European Commission

Ex-post evaluation of the implementation of the EU-Mexico Free Trade Agreement

Final Report

Prepared by Ecorys
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The views expressed in the report are those of the consultant, and do not present an official view of the European Commission.

ECORYS

EUROPEAN COMMISSION

Directorate-General for Trade
Directorate C — Asia and Latin America
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List of abbreviations

AAP.CE	Partial Scope Economic Complementarity Agreement
ACP	African, Caribbean, and Pacific Group of States
AFORES	Retirement Funds Administrators
Agreement	Economic Partnership, Political Coordination and Cooperation Agreement
AHS	Effectively applied tariffs
ALTEX	Export-Intensive Enterprises
APAZU	Agua Potable, Alcantarillado y Saneamiento en Zonas Urbanas
APEC	Asia-Pacific Economic Cooperation
BAU	Business-as-usual
BIT	Bilateral investment treaty
bn	billion
BOD_5	5-day Biochemical Oxygen Demand
BOT	Build-operate-transfer
CABSA	Carbon Sequestration and Biodiversity and to Establish an Improve Agro-Forestry Systems
CARIFORUM	Forum of the Caribbean Group of African, Caribbean and Pacific (ACP) States
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CEACR	Committee of Experts on the Application of Conventions and Recommendations
CEC	Commission for Environmental Cooperation
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CELAC	Community of Latin American and Caribbean States
CEMAC	Central African Economic and Monetary Community
CEPAL	Comisión Económica para América Latina
Cf.	Conform
CFE	Federal Electricity Commission
CFR	Charter of Fundamental Rights
CGE	Computable General Equilibrium
CGRFA	Commission on Genetic Resources for Food and Agriculture
CH_4	Methane
CIA	Central Intelligence Agency
CIBIOGEM	Inter-Ministerial Commission on Biosafety of GMOs
CIC	Cell-interconnect-coverglass
CICC	Inter-Ministerial Commission on Climate Change
CIDRS	Inter-Ministerial Commission for Sustainable Rural Development
c.i.f.	Cost, insurance and freight
CIMARES	Commission on Sustainable Management of Coastlines and Oceans
CIRE	Centros Integrales de Reciclado y Energía
CITES	Convention on International Trade in Endangered Species
CO2	Carbon dioxide
COCEX	Foreign Trade Commission
COFEPRIS	Federal Commission for Protection from Sanitary Risk
COMPEX	Joint Export Promotion Commission
CONABIO	National Commission for the Knowledge and Use of Biodiversity
CONAFOR	Comisión Nacional Forestal
CONAGUA	Comisión Nacional del Agua
CPI	Corruption Perceptions Index
CRC	Convention on the Rights of the Child
CRPD	Convention on the Rights of Persons with Disabilities
CT	Congreso del Trabajo
DCFTA	Deep and Comprehensive Free Trade Area
DG	Directorate-General
ECEX	Foreign Trade Enterprises
ECLAC	European Commission for Latin America and the Caribbean
EFTA	European Free Trade Association
e.g.	Exempli gratia
EGS	Environmental goods and services
ELUP	Ecological Land Use Plan
EPA	Environmental Protection Agency
EPI	Environmental Performance Index
ESA	Eastern and Southern Africa
Etc.	Et cetera

EU	European Union
EU15	Group of 15 EU Member States
EUR	Euro
Excl.	Excluding
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
f.o.b.	Free On Board
FTA	Free Trade Agreement
GA	Global Agreement
GAIN	Global Agricultural Information
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GI	Geographical Indication
Global Agreement	Economic Partnership, Political Coordination and Cooperation Agreement
GM	Genetically Modified
GMO	Genetically Modified Organism
GPA	Government Procurement Agreement
GSP	Generalised System of Preferences
GTAP	Global Trade Analysis Project
GWh	Gigawatt hour
HS	Harmonized Commodity Description and Coding System
IA	Interim Agreement
IAVCEI	International Association of Volcanology and Chemistry of the Earth's Interior
ICBG	International Cooperative Biodiversity Group
ICCPR	International Convention on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICFTU	International Confederation of Free Trade Unions
ICMW	International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families
ICSID	International Centre for Settlement of Investment Disputes
ICTSD	International Centre for Trade and Sustainable Development
ICTWSS	Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts
i.e.	id est
ILO	International Labour Organisation
ILO KILM	International Labour Organisation Key Indicators of the Labour Market
ILOSTAT	International Labour Organisation Statistics
IMMEX	Promotion of the manufacturing, maquila and export services industry
IMPI	Mexican Institute of Industrial Property
INCI	International Nomenclature of Cosmetic Ingredients
INE	National Institute of Ecology
INEGI	Instituto Nacional de Estadística, Geografía e Informática
IPP	Independent power producers
IPR	Intellectual Property Right
ISDS	Investor-state dispute settlement
ISO	Independent system operator
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
ITTA	International Tropical Timber Agreement
ITUC	International Trade Union Confederation
IUCN	International Union for the Conservation of Nature
JC	Joint Council
LAASSP	Law on Public Sector Procurement, Leases and Services
LAIA	Latin American Integration Association
LCE	Foreign Trade Law
LFCE	Federal Law of Economic Competition
LGEEPA	General Law of Ecological Balance and Environmental Protection
LIE	Foreign Investment Law
LIGIE	Law on General Import and Export Taxes
LOPSRM	Law on Public Works and Related Services
LULUCF	Land Use, Land Use Change and Forestry
M&E	Monitoring and Evaluation

M/F gap	Male/Female gap
MARPOL	International Convention for the Prevention of Pollution from Ships
MEA	Multilateral Environmental Agreements
MERCOSUR	Mercado Común del Sur
MFN	Most Favoured Nation
Mln	million
MSMEs	Micro, Small and Medium-sized Enterprises
MSW	Municipal Solid Waste
MW	megawatt
NACEC	North American Commission for Environmental Cooperation
NAFTA	North American Free Trade Agreement
NCCS	National Climate Change Strategy
NEET	Not in Education, Employment, or Training
N_2O	Nitrous Oxide
NMX	Mexican Norm
NMVOC	Non-methane volatile organic compounds
No.	Number
NOM	Mexican Official Norm
NO_x	Nitrogen Oxides
NTB	Non-tariff barrier
NTM	Non-tariff measure
O_3	Ozone
OAS-SICE	Organization of American States – Foreign Trade Information System
OECD	Organisation for Economic Co-operation and Development
PAE	Programa de Apoyo al Empleo
PECC	Special Climate Change Programme
PEMEX	Petróleos Mexicanos
PES	Payment for Ecosystem Services
PETA	Programa de Empleo Temporal Ampliado
PIC	Prior Informed Consent
PM	Particulate Matter
POP	Persistent Organic Pollutant
PPP	Purchasing Power Parity
ProAire	Air Quality Improvement Programme
PRODDER	Programa de Devolución de Derechos
PROFEPA	Procuraduria Federal de Protección al Ambiente
PROMAGUA	Programa para la Modernización de Organismos Operadores de Agua
PROSEC	Sectoral Promotion Programmes
PROSSAPYS	Programa para la Construcción y Rehabilitación de Sistemas de Agua Potable y Saneamiento en Zonas Rurales
PROTCLUEM	Proyecto de Facilitación del Tratado de Libre Comercio entre México y la Unión Europea
PSAH	Hydrological Ecosystem Services Programme
PV	Photovoltaics
R&D	Research and Development
REDD+	Reducing Emissions from Deforestation and Land Degradation
RoW	Rest of the world
SAGARPA	Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food
SAT	Tax Administration Service
SCJN	National Supreme Court of Justice
SE	Secretariat of Economy
SEMARNAP	Ministry of Environment, Natural Resources and Fisheries
SEMARNAT	Ministry of Environment and Natural Resources
SENASICA	National Health, Food Safety and Food Quality Service
SENER-CONACYT	Secretariat of Energy (SENER) and National Council of Science and Technology (CONACYT)
SFA	Secretariat of Foreign Affairs
SMEs	Small and medium-sized enterprises
SO_x	Sulphur Oxides
SPS	Sanitary and Phytosanitary
TBT	Technical Barriers to Trade
TFP	Total factor productivity
TiVA	Trade in Value Added
TNI	Transnational Institute

TRIPs	Trade-Related Aspects of Intellectual Property Rights
TRQs	Tariff Rate Quotas
UCW	Understanding Children Work
UDHR	Universal Declaration of Human Rights
UK	United Kingdom
UN	United Nations
UN COMTRADE	United Nations Commodity Trade Statistics Database
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
US	United States
USA	United States of America
USD	United States Dollar
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USPTO	United States Patent and Trademark Office
VAT	Value Added Tax
VOC	Volatile Organic Compound
VoT	Valley of Toluca
WIOD	World Input-Output Database
WIOTs	World Input-Output Tables
WIPO	World Intellectual Property Organization
WITS	World Integrated Trade Solution
WTO	World Trade Organization
Vs.	Versus
ZMG	Guadalajara Metropolitan Area
ZMM	Monterrey Metropolitan Area
ZMVM	Valley of Mexico Metropolitan Area
ZMVT	Valley of Toluca Metropolitan Area

Abstract

The EU-Mexico Free Trade Agreement (FTA) entered into force in October 2000 for the part related to trade in goods, and in 2001 for the part related to trade in services. It is part of the broader Economic Partnership, Political Coordination and Cooperation Agreement (the Global Agreement) concluded in 1997.

This study, carried out by Ecorys, is an ex-post evaluation of the implementation of the EU-Mexico FTA, which aims to contribute to an improved understanding of the impact of the FTA. The study is only the second ex-post evaluation of the economic impact of an FTA commissioned by DG Trade, and, as such, also contributes to the further development of methodologies to assess the impact of existing FTAs.

This Final Report presents an analysis of the FTA itself and the context in which it operates, an assessment of the economic impact of the Agreement, and an assessment of the social, human rights and environmental impacts of the agreement. The report also includes a set of conclusions pertaining to the coherence, effectiveness and impact of the FTA. The results are based on a mix of quantitative and qualitative analyses, as well as stakeholder consultations.

Executive summary

In 1997 Mexico was the first country in Latin America to sign an Economic Partnership, Political Coordination and Cooperation Agreement ("Global Agreement") with the EU. This Agreement came into force in 2000 and covers political dialogue, trade relations and cooperation. The Global Agreement also includes trade provisions that were later developed into a comprehensive Free Trade Agreement (FTA) covering trade in goods and trade in services, which came into force in October 2000 and 2001, respectively. In January 2013 leaders decided "to explore the options for a comprehensive update of this Economic Partnership, Political Coordination and Cooperation Agreement between the EU and Mexico". Negotiations were launched in June 2016.[1]

In this context, the European Commission contracted ECORYS to carry out an evaluation of the implementation of the EU-Mexico FTA and an assessment of the possible modernisation of this Agreement. This report presents the results of the ex-post analysis of the current EU-Mexico FTA.

Objectives and approach

The objectives of the ex-post analysis are to:

- highlight and evaluate the actual economic, social and environmental impacts (both immediate, measurable effects and consequential impacts) of the agreement on both sides, and identify possible unintended consequences of the FTA;
- identify those sectors, activities and groups that have benefited from the implementation of the FTA, as well as those negatively affected, and specify the most relevant provisions for such effects.

In addition, the study should contribute to developing methodologies for future ex-post analysis of EU FTAs.

The approach to the study comprises a mix of qualitative and quantitative methods. In the study, we use literature and statistics to analyse the economic, social and environmental developments from a few years before the agreement up to the present. In addition, we apply a number of quantitative methods in order to isolate the effects of the FTA; that is, to establish to what extent the observed developments can be attributed to the FTA. Stakeholder consultations also play a key role in the approach. To involve stakeholders, we have developed a website, social media tools, and a survey. Furthermore, we have organised a civil society workshop in Mexico City and conducted in-depth interviews with government and civil society representatives.

About the Agreement

At the time the FTA was concluded, it was the most extensive trade agreement that had ever been signed by the EU. The EU-Mexico FTA establishes trade disciplines in 11 areas: a. Market access, including a tariff liberalisation schedule of trade in goods; b. Origin Rules, and customs cooperation; c. Safeguards; d. Standards, Technical Regulations and Conformity Assessment Procedures; e. Sanitary and Phytosanitary Measures; f. Government procurement; g. Competition; h. Trade in services; i. Investment and related payments; j. Intellectual property; and k. Dispute settlement.

A deeper analysis of the agreement demonstrates that, while the coverage is comprehensive, specific provisions do not always go much beyond existing international commitments. For example, in the areas of SPS and TBT, the agreement does not go beyond what was already agreed in the WTO. In other areas (services, government procurement and competition policy) additional commitments are made.

Tariff reductions were implemented relatively quickly. For a large share of goods, tariffs were eliminated immediately after the entry into force of the agreement. Within four years, all import tariffs on Mexican industrial products imported into the EU were eliminated and, within eight

[1] Source: ec.europa.eu/trade/policy/countries-and-regions/countries/mexico

years, all tariffs on EU industrial products imported into Mexico were eliminated. A number of sensitive agricultural products were exempted from tariff liberalisation; implementation periods for those products that were liberalised could be up to ten years.

The institutional framework of the Agreement also had some unique features at the time. The Joint Council, the main body governing the agreement, not only had the traditional function of monitoring and supervising the implementation and administration of the agreement, but also the primary responsibility of the agreement negotiation. This includes the negotiation of certain review clauses in the agreement concerning tariff liberalisation and some trade-related disciplines. Although the FTA contained these review clauses that were legally binding, each one of the review clauses implied a negotiation process, and the circumstances were such that there was not sufficient political will for concluding negotiations on each of these issues. The institutional framework does not seem to be a cause for this lack of progress. Other elements of the FTA were implemented as planned.

In terms of context, it should be noted that the FTA is only one aspect of Mexico and the EU trade policy. In particular in Mexico, a number of regulatory reforms have been undertaken due to unilateral liberalisation, or due to provisions in other FTAs such as NAFTA. In addition, both parties have concluded several FTAs with other countries during the evaluation period.

Economic impact

A first part of the economic analysis looks at the trends, based on data analysis. This shows that bilateral goods trade between the EU[2] and Mexico has expanded significantly after the entry into force of the FTA, with exports and imports having more than doubled. Bilateral imports and exports developed in a similar pattern, although the exports from the EU to Mexico have grown slightly faster than exports from Mexico to the EU. The trend in bilateral exports largely follows the trend in overall exports of both partners, but we do observe a small increase in the importance of both partners in each other's trade flows over time: the EU's share of Mexican exports was 3.8 percent in 1999 and 4.9 percent in 2013, whereas Mexico's share of EU exports increased from 0.5 to 0.7 percent. Bilateral trade is concentrated in a limited number of sectors, and, while we observe an increase in diversification of EU exports to Mexico, for Mexican exports to the EU we observed more concentration, although, again, the changes are small. In services trade, we also observe a significant increase in bilateral trade flows, but these changes are in line with developments in overall services trade. FDI flows between the two partners show a fluctuating pattern, not deviating much from the general trends in FDI flows.

To better understand how the FTA has contributed to the observed developments above, in the second part of the economic analysis, we have applied a Computable General Equilibrium (CGE) model to assess the current economic situation compared to a counterfactual scenario of what would be the situation without the FTA. To determine this counterfactual scenario, we used an econometric framework known as a gravity model, which can identify the impact of the current agreement on EU-Mexico trade, beyond tariffs. Based on this analysis, we find that the current agreement does not generate additional trade beyond what is expected based on tariff elimination alone. Two exceptions are other transport equipment (aircraft), and petro-chemicals. There are, however, no specific provisions in the FTA that can explain this increase, although co-operation programmes initiated as part of the Global Agreement may have played a role. On this basis, the FTA mainly had an impact because of tariff reductions, and for the counterfactual scenario, therefore, we assumed that that both trading partners would face MFN tariffs. Comparing the two scenarios gives an indication of the FTA-induced economic effects.

The results of the modelling show that the gains for Mexico from the bilateral tariff liberalisation under the Agreement amount to €2,876 million in real income per year, while, for the EU, these gains amount to €1,559 million annually. In percentage terms, Mexico's GDP is estimated to be 0.34 percent higher due to the Agreement and the EU's GDP is estimated to be 0.01 percent higher. This asymmetrical effect is due to the difference in importance of the two parties for each other as trading partners. The increase in income is also reflected in real wages. Compared to the counterfactual scenario without an FTA, real wages are 0.02 percent higher, while, in Mexico, wages are between 0.24 and 0.45 percent higher, depending on the skill group. Low-skilled workers in Mexico seem to have gained a bit less compared to other skill groups as a

[2] It should be noted that the EU expanded in terms of number of countries during the evaluation period. In this paragraph, the EU only includes the 15 Member States that have signed the original agreement.

result of the FTA, due to a contraction of the electrical machinery sector, which employed relatively more low-skilled workers, hence decreasing the demand for low-skilled workers relatively more than for other skill categories.

According to the simulations, the FTA triggered increases in trade, amounting to an increase of 1.5-1.7 percent in Mexico's aggregate exports and imports, and a 0.05 percent increase in the EU's aggregate trade flows. Looking at bilateral trade flows, EU exports to Mexico show a slightly bigger increase, of 19 percent, than Mexican exports to the EU, with an estimated increase of 15 percent.

Reductions in tariffs between the trade partners are estimated to have led to minor losses in tariff revenues. For the EU, the change compared to the counterfactual is €235.9 million, which, in terms of the percentage change in tariff revenues, is insignificant, at 0.01 percent. For Mexico, the loss is estimated at €625.3 million , but is also small in percentage terms, at 0.14%.

At sector level, the model suggests that, in the EU, the changes in output have been small, varying between 0 and 0.2 percent. In Mexico, the output effects seem to have been more pronounced, with the largest changes according to the model taking place in two sectors: motor vehicles (+16.5 percent) and electrical machinery (-11.5 percent). The motor vehicle sector witnessed a large reduction in import tariffs in the EU, thereby increasing export opportunities and related output increases. The expansion of this sector led to a contraction of the electrical machinery sector. Although tariffs for textiles and clothing on Mexican exports to the EU were also high, these sectors did not expand in Mexico compared to the counterfactual, as there were significantly larger tariff reductions for EU exporters, who thereby gained competitiveness against Mexican producers and pushed some of them out of production. The large reduction in tariffs on motor vehicles, textiles and clothing is also visible in the model results for bilateral trade, as these are the sectors that show the largest changes in bilateral trade flows.

