	0.2
Dairy products	-0.7	14.7	2.8	-3.0	2.3
Wood and paper	0.4	13.1	2.1	3.2	-6.7
Coal	-0.3	0.6	-0.5	1.0	-1.1
Oil	-0.2	-0.1	-0.7	0.9	0.3
Gas	3.4	90.7	23.7	8.7	0.0
Minerals	-0.3	0.3	-0.9	-0.2	-1.8
Textiles, apparel, leather	4.4	22.2	12.1	6.3	-2.8
Chemicals, rubber, plastic	0.9	10.5	2.8	-2.2	-3.5
Petroleum, coal products	0.0	0.2	-0.1	0.0	0.5
Metal products	0.4	10.9	9.1	-4.7	-6.9
Non-metallic minerals	1.0	5.8	1.1	-3.1	-5.9
Vehicles, transport equipment	1.9	1.9	-1.5	-20.1	4.0
Machinery	1.7	16.5	2.6	-6.6	-14.9
Electronic equipment	0.0	20.4	13.1	7.0	0.0
Electricity	-0.7	11.8	-3.4	0.6	1.1
Utilities	-1.1	9.7	6.9	3.0	0.5
Transport	-0.2	5.8	3.4	1.5	0.9
Telecoms, business services	-1.0	10.7	8.0	2.8	2.2
Financial services	-1.0	11.1	7.2	2.3	1.8
Other services	-1.1	9.9	6.5	2.5	1.9

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 125: Sectoral Imports changes in the Ambitious Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	5.5	0.0	1.6	0.0	0.2
Rice	1.6	-4.6	-0.3	3.2	-1.4
Vegetables, fruit, nuts	2.0	0.6	2.9	3.3	-0.8
Oil seeds, vegetable oils	2.0	12.8	7.1	5.4	4.7
Sugar	5.8	4.0	-1.5	0.2	2.2
Plant and animal fibres	0.8	-0.4	1.4	2.9	-1.2
Processed foods, fish	3.0	0.7	3.8	2.4	2.2
Beef and sheep meat	19.3	-4.4	0.5	6.4	-0.4
Poultry meat, pork	22.1	24.7	15.3	20.9	7.5
Other animal products	0.7	0.1	0.9	3.3	0.2
Beverages and tobacco	1.8	4.5	6.8	8.2	4.7
Dairy products	2.6	4.4	18.2	26.2	3.7
Wood and paper	1.7	7.8	6.6	3.8	3.3
Coal	0.2	-0.4	0.2	-1.7	-0.3
Oil	0.1	0.1	0.7	-0.4	0.1
Gas	0.9	-1.6	-2.3	-0.5	3.5
Minerals	0.3	-0.5	0.1	0.1	0.6
Textiles, apparel, leather	0.9	-1.7	-0.1	0.1	-0.6
Chemicals, rubber, plastic	1.2	1.5	1.1	-0.7	-1.1
Petroleum, coal products	0.1	0.0	0.3	-0.1	-0.1
Metal products	1.9	14.3	14.0	6.7	4.1
Non-metallic minerals	1.0	-0.9	1.5	1.3	1.5
Vehicles, transport equipment	2.0	4.3	2.2	-0.9	-0.8
Machinery	2.0	4.9	1.7	1.2	-0.5
Electronic equipment	1.0	-5.0	-1.9	0.0	-0.2
Electricity	2.0	-2.0	0.6	3.2	2.7
Utilities	1.4	-2.6	-0.9	0.6	1.1
Transport	0.3	-2.3	-1.4	-0.6	-0.5
Telecoms, business services	1.1	-3.6	-2.1	-0.3	-0.5
Financial services	0.9	-4.1	-2.2	-0.6	-0.4
Other services	1.1	-3.8	-2.0	-0.5	-0.8