Social and human rights impact

When analysing the social impact of the EU-Mexico FTA, it is important to bear in mind that, while the CGE model analysis and all quantitative social analyses based on it can isolate the effects of the EU-Mexico FTA, all qualitative attributions of effects to the EU-Mexico FTA need to be seen against a background of other influences, such as implementation of other trade agreements (notably NAFTA), the Global Agreement and domestic policy considerations.

Decent work and the informal sector

The extent to which changes in employment are related to the FTA appear to be very small, but positive. The CGE model isolates the FTA effect on wages, but is not able to assess changes in overall employment. Nevertheless, the wage changes are an indication of the demand for labour. With marginal increases in real wages in the EU because of the FTA, changes in employment due to the FTA are negligible. In Mexico, changes in real wages are slightly greater, as presented above, but, given the still small size of the increase, employment is not likely to have been significantly affected by the agreement here either – if there has been any effect, it has been positive.

In respect of rights at work, the FTA itself does not have explicit provisions regarding this matter. Provisions on TBT and SPS, which may have an indirect effect on labour conditions (e.g. through effects on use of chemicals in production processes), are similar to what was already agreed in the WTO and, therefore, also did not affect labour conditions. Throughout the period of evaluation, the volume of ILO complaints related to the implementation of ILO core labour standards in Mexico seem to have largely remained the same. Increased interaction between EU and Mexican firms may have had an impact on labour rights, but we found no clear evidence for this.

For the other pillars of the Decent Work agenda (social protection and social dialogue), no clear link with the FTA was found.

The informal sector in Mexico is large, but the effects of trade agreements depend on many factors. In Mexico, informal employment is mostly concentrated in non-tradable goods, in sectors such as services, hotels and restaurants, and construction. As most of these Mexican service sectors have experienced a small positive effect on output because of the FTA, it is not likely that informality in these sectors has increased.

Poverty and inequality

Additional quantitative social analysis looks in more detail at the effects of the FTA on poverty and inequality, by combining CGE results related to income (wages) and expenditures (prices) with household survey data. In line with modest impacts reported so far, changes in poverty and inequality because of the FTA are very small, but show a positive trend. The number of people below the absolute poverty line is estimated to have decreased from 58.3 million to 58.1 million. The number of people below the extreme poverty line shows a decrease from 18.87 to 18.82 million people. Moreover, the number of people just above or below the poverty line decreased. The analysis of poverty effects for different groups of the population (by sex, age, education level, region, and place of residence (urban/rural)) show similar patterns.

Human rights

The Global Agreement includes human rights, referring to the determination to conduct a trade relationship based on respect for democracy and human rights, and contains a clause to provide for suspension of trade relations in case of human rights violations. This was an innovative feature at the time and marked the implementation of a greater focus on human rights in the EU's trade agreements. In practice, this clause has not been used, despite observed human rights violations. Based on the relatively small, but largely positive changes identified in the economic and social analysis, the effects of the FTA on human rights are not found to be extensive, and, where there are effects, these are mostly positive.

Environmental impact

As was stated in relation to social impact, it is important to bear in mind that, while the CGE model analysis and all quantitative environmental analyses based on it can isolate the effects of the EU-Mexico FTA, all qualitative attributions of effects to the EU-Mexico FTA need to be seen against a background of other influences. As an example, there have been technical assistance programmes that included activities regarding meeting EU requirements in the fisheries sector, which may have contributed to increased sustainability of fishing, but are not directly related to (i.e. are not part of) the FTA.

Based on the CGE model, the environmental effects of the FTA are very small. In terms of resource intensity, there are marginal effects on fisheries (+0.02%) and land use (+0.13%) in Mexico, while, for the EU, the effects are even smaller, at 0.0% and 0.01%, respectively. Global transport changes are also small: while air and water transport increased slightly compared to the counterfactual scenario, (0.17 and 0.6%, respectively), land transport declined slightly (-0.04%). CO2 emissions decreased in Mexico because of the tariff liberalisation of the Agreement, with a decline of 0.41m tons, corresponding to a 0.1% decrease in Mexican CO2 emissions. in the EU, a small increase, of about 0.56m tons took place, translating into a 0.01% increase in the EU's levels of CO2 emissions. The contrasting changes in CO2 emissions in the EU and Mexico relate to the changes in sectoral output patterns for both partners, where Mexico experiences a decrease in polluting sectors while the opposite is true for the EU.

Looking in more detail at air pollution, additional quantitative analysis, building on the modelling results for Mexico, shows that the FTA contributed to a reduction in levels of some air pollutants, most notably in the emissions of sulphur oxides (-0.28%), and an increase in the levels of others, but that the effects are estimated to be quite small (except for sulphur oxides, the effects are below 0.1%). Most anthropogenic SOx emissions in Mexico come from the agricultural, electricity and petrochemicals sectors, which have all reduced output because of the FTA. Based on the same methodology, the FTA appears also to have reduced greenhouse gas emissions, due to the composition effect dominating the scale effect.

For other environmental elements (e.g. water, waste, biodiversity) the effects of the FTA are ambiguous, but based on the overall economic and environmental results the effects are thought to be small.

Trade in environmental goods and services (EGS) because of the FTA may also have had an impact on the environment. The EU-Mexico agreement does not contain any specific provisions on EGS. Nevertheless, the trade in these products and services is affected by the general FTA provisions. In our analysis, we studied six environmental goods in more detail. Although, for most of these products, trade flows have increased significantly (the direction of trade depending on the specific product), a clear link with the FTA is difficult to establish.

Conclusions: results for evaluation criteria

In this report, we assess the EU-Mexico FTA based on three evaluation criteria: coherence, effectiveness and impact.

Coherence

With respect to internal coherence, we have not found any elements of the FTA that would contradict other parts of the FTA. With respect to the Global Agreement, of which the FTA is an integral part, we observe that the Global Agreement reinforces the FTA, in the sense that it fosters co-operation at different levels (e.g. on industrial co-operation, SMEs, investment promotion, etc.), which can help to promote trade between the two partners, although, in practice, this co-operation has been limited.

With respect to external coherence with the EU's wider trade policy, the FTA was fully coherent at the time the agreement was concluded: it paid more attention to non-tariff barriers than many previously concluded tariff-only FTAs, and it clearly also included reciprocal liberalisation. Although there are no clear inconsistencies between the FTA and the current EU trade policy, the more recent (e.g. with Central America) and potential (e.g. TTIP) agreements of the EU are more comprehensive and ambitious, which reduces preference margins for Mexico. In relative terms, its access to the EU market has, therefore, decreased, or will decrease, in comparison to other countries in the region. In addition, sustainable development has, in the meantime, become an integral part of the new generation of FTAs, although this is not integrated into the EU-Mexico FTA. In that sense, the level of coherence with EU trade policy can be considered as having gradually declined since the agreement was concluded.

In terms of coherence of the FTA with other EU policies and actions, the number of policy areas that can potentially (directly or indirectly) affect trade and investment between the EU and Mexico is high. In respect of the most directly related policies aimed at promoting trade and investment between the partners, we found a number of positive examples, such as development co-operation projects funded by the EU that aim to facilitate the implementation of the Free Trade Area and to foster trade and investment between the two regions. Other EU policies may also have had a more indirect effect on bilateral trade, such as the introduction/adjustment of (new) standards and technical regulations (e.g. food safety standards) that may both have facilitated or hampered trade between the EU and Mexico.

Effectiveness

To assess the effectiveness of the FTA, we looked at whether the objective of the agreement had been achieved. This objective is formulated as follows:

"To establish a framework to encourage the development of trade in goods and services, including a bilateral and preferential, progressive and reciprocal liberalisation of trade in goods and services, taking into account the sensitive nature of certain products and service sectors and in accordance with the relevant WTO rules. "

Since trade barriers have been largely dismantled as programmed, we consider the objectives as being met and, therefore, the FTA as being effective. At the same time, the impression is that more could have been achieved through the established co-operation mechanisms or through the review clauses.

In addition, it should be noted that the objectives of the FTA have all been set at the output level, and not at the outcome level, i.e. what should be achieved as a result of the FTA. We do observe some positive developments, e.g. the increased EU market share in Mexico's trade. At the same time, we note that this increase is relatively small and that there is no benchmark to compare it to.

Impact

The results of our study that are presented at the start of this executive summary show that the impact of the EU-Mexico FTA has been positive, although also modest. Based on an analysis of text and implementation of the agreement itself, as well as on a gravity analysis, we can conclude that the Agreement has mainly reduced tariff barriers, and did not significantly change non-tariff barriers between the two trade partners. Although the FTA contained review clauses to achieve further deepening of the FTA, this has, in practice, not been realised.

The main causes behind the relative modesty of the results do not seem to relate to the specific provisions of the FTA, but, rather, to more general factors, such as the lack of awareness, equal or better market access conditions in countries in the region, and differences in standards.

Given that, except for human rights, the FTA does not include specific environmental or social provisions, the social and environmental effects are mainly indirect, stemming from the economic effects. The results for the social and environmental impacts are, therefore, small, but positive. With respect to the Democratic clause in the Global Agreement that refers to human rights, critics note that it lacks legal basis and specific instruments to ensure respect for human rights.

1. Introduction

1.1. Context of the study

1.1.1. Political and economic relationship between the EU and Mexico

As part of its trade strategy towards Latin America, the EU has concluded and is negotiating Free Trade Agreements (FTAs) with various countries and trading blocs in the region. Mexico was the first country in the region to sign an Economic Partnership, Political Coordination and Cooperation Agreement ("Global Agreement") with the EU, which it did in 1997. This Agreement came into force in 2000 and covers political dialogue, trade relations and cooperation. The Global Agreement also includes trade provisions that were developed in a comprehensive Free Trade Agreement, covering trade in goods and trade in services, which came into force in October 2000 and 2001, respectively. Access to public procurement markets, competition, intellectual property rights and investment are also covered by this FTA.

These agreements have led to closer economic and political co-operation between the EU and Mexico. In 2008, Mexico became a strategic partner of the EU, which has further increased co-operation and dialogue. This strategic partnership specifically enhanced EU-Mexico cooperation on global issues such as multilateralism (e.g. in the WTO), climate change and terrorism.

The existing FTA includes review clauses for increased liberalisation in agriculture, services and investment to further strengthen the relationship. In January 2013, both partners decided "to explore the options for a comprehensive update of the Economic Partnership, Political Coordination and Co-operation Agreement between the EU and Mexico".[3] Negotiations were launched in June 2016.

1.1.2. The context of the EU-Mexico FTA

The period in which the FTA negotiations between the EU and Mexico took place, was more characterised by the conclusion of multilateral trade agreements instead of bilateral agreements, and preparations for the Doha Development Round. Back then, the focus of negotiations was on liberalisation of import tariffs.

Although the FTA between the EU and Mexico includes some elements of non-tariff measures besides tariff reductions, it does not yet go as far as the deep and comprehensive FTAs that the EU recently concluded with other partner countries. There is a clear trend for FTAs to focus more on the NTM aspects of trade, as tariffs have become relatively less important barriers to trade than are NTMs.

The NAFTA agreement with the US and Canada is very important for the Mexican economy. Therefore, it is also relevant to note that the EU has almost finished its FTA negotiations with Canada, and negotiations with the US are ongoing. Hence, trade relations with the entire region are being strengthened.

1.2. Objectives

This final report concerns the ex-post evaluation of the economic, social and environmental effects of the existing EU-Mexico FTA. The objectives as described in the Terms of Reference for this study are the following:

- highlight and evaluate the actual economic, social, and environmental impacts (both immediate measurable effects and consequential impacts) of the agreement on both sides;

[3] See paragraph 22 of the EU-CELAC Santiago Declaration: http://www.eeas.europa.eu/la/summits/docs/2013_santiago_summit_declaration_en.pdf. CELAC is the Community of Latin American and Caribbean States.

- identify sectors, activities and groups that have gained as a result of the FTA and specify the most relevant provisions thereof for such effects;
- identify sectors, activities and groups that have been negatively affected as a result the FTA and specify the most relevant provisions thereof for such effects;
- identify unintended consequences of the entry into force of the FTA;
- pave the way for future ex-post analysis of the EU's FTAs, notably by identifying suitable methodological approaches to measure impacts of the FTA on the social and environmental dimensions.

1.3. Summary of methodological approaches

In this final report, the regulatory, economic, social, and environmental analyses that are part of the ex-post analysis are laid out. These analyses are based on thorough methodologies, which we briefly summarise below.

Detailed description of past policies

For this, we analyse the Agreement in respect of its context, structure and institutional framework. This includes the description of the main features of the Agreement vis-à-vis other Mexican and EU preferential trade agreements. Furthermore, Joint Council decisions, as well as measures adopted by national Mexican legislation because of the Agreement, are described. Lastly, the functioning of the institutional framework is analysed, which is based on an assessment of the interrelations of the administration and implementation bodies of the Agreement, and the relevant Mexican government offices.

Evaluation of past policies along sustainability dimensions

The approach to the ex-post evaluation of past policies along the sustainability dimensions are described below.

a. Economic analysis

- We provide a general description of economic development and performance of the EU and of Mexico since the FTA came into effect, and a descriptive statistical analysis of trends and developments in key areas, such as intra-industry trade, composition/diversification and tariff profiles. This will augment the CGE analysis, not only by presenting complementary indicators, but also by providing insights at a more disaggregated product level than at the GTAP sectors of the CGE model;
- We combine a structural gravity analysis with a CGE model, which allows us to identify how the Agreement has contributed to the general economic and trade development between the two regions, both at macro and at sectoral levels.

b. Social analysis

- We provide a description of the current situation to draw a comprehensive picture of the social landscape. We look at historical changes in key social indicators from 2000 (and 6 years earlier, depending on data availability) up to the present day (or the most recent year for which data are available);
- We conduct a quantitative social analysis, based on relevant CGE output indicators in combination with a household survey, to draw conclusions on the Agreement’s impact on poverty and inequality;
- Complementary to the quantitative analysis, we conduct a qualitative social analysis, in which we identify and describe FTA impacts related to, e.g., ILO Decent Work indicators, human rights issues, and the informal economy.

c. Environmental analysis

- The environmental descriptive analysis presents an overview of developments in various environmental fields, based on indicators for, e.g., air pollution, natural resources use, waste and climate change. We look at historical changes in these issues from 2000 (and 6 years earlier, depending on data availability) up to the present day (or the most recent year for which data and information are available);

- We use an extension of the CGE model to calculate the impact of the Agreement on GHG and air pollutant emissions. This includes a disaggregation of the effects into composition and scale effects;
- We subsequently link CGE results and indicators used in the description of the status quo to draw coherent qualitative conclusions. Furthermore, we look closely into the trade in environmental goods since the signing of the FTA.

Stakeholder consultations

Stakeholder consultation is an essential element of the study. Dissemination to external stakeholders of information related to the study helps to validate preliminary results and put them into perspective. In addition, inputs from stakeholders complement and expand the information extracted from the data and literature.

The main activities that are used to involve relevant stakeholders in the consultation process are summarised below.

Table 1.1 Stakeholder consultation activities

Activity	Explanation
Website	The dedicated website for this project is www.fta-evaluation.com/mexico. A large part of this website is available in Spanish to facilitate the consultations in Mexico. It includes a "downloads" section with relevant documents and study results, information about the EU-Mexico FTA, the study and other background information, agenda of upcoming events, including the workshop in Mexico, and links to other relevant websites.
Electronic consultation	The dedicated email address for communication with stakeholders is mexico@ecorys.com. This mode of communication is used, e.g., for the distribution of electronic newsletters to inform stakeholders about the project activities and soliciting their inputs and feedback. In addition, social media are used to encourage and engage in stakeholder discussions.
Workshop in Mexico	After submission of the Interim Technical Report, a local stakeholder workshop has been organised in Mexico (Mexico City) in July 2015 to validate the results of the analysis and receive input and feedback for the final phase of the project.
Survey	The online survey for all stakeholders (including companies, business associations, social and human rights organisations, trade unions and environmental organisation) has been open for more than 10 months. Although the survey has been closed now, a preview link is available here: https://s.chkmkt.com/?e=31906&h=5373634D6F27DC1&l=en&v=1&m=PREVIEW. The survey was available in English and Spanish. The survey allowed, e.g., for the identification of FTA effects, remaining barriers and priorities, and competitiveness issues (globally and for the sector specifically). This also allowed us to consider in more depth issues and impacts relevant to SMEs. Despite the lasting efforts of the project team, the response to the survey has been relatively limited. Therefore, relevant insights obtained from the survey are inserted in the report in combination with other stakeholder inputs, and are not discussed separately.
Ad hoc consultations	Personal interviews have been conducted in a very targeted manner, to receive feedback from crucial stakeholders on specific issues or topics and to deepen our understanding of these topics.

Stakeholder consultation activities have been conducted in close consultation with the Steering Committee in Brussels and the EU Delegation in Mexico in relation to the local workshop.

Conclusions

Conclusions are formulated in this Final Report. Our focus is on impact, but, where possible, we link our findings in the ex-post evaluation to aspects of coherence in respect of the policies discussed in the context of the agreement, as well as effectiveness related to initial objectives of the agreement.

2. Regulatory analysis

The regulatory analysis of the EU-Mexico FTA focuses on the content of the Agreement and the context in which it operates, including a comparison with similar agreements signed by Mexico or the EU. In addition, we will identify the regulatory changes brought about by the FTA. Finally, specific attention will be paid to the institutional structure of the FTA. A deeper understanding of these aspects is an essential starting point for the subsequent analyses (economic, social and environmental) to assess the impact of the FTA and its modernisation.

The main elements of the regulatory analysis are presented below.

2.1. Description of the EU-Mexico FTA: structure and content

The EU-Mexico FTA was the outcome of a long negotiation process between both parties, and a combination of several legal instruments that allowed for it to be implemented. The FTA resulted in the liberalisation of trade in goods and services, and agreements on other trade disciplines. At the time, the agreement presented some unique characteristics—e.g., it was the first trade agreement signed by the EU with a Latin American country, the scope of trade concessions and disciplines included was unprecedented, and the agreement was clearly based on asymmetry in the pace of trade liberalisation for each party. These unique characteristics must be taken into account in order fully to understand the structure and content of the FTA.

2.1.1. Background, Chronology and Overview of the EU-Mexico FTA

After a long period of standstill in the relationship between the two parties, under the Framework for Cooperation Agreement between the European Economic Community and Mexico (December 1991)[4], the parties signed the Joint Solemn Declaration in 1995[5]. In this, they agreed to negotiate bilaterally on three main pillars: (1) strengthening the bilateral political dialogue, (2) improving cooperation in economic, technical, scientific and cultural areas, and (3) reciprocally liberalising trade in goods and services within the framework of WTO rules. This commitment is commonly referred to as the starting point of a new relationship between the European Union and Mexico, allowing a negotiation mandate that would result in the FTA.

Formal negotiations between the parties started in October 1996, after the EU General Council approval of the respective mandate. The Economic Partnership, Political Coordination and Cooperation Agreement between the European Community and its Member States, on the one part, and the United Mexican States, on the other part, unofficially called the "Global Agreement" (hereinafter, GA) was signed in December 1997. The agreement set up the basis for the negotiation of an FTA between the two parties, together with an Interim Agreement (hereinafter, IA) on trade and trade-related matters. The latter provided the framework and mechanisms for trade liberalisation. A Final Act included both legal instruments and Joint Declarations of the parties.

The agreement established a Joint Council to supervise its implementation and to examine major issues arising from the bilateral commitments assumed by the parties, as well as a Joint Committee to assist the Joint Council in the performance of its duties.

The IA was signed to allow trade negotiations without having the parliamentary approval of the GA[6]. Consequently, the IA, which was to be in force until the entry into force of the GA, was approved by the Mexican and European parliaments, in April and May 1998, respectively, and entered into force in July 1998. Nine rounds of negotiations were held during a 12-month period that concluded in November 1999. The GA was approved by the European and Mexican

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4 European Communities' Official Gazette, No. L340, on December 11th 1991.

5 Signed in Paris, May 2nd 1995. Source: Council of the European Union.

6 In the same way, the Joint Declaration included in the Final Act mentioned above authorised the European Commission to negotiate services, investment and intellectual property chapters without having the approval of the GA. For a useful synthesis of the complexity of the legal structure for resolving the negotiation, approval and entry into force of the agreement, see Jaime Zabludovsky and Sergio Gómez Lora (2005), Table 1, page 14.

parliaments, in May 1999 and March 2000, respectively, and the core Decisions of the Joint Council setting up trade liberalisation in goods and services entered into force, respectively, in July 2000 (Decision No. 2/2000) and March 2001 (Decision No. 2/2001).

2.1.2. EU-Mexico FTA Structure and Content: A Descriptive Analysis

The descriptive analysis of the EU-Mexico FTA will follow the order stated below as regards the subjects discussed and will refer to the corresponding sections of the GA and the Decisions taken by the Joint Council[7].

The EU-Mexico FTA establishes trade disciplines in 11 areas:

a. Market access, including tariff liberalisation schedule of trade in goods;
b. Origin Rules and customs cooperation;
c. Safeguards;
d. Standards, Technical Regulations and Conformity Assessment Procedures;
e. Sanitary and Phytosanitary Measures;
f. Government procurement;
g. Competition;
h. Trade in services;
i. Investment and related payments;
j. Intellectual property;
k. Dispute settlement.

a. Market Access

Market access provisions are detailed under Title III, Trade, of the GA—Articles 4 and 5[8] —; Title II, Trade Liberalisation, of the IA—Articles 2 and 3—; and Title II, Free Movement of Goods, of the Joint Council Decision No. 2/2000—Articles 2 to 24—and can be subdivided into two main groups: (1) market access provisions and (2) trade in goods liberalisation schedules and related provisions.

Within the first group, a Free Trade Area is established over a maximum ten-year transition period, and covered by Article XXIV of the GATT of 1994[9].

The agreement eliminates all import or export restrictions in bilateral trade[10] and grants national treatment to the imported products that shall be subject to the same internal taxes as similar domestic products, and accorded the same treatment in terms of laws and regulations affecting similar domestic product sales, purchases, transportation and distribution (Articles 12 and 13). Annexes IV and V allow exceptions to these provisions for Mexico, provided that the exception measures are WTO-compatible and do not violate the MFN principle. Exceptions in Annex IV include import and export licences to be applied to some petroleum products, residues and gases, and allow Mexico to maintain prohibitions or restrictions to import used products within the textiles (clothing) and automotive sectors, while other restrictions on the automotive and machinery sectors can be maintained only until the end of 2003. The Annex V allows Mexico to maintain promotional measures for the modernisation of its automotive sector—enforced since 1989—until the end of 2003.

The second group refers to the elimination of tariffs (Chapter I), detailing the tariff elimination schedules of each party—Annexes I and II—, defining the base tariff to which import duties will

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7 The institutional framework and its functions are described in section 2.4, below.

8 Article 6 deals with trade in services, and Article 7 refers to the enforcement of the Joint Council Decisions related to trade liberalisation.

9 Article XXIV of the GATT 1994—complemented by an Ad Art XXIV and by an Understanding on the Interpretation of Article XXIV of the General Agreement on Tariffs and Trade 1994; see www.wto.org allows the setting up of regional trading arrangements as a special exception, provided that, in the cases of FTAs or custom unions (CUs), duties and other trade obstacles are reduced or eliminated on substantially all sectors, and that third parties who are not members of the agreement do not worsen their trade access conditions in respect of the situation that they held before the FTA or the CU had been set up.

10 Parties may adopt export restrictions or export customs duties under the Shortage Clause established in Article 16.

be applied in conformity with the Harmonised System Code, and declaring parties' readiness to reduce further their tariff levels—i.e., at a faster rate than that dictated by the original reduction schedule settled in the agreement.

The process of liberalisation of tariffs (Articles 4 to 9) is divided into two main groups: Industrial and Agricultural and Fisheries products, for which different categories have been defined with reduction schedules that vary from immediate elimination of duties to progressive diminution—in different transition periods of up to ten years, and in variable percentages of reduction.

Asymmetry in economic development between Mexico and the EU was recognised by establishing differential tariff reduction schedules and different transition periods in industrial and in agricultural and fisheries products.

Industrial products: Mexico shall eliminate completely its import tariffs by 2007; four categories have been defined, the first corresponding to immediate elimination of tariffs, the second to a four-year period (by 2003), the third to a six-year period (by 2005) and the fourth to an eight-year period (by 2007). The EU shall eliminate completely its imports tariffs by 2003, subdivided into two categories of products: the first corresponding to immediate elimination of tariffs, and the second to a four-year period (by 2003). EU tariff concessions consolidate the preferential access granted to Mexico by the Generalised System of Preferences (GSP). In terms of industrialised products imports value at the year of the conclusion of the agreement, 82% of Mexican exports benefit from immediate elimination of duties to enter the EU market, and the remaining 18% will be totally liberalised by 2003. EU exports of industrial products to Mexico will be liberalised in four phases: 47.6% of the EU imports into Mexico will be eliminated immediately, 5.1% by 2003, 5.6% by 2005, and the remaining 41.7% by 2007.

Agriculture and Fisheries: the calendar of tariff eliminations is gradual and contains a greater number of categories, taking into account the sensitivity of these sectors' products. It also includes tariff quotas and seasonal windows for Mexican exports to the EU of some products—fruit juices, cooked, frozen or preserved fruits, natural honey, avocados, albumins, asparagus, flowers, eggs, peas, tuna, gum and molasses—, which represent about 21% of total export value. Tariffs for both parties will be phased out over a ten-year period, with four schedules of elimination of duties that show differential categories and rhythms of reduction for the EU and for Mexico. For EU exports to Mexico, 27.64% of imports value have immediate free access, 10.86% by 2003, 7.25% by 2008, and 3.80% by 2010; for some products, such as meat, dairy products, cereals and bananas, tariff elimination is deferred and future negotiations will be subject to the provisions in Article 10. On the Mexican side, 58.16% of the country's exports to the European market will benefit from immediate free access, 10.04% will be duty free by 2003, 5.3% by 2008, and 0.64% by 2010[11].

Joint Council Decisions No. 2/2002 of May 2002 and 1/2004 of March 2004, implemented the acceleration of the elimination of tariffs for some products, such as pharmaceuticals, batteries, motor vehicles, inorganic and miscellaneous chemical products.

The chapter on market access includes a Review Clause for Agricultural and Fisheries Products (Article 10), according to which, no later than three years after the decision enforcement, the Joint Council shall: a) consider further steps in the process of trade liberalisation by reviewing, on a case-by-case basis, tariff levels and rules of origin of some categories of agricultural products; b) review tariff quota quantities for some agricultural products subject to this treatment; c) review "the relevant elements in the process of liberalisation of trade" for fisheries products; and review, no later than September 1st 2001, the possibility of opening a preferential tariff quota for tuna loins[12].

b. Rules of Origin

Origin rules are regulated in Annex III of the Joint Council Decision No. 2/2000, which establishes the definitions of originating products, the general disciplines concerning the compliance of origin rules, general and specific rules of origin, and customs procedures, as well

[11] Source: Mexican Secretariat of Economy.

[12] This preferential tariff quota was implemented by the Joint Council Decision No. 2/2004 of April 2004. None of the others has been implemented so far. Additionally, tariff concessions to imports to the EU of products covered by protected denominations — that do not apply (Article 8.10) — will be reviewed in the light of the evaluation of the progress made in the protection of intellectual property rights.

as documentary evidence required by customs authorities for the imported goods to benefit from preferential treatment.

Annex III is complemented by six Appendices:

- Appendix I: Introductory notes of explanation and interpretation of Appendices II and IIa;
- Appendix II: Enunciates general and specific origin rules;
- Appendix IIa: Defines flexibility rules to be applied to some tariff headings with respect to origin rules in Appendix II;
- Appendix III: Describes the EUR.1 movement certificate;
- Appendix IV: Describes the invoice declaration as an alternative procedure of documenting origin and the cases to which it applies;
- Appendix V: Refers to the period of time necessary to supply information for issuing an EUR.1 movement certificate retrospectively[13] and for drawing up an invoice declaration, which will be of two years for the European Community and of one year for Mexico.

The general criterion that defines a product as originating in one of the parties is its condition: either of having been wholly obtained in the exporting party; or if it incorporates materials that were not wholly obtained in the exporting party, then, of having undergone sufficient working or processing in the exporting party.

This notwithstanding, the origin regime is a combination of three criteria that fulfil the condition of sufficient working or processing[14]: (1) the change of tariff heading rule—i.e., the product has been substantially transformed to shift to a different tariff heading to that of the input materials used in its manufacturing—; (2) the minimum value locally added rule, expressed as a minimum given percentage of the former works price of the product, which ranges between 20% and 60%; and (3) a specific requirement in terms of processes that have to be undertaken in the product's manufacture.[15]. This array of rules is detailed in Appendix II, and, for some chemicals, footwear, apparel and clothing, and nuclear fuel elements specified in Appendix IIa, the agreement allows more flexible requirements for a limited transition period[16].

The regime only allows bilateral cumulation[17] of origin, and provides a *de minimis* condition for non-originating materials whose total value does not exceed 10% of the former ex-works price of the product, Chapters 50 to 63 of the Harmonised System (textile and clothing) being exempt from this rule. Additionally, prohibition of drawback of, or exemption from import duties, applies to non-originating materials used in the manufacturing of products that must fulfil origin requirements to be exported from one party to the other.

Self-certification of origin is allowed by way of invoice declarations by approved exporters[18] and for shipments valued at under €6,000. [19] The approved exporter scheme is widely used in the EU, but not in Mexico.

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13 The expedition of an EUR.1 movement certificate retrospectively is regulated in Annex III, Article 17.

14 The criteria applicable to each tariff heading or sub-heading are defined in Appendix II and Appendix IIa; for some products, only one condition has to be fulfilled, while, for other products, a combination of criteria 1 and 2 is required. Other tariff headings or sub-headings must comply with specific requirements (criterion 3).

15 Also called specific-product or specific-process origin rule.

16 As part of the tariff liberalisation programme described above, special treatment is allowed to the Mexican automotive sector in terms of origin requirements: for the first three years, a tariff of 50% of local value added will be imposed on Mexican exports, rising to 60% after this transition period. It must also be noted that the definition of the concept of originating products and methods of administrative cooperation was modified by the Joint Council Decision No. 5/2002 (relating to Annex III to Decision No. 2/2000); and that Joint Committee Decisions nos. 1/2002, 1/2004, 1/2007 and 1/2010 amended the extension of the rule of origin of certain goods, specifically relating to explicatory notes that list the working or processing required to be carried out on non-originating materials for the final manufactured product to be considered as original of one of the parties, it being granted to mid-2014. See section on Identification of Regulatory Changes below.

17 The extent to which production may be aggregated with third countries keeping originating status, for the purpose of the applicable rule of origin.

18 An "exporter who makes frequent shipments of products under this Decision" (Annex III, Article 21).

Finally, in Title VI (Articles 30 to 35), the parties establish a mutual assistance mechanism, the procedures for the verification of proofs of origin, penalties in case of incorrect information provided for the purpose of obtaining preferential treatment, and dispute handling related to the verification of origin—which must be submitted to the Special Committee on Customs Cooperation and Rules of Origin.

c. Safeguards[20]

Article 15 of the Decision No. 2/2000 provides for a Safeguard Clause related to liberalised trade in goods. Safeguard measures can be adopted when imports of one party from the other show an increase that cause or threaten to cause serious injury to the domestic industry in the importing party, assuming that such measures shall not exceed what is necessary to remedy the situation, and should consist of the suspension of applicable tariff rate reduction within the liberalisation programme of the agreement or the increase in tariff rate for the product concerned.

Safeguard measures can be adopted for a maximum period of one year, or three years in very exceptional circumstances. The importing party must offer compensation to the other party, prior to the adoption of the safeguard measure, normally in the form of a substantially equivalent trade liberalisation—e.g., tariff concessions of equivalent trade effects. In the case that the parties do not agree on the offer of concessions, the exporting party can take compensatory tariff action on the condition of having trade effects equivalent to the safeguard imposed by the other party.

d. Standards, Technical Regulations and Conformity Assessment Procedures

Standards, Technical Regulations and Conformity Assessment Procedures are regulated in Article 19 of the Joint Council Decision No. 2/2000. It generically covers technical barriers to trade as defined by the WTO (i.e., the WTO TBT Agreement) that affect, directly or indirectly, trade in goods.

The corresponding provisions can be subdivided into two groups: substantive provisions on the one hand, and procedural provisions on the other hand.

Within the first group, the parties confirm their rights and obligations under the TBT Agreement, i.e., Most Favoured Nation (MFN) treatment, national treatment and transparency obligations, and state their will to intensify bilateral cooperation in this field, including exchange of information and bilateral consultation, promoting the use of international standards and facilitating the adoption of their respective ones. However, there are no commitments going beyond the WTO agreements.

In respect of the procedural provisions, a Special Committee on Standards and Technical Regulations is established. The functions of the Committee include monitoring the implementation and administration of this article, providing a consultation and discussion forum, and enhancing cooperation on the development, application and enforcement of standards, technical regulations and conformity assessment procedures. Remarkably, the intention of working towards the approximation and simplification of labelling requirements, explicitly mentioning the terms applied to leather products to converge with international practices, represents an exhaustive commitment that stands out over the rest of the provisions in this article, even if the wording appears as somehow vague and non-binding. In a similar sense, issues such as the promotion of harmonisation of standards or the implementation of mutual recognition agreements are not present, lessening to some extent the impact of the provisions of this article.

e. Sanitary and Phytosanitary Measures

Article 20 of the Joint Council Decision No. 2/2000 regulating Sanitary and Phytosanitary (SPS) Measures has, to some extent, the same format as the one referred to under standards and

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[19] An interpretation of this and other articles is provided in the "Explanatory notes concerning Annex III of the EC-Mexico Agreement (Decision 2/2000 of the EC-Mexico Joint Council).

[20] It must be noticed that in relation to Antidumping and Countervailing Measures (Article 14), the parties confirm their rights and obligations arising from the WTO Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 and from the WTO Agreement on Subsidies and Countervailing Measures.

technical regulations; i.e. similar substantive and procedural provisions. Regarding substantive provisions, the article essentially alludes to the commitments undertaken by the parties under the WTO Agreement on the Application of SPS Measures.

A Special Committee on SPS Measures is established to deal with the monitoring and application of the corresponding provisions, providing a in which forum to identify and address problems arising from the application of such measures, exchanging information and developing specific provisions related to the application of regionalisation or equivalence assessment.

f. Government Procurement

Government Procurement provisions are contained in Title V (Article 10) of the GA and in Title III (Article 4) of the IA, and in Title III, Government Procurement (Articles 25 to 38) of the Joint Council Decision No. 2/2000.

According to the mandate established in the IA, the abovementioned Decision regulates substantive and procedural conditions to provide each party with access to the procurement markets of the other. The main topics included concern the coverage of the agreed liberalisation, non-discriminatory access to the agreed markets, threshold values, legal and transparent procedures, clear challenge procedures, and the use of information technology.

The agreement covers (Article 25) procurement methods such as purchase, lease or rental, with or without an option to buy, and central purchase entities or utilities, thereby excluding provincial or sub-federal levels[21]. Entities and goods and services covered are listed in Annexes VI, VII, VIII and IX.

Article 26 details the provisions under national treatment and non-discrimination principles, establishing, among other points, that each party will provide "immediately and unconditionally to the products, services and suppliers of the other party, no less favourable treatment than that accorded to domestic products, services and suppliers; and that no less favourable or non-discriminatory treatment shall be given to a locally established supplier because of the foreign affiliation to or ownership by a person of the other party, or of the country of production of the good or service being provided.

In reference to procurement procedures, provisions are included in Article 29, while Annex XII specifies the rules and procedures of each party. These rules and procedures can only be modified if amendments to the corresponding NAFTA or WTO GPA provisions take place, in which case the modifications must maintain equivalent treatment to the other party, otherwise the affected party may have recourse to the dispute settlement mechanism.

Other relevant provisions are those related to bid challenge (Article 30), which grant the suppliers rights to challenge the procedures for awarding contracts, and those on information and transparency (Article 31).

The creation of a Special Committee on Government Procurement is covered in Article 32, which is tasked, among other things, with the evaluation of the effective access of suppliers of a party to procurements of the other party and the monitoring of the application of the provisions of this chapter, as well as with making recommendations for improvement and amendment of the scope of the procurement agreement.