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 126: Sectoral Unskilled Employment changes in the Conservative Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.4	2.0	0.7	0.5	0.3
Rice	-0.4	1.2	0.9	0.1	-1.0
Vegetables, fruit, nuts	-0.5	2.2	3.6	2.6	-0.1
Oil seeds, vegetable oils and fats	-0.5	2.5	1.8	0.2	0.1
Sugar	-0.8	1.8	1.0	-0.2	-0.1
Plant and animal fibres and other crops	-0.4	1.3	0.8	0.7	-0.2
Bovine and other ruminant meats	-0.7	1.3	1.6	2.5	0.2
Other meats (poultry, pig)	-0.3	2.1	-0.2	-0.8	-0.1
Other animal products	-0.3	1.8	1.7	2.9	-0.1
Other food products	-0.3	1.1	0.7	0.8	-0.9
Beverages and tobacco	0.0	-0.2	-0.2	-2.0	-0.7
Dairy products	-0.2	-0.3	0.5	-1.5	-0.1
Wood and paper products	-0.1	0.0	-0.5	1.4	-1.0
Coal	-0.1	0.5	0.4	0.1	0.1
Oil	-0.1	0.4	0.2	0.0	0.0
Gas	-0.8	2.6	2.0	-4.6	-3.5
Minerals	-0.1	0.4	0.4	0.0	0.2
Textile, apparel, leather	-0.1	0.4	-0.1	1.6	-0.4
Chemicals, rubber, plastic	0.1	-0.5	-0.8	-1.7	-2.1
Petroleum, coal products	0.0	-0.5	-0.6	-0.9	-0.2
Metal products	0.1	-2.6	-1.6	-4.7	-2.6
Non-metallic minerals	0.1	0.2	0.2	-0.4	-0.9
Motor vehicles and transport equipment	0.4	-2.0	-3.4	-11.9	-2.8
Machinery	0.3	-4.1	-2.1	-1.5	-3.3
Electronic equipment and other manufacture	-0.4	1.2	1.4	1.0	0.3
Electricity	-0.1	-0.5	-0.7	-1.3	0.8
Utility	0.2	0.2	0.2	0.1	0.2
Transport	-0.1	-0.2	-0.4	-0.3	-0.1
Communication and business services	-0.1	0.1	-0.2	0.1	0.0
Financial service and insurance	-0.2	-0.3	-0.1	-0.2	-0.1
Recreational and other services	-0.1	-0.2	-0.1	-0.5	-0.1

Source: CGE Modelling Results. All numbers are in % changes relative to baseline

Table 127: Sectoral Skilled Employment changes in the Conservative Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.4	2.0	0.7	0.6	0.4
Rice	-0.4	1.2	0.9	0.2	-1.0
Vegetables, fruit, nuts	-0.5	2.2	3.6	2.7	-0.1
Oil seeds, vegetable oils and fats	-0.5	2.5	1.9	0.3	0.1
Sugar	-0.8	1.8	1.0	0.0	0.0
Plant and animal fibres and other crops	-0.4	1.3	0.8	0.7	-0.2
Bovine and other ruminant meats	-0.7	1.3	1.7	2.7	0.3
Other meats (poultry, pig)	-0.3	2.1	-0.1	-0.5	0.0
Other animal products	-0.3	1.8	1.7	3.0	-0.1
Other food products	-0.3	1.1	0.8	1.1	-0.8
Beverages and tobacco	0.0	-0.2	-0.1	-1.7	-0.5
Dairy products	-0.1	-0.3	0.6	-1.4	-0.1
Wood and paper products	-0.1	0.0	-0.4	1.7	-0.9
Coal	-0.1	0.5	0.4	0.1	0.1
Oil	-0.1	0.4	0.2	0.1	0.0
Gas	-0.8	2.6	2.1	-4.5	-3.4
Minerals	-0.1	0.4	0.4	0.1	0.2
Textile, apparel, leather	-0.1	0.4	0.0	1.9	-0.3
Chemicals, rubber, plastic	0.1	-0.5	-0.7	-1.3	-1.9
Petroleum, coal products	0.0	-0.5	-0.5	-0.5	0.0
Metal products	0.2	-2.6	-1.5	-4.4	-2.5
Non-metallic minerals	0.1	0.2	0.4	0.0	-0.8
Motor vehicles and transport equipment	0.5	-2.0	-3.3	-11.6	-2.7
Machinery	0.4	-4.1	-2.0	-1.2	-3.2
Electronic equipment and other manufacture	-0.4	1.2	1.5	1.3	0.5
Electricity	0.0	-0.5	-0.6	-1.0	1.0
Utility	0.2	0.2	0.4	0.5	0.4
Transport	0.0	-0.2	-0.2	0.1	0.1
Communication and business services	-0.1	0.1	0.0	0.4	0.1
Financial service and insurance	-0.2	-0.3	0.1	0.2	0.1
Recreational and other services	0.0	-0.2	0.0	-0.2	0.0