Further negotiations are foreseen between the parties in the case that additional advantages are granted by one of the parties to a third party, with a view to extending such advantages to the other party on a reciprocal basis (Article 37).

g. Competition

Provisions on Competition are regulated in Article 5 of the IA (Article 11 of the GA), and in Title IV of the Joint Council Decision No. 2/2000 (Article 39 and Annex XV).

[21] As correctly pointed out by some authors, due to the fact that Mexico is not a member of the WTO Government Procurement Agreement, and because a parity level of procurement access with NAFTA was a key interest for the EU, the agreement was modelled on NAFTA provisions on the Mexican side and on WTO GPA on the European side. See, for example, Philippe De Lombaerde (2003), pp. 107.

The IA and the GA state that measures to be adopted by the parties regarding competition policy aim "to prevent distortions or restrictions of competition that may significantly affect trade between Mexico and the Community." To this end, the parties must establish mechanisms of cooperation and coordination among the competent authorities, in respect of agreements between undertakings, abuse of a dominant position, mergers between undertakings and state monopolies, among other competition-related topics.

The regulatory framework instituted in Annex XV contains very detailed provisions that are in contrast with the rest of the – much more general – provisions related to other trade disciplines regulated in the agreement. A complete set of guidelines for competition authorities to follow in the execution of enforcement activities that affect competition is arranged. Even if the obligations so created are not enforceable (in the sense that they are not legally binding for the parties, nor allow the recourse to the dispute settlement mechanism in case of an alleged breach of any of the competition provisions), the parties are obliged to:

- adopt or maintain measures aimed to prevent or eliminate anti-competitive conduct;
- to take enforcement actions in respect of these measures; and
- to mutually cooperate through notifications, consultations and exchange of information.

Chapter I of Annex XV contains the General Provisions: Article 1 details the objectives of the mechanism, defining that the parties will apply their respective competition laws in order to prevent anti-competitive activities, and Article 2 defines competition laws and competent authorities, as well as enforcement and anti-competitive activities. Chapter II contains provisions pertaining to notifications, exchange of information, coordination of enforcement activities, consultations, avoidance of conflicts, confidentiality and technical cooperation.

The process of notification (Article 3) encompasses situations in which one party should notify the other about its enforcement activity, particularly when such enforcement activity is relevant to enforcement activities of the other party or affect its interests. The purpose of such notification is to allow the notified party to make an informed evaluation of the proposed actions of the notifying party and their effects. Exchange of information, regulated in Article 4, provides for the facilitation of an effective implementation of competition policy by each of the parties.

The other two important provisions of Annex XV relate to the coordination of enforcement activities (Article 5) and the avoidance of conflicts (Article 7). The first set of provisions allows the coordination between competition authorities in relation to specific cases, notwithstanding that each of the parties' authorities can take autonomous decisions. The second one establishes that each party "shall (…) take into consideration the important interests of the other Party in the course of its enforcement activities", seeking a "mutually acceptable solution" when adverse effects result for one party from the enforcement activity of the other party.

Finally, Article 9 provides for mutual technical assistance focused on the strengthening of the implementation of competition laws and policies, among other activities, through training, joint studies on competition laws and policies, and dissemination of information through their respective Web pages.

h. Trade in Services

Services liberalisation is addressed in the Joint Council Decision No. 2/2001 (Title II, Trade in Services, Articles 2 to 27[22]), according to the mandate stated in the IA (Trade Liberalisation, Article 2), and in the Joint Declaration included in the Final Act,[23] authorising the European Commission to negotiate the issues under the competence of the member states—services, among them—without the previous approval of the GA.[24]

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[22] The Decision includes two Annexes: Annex I containing the list of non-conforming measures (or reservations) corresponding to the "negative-list" approach adopted in the negotiation of financial services liberalisation; and Annex II, which specifies that the authorities responsible for Financial Services (referred to in Articles 23 and 24, on the constitution of the Special Committee on Financial Services and consultations).

[23] See Background, chronology and overview of the EU-Mexico FTA, at the beginning of this section.

[24] It is to be noticed that the IA does not mention services liberalisation as part of the objective of trade liberalisation, as its Article 2 refers to the establishment of "a framework to encourage the development

The process of liberalisation of trade in services covers all four modes of services supply[25] and all sectors, with the exception of those sectors that are usually excluded, such as audio-visual, air transport and maritime cabotage. The process should be "in accordance with the relevant WTO rules, in particular, Article V of the General Agreement on Trade in Services (GATS),"[26] thereby making provision for its three general principles on market access, Most Favoured Nation (MFN) treatment and national treatment.

Under the principle of market access (Article 4), the parties agree that they shall not maintain nor adopt limitations on the number of services suppliers, on the total value of services transactions or service operations, on the total number of persons employed, or on the participation of foreign capital; the same provisions are enacted for Financial Services (Article 12).

Under the principle of MFN (Article 5 and Article 15 for Financial Services), the parties commit to treat each other's services suppliers or financial services suppliers in a manner no less favourable than that granted to like services or financial services suppliers of any third country. A reservation is made for treatment to third parties with whom a separate agreement has been signed and notified under Article V of the GATS, and, at the same time, such a treatment can be negotiated in the case of future agreements with third parties.

Finally, the principle of national treatment specifies that service suppliers from one party shall receive a treatment no less favourable than the treatment given to domestic services suppliers.

Two important points must be observed in respect of the liberalisation process. On the one hand, a standstill clause is established (Article 7.2) that prevents the parties from introducing or increasing discrimination, i.e., a commitment to maintain the level of openness achieved at the moment of the enforcement of the agreement by consolidating the domestic legislation. On the other hand, a commitment is undertaken to adopt a decision "providing for the elimination of substantially all remaining discrimination (…) in the sectors and modes of supply covered by this Chapter," no later than three years following the enforcement of the agreement (Article 7.3, and a similar commitment for Financial Services, in Article 17.3). These commitments have not yet been implemented.

Article 9, in a similar sense, instructs the Joint Council to settle the procedures needed to ensure the mutual recognition of requirements, qualifications, licences and other regulations necessary for the authorisation, licensing, operation and certification of services providers, within a three-year period. In January 2008[27] the Joint Council decided to "encourage the relevant representative bodies (…) to provide the Joint Committee with recommendations on mutual recognition." After reviewing and validation of these recommendations by the Joint Committee, their implementation should be negotiated by the parties.

Finally, on the procedures side, a Special Committee on Financial Services is created (Article 23) to supervise the implementation of the corresponding chapter, and to consider financial services issues referred by the parties and the application of measures listed in Annex I. In addition, a consultation process is considered in Article 24, regarding any matter related to this chapter.

of trade in goods and services, including a bilateral and preferential, progressive and reciprocal liberalisation of trade in goods".

25 That is, according to GATS: cross-border trade, consumption abroad, commercial presence, and presence of natural persons.

26 Article 6 of the GA.

27 Joint Council Decision No. 1/2008: Implementing Article 9 of Joint Council Decision No. 2/2001 of February 27th 2001, on the establishment of a framework for the negotiation of mutual recognition agreements.

i. Investment and Related Payments

EU-Mexico FTA Investment related provisions are regulated in Decision No. 2/2001 of the EU-Mexico Joint Council, according to the mandate of Article 9 of the GA, to adopt the measures to liberalise investment and related payments between the parties. The specific provisions are included in Title III, Investment and Related Payments, Articles 28 to 35 of said Decision.

In general terms, there are no investment provisions other than those related to payments and capital flows, since the coverage of investment promotion and protection provisions themselves is left to bilateral investment treaties (BITs) between Mexico and individual Member States.[28] Nevertheless, other substantive investment-related provisions are regulated in the chapters on financial services, under the commitments undertaken by the parties in the GATS.

Within the general framework, the provisions related to the investment promotion clause (Article 33 of the Decision No. 2/2001) refer to: information mechanisms on legislation and investment opportunities; the objective of reaching uniform and simplified procedures; and investment promotion addressed to SMEs, as instruments for encouraging reciprocal investment. Liberalisation of investment-related payments and capital movements are explicitly associated with direct investment, investment in real estate and purchase and sale of securities (Article 28). With the exception of situations in which serious difficulties for exchange-rate policy or balance of payments exist, all restrictions on payments shall be progressively eliminated, introducing a standstill clause on any new restrictions (Articles 29 to 31). In addition, both parties invoke their international investment commitments, particularly the OECD Codes of Liberalisation (Article 34), even if this provision is excluded from the dispute settlement mechanism (Article 37).

Regarding the other substantive investment-related provisions, these arise from the commitments adopted within the GATS framework by the parties and specifically refer to the principles of market access and MFN and National treatments. These provisions - described in detail in the previous paragraphs[29] - include, for instance, prevention of pre-admission requirements for investment by foreign service suppliers to access to the market of one of the parties, and restrictions to the amount of foreign capital invested in domestic companies or to individual or aggregate foreign investment.

Finally, Article 35 introduces a Review clause, according to which the parties commit themselves to "review the investment legal framework, the investment climate and the flow of investment between their territories consistent with their commitments in international investment agreements, not later than three years after the entry into force of this Decision." So far, this clause has not been implemented.

j. Intellectual Property Rights

Intellectual Property Rights (IPR) are regulated in Title V (Article 40) of the Joint Council Decision No. 2/2000 and in Title IV (Article 36) of the Joint Council Decision No. 2/2001, according to the provisions established in the GA (Title V, Article 12).

General principles stated in Article 12 of the GA cover the protection of patents, industrial designs, geographical indications—including designation of origins—, trademarks, topographies of integrated circuits, copyright—including copyright in computer programmes and databases—, and protection against unfair competition and of undisclosed information. It establishes that both parties must undertake "the appropriate measures, with a view to ensuring an adequate and effective protection in accordance with the highest international standards, including effective means to enforce such rights."[30] The Joint Council is mandated to constitute a consultation mechanism among the parties and the measures to ensure compliance with these objectives by means of the adhesion to the relevant multilateral conventions on intellectual property rights.

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[28] Mexico has signed Bilateral Investment Treaties with the following members of the EU: Austria, Belgium (and Luxemburg), Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Slovakia, Spain, Sweden, and the United Kingdom.

[29] See paragraph h. Trade in Services.

[30] GA, Article 12.

According to this mandate, the Joint Council established a Special Committee on Intellectual Property Matters[31] "with a view to reaching mutually satisfactory solutions to difficulties arising in the protection of intellectual property."[32] In addition both parties agreed[33] on their obligations related to multilateral conventions on intellectual property, namely:

- the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs);
- the Paris Convention;
- the Berne Convention;
- the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations;
- the Patent Cooperation Treaty; and
- the UPOV Convention (Protection of New Varieties of Plants).

Additionally, the parties took the commitment to accede immediately to the Nice Agreement (International Classification of Goods and Services for the purposes of the Registration of Marks), and, within a three-year period, to the Budapest Treaty (International Recognition of the Deposit of Microorganisms for the purpose of Patent Procedure), while declaring that they will "make every effort" in respect of their accession to the WIPO Copyright Treaty of 1996 and the WIPO Performances and Phonogram Treaty of 1996.

The abovementioned rules and commitments do not include specific provisions on control of abusive or anti-competitive practices, on enforcement of intellectual property rights, or on procedural and remedial aspects of civil and administrative procedures—as, for instance, are included in NAFTA. Therefore, the regulations of this chapter of the agreement appear restricted to the general principles to be complied with by both parties.[34]

k. Dispute Settlement

Dispute settlement is regulated in Title VI of the Joint Council Decision 2/2000 and in Title V of the Joint Council Decision 2/2001. Its provisions apply to matters related to trade in goods and services, capital movement and payments, public procurement and competition. Arbitration procedure, however, is *not applicable* to matters related to:

- the WTO agreements on antidumping, on subsidies and countervailing measures, on TBT and on SPS;
- measures adopted because of balance of payments difficulties;
- the constitution of free trade areas and custom unions with third parties;
- mutual recognition of requirements, qualifications, licences and other regulation agreements in trade in services, in conformity with Article VI of GATS;
- intellectual property rights; and
- international commitments on investment undertaken by the parties.

The instrument considers only government-to-government process, and does not include any provision for dispute settlement between private parties.

The mechanism envisages a consultation process between the parties within the Joint Council, which allows 30 days to resolve any dispute on the application or interpretation of legal instruments covered. This resolution shall adopt the form of a Joint Council Decision, specifying the implementing measures to be taken by the party concerned, as well as the time period in which this must be done.

Once the consultation process has been exhausted, the concerned party can request the establishment of an arbitration panel, detailing the measure and provisions of the legal instruments covered in respect of which the dispute is claimed.[35] Three arbitrators are

[31] Title V (Article 40) of the Joint Council Decision No. 2/2000.
[32] Including intellectual property rights enforcement issues.
[33] Title IV (Article 26) of the Joint Council Decision No. 2/2001.
[34] Some enforcement problems have arisen in the field of Geographical Indications, and others concerning counterfeiting and piracy goods in some manufacturing sectors, on which the documents consulted report no progress or positive outcomes from the Special Committee.
[35] Annex XVI outlines the Model Rules of Procedure for arbitration panel proceedings.

appointed—one by each party and a third, to act as a chair, to be agreed on by both parties—to constitute the panel. The panel must submit an initial report with its findings and conclusions to the parties, and the parties may submit written comments to the panel. A final report from the panel must be issued no later than six months after the convening of the panel (four months if the case involves perishable goods).

The measures to implement the final report are binding for the party concerned, and must be implemented immediately or within a term to be agreed upon by both parties.

In the case that the party concerned fails to implement the measures or these are inconsistent with the final report, a consultation process will be started with the aim of agreeing on a mutually acceptable compensation. If this agreement is not reached, the complaining party is entitled to retaliate, consisting of the suspension of benefits corresponding to the legal instruments equivalent to those affected by the measure object of the dispute, preferably in the same sector or sectors affected.

As part of the general provisions, it is stated that arbitration proceedings under this ruling will not consider issues related to WTO rights and obligations of the parties, and that the parties' recourse to it shall be without prejudice of actions under the WTO dispute settlement system. Nevertheless, the provision also establishes that, once a settlement procedure under one of the mechanisms is initiated, the complaining party cannot have recourse to the alternative forum until the proceedings of the chosen forum have been concluded.

2.2. Analysis of the FTA context

This section will consider two relevant issues related to the significance of the EU-Mexico FTA.

On the one hand, it is important to review the context in which the agreement has been signed, as well as Mexico's trade policy at the time of its negotiation and entry into force, and during the period covered by the present study.

On the other hand, other trade agreements by Mexico are briefly analysed in order to establish a comparison with the EU-Mexico FTA, having first outlined comparison criteria based on key elements of each agreement, e.g., trade and investment flows, coverage of tariff liberalization, transition periods, and other provisions related to trade disciplines and to their institutional framework.

2.2.1. General context and Mexican trade policy

The Mexican economic crisis at the beginning of the 1980s marked the launch of a structural reform of trade policy (as part of a larger economic reform process), developed over three identifiable phases:

1. Unilateral liberalisation;
2. Strengthening of the liberalisation process through the commitments assumed by Mexico in its accession to the GATT;
3. Building a wide network of FTAs.

The first phase, unilateral trade liberalisation, can, in turn, be subdivided into several consecutive steps. In the first half of the 1980s, import restrictions—i.e., prior import permits and import licences—were eliminated, followed by the start of the reduction in import tariff levels, so that quantitative restrictions were reduced to apply to only a third of total imports, and there was consequently a slight reduction in the average tariff. During the second half of the 1980s, trade reforms deepened, with further elimination of import restrictions and tariff reductions.

Mexico's accession to the GATT represented a strong commitment, more as a sign of the consolidation of trade policy reform than in terms of additional liberalisation of trade flows. Moreover, under the economic stabilization programme undertaken in 1987, further cutbacks in import tariffs and the continuation of the decline in quantitative import restrictions coverage —

driven by the necessity of inflation control — were introduced. This resulted in an average tariff level of 10% and less than a third of total imports being made subject to import licences.

By the end of the 1980s, the incoming administration of President Carlos Salinas de Gortari made a shift in trade policy, mostly obeying macroeconomic policy needs, rather than owing to a change in Mexico's vision concerning its integration into the world economy. A set of tariff measures was put in place, with the declared aim of eliminating tariff dispersion, thereby leading to an increase in average protection rates, responding to the fiscal needs of the new government—i.e., to raise government revenue by expanding the tax base. Together with these changes, Mexican trade policy focused on consolidating the benefits of the accession to GATT, while tentative steps were taken toward closer integration with the US, through exploring the possibility of sectoral agreements.

The changes in the international context at the beginning of the 1990s implied that deeper trade integration would be necessary in order to attract foreign investment. This is commonly seen as one of the main factors motivating Mexico to enter into the negotiation of the North American Free Trade Agreement (NAFTA) with the US and Canada. The negotiation and conclusion of NAFTA mark the beginning of the third phase in Mexico's trade policy reform, which began in the early 1980s.

When NAFTA entered into force at the beginning of 1994, it was not only the largest FTA in the world, but also an ambitious agreement including trade related disciplines that had, to that date, not been part of this type of agreement. Besides the elimination of tariff and non-tariff barriers—which were extended to the agricultural sector — NAFTA incorporated liberalisation of trade in services, and important commitments in terms of investment flows, public procurement, intellectual property rights and a dispute settlement mechanism, protecting the rights of the signatory parties, as well as those of private investors and exporters. Furthermore, environmental and labour clauses were agreed by (1) the creation of a Commission for Environmental Cooperation to coordinate efforts to develop and implement protection programmes for certain species; and (2) a formal process through which the public could raise concerns about labour law enforcement directly with governments, and the undertaking of cooperative programmes on industrial relations, occupational health and safety, child labour, gender equality, and protection of migrant workers.