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 128: Sectoral Unskilled Employment changes in the Ambitious Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.6	2.8	1.3	0.2	0.7
Rice	-0.6	1.8	1.2	-0.4	-1.3
Vegetables, fruit, nuts	-0.6	2.6	3.8	2.5	-0.1
Oil seeds, vegetable oils and fats	-0.6	3.5	2.5	-0.4	0.3
Sugar	-1.1	2.7	1.3	-0.6	0.2
Plant and animal fibres and other crops	-0.5	1.7	0.9	0.7	-0.3
Bovine and other ruminant meats	-1.3	2.2	3.0	4.7	0.6
Other meats (poultry, pig)	-0.4	3.3	-0.1	-1.9	-0.2
Other animal products	-0.4	2.7	2.0	3.6	-0.1
Other food products	-0.3	1.2	0.8	0.4	-1.2
Beverages and tobacco	0.0	-0.3	-0.2	-2.6	-0.8
Dairy products	-0.2	-0.3	0.8	-2.6	-0.1
Wood and paper products	-0.1	0.1	-0.7	1.1	-1.3
Coal	-0.1	0.8	0.5	0.0	0.1
Oil	-0.1	0.6	0.3	0.0	0.1
Gas	-0.8	-0.6	2.8	-14.8	-9.8
Minerals	-0.1	0.5	0.5	0.1	0.2
Textile, apparel, leather	-0.1	0.6	-0.2	1.0	-0.4
Chemicals, rubber, plastic	0.1	-0.5	-0.9	-2.5	-2.5
Petroleum, coal products	0.0	-0.8	-0.9	-1.3	0.0
Metal products	0.1	-3.2	-1.8	-6.2	-3.2
Non-metallic minerals	0.1	0.1	0.2	-0.5	-1.2
Motor vehicles and transport equipment	0.5	-2.2	-4.1	-15	-3.4
Machinery	0.5	-5.5	-3.2	-2.3	-4.7
Electronic equipment and other manufacture	-0.5	1.7	1.8	0.9	0.7
Electricity	-0.1	-0.9	-1.1	-1.8	1.0
Utility	0.3	0.1	0.0	0.4	0.2
Transport	-0.1	-0.3	-0.6	-0.6	-0.2
Communication and business services	-0.1	0.0	-0.3	-0.2	-0.1
Financial service and insurance	-0.2	-0.4	-0.1	-0.4	-0.3
Recreational and other services	-0.1	-0.2	-0.2	-0.7	-0.2

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.

Table 129: Sectoral Skilled Employment changes in the Ambitious Scenario

Sectors	EU28	Brazil	Argentina	Uruguay	Paraguay
Cereals	-0.6	2.9	1.4	0.3	0.7
Rice	-0.6	1.8	1.3	-0.2	-1.2
Vegetables, fruit, nuts	-0.6	2.6	3.8	2.6	-0.1
Oil seeds, vegetable oils and fats	-0.6	3.5	2.5	-0.1	0.4
Sugar	-1.1	2.7	1.4	-0.3	0.3
Plant and animal fibres and other crops	-0.5	1.8	1.0	0.8	-0.2
Bovine and other ruminant meats	-1.3	2.2	3.1	5.0	0.7
Other meats (poultry, pig)	-0.4	3.3	0.0	-1.4	0.0
Other animal products	-0.4	2.7	2.1	3.8	-0.1
Other food products	-0.3	1.2	0.9	0.9	-1.0
Beverages and tobacco	0.0	-0.3	-0.1	-2.1	-0.7
Dairy products	-0.2	-0.3	0.9	-2.3	0.1
Wood and paper products	-0.1	0.1	-0.5	1.6	-1.2
Coal	-0.1	0.8	0.5	0.1	0.2
Oil	-0.1	0.6	0.3	0.1	0.1
Gas	-0.8	-0.6	2.9	-14.6	-9.7
Minerals	-0.1	0.5	0.6	0.2	0.2
Textile, apparel, leather	-0.1	0.6	0.0	1.6	-0.2
Chemicals, rubber, plastic	0.1	-0.5	-0.8	-2.0	-2.3
Petroleum, coal products	0.0	-0.8	-0.8	-0.8	0.2
Metal products	0.2	-3.2	-1.7	-5.7	-3.0
Non-metallic minerals	0.2	0.2	0.3	0.1	-1.0
Motor vehicles and transport equipment	0.5	-2.1	-3.9	-14.5	-3.2
Machinery	0.5	-5.5	-3.0	-1.7	-4.5
Electronic equipment and other manufacture	-0.5	1.7	2.0	1.5	0.9
Electricity	0.0	-0.9	-0.9	-1.3	1.2
Utility	0.3	0.1	0.2	1.0	0.4
Transport	0.0	-0.3	-0.4	0.2	0.1
Communication and business services	-0.1	0.0	-0.2	0.3	0.1
Financial service and insurance	-0.2	-0.4	0.0	0.2	0.0
Recreational and other services	-0.1	-0.2	0.0	-0.1	0.0

Source: CGE Modelling Results. All numbers are in % changes relative to baseline.