Undoubtedly, not only the trade and economic results of the agreement, but also the implementation of its commitments, contributed strongly to the deepening of Mexico's trade policy reforms and its progressive consolidation. Consequently, for example, as per 2013 statistics, NAFTA total trade in goods was worth US$1,138.9 billion, representing an increase of 289.2% since 1993 (US$292.6bn). Trade in services reached US$ 133.5 billion in 2012 — representing growth of 204.1% in comparison with 1994. FDI flows increased by 88.7% between 1994 and 2011—a percentage that is above the growth rate for total FDI within the same period — reaching a value of US$10.7billion.[36]

Pursuant to this policy, Mexico agreed on similar treaties with other countries and regional blocs, becoming the Latin American country with the largest number of trade agreements: 12 FTAs and a number of partial scope trade agreements within the framework of the Latin American Integration Association (LAIA) — see Table 2.1, below. Mexico's trade growth shows the significance of its trade agreements network in the context of the above described trade policy. According to the WTO, by 2011, 81.3% of Mexico's overall trade in goods was with countries with which Mexico had trade agreements, a more than impressive number, even if most of it results from the exchange of goods with its NAFTA partners (67%).[37]

It is clear that this third phase shows the building-up of a network of trade agreements as a key element in Mexico's trade strategy, and also that it has consistently been embedded into its trade policy as a whole—together with unilateral liberalisation and trade policy reforms — during the period under study.

[36] WTO (2014), Villarreal and Fergusson (2014) pp. 9-11 and pp. 17-18, Gary Hufbauer and Gustavo Vega (2002), pp. 5-8, and Mexico Secretariat of Economy.
[37] WTO (2013a) pp. 31 and ss.

Moreover, actions taken in parallel with the above must be considered to substantiate further this conclusion. The gap between preferential and Most Favoured Nations (MFN) tariffs in conjunction with the composition of trade flows — i.e., the relative share of trade under preferential and non-preferential tariffs — became a source of distortions negatively affecting competitiveness, trade administration efficiency and customs transparency. The observed distortions — confronting a MFN average tariff for manufactured products of 15.6% in 2003 with very low or zero preferential tariffs, even if applied to a smaller portion of total trade — was negatively affecting competitiveness to the extent that higher levels of MFN protection put domestic users of imported inputs originating from countries outside the trade agreements network at a disadvantage compared to their competitors in markets with preferential access. In addition, there were inconsistencies in the tariff structure, where imported inputs were subject to duties that were actually higher than the ones applied to the final products. On the other side, tariff dispersion, along with the proliferation of different trade regulations under trade agreements, were some of the causes that generated incentives for smuggling, tax avoidance and evasion, and other corrupt practices. This concerned temporary imports and preferential *ad valorem* tariffs permitted on domestic promotion programmes[38], antidumping and countervailing measures, safeguards and import permits, etc.

Aware of the negative impacts of these distortions, Mexico in 2009 embarked on a new process of unilateral liberalisation, which essentially reduced or eliminated MFN tariffs to 8.357 tariff headings of the Mexican nomenclature. This reform is considered by most analysts as the most ambitious unilateral liberalisation policy undertaken by a Mexican administration. Tariff reductions were applied in several stages between 2009 and 2012, and represented a decline of the tariff average for non-agricultural[39] merchandises imports from 10.4% to 4.3%.

Table 2.1 Trade Agreements signed by Mexico[40]

Agreement – Signatory Countries / Regional Blocks	Enforcement Date	Type of Agreement
North American Free Trade Agreement (NAFTA). Mexico – US – Canada	January 1st 1994	FTA – Goods and Services
Mexico – Costa Rica[41]	January 1st 1995	FTA – Goods and Services
Mexico – Nicaragua[42]	July 1st 1998	FTA – Goods and Services
Mexico – Chile[43]	August 1st 1999	FTA – Goods and Services
Mexico – EU	July 1st 2000 (Goods) March 1st 2001 (Services)	FTA – Goods and Services
Mexico – Israel	July 1st 2000	FTA – Goods
Northern Triangle FTA El Salvador – Guatemala – Honduras[44]	March 14th 2000 (Guatemala & El Salvador); June 1st 2001 (Honduras)	FTA – Goods and Services
Mexico – European Free Trade Association (EFTA)	July 1st 2001	FTA – Goods and Services
Mexico – Uruguay[45]	July 15th 2004	FTA – Goods and Services

38 For example: PROSEC (2002) sectoral promotion programmes; and IMMEX (2006) promoting manufacturing, *maquila* and the export services sector. See Section 2.3 "Identification of Regulatory Changes".

39 Chapters 1 to 24 of the Harmonized System, corresponding to agricultural products, were excluded from the reform.

40 Sources: Own elaboration based on WTO (2013a), OAS-SICE, World Bank Library, and Mexico Secretariat of Economy.

41 Replaced by the Central America FTA.

42 Ibid.

43 Deposited at the Latin American Integration Association (LAIA) under the designation AAP.CE No. 41 (Partial Scope Economic Complementarity Agreement No. 41).

44 Ibid.

45 A previous Partial Scope Economic Complementarity Agreement signed within the framework of the Latin American Integration Association (LAIA) – AAP.CE No. 5, enforced on March 1st 2001 – was replaced by this agreement, which was also deposited at LAIA under the designation AAP.CE No. 60 (Partial Scope Economic Complementarity Agreement No. 60). Other sectoral LAIA agreements between Mexico and Uruguay – designated as Partial Scope Commercial Agreements (AAP.C), in chemical, recording, electronic, and photographic industries – were also absorbed by the AAP.CE No. 60.

Agreement – Signatory Countries / Regional Blocks	Enforcement Date	Type of Agreement
Mexico – Japan	April 1st 2005	FTA – Goods and Services
Mexico – Bolivia[46]	June 7th 2010	FTA – Goods
Mexico – Colombia[47]	August 2nd 2011	FTA – Goods and Services
México – Central America (El Salvador – Nicaragua – Honduras – Costa Rica – Guatemala) FTA	September 1st 2012 (El Salvador and Nicaragua); September 1st 2013 (Guatemala); July 1st 2013 (Costa Rica); January 1st 2013 (Honduras)	FTA – Goods and Services
Mexico – Peru[48]	February 1st 2012	FTA – Goods and Services
Mexico – Panama[49]	Pending[50]	FTA – Goods and Services
Mexico – Ecuador	December 14th 1987	LAIA[51] – Partial Scope Agreement on the Renegotiation of the Historical Heritage (AAP.R No. 29).
Mexico – Paraguay	July 1st 1994	LAIA – Partial Scope Agreement on the Renegotiation of the Historical Heritage (AAP.R No. 38).
Mexico – Uruguay[52]	December 29th 1999	LAIA – Partial Scope Economic Complementarity Agreement (AAP.CE No. 5).
Mexico – Cuba	February 28th 2001	LAIA – Partial Scope Economic Complementarity Agreement (AAP.CE No. 51).
Mexico – Argentina	June 1st 2001	LAIA – Partial Scope Economic Complementarity Agreement (AAP.CE No. 6).
México – MERCOSUR[53] (Argentina, Brazil, Paraguay, Uruguay)	January 1st 2003[54]	LAIA – Partial Scope Economic Complementarity Agreement (AAP.CE No. 55). Automotive sector
Mexico – Brazil	May 2nd 2003	LAIA – Partial Scope Economic Complementarity Agreement (AAP.CE No. 53).
México – MERCOSUR (Argentina, Brazil, Paraguay, Uruguay)	January 5th 2006	LAIA – Framework Agreement, the objective of which is to create a Free Trade Area. Deposited at LAIA as

46 The Mexico-Bolivia FTA – signed in September 1994, deposited at the LAIA as Partial Scope Agreement No. 31, and enforced in January 1995 – was replaced by this new agreement, deposited at the LAIA as Partial Scope Economic Complementarity Agreement No. 66.

47 The agreement was originally deposited at the LAIA under the designation AAP.CE No. 33 (Partial Scope Economic Complementarity Agreement No. 33). This agreement, whose signatory countries were Colombia, Mexico and Venezuela, entered into force in January 1995. In November 2006 Venezuela formally denounced the agreement, which remained in effect for Mexico and Colombia. Between 2009 and 2011 negotiations were held to expand the scope of the agreement, which finally entered into force in January 2011, adding provisions on market access, origin rules, and administrative institutions.

48 Deposited at the LAIA under the designation AAP.CE No. 67 (Partial Scope Economic Complementarity Agreement No. 67).

49 Mexico and Panama signed a Partial Scope Agreement (AAP. A25 No. 14; April 24 1986) under the Article 25 of the LAIA. Article 25 establishes that preferences granted by the parties in the agreement to non LAIA members are automatically extended to LAIA member countries of "relatively lower economic development", namely, the Plurinational State of Bolivia, Ecuador and Paraguay.

50 The agreement was signed on April 3rd 2004; not yet enforced.

51 Latin American Integration Association. The LAIA was instituted by the Montevideo Treaty of 1980. Its country members are: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, Venezuela, Cuba (accessed in 1999), and Panama (accessed in 2012).

52 Replaced by Mexico-Uruguay FTA.

53 Common South Market. This agreement will be terminated when replaced by a Mexico-MERCOSUR FTA (according to the provisions established by the LAIA-AAP.CE No. 54).

54 Mexico-Paraguay, enforced since February 1st 2011.

Agreement – Signatory Countries / Regional Blocks	Enforcement Date	Type of Agreement
		Partial Scope Economic Complementarity Agreement (AAP.CE No. 54)[55].
México – Bolivia, Paraguay and Ecuador	April 30th 1983	LAIA – Regional Market Opening AR.AM No. 1, 2 and 3[56]
Mexico – LAIA countries	April 27th 1984	LAIA – Regional Tariff Preference Agreement[57] AR.PAR No. 4

2.2.2. Comparison of Mexico's FTAs

Two preliminary conclusions emerge from the preceding analysis. The first is that the Mexican strategy of multiplying its commercial partners through trade negotiations with third countries is, and continues to be, a key element of Mexican trade policy. And since, in this context, tariff barriers do not appear as the main issue to be negotiated, trade-related disciplines will be the centre of the agreements currently under negotiation and of those coming in the future, probably going or trying to go beyond WTO standards, as long as the WTO Doha Round keeps its present pace of progress.

The second conclusion concerns the fact that trade-offs to be taken into account are obviously neither the same as when the EU-Mexico FTA was signed, nor have they the same significance for both parties, in the sense that defensive and aggressive negotiation positions will not be as distinct as they were at that time. The comparison of the EU-Mexico FTA with other FTAs that Mexico has negotiated must be viewed in the light of this premise.

This notwithstanding, a brief descriptive analysis of trade agreements signed by Mexico with third parties or currently under negotiation is the first step to constructing a comparison between the EU-Mexico FTA and other relevant Mexican FTAs, as well as to establishing some basic criteria to support such a comparison.

Mexico is the most prolific signer of trade agreements among Latin American countries: a total of 20 trade agreements have been negotiated with third parties — regional blocks as well as individual countries[58] — and most of Mexico's trade is with countries with which it has trade agreements. Of Mexico's total trade, trade within the framework of trade agreements represents 81.4%, of which 67% corresponds to the US and Canada (NAFTA), 14.3% to other FTAs — of which the EU-Mexico FTA represents 56.6%, equivalent to 8.1% of Mexico's total trade — and 2.2% to other trade agreements (i.e. preferential partial scope agreements).[59]

Trade agreements signed by Mexico during the period of this study can be grouped into three categories:

- Preferential — partial scope — agreements;
- Free Trade Agreements;
- Trade initiatives currently under negotiation.

The following table (Table 2.2) shows the basic trade figures between 1994[60] and 2013.

55 The Mexico-MERCOSUR Framework Agreement includes (Article 2º) all the agreements signed or to be signed between Mexico and the MERCOSUR country members (Argentina, Brazil, Paraguay, Uruguay) under the Montevideo Treaty of 1980.

56 Unilateral tariff preferences conceded to these countries, considered as less developed countries within the LAIA framework.

57 LAIA members grant, on a reciprocal basis, a tariff preference on trade on goods. All tariff lines are covered, except for those in the list of exceptions drawn up by each country.

58 See Table 1.

59 Source: Mexico Secretariat of Economy, data for 2011.

60 Independently of the enforcement date of each trade agreement (see Table 1 below), 1994 has been considered as the base year for the comparison.

Table 2.2 Mexico trade by type of trade agreement 1994-2013[61]

AGREEMENTS / TRADE VALUE[62] SELECTED YEARS	1994	2013	% Variation and Share	
	US$ m		2013-1994	%
MEXICO TOTAL TRADE[63]	117,199.0	761,306.0	549.6	100.0
MEXICO FREE TRADE AGREEMENTS				
NAFTA	90,890.0	506,325.0	457.1	66.5
Costa Rica[64]	122.0	4,151.0	3,302.5	0.5
Nicaragua[65]	100.0	1,408.0	1,308.0	0.2
Chile	1,288.0	3,523.0	173.5	0.5
EU	18,344.0	63,121.0	244.1	8.3
Israel	215.0	728.0	238.6	0.1
Northern Triangle[66]	1,153.0	3,993.0	246.3	0.5
EFTA	901.0	3,020.0	235.2	0.4
Uruguay	136.0	592.0	335.3	0.1
Japan	11,774.0	19,317.0	64.1	2.5
Bolivia	32.0	231.0	621.9	0.0
Colombia[67]	427.0	5,647.0	1,222.5	0.7
Peru	264.0	2,356.0	792.4	0.3
Panama[68]	208.0	1,064.0	411.5	0.1
LAIA Framework Partial Scope Agreements	2,225.0	14,358.0	545.3	1.9
Rest of the World	6,534.0	129,219.0	1,877.6	17.0

Comparison with the EU-Mexico FTA

Only a few of the existing trade agreements are strictly comparable to the EU-Mexico FTA: NAFTA, and the Mexico FTAs with Chile, Colombia and Peru. These FTAs have a set of trade-related provisions beyond liberalisation of trade through tariff elimination, and are equivalent in terms of deepening integration. In addition, these countries are all member of the Pacific Alliance[69] and the Trans-Pacific Partnership Agreement[70]. In the rest of this section, the main provisions of each one of these agreements will be analysed in contrast with the provisions established by the EU-Mexico FTA, underlining their differences, where they exist.

Concerning the abovementioned FTAs, the criteria of relative importance of trade and investment flows are strongly biased in favour of NAFTA. As shown in Table 2.3 below, trade flows with the EU and NAFTA represent 75% of Mexico's total trade, and 67.3% of total FDI. Coverage of tariff liberalisation is above 95% of tariff lines for the FTAs with EU, NAFTA, Colombia, Chile, Central America and Uruguay, and below that percentage for the rest — Peru, Japan, the EFTA countries, Bolivia and Israel are included in this subgroup. In addition, it must be remembered that Israel and Bolivia FTAs only cover trade in goods, and that Panama FTA is still not enforced.

61 Sources: Own elaboration based on WTO (2013a), OAS-SICE, World Bank Library, and Mexico Secretariat of Economy.
62 Exports + Imports.
63 Due to the fact that figures for Mexico Free Trade Agreements with third parties include some of the individual countries with bilateral FTAs, Mexico Total Trade figure does not match the sum of FTA's trade values.
64 Part of the Mexico-Central America FTA since July 2013 (see Table 2.2 below).
65 Part of the Mexico-Central America FTA since September 2012 (see Table 2.2 below).
66 Replaced by the Mexico-Central America FTA (see Table 2.2 below).
67 Until November 2006, Venezuela was part of this agreement (see Table 2.2 below).
68 Enforcement still pending (see Table 2.2 below).
69 The Pacific Alliance is described as an initiative of regional integration comprising Chile, Colombia, Mexico and Peru. The agreement entered into force on July 20th 2015 (Framework Agreement of the Alliance) and its Trade Protocol was enforced on May 1st 2016.
70 The Trans-Pacific Partnership Agreement negotiations concluded on November 18, 2015, and the agreement was signed on February 4, 2016 by the following countries: Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States, and Vietnam.

A supplementary criterion for the selection appears to be suitable for the purposes of the comparison: together with Chile, Colombia and Peru, Mexico is a member of the Pacific Alliance and is also part of the Trans-Pacific Partnership Agreement, with Chile and Peru, and other eight countries.

Table 2.3 FTAs Relevant to Mexico: Main Indicators Comparison[71]

	Free Trade Agreements				
Indicators	**EU**	**NAFTA**	**CHILE**	**COLOMBIA**	**PERU**
Tariff Liberalisation Coverage[72]	97.0%	99.5%	99.2%	96.3%	82.3%
Percentage of Mexico's Total Trade	8.1%	67.0%	0.6%	0.9%	0.3%
Percentage of Total Foreign Direct Investment	12.4%	54.9%	0.0%	0.0%	0.3%

Two additional considerations must be made before entering into the comparison analysis:

1. Including NAFTA provisions on trade liberalisation in goods and services, but also trade-related disciplines that, in most of the cases, are of the so-called WTO-plus provisions, implies that all FTA negotiated by Mexico after NAFTA could embrace these commitments without practically affecting its trade policy configuration. In other words, the agreements within this category and, hence, subject to comparison in this study, do not represent or imply significant changes in Mexican trade policy.
2. The second consideration relates to the EU Generalized System of Preferences (GSP)[73] and how Mexico's benefits under it were affected by the negotiation of the EU-Mexico FTA. At the time of the EU-Mexico FTA negotiations, Mexico was one of the beneficiaries of the GSP, a system through which the EU, like other developed countries, unilaterally grants tariff preferences on MFN tariff levels to developing countries, under certain conditions that are set out in the corresponding GSP regulations.

In general terms, the GSP grants preferential treatment to EU imports originating from beneficiary countries under four categories[74] of margins of preference, according to "goods sensitivity": a 15% preferential margin for very sensitive products, 30% for sensitive products, 65% for semi-sensitive products, and 100% for non-sensitive products. As mentioned by Zabludovsky and Gómez Lora[75], the changes introduced by the amendment of 1994 made the preferences received by Mexico practically irrelevant. According to these authors, while 70% of Mexican exports had been considered as non-sensitive before the amendments to the GSP enforced since January 1995, only 20% fell under this category from that year onwards, since 80% of Mexican exports were thenceforth considered as semi-sensitive, sensitive or very sensitive.[76]

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71 Sources: Own elaboration. Statistics on trade and investment: Mexico Secretariat of Economy.

72 Percentage of tariff lines subject to tariff liberalisation under the agreement.

73 Also called Generalized Scheme of Preferences.

74 Scheme amended in 1994, for the period 1995-2004, enforced since January 1st 1995. This review introduced major changes in respect of the basic features of the precedent regulations. In addition, two other features were introduced: the country-sector graduation, determining that products imported from beneficiary countries exceeding 15% of EU imports of that product (12.5% for textiles and textile articles) result in the cessation of benefits for the exporting country; and special incentive arrangements for the protection of labour rights, of the environment and combating drug production and trafficking. These two features, however, are not relevant to the present argument.

75 Jaime Zabludovsky and Sergio Gómez Lora (2005) pp. 3-5. See also Cuyvers and Soeng (2012) pp. 65-71.

76 A more accurate view of the magnitude of these changes is also shown by Zabludovsky and Gómez Lora. Before the modifications of the GSP, manufactures exports to the EU represented 58% of Mexico's total exports to the European market—petroleum (30%) and agricultural and other raw materials (12%). As 70% of those exports received the benefit of GSP and the remnant could be exported free of MFN tariffs, all manufactured products were exported to the EU duty free. Additionally, for exports of sensitive products, quantitative import restrictions imposed by the former scheme — e.g., exports from Mexico below the quantitative limitation entered the EU market duty free — and as Mexico did not

The nature of the GSP implies unilateral concessions and are only subject to the goodwill of the donor. In addition, the proliferation of trade agreements of the EU with third parties progressively eroded the preferences that Mexico received under the scheme. These two elements are among the main drivers for Mexico's negotiating an FTA with the EU.

Apart from the above, taking GSP-applied tariffs to Mexican exports as base tariffs for the tariff elimination schedule deepened and made permanent the preferential tariff treatment enjoyed by Mexico[77].

Market Access provisions and liberalisation programme

All the agreements are based on liberalisation programmes that group good and/or services in different categories subject to:

- different paces of tariff reductions, faster for less sensitive products and slower for the most sensitive products;
- tariff quotas for some products—notably for agricultural products; and
- exceptions, i.e., products that are not subject to the liberalisation schedule and remain with their MFN tariff levels.

The main differences can be found in the type of products included in each of the categories, as well as in the number of categories agreed and the length of transition periods—broadly, transition periods go from immediate liberalisation to 8, 10 and 15 years.

However, the most important difference between the EU-Mexico FTA and the other FTAs, except for NAFTA,[78] lies in the fact that the former is based on asymmetrical tariff liberalisation, taking into account the asymmetry in levels of development.

Regarding origin rules, there are no substantial differences in terms of the criteria applied, other than those proper to the characteristics of sectors subject to tariff liberalisation, e.g. in the case of NAFTA in relation to the automotive sector.

Services

Trade in services presents more similarities than differences between FTAs subject to comparison in this section. All four modes of services supply are considered, as well as specific chapters referring to telecommunications (except for the Mexico-Peru FTA), temporary entry of persons (except for the EU-Mexico FTA), and financial services (except for the Mexico-Chile FTA). The NAFTA includes reservations related to communications, professional technical services, land transportation and financial services.

Anti-dumping and Countervailing Measures

Concerning unfair trade practices — i.e. anti-dumping and countervailing measures — as pointed out in Section 2.1, the EU-Mexico FTA does not contain provisions other than referring rights and obligations of each one of the parties to the WTO Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 and to the WTO Agreement on Subsidies and Countervailing Measures[79].

In contrast, NAFTA recognises the right of the parties to apply their national legislations on anti-dumping and countervailing measures, provided that they are not inconsistent with the WTO agreements. Nevertheless, provisions also include two important points, namely: (1) a binational panel to review amendments to national legislation and final determination of anti-dumping and countervailing duties; and (2) a specific procedure to safeguard the panel review

normally reach those ceilings, it could also benefit from GSP preferences for this category. See Jaime Zabludovsky and Sergio Gómez Lora (2005) p. 5.

77 Mexico has finally been excluded as a GSP beneficiary country by the recently revised EU GSP, in force since January 1st 2014.

78 NAFTA liberalises more than 80% of trade for Mexican exports to the US and Canada, while Mexico liberalises about 42% of total trade on signing of the agreement, 18% at the fifth year, 38% at the tenth year and the rest at the 15th year. Tariff base rates are those of the GSP conceded by USA and Canada to Mexico.

79 Joint Council Decision No. 2/2000, Article 14.

system, consisting of consultation between the parties and the establishment of a special committee to settle complaints.

The Mexico-Peru FTA also recognises that each one of the parties will apply their national legislation on anti-dumping and countervailing measures, and establishes a series of specific procedures for the investigation and imposition of anti-dumping and countervailing duties, as well as a cooperation mechanism between competent local authorities. Similar provisions have been settled in the Mexico-Colombia FTA, while the Mexico-Chile FTA does not contain any provision regarding this topic.

Investment

The Investment chapter is probably the one that presents the most differences among the agreements that are the subject of comparison in this section. These differences are not only related to content, but also, and mainly, to a greater or lesser scope.

On the one hand, the EU-Mexico FTA essentially refers to the promotion and protection of investments in the bilateral investment agreements framework, there be no other substantive provision in this respect, except for the provisions related to financial services.

On the other hand, NAFTA has a set of investment provisions that is commonly referred to as a model of its kind for bilateral or multilateral investment legal frameworks — its well-known Chapter 11. In the first place, investment definitions go beyond the traditional scope that only covers FDI flows, adding issues such as equity and debt security, debt finance and real estate, thereby deepening their potential regulatory impact. Secondly, the national treatment and MFN principles encompass the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments in all economic activities and for all investments, subsequently compelling the parties to treat established foreign investors and domestic investors in the same way. In addition, the list of prohibited performance requirements applies not only to foreign investments, but also to all other investments in the territory of the parties. Thirdly, Chapter 11 of NAFTA introduces strong investment protection clauses, ruling out direct or indirect nationalisation or expropriation, or equivalent measures, and including also the concept of indirect expropriation.[80] Lastly, there is an investment-related dispute settlement mechanism, which, besides its comprehensive procedures, allows private investors to submit a claim; i.e. the mechanism is not only applicable to government-to-government disputes.

Investment provisions of the Mexico-Chile FTA are similar to those of NAFTA, showing some small differences in wording, but essentially keeping the same content and scope. The FTAs with Colombia and Peru also have the same structure, although there is a more restrictive list of prohibited performance requirements in these agreements.

Public Procurement

All the FTAs have provisions regulating public procurement, with the exception of the Mexico-Peru FTA. Further, all public procurement provisions correspond to a similar structure: they include the principles of national treatment and non-discrimination, rules of origin, denial of benefits, tendering procedures, special provisions for government procurement for small businesses, and lists of entities (federal, state and provincial, government enterprises) covered by the agreement. Only the Mexico-Chile FTA includes a provision allowing the parties to have recourse to the dispute settlement mechanism of the agreement in alleged cases of nullification or impairment related to government procurement regulated in this chapter.

Competition Policy

The EU-Mexico FTA, the Mexico-Chile FTA and the NAFTA contain competition policy provisions establishing the adoption or maintenance of measures to proscribe anti-competitive conduct according to their national legislation, and include definitions of monopolies and state enterprises. These agreements also establish information exchange and technical cooperation

[80] When an investor claims to be unfavourably affected by actions or regulations of the host state.

mechanisms. The last two agreements additionally contemplate the interdiction of recourse to the dispute settlement mechanism in matters related to this chapter.[81]

The Mexico-Colombia FTA only contains provisions on monopolies and state enterprises, and an ad hoc committee is created to elaborate recommendations on the relationship between local competition legislation and the FTA. The Mexico-Peru FTA has no provisions relating to competition policy issues.

Intellectual Property Rights

All the agreements — with the exception of the Mexico-Peru FTA, as stated below — regulate IPR according to the criteria usually followed in the previous generation of FTAs. Regulations also refer to the parties' commitment to their obligations in IPR multilateral conventions and international treaties.

This notwithstanding, the NAFTA is the agreement with the strongest protection provisions, encompassing, among other things: national treatment, control of abusive or anti-competitive practices or conditions, specific provisions on enforcement of IPR, specific procedural and remedial aspects of civil and administrative procedures, and enforcement of IPR at the border. The NAFTA regulations on IPR, which have been qualified as WTO-plus because of the protection depth they set up in comparison with the respective WTO Agreement (TRIPS), contrast strongly with the regulations established by the EU-Mexico FTA, which are restricted to the general principles with which the parties must comply.

The Mexico-Peru FTA only includes the protection of appellations of origin concerning the protection of IPR.

Dispute Settlement

All the agreements have dispute settlement mechanisms that are in accordance with the corresponding WTO agreement, although specific provisions or procedures may differ somewhat. The most important differences refer to the recourse of private investors to the dispute settlement procedure and to the selection of the dispute settlement forum by the complaining party.

On the first topic, all the agreements but the EU-Mexico FTA provide recourse to the dispute settlement mechanism between a party and an investor of the other party; a difference that seems consistent with the weakness of the investment chapter of the EU-Mexico FTA in terms of its substantial provisions.[82]

Concerning the second topic, even if, in all cases, the complaining party can select the WTO forum or the agreement forum, in the EU-Mexico FTA, once a party has initiated a procedure under one of the forums, it cannot institute it until the first one chosen has been concluded, while, in the other FTAs considered in this comparison, the selected forum must be used to the exclusion of the other.[83]

Lastly, it is worth mentioning that all the agreements except the EU-Mexico FTA make explicit the legal concept of nullification or impairment as a valid reason for invoking the dispute settlement procedure.

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[81] As Marsden and Whelan point out, the obligations in the corresponding annex to the EU-Mexico FTA "are not legally binding on the parties", since they are not subject to any sanction for non-compliance with the provisions hereby established, and "the parties will not have recourse to the dispute settlement procedures of the FTA for an alleged breach of any of the competition provisions". Nevertheless, they also assess that "There is no express prohibition on the use of dispute settlement procedures in the case of an alleged violation of Annex XV: however, it has been conceded by these authorities at interview that either (1) the chances of sanction under the EU-Mexico FTA dispute settlement procedures for alleged 'violation' of Annex XV is so remote as to be a non-issue; or (2) that, as a matter of interpretation, the dispute settlement procedures in question do not apply to Annex XV". See Philip Marsden and Peter Whelan (2004), pp. 29-30.

[82] See the arguments pertaining to this matter in Section 2.1: "Description of the EU-Mexico FTA: Structure and Content".

[83] The NAFTA makes an exception in the cases of disputes related to the environmental agreement and to the SPS chapter.

Environment and Labour

NAFTA is the only agreement that includes two specific instruments with which to address environmental and labour issues: the North American Agreement on Environmental Cooperation and the North American Agreement on Labor Cooperation, both containing provisions on the enforcement of domestic legislation, general obligations of each one of the parties, the creation of specific Commissions on environmental and labour matters, and a mechanism of resolution of disputes.

The EU-Mexico FTA includes provisions on environment only in the cooperation chapters, establishing that "Cooperation between the Parties may lead to the conclusion of a sectoral agreement in the field of environment and natural resources, if deemed appropriate."[84]

The other three agreements only refer to the commitment of the parties not to reduce environmental requirements to promote foreign investment.

Institutional Framework

The institutional frameworks of the FTAs considered vary according to each agreement's specific structure, the depth of the commitments assumed, and the complexity of the provisions set up. Nevertheless, the comparison is different from the analysis of the substantive chapters of the accords. When comparing the institutional frameworks, the number and typology of the institutions created is known, but cannot be assessed on their functioning or even their efficiency in carrying out their responsibilities.

Keeping this in mind, the first important difference that can be distinguished is that, in the case of the EU-Mexico FTA, the institutional framework built up served not only the purpose of the agreement administration but, most significantly, served to negotiate the liberalisation of trade in goods and services under the umbrella of the Interim Agreement and until the Global Agreement was fully enforced. Instead, the other FTAs designed an institutional framework exclusively to administrate the commitments already negotiated and assumed by the parties.

The EU-Mexico FTA institutional framework relies on two main bodies, the Joint Council and the Joint Committee, and a number of special committees, including the Customs Cooperation and Rules of Origin, Standards and Technical Regulations, SPS, Government Procurement, etc.[85]

Concerning the other agreements, Mexico-Peru shows the simplest structure: an Administrative Commission, Committees on Market Access, Rules of Origin and Customs Procedures, SPS, and Supply Shortage, and Working Groups on some specific issues. Mexico-Colombia adds to this structure Committees on Government Procurement and Competition Policy, among others, reflecting the greater complexity of the stipulations of this agreement.

The Mexico-Chile institutional framework surpasses the standards of the above agreements in terms of the number of committees and of the issues and functions for which they are responsible. A Free Trade Commission oversees the general supervision and administration of the agreement, and relies on the support of a Secretariat. Additionally, several Committees have been set up, on the matters of market access and related issues, and on other trade disciplines — Investment and Cross-border Trade of Services, Air Transportation, Temporary entry of persons, and Trade and Competition.

Finally, NAFTA presents the most complex institutional framework of all the agreements included in this comparison. A Free Trade Commission and its Secretariat on one side, and several committees and working groups on the other, including those on Goods, Agriculture, Used Clothes, SPS, Standard Measures, Standards for the Automotive Sector, Land Transportation, Telecommunications, Textiles Labelling, Financial Services, Small and Medium Enterprises, and Dispute Settlement between Private Parties.

Finally, one substantive element distinguishes the EU-Mexico FTA from the other FTAs. While this agreement appears to be primarily commercially or economically motivated[86], in an attempt to neutralise the impact of the trade diversion of NAFTA, trade liberalisation is only one of three

[84] Article 34 of the Global Agreement, "Cooperation on the environment and natural resources".
[85] See Section 2.4 for a complete description of the Mexico-EU institutional framework.
[86] See, for instance, María García (2013) pp. 534-35, and Stephen Woolcock (2007) pp. 3-5.

dimensions of the comprehensive "Economic Partnership, Political Coordination and Cooperation Agreement"; it also encompasses political dialogue and cooperation. The review of the extended negotiation process of the EU-Mexico FTA suggests, as a hypothetical scenario, that the EU's focusing on the political and cooperation dimensions was one of the most difficult impediments to overcome. The EU assigned priority to these two dimensions, *vis à vis* the strong role played by the commercial purpose in Mexico's vision, appeared to Mexico to be a conditionality and even indicated a possible subjacent intention of transforming such provisions into non-trade barriers. In fact, the EU subordinated the start of negotiations to the acceptance of the principles of democracy and human rights. At the same time, it engaged in assisting Mexico in meeting those conditions by means of cooperation, covering not only trade-related matters, but also social issues, democracy and human rights. [87].

2.2.3. Developments in EU trade policy

The EU has had a common commercial policy since the Treaty of Rome in 1957. Originally, the EU had the competence to include trade in goods, but only for part of trade in services, commercial aspect of intellectual property and investment, where competence was shared with the EU Member States. The Treaty of Amsterdam, the Treaty of Nice and, finally, the Treaty of Lisbon have gradually extended the competence of the EU to apply, with a few exceptions, to trade in services, protection of intellectual property rights and FDI. Consequently, this opens the possibility for international agreements covering only areas of exclusive EU competence to be adopted through a qualified majority vote within the Council of the EU, and these agreements could enter into force without the prior ratification by the national parliaments of member states.

The changes in competences of the EC in EU Trade policy reflect the changing nature of trade and trade negotiations, in which services, IPR and investment have gradually become more important. This was already reflected in the Uruguay Round, leading to the establishment of the WTO, which also covers services, IPRs and regulatory issues such as standards.

In its Communication "Global Europe", the EU announced its increased focus on FTAs, while keeping multilateral agreements as the key priority. Also, in "Trade, Growth and World Affairs" the complementary nature between bilateral/regional FTAs and multilateralism is stressed, and FTAs are considered as a stepping stone towards progress at the multilateral level. These documents also stress the increased importance of non-tariff barriers, in areas such as services, investment, IPR, government procurement, and regulatory barriers (e.g. food safety standards and technical requirements).

2.2.4. Comparison with EU FTAs

The EU has a long history of trade agreements. In December 2013, it had over 50 agreements.[88] In addition, it is in the process of negotiating more. An overview is presented in the table below. Particularly interesting in the context of this study are the negotiations between the EU and the US, and between the EU and Canada, as both negotiating partners are also part of NAFTA.

Table 2.4 Overview of the EU's trade agreements in place and under negotiation

Country name	Type of FTA
Trade agreements already in place	
Norway	Bilateral FTA
Iceland	Bilateral FTA
Switzerland	Bilateral FTA
Faroe Islands	Bilateral FTA
Macedonia (FYROM)	Association Agreement
Albania	Association Agreement
Montenegro	Association Agreement

[87] See Matthias Busse, Matthias Huth, Georg Koopmann (2000) for further arguments and references, particularly Section 3, pp. 12-20.

[88] Source: http://trade.ec.europa.eu/doclib/docs/2012/november/tradoc_150129.pdf, accessed in June 2014

Country name	Type of FTA
Bosnia & Herzegovina	Interim Agreement on Trade
Serbia	Interim Agreement on Trade
Andorra	Customs Union
San Marino	Customs Union
Turkey	Customs Union
Moldova	Association Agreement
Georgia	Association Agreement
Palestinian Authorities	Association Agreement
Syria*	Cooperation Agreement
Tunisia	Association Agreement
Morocco	Association Agreement
Israel	Association Agreement
Jordan	Association Agreement
Lebanon	Association Agreement
Egypt	Association Agreement
Algeria	Association Agreement
Mexico	Economic Partnership, Political Coordination and Cooperation Agreement
South Africa	Trade, Development and Cooperation Agreement
Antigua & Barbuda	CARIFORUM Economic Partnership Agreement
Belize	CARIFORUM Economic Partnership Agreement
Bahamas	CARIFORUM Economic Partnership Agreement
Barbados	CARIFORUM Economic Partnership Agreement
Dominica	CARIFORUM Economic Partnership Agreement
Dominican Republic	CARIFORUM Economic Partnership Agreement
Grenada	CARIFORUM Economic Partnership Agreement
Guyana	CARIFORUM Economic Partnership Agreement
Haiti	CARIFORUM Economic Partnership Agreement
Jamaica	CARIFORUM Economic Partnership Agreement
St Kitts and Nevis	CARIFORUM Economic Partnership Agreement
St Lucia	CARIFORUM Economic Partnership Agreement
St Vincent & the Grenadines	CARIFORUM Economic Partnership Agreement
Suriname	CARIFORUM Economic Partnership Agreement
Trinidad & Tobago	CARIFORUM Economic Partnership Agreement
Madagascar	ESA Economic Partnership Agreement
Mauritius	ESA Economic Partnership Agreement
Seychelles	ESA Economic Partnership Agreement
Zimbabwe	ESA Economic Partnership Agreement
South Korea	Bilateral FTA
Papua New Guinea	Pacific Economic Partnership Agreement
Fuji	Pacific Economic Partnership Agreement
Colombia	Multiparty FTA
Peru	Multiparty FTA
Chile	Association Agreement
Costa Rica	As part of Central America – EU Association Agreement
El Salvador	As part of Central America – EU Association Agreement
Guatemala	As part of Central America – EU Association Agreement
Honduras	As part of Central America – EU Association Agreement
Nicaragua	As part of Central America – EU Association Agreement
Panama	As part of Central America – EU Association Agreement
Cameroon	CEMAC Economic Partnership Agreement
Trade agreements currently under negotiation	
US	Bilateral FTA
Canada	Negotiations finished, FTA to be ratified and implemented
Ukraine	Bilateral FTA
Singapore	Negotiations finished, FTA to be approved by institutions
Malaysia	Bilateral FTA
Vietnam	Bilateral FTA

Country name	Type of FTA
Thailand	Bilateral FTA
Japan	Bilateral FTA
India	Bilateral FTA
Ecuador	Bilateral FTA
Mercosur	Regional FTA
West Africa (ECOWAS)	ACP Economic Partnership Agreement
Central Africa (CEMAC)	ACP Economic Partnership Agreement
Eastern and Southern Africa (ESA)	ACP Economic Partnership Agreement
Eastern African Community (EAC)	ACP Economic Partnership Agreement
South African Development Community (SADC)	ACP Economic Partnership Agreement
Pacific	ACP Economic Partnership Agreement

Source: DG Trade (http://trade.ec.europa.eu/doclib/docs/2012/november/tradoc_150129.pdf and http://trade.ec.europa.eu/doclib/docs/2006/december/tradoc_118238.pdf), accessed in June 2014.

Given the long list of trade agreements, it would go beyond the scope of this study to analyse these in detail. In addition, many of the agreements are signed as part of a broader co-operation strategy and, therefore, also differ in content. E.g. trade agreements for accession countries and neighbourhood countries are more focused on regulatory approximation towards EU rules and regulations than other trade agreements. The EU has no "model FTA" to form the basis of negotiations with all partners.

Here we would like to show how the EU-Mexico FTA differs from one of the most recently concluded FTAs with one single country of the EU: the FTA with South Korea, which was signed in October 2010 and is provisionally applied since July 2011. It is the first major FTA that the EU concluded after announcing a new trade policy strategy in 2006, as indicated above.[89]

Comparison with the EU-South-Korea FTA[90]

The EU-South Korea FTA has 15 chapters, and separate annexes on non-tariff barriers in four sectors: automotive products, pharmaceuticals and medical devices, chemicals, and consumer electronics. Although, in terms of topics addressed, the EU-Korea and EU-Mexico FTAs do not differ that much, the additional sectoral annexes that provide for specific sectoral disciplines on non-tariff barriers to trade, as well as the Trade and Sustainable Development chapter, are clear differences. The EU-Korea FTA also creates new opportunities for market access in services and investments and covers areas such as intellectual property, government procurement and competition policy.

The **Trade and Sustainable Development** chapter contains provisions to promote sustainable development and enhance environmental and labour protection standards. The positive attention for these issues is a clear change from previous trade agreements of the EU, and has since also been implemented in other agreements (e.g. in the FTA with Moldova). A specialised committee has been set up as part of the institutional structure to deal with the implementation of this chapter.

In respect of **goods** trade, the coverage and pace of implementation of tariff reduction does not substantially differ from the EU-Mexico agreement. Also in this case, for many products, tariffs are eliminated immediately after the entry into force of the agreement, while, after five years, almost all industrial tariffs are eliminated. A limited number of highly sensitive agricultural and fisheries products have transitional periods longer than seven years. As in the EU-Mexico agreement, the coverage and speed of implementation for agricultural products is lower

[89] The analysis in this section was conducted in the summer of 2014, before the texts of more recent EU FTAs (e.g. CETA) were made public.

[90] This analysis is based on Hu, J. and Vanhullebusch, M. (2014) Regional co-operation and free trade agreements in Asia; Cooper, W. et al (2011) The EU-South Korea Free Trade Agreement and its implications for the United States, and European Commission: The EU- Korea Free Trade Agreement in practice.

compared to trade in manufactured goods, although the implementation period is longer as compared to Mexico.

In terms of **services,** the agreement goes beyond previous FTAs concluded by the EU in terms of sectoral coverage and the depth of market access commitments. The agreement covers both cross-border supply and liberalisation of investment. The scope includes diverse services sectors, such as transport, telecommunications, finance, legal, environmental and construction services. There are separate provisions on computer services, postal and courier services, telecommunication services, international maritime transport services, financial services and e-commerce.

In the area of **SPS**, the key elements of the SPS chapter are the introduction of a formal dialogue on SPS issues affecting trade, specific commitments on transparency, consultation, working towards developing a common understanding on international standards and equal treatment of all EU Member States. The chapter identifies areas of special attention (e.g. animal welfare, designation of pest-free and disease-free areas), and introduces a procedure for the recognition of disease-free areas.

In the area of **TBT**, there is a similar focus on information sharing and discussion, but it is especially the sector-specific commitments that go beyond WTO; e.g. in consumer electronics, EU companies can conduct safety testing in the EU, which reduces trade costs.

In the field of **IPR**, there are several additional commitments; notably, it provides protection for a number of geographical indications.

In respect of **government procurement,** the FTA expands the mutual commitments of both parties under the Government Procurement Agreement (GPA) to an additional area, namely EU public works concessions and Korean build-operate-transfer (BOT) contracts.

The FTA promotes co-operation and information exchange in the area of **competition policy**, but also contains new provisions on subsidies. This particularly concerns the obligation on both sides to report transparently to each other their respective distribution of subsidies to their economies (state aid), the agreement to remove or remedy subsidies if they distort competition and also affect international trade, and the prohibition of certain types of subsidies that are considered particularly distortive. [91]

With respect to **investment**, it should be noted that, since the Treaty of Lisbon, the EU has also had the mandate to negotiate investments. As the negotiation mandate for the EU-South Korea FTA was obtained before the Lisbon Treaty, the FTA does not contain investment provisions similar to those covered under bilateral investment treaties (BITs). In more recent negotiations (e.g. with Canada), we see the inclusion of more substantive investment provisions, including an investor-state dispute settlement (ISDS) mechanism.

Another difference between the EU-Korea FTA and other recent EU agreements or ongoing negotiations relates to **administrative co-operation**. The latter include provisions that allow a Party to temporarily suspend the preferential treatment of the goods concerned by the non-compliance, the other Party fails in the verification of the origin of the products and does not cooperate in the verification of the proof of origin.[92] The Mexico-EU FTA does not have a similar provision.

Finally, the institutional provisions of the EU-South Korea FTA established a significant number of specialised committees and working groups between the two parties to monitor the implementation of the Agreement. The annual Trade Committee at ministerial level plays a supervisory role and ensures that the FTA operates properly.

[91] EU Centre in Singapore (2011) The EU-Korea FTA and its Implications for the Future EU Singapore FTA, Background Briefing No. 4, June 2011.

[92] See for example Annex IV of the EU Central America Association Agreement.

2.3. Identification of regulatory changes caused or induced by the FTA

The identification of regulatory changes undertaken by the parties through the EU-Mexico FTA implementation process will be analysed from two interrelated points of view:

1. The FTA implementation process itself, i.e. the development or deepening of the commitments assumed in the agreement, in other words, the so-called implementation process. To this end, the Decisions of the Joint Council and the Joint Committee, and other amendments to the Mexican legislation will be identified.
2. The trade policy measures adopted by Mexico since the entry into force of the FTA, which appear related to the FTA implementation process, even if they are not necessarily associated with the obligations imposed by the agreement. Since Mexico has undertaken several important trade policy reforms in recent years, these subsequent regulatory modifications must be taken into consideration as well, since they are relevant to obtaining a full understanding of Mexico's current trade policy regime, which will eventually be the actual context of a future renegotiation of the EU-Mexico FTA.

2.3.1. Implementation Decisions

The Decisions of the Joint Council and the Joint Committee can be grouped in the following categories, according to their content:

1) Rules of Procedure

- Decision No. 1/2001: Establishes the rules of procedure of the Joint Council; creates the Joint Committee and establishes its rules of procedure;
- Decision No. 4/2002: Adopts the rules of procedure of the Special Committees on Customs Cooperation and Rules of Origin, on Standards and Technical Regulations, on Sanitary and Phytosanitary Measures, on Steel Products, on Government Procurement, on Intellectual Property Matters, and on Financial Services.

2) Trade Liberalisation in Goods and Services

- **Decision No. 2/2000**: Implementing liberalisation of trade in goods and trade-related disciplines — i.e., customs, Sanitary and Phytosanitary measures, government procurement, competition, dispute settlement procedure, specific duties of the Joint Committee, etc.;
- **Decision No. 2/2001**: Implementing liberalisation of trade in services, investment and related payments, measures to protect intellectual property rights, and a specific trade related dispute settlement procedure;
- **Decision No. 2/2002**: Acceleration of the elimination of customs duties applicable to certain products contained in Annexes I and II to Decision No. 2/2000;
- **Decision No. 3/2002**: Relating to the tariff treatment of certain products listed in Annexes I and II to Decision No. 2/2000**;**
- **Decision No. 5/2002**: Relating to Annex III to Decision No. 2/2000, concerning the definition of the concept of originating products and methods of administrative cooperation;
- **Decision No. 1/2004**: Acceleration by Mexico of the elimination of customs duties applicable to certain products contained in Annex II to Decision No. 2/2000 originating in the EU;
- **Decision No. 2/2004**: Introducing a preferential tariff rate quota for certain products originating in Mexico;
- **Decision No. 1/2005**: Introducing a corrigendum regarding the entry into force of tariff quotas.

3) Accession of New Members[93]

- **Decision No. 3/2004**: Amending Joint Council Decision No. 2/2000, following the accession to the EU of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic, to adapt provisions concerning trade in goods, certification of origin and government procurement;
- **Decision No. 4/2004**: amending Joint Council Decision No. 2/2001, following the accession to the EU of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic, to adapt provisions concerning trade in services;
- **Decision No. 2/2008**: amending Joint Council Decision No. 2/2000, as amended by Joint Council Decision No. 3/2004, following the accession to the EU of the Republic of Bulgaria and of Romania, to adapt provisions concerning trade in goods, certification of origin and government procurement;
- **Decision No. 3/2008**: amending Joint Council Decision No. 2/2001, as amended by Decision No. 4/2004, following the accession to the EU of the Republic of Bulgaria and of Romania, to adapt provisions concerning trade in services.

4) Other Implementation Decisions

- **Decision No. 5/2004**: adopting provisions on mutual administrative assistance in customs matters;
- **Decision No. 1/2008**: implementing Article 9 of Joint Council Decision No. 2/2001, on the establishment of a framework for the negotiation of mutual recognition agreements.

Concerning the **Joint Committee**, **four Decisions** are registered during the period of this study, namely: **Decisions Nos. 1/2002, 1/2004, 1/2007 and 1/2010**. All of these refer to the extension of the rule of origin of certain goods, specifically relating to explicative notes that list the working or processing required on non-originating materials for the final manufactured product to be considered as originating from one of the parties. The extension was successively granted until mid-2014. Moreover, Decision No. 1/2007 refers to the rule of origin and the management method used to allocate quotas for certain products, notably textiles.

2.3.2. Trade Policy Regulations

Mexico's juridical system — which is based on the Mexican Constitution, the highest ranking legal instrument — recognizes international treaties as hierarchically placed above local and federal laws and regulations.

The Foreign Trade Law (LCE) of 1993, reformed in 2006, forms the basis of the legal regime for trade policy. It is supplemented by other laws and regulations relevant to the present analysis, including: Law on General Import and Export Taxes (LIGIE), Customs Law, Foreign Investment Law, Federal Laws on Metrology and Standardization, Animal Health, and Plant Health, Federal Copyright Law, and Government Procurement, Leases and Services. In addition, within the context of the multilateral trade system, Mexico has accepted the Fourth and Fifth Protocols to the GATS (basic telecommunications and financial services), and the Protocol amending the TRIPs. However, Mexico is not party to Plurilateral Agreements on Government Procurement, Trade in Civil Aircraft or Information Technology.

The formulation and administration of foreign trade policy and trade promotion falls under the responsibility of the Secretariat of Economy (SE), in cooperation with the Secretariat of Foreign Affairs (SFA). Among the competencies of the SE are the determination of tariff levels and the evaluation and determination of trade restrictions. The Foreign Trade Law also creates two commissions on external trade matters: the Foreign Trade Commission (COCEX) and the Joint Export Promotion Commission (COMPEX), the former having power to issue opinions on the

[93] An additional protocol to take into account the accession of these new members was concluded in 2005 (*Official Journal of the European Union*, March 12, 2005).

adoption or amendment of tariff and non-tariff measures, the latter being tasked with analysing and proposing measures to facilitate trade.

The regulatory framework will be scrutinised, following the order of topics and disciplines in the FTA, detailing the modifications that have taken place within the period under consideration together with a brief description — when pertinent to the present study — of their content and connotations.

Tariff Schedule

The tariffs applied by Mexico are contained in the Law on General Import and Export Taxes (LIGIE) and based on the Harmonised Commodity Description and Coding System (HS). The LIGIE, enforced in 2007, has been amended several times since then. Among the main modifications observed, a unilateral tariff reduction programme that was initiated in January 2009, to be implemented over five years, is one of the most important changes, followed by two other modifications, introduced in 2010 and 2013, involving the elimination of tariffs on 3,852 and 165 headings, respectively. Additionally, Mexico adopted the HS 2012 in July 2012, which slightly increased the number of headings of the tariff nomenclature.[94]

As a result of the unilateral liberalisation programme, both the level and the distribution of tariffs underwent important changes. On the one hand, over the five-year period mentioned above, the percentage of duty-free headings reached 58.3% of the tariff structure, in parallel to a decrease in the number of headings with tariffs between 0% and 15%, and those exceeding 15%. On the other hand, the programme considerably reduced the dispersion of tariff levels, now for the most part (97.2% of the headings) in a range between 0% and 20%.

Tariff reductions or exceptions are still granted to imports included in PROSEC (imports of industrial inputs) and IMMEX (temporary imports) programmes[95].

Customs and Customs Procedures

Mexico has had a certified enterprises programme since 2002, which administratively facilitates for importers and exporters the process of customs clearance of goods [96]. This programme was modified in 2011[97], reorganizing the original certified enterprises scheme and incorporating the New Certified Enterprises Scheme, focusing on compliance with safety standards related to logistics and supply chains.

Besides this, customs regime and procedures have been through three major changes since the modifications introduced in 2008, within the framework of the 2007-2012 Customs Modernisation Plan.[98] The purpose of this plan was to facilitate trade flows, professionalise customs personnel, utilise appropriate systems and technology, and speed up customs clearance of imports and exports.

First, registration requirements, customs documents and other import procedures were modified in 2008 by a Decree intended to make administrative procedures easier. This amendment eliminated a number of import requirements, such as:

- mandatory enrolment in the Register of Importers in Specific Sectors, reducing the obligation for goods involving a potential risk to public health or national security;
- security to cover the difference between the value declared by the importer and the value estimated by the Mexican Tax Administration Service (SAT), that was maintained only for used vehicles; and
- documents to be submitted to identify, examine and control certain goods — as well as streamlined procedures to obtain certification of origin.

[94] By September 2012, the number of headings was 12,264 (HS 2012). Cf. WTO (2013a).
[95] Both programmes are briefly explained below.
[96] Cf. Customs Law, Articles 100-A and 100-B. Visit http://www.wipo.int/wipolex/en/details.jsp?id=14600
[97] Amendment to the General Foreign Trade Rules 2011, published in the Official Journal of December 15th 2011.
[98] Cf. Administración General de Aduanas (2008).

The Decree also provided for the creation of a digital window, one of the trade facilitation initiatives of the 2007-2012 Customs Modernisation Plan, and abolished the requirement to submit a certificate of origin for importers of products subject to compensatory duties.[99]

Second, a digital window for foreign trade was adopted in 2011, enabling the entry into force of the "single window"[100], which combines a number of procedures established by various ministries, and is required in order to conduct foreign trade transactions, including non-tariff measures and administrative charges.

Third, in the field of customs valuation, Mexico eliminated the estimated price mechanism[101] in 2008 for all products, with the exception of used vehicles. The list of remaining products was subsequently amended in 2007 and 2011.

Other regulations affecting imports and exports

Import and Export Restrictions

Mexico has in place an import and export permit regime regulated by a Secretariat of Economy Decision issued in 2007[102]. Decisions on goods are subject to the awarding of prior permits (hereinafter the Permits Decision).

Since July 2011, the permit (and certificate of origin) requirement has been lifted for several types of used vehicles assembled in Mexico, Canada or the US, and a timetable was agreed for the phasing out of the permit requirement for used vehicles from Canada and the US, within NAFTA.[103] This process will be completed on January 1st 2019, when no prior import permit will be required for any vehicle for which the serial number corresponds to a vehicle manufactured or assembled in Mexico, the US or Canada, irrespective of its age. Within this same framework agreement, Mexico lifted, in April 2008, the import permit requirement for sugar from the US.

Mexico has a list of products of which exports are prohibited (27 tariff headings), and requires a prior export permit for petroleum products, diamonds in the rough and iron ores (21 tariff headings). Export permits for cement to the US were abolished in 2009[104].

Since October 2011, Mexico has required a prior permit for the export of conventional weapons, and dual-use goods, software and technology. Moreover, since March 2012, a prior authorisation from the Ministry of Energy has been required to export (or import) nuclear materials and fuels, radioactive materials, equipment generating ionising radiation, dual-use equipment, and goods and technology in the nuclear field.[105]

Mexico has an authorised exporters category, under which an exporter may dispense with a certificate of origin if it exports to the EU or EFTA member countries. Since April 2012, the authorised exporters category has also applied to Japan, within the framework of the Economic Association Agreement between Mexico and Japan of March 2012.

Contingency measures

Contingency measures — i.e. anti-dumping, countervailing duties and safeguards — applied under the regulations of the LCE and its implementing norms in conformity with WTO agreements, were amended in 2006. The modifications pertained to the general procedures, procedures specific to anti-dumping and countervailing duties, other special procedures, and violations and administrative penalties[106].

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99 Decree published in the Official Journal of March 31st 2008.

100 Decree published in the Official Journal of January 14th 2011.

101 This mechanism consisted in a security to be deposited in a customs account to cover the difference in payments and compensatory duties between the declared price and the estimated value, when the former had been lower than the latter at the time of the imports declaration.

102 Official Journal of July 6th 2007 and of September 3rd 2012.

103 Official Journal of July 1st and 10th 2011. Amendment to the Secretariat of Economy Decision issuing General Rules and Criteria for Foreign Trade, published in the Official Journal of December 29th 2008. The Decree entered into force upon publication and will remain in effect until January 31st 2013.

104 Amendments to the Secretariat of Economy Decision issuing General Foreign Trade Rules, Official Journal of: June 16th 2008; March 28th 2011; December 30th 2011; and April 1st 2009.

105 Official Journal of June 16th 2011, and of June 18th 2012.

106 Decree published in the Official Journal of December 21st 2006, amending pertinent articles of the LCE.

Technical regulations and standards

Under Mexican law, all domestic or imported products must comply with technical regulations of various types: product standards; standards for commercial information to be included on labels; metrological standards; business practice standards; and appellation of origin standards. General conformity assessment[107] guidelines for a Mexican Official Norm (NOM), originally published in 1997, were amended in 2004.[108] In addition, Mexico has Mutual Recognition Agreements with the governments of the US and Canada on conformity assessment of telecommunications equipment[109].

Under the Official Mexican Standard of 2004 on General Labelling of Products, any Mexican or imported product to be sold in Mexico must bear a label in Spanish, providing commercial information on the product, together with instructions and guarantees.[110] Among changes on labelling regulations, the information to be included on labels of pre-packaged food and non-alcoholic beverages was amended in January 2011; amended[111] labels must now indicate, *inter alia,* nutritional information, the list of ingredients or additives that cause hypersensitivity and the date of expiry or the date by which the product should be consumed. Since then, the requirement for a Spanish translation of ingredients that can be expressed in the International Nomenclature of Cosmetic Ingredients (INCI) no longer applies to perfumery and cosmetics products[112]. In September 2012, the requirements pertaining to commercial information for grapes, avocados and mangoes were also lifted.[113]

As a further matter, the Federal Commission for Protection from Sanitary Risk (COFEPRIS) introduced two important changes in sanitary regulations. First, COFEPRIS gradually lifted between 2008 and 2010[114] the requirement to have a pharmaceutical plant in Mexico in order to obtain sanitary registrations. Before this modification, only manufacturers with a local plant were able to obtain these registrations. The new requirement allows foreign manufacturers to register pharmaceutical products if authorised to manufacture medicines by a competent authority in their country of origin. Secondly, in July 2013, COFEPRIS updated the requirements for Active Pharmaceutical Ingredients Good Manufacturing Practices and Good Distribution Practices[115] to homologate them to conform to EU standards.[116]

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107 The assessment procedure to determine the degree of compliance with NOMs or conformity with international standards or other specifications.

108 Official Journal of October 24th 1997: "Policies and procedures for conformity assessment; Procedures for certification and verification of products subject to compliance with NOMs"; amended on July 27th 2004.

109 Respectively published in Official Journal of May 28th 2012; and July 28th 2011.

110 Official Journal of June 1st 2004.

111 In January 2011, standard NOM-051-SCFI-1994, which governed the requirements, was replaced by standard NOM-051-SCFI/SSA1-2010. The latter, on general specifications for the labelling of pre-packaged food and non-alcoholic beverages and on the commercial and sanitary information, published in the Official Journal of April 5th 2010, replaced standard NOM-051-SCFI-1994, published in the Official Journal of January 24th 1996. NOM-051-SCFI/SSA1-2010 came into force on January 1st 2011. For the purposes of verification and monitoring compliance with the specifications on commercial information, application of the standard was extended until June 1st, 2011 for certain products (Notification of extension, for the purposes of verification and monitoring, of the application of Mexican Official Standard NOM-051-SCFI/SSA1-2010 […], concerning product-specific NOMs, issued by the SE, published in the Official Journal of December 13th 2010).

112 "Decree amending the third paragraph of Article 25 and adding an Article 196 *bis* to the Regulations for Sanitary Control of Products and Services," published in the Official Journal of January 26th 2011. These Regulations were published in the Official Journal of August 9th 1999. The latest amendment was published on October 9th 2012. The Mexican authorities have indicated that the purpose of this amendment is harmonisation with relevant international practices.

113 Thirteenth Amendment to the SE Decision issuing General Rules and Criteria for Foreign Trade published on July 6th 2012, published in the Official Journal of September 3rd 2012.

114 Decree published in the Official Journal of August 5th 2008, amending Articles 168 and 170 of the Regulations on Health Inputs.

115 Mexican Official Norm NOM-164-SSA1-2013.

116 Homologation is the act by which competent authorities officially acknowledge that specifications for pharmaceutical products comply with the standards.

Export Promotion

ProMexico, the Federal body responsible for promoting foreign investment, exports and the internationalization of Mexican companies, was created in June 2007.[117] It provides economic and technical support to companies involved in, or seeking to become involved in, an internationalisation process.

Other Incentives

Two promotion programmes currently exist to promote exports and local manufacturing through tax and tariff incentives:

1. The IMMEX programme, introduced in 2006[118] and amended in 2008 and 2010. In essence, the IMMEX programme allows temporary importation of the goods needed to produce, transform or repair goods from abroad for subsequent export, and to provide export services, free of import tariffs and Value Added Tax[119]. The amendment of 2010 abolished the Export-Intensive Enterprises (ALTEX) and the Foreign Trade Enterprises (ECEX) programmes, incorporating their benefits into the IMMEX (while the plans from companies benefiting from one or another programme remained in force, under their original terms and providing compliance with certain conditions);
2. The PROSEC programme,[120] which enables companies producing specific goods to import inputs and machinery allowing the production of such goods at a preferential tariff, irrespective of whether the produced goods are for the domestic market or for export. Subsequent amendments added new sectoral programmes (in 2007 and 2008), and included new tariff headings and removed others[121]. Tariff headings having similar or higher tariff levels than the MFN tariff in 2008 therefore ceased to be covered by PROSEC.

Foreign Investment Regime

Foreign investment in Mexico is regulated by the Foreign Investment Law (LIE) and its implementing regulations, as well as by the Mexican Constitution (Articles 27 and 73).

The LIE (1993) is consistent with the foreign investment chapter of NAFTA, providing national treatment and eliminating performance requirements for most foreign investment, while liberalising criteria for automatic approval of foreign investment, even if reserving some sectors with a restriction to foreign investors, only for Mexican nationals or the Mexican government.

LIE has been amended in 2008, 2011 and in 2012;[122] all the modifications introduced through these amendments can be considered as relevant to the present study[123].

It is worth pointing out that investment provisions of the EU-Mexico FTA contain a review clause, according to which the parties take the commitment "to review the investment legal framework, the investment climate and the flow of investment between their territories consistent with their commitments in international investment agreements not later than three

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[117] Decree published in the Official Journal of June 13th 2007; and amended in February 29th 2008. ProMexico Organigram has been published in the Official Journal of March 10th 2011.

[118] Decree to promote the manufacturing, *maquila* and export services industry (IMMEX Decree), Official Journal of November 1st 2006.

[119] Article 29 of the Law on the Value Added Tax.

[120] Decree establishing various sectoral promotion programmes, published in the Official Journal of August 2nd 2002.

[121] Amendments published in the Official Journal of: December 27th 2007; March 4th 2008; May 27th 2008; December 16th 2009; September 23rd 2010; and December 26th 2011. The programmes apply to the following areas: electricity; electronics; furniture; toys, games and sports articles; footwear; mining and metallurgy; capital goods; photography; agricultural machinery; chemicals; rubber and plastic articles; iron and steel industry; medical equipment, medicines and pharmaceuticals; transport (except for the automotive industry); paper and paperboard; wood; hides and skins; automotive industry and automobile parts; textiles and made-up articles; chocolates, confectionery and the like; coffee; food industry; fertiliser industry and various industries.

[122] The text of the law and its amendments can be consulted in WIPO archives: http://www.wipo.int/wipolex/es/text.jsp?file_id=220833.

[123] The amendment of 2008 modified the list of activities reserved for Mexican nationals or Mexican companies with a "foreigners exclusion clause," removing credit unions from that list.

years after the entry into force of this Decision."[124] However, these discussions did not lead to a balanced outcome for all Parties to the Agreement. As a result, it was not possible to update the Agreement through this provision.

Public Procurement

During the period under study, several modifications occurred in public procurement procedures, including the terms for open international public bidding procedures; the maximum limit to be contracted under special procedures; the preference margin to be granted for Mexican goods when comparing bids; and the operation of the information platform for government procurement called the CompraNet.[125] Most of these changes reflected amendments to the public procurement regulatory framework, namely: the Law on Public Sector Procurement, Leases and Services (LAASSP),[126] the Law on Public Works and Related Services (LOPSRM),[127] the Law on Public-Private Associations,[128] the Mexican Petroleum Law,[129] and their respective implementing regulations.[130]

Regarding the preference margin to be applied in international public invitations to bid, this was raised to 15% of the cost of the goods of national origin in comparison with imported goods.[131]

A government procurement programme was launched in 2009 to encourage the participation of Micro, Small and Medium Enterprises (MSMEs) in invitations to bid for procurement by Federal Government agencies and departments, including training and financing. The objective of this programme was to reach an MSMEs participation level of 35%.[132] In 2009 the Mexican government created the Interministerial Commission for Federal Public Administration Procurement and Works from Micro, Small and Medium-Sized Enterprises, responsible for issuing recommendations and proposing measures to that end. It launched a website in 2010 with information on current invitations to bid, business opportunities, training and financing possibilities (www.comprasdelgobierno.gob.mx).

Competition Policy

The Federal Law on Economic Competition (LFCE)[133] and its implementing regulations[134], which regulate competition and monopolies, was amended in 2011 and 2012. Among the modifications introduced, the most relevant was made in 2011, giving the Federal Competition Commission (CFC) greater responsibilities, facilitating compliance with the LFCE, and improving enforcement[135].

Intellectual Property Rights Legislation

The regulatory framework protecting Intellectual Property Rights has experienced several modifications in recent years. There were changes to the Industrial Property Law, the Federal Copyright Law, and their respective implementing regulations, and to the Federal Law on New

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124 Joint Council Decision 2/2001, Article 35: Review clause.

125 Since July 2010, it allows all procurement procedures to be conducted electronically, in accordance with the LAASSP.

126 Official Journal of January 4th 2000, and amendment published in the Official Journal of January 16th 2012.

127 Official Journal of January 4th 2000, and amendment published in the Official Journal of April 9th 2012.

128 Official Journal of January 16th 2012.

129 Official Journal of November 28th 2008.

130 Implementing regulations for: the LAASSP and for the LOPSRM, in the Official Journal of July 28th 2010; for the Mexican Petroleum Law, published on September 4th 2009; and for the Law on Public-Private Associations published on November 5th 2012.

131 Previously of 10%. Decree published in the Official Journal of May 28th 2009, amending the LAASSP, the LOPSRM, the Federal Law on the Administrative Liability of Civil Servants and the Federal Penal Code; and Rules for applying the preference margin to the cost of goods of national origin in comparison with the cost of imported goods in open international procurement procedures by agencies and departments of the Federal Public Administration, published in the Official Journal of December 28th 2010. The preference margin does not apply to imported goods from countries having a trade agreement with Mexico that contains procurement provisions, as is the case with the Mexico-EU FTA.

132 Official Journal of December 30th 2002, amended in 2012.

133 Official Journal of December 24th 1992, and last amended on April 9th 2012.

134 Official Journal of October 12th 2007.

135 Official Journal of May 10th 2011: Decree amending, supplementing and repealing various provisions of the LFCE.

Plant Varieties. Additionally, pertinent articles of other Intellectual Property Rights-related laws were modified, i.e., the Customs Law,[136] the Federal Labour Law,[137] the Federal Code of Penal Procedure,[138] the Commercial Code[139] and the Federal Penal Code.[140]

In 2010, the procedure established by the Industrial Property Law for obtaining a patent was amended, and provisions on applications and renewal of registration and licensing of trademarks were added. However, subsequently, an amendment to the requirements for the registration of trademarks consisting of a commercial name or slogan, or of a name, was introduced in 2011.

Concerning the legislation of appellations of origin, there were declarations on protection of the appellations of origin of several products between 2000 and 2003, as well as resolutions to the protection for the appellations of origin of alcoholic beverages and handicrafts in 2003.

A National Anti-Piracy Decision was adopted in 2007 to protect copyright, related rights and industrial property, by establishing three lines of action to combat counterfeiting and piracy, namely: the promotion of public awareness on the issue, the restructuring of the market, and the combat of illegal acts. In 2012, Mexico signed the Anti-Counterfeiting Trade Agreement, with the objective of building up an inclusive international framework to halt illegal trade in pirated and/or counterfeit goods.

Concerning the resolution of intellectual property litigation, the Federal Tribunal of Fiscal and Administrative Justice was created in 2008. It is a Regional Chamber for Intellectual Property Matters, with responsibility throughout Mexico for the settlement of cases brought against decisions taken based on intellectual property legislation, including international agreements — e.g. TRIPS.

Regarding health issues related to IPR, in 2008 Mexico accepted the Protocol amending the TRIPS Agreement that introduced a criterion of flexibility in order to facilitate access to medicines in accordance with the provisions laid out in that agreement.

On this same matter, general principles regarding the marketing of biosimilar medicines and implementing regulations, setting out the criteria and procedures to that matter, were introduced respectively in the General Law on Health (Article 222bis, added in 2009) and in resolutions of the Secretariat of Health (2011). This new regulatory framework for biosimilar medicines includes, among other things, the following elements: classification of biotechnology medicines into innovative and biosimilar; provisions on labelling; requirements for releasing imports and for obtaining sanitary registration of biotechnology medicines; studies needed to prove the efficacy and safety of a product, and places in which they must be conducted; and time limits for decisions on sanitary registration.

Lastly, a decision of the National Supreme Court of Justice (SCJN) in 2010 ruled on what is called "linkage" between sanitary registration and intellectual property rights (i.e. rights protected by valid patents). The patent–marketing authorisation linkage system for pharmaceutical products involves interparty collaboration of IMPI and the Commission for the Protection against Sanitary Risks (COFEPRIS); this linkage system ruling compels IMPI to publish in the Industrial Property Gazette the listing of all valid patents covering allopathic drugs, and COFEPRIS is obliged to observe said gazette to deny marketing authorisation for a drug that infringes any of the listed patents.

Mexico is a contract party of 21 of the treaties administered by WIPO[141]. Among the agreements that Mexico committed to subscribe to in its FTA with the EU,[142] the Nice Agreement concerning

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[136] Amended in 2006, 2012 and 2013. The modifications introduced refer to new transportation of merchandises requirements and controls. Customs Law can be consulted in the archive of the World Intellectual Property Organization (WIPO): http://www.wipo.int/wipolex/en/details.jsp?id=14600.

[137] Amended in 2012, attributing rights of the inventions by workers and employees.

[138] Amended in 2010, 2012 and 2014. Penalises those guilty of crimes typified by the Industrial Property Law. Cf. WIPO: http://www.wipo.int/wipolex/en/details.jsp?id=3090.

[139] Amended in 2012, introducing a provision for traders to perform their industrial or commercial activities honestly refraining from acts of unfair competition.

[140] Amended in 2010 and 2013. Refers to crimes typified by the Industrial Property Law. Cf. WIPO: http://www.wipo.int/wipolex/en/details.jsp?id=7918.

[141] For more information, visit http://www.wipo.int/treaties/en/ShowResults.jsp?search_what=C&country_id=123C.

the International Classification of Goods and Services for the purposes of the Registration of Marks and the Budapest Treaty of the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure were acceded to in December 2000 and have been in force since March 2001. In addition, the WIPO Copyright Treaty and the WIPO Performances and Phonogram Treaty were ratified in 2002. Among the rest of the WIPO treaties, the Vienna Agreement, the Strasbourg Agreement and the Locarno Agreement have been in force since 2001, and the Madrid Protocol since 2013. The Singapore Treaty on the Law of Trademark Registration was signed in 2006, but it is not yet in force.

Other relevant modifications to mention here are: the agreement between the Mexican Institute of Industrial Property (IMPI) and the United States Patent and Trademark Office (USPTO) on a programme to accelerate patent procedures, which came into force in September 2012; and the adoption by the Mexican government of a Special Science, Technology and Innovation Programme for 2008-2012 for promoting research and development to motorise private investments, in force since 2008.

2.4. Analysis of the FTA's institutional framework

The institutional framework of the EU-Mexico FTA will be approached from two separate, but interrelated angles:

- The institutional framework composition — i.e. the Joint Council, the Joint Committee, the Special Committees, their functions and responsibilities.
- The ways in which this institutional framework has contributed to trade liberalisation and to new/revised trade-related regulations.

Two distinctive characteristics of the EU-Mexico FTA help to explain the constitution and functioning of the institutional framework:

1. Different from other agreements of its kind, because of the way in which the EU-Mexico FTA was negotiated, the Joint Council (JC) — which is the main representative body regarding the administration of the agreement — played a primary role in the negotiation of the trade agreement as a whole, approving decisions and additional protocols needed to complete the agreement's original stipulations.
2. The texts of the Global Agreement (GA) and Joint Council Decisions contain review clauses concerning tariff liberalisation and some trade-related disciplines, and it is the Joint Council's responsibility to further negotiate each one of those topics within a pre-established timeline. Consequently, the Joint Council also introduced a negotiation mandate beyond the one initially settled in the Interim Agreement (IA).

2.4.1. The Institutional Framework

The institutional framework is established in Title IV (Articles 7 to 12) of the IA and Title VII, Institutional Framework (Articles 45 to 50) of the GA. According to these provisions, the institutional framework consists of a Joint Council, a Joint Committee, Special Committees established by the Joint Council, and the Dispute Settlement mechanism.[143]

The Joint Council is a body constituted at ministerial level to "examine any major issues arising from within the framework of this Agreement and any other bilateral or international issues of mutual interest" (IA, Article 7; GA, Article 45). It is composed by Members of the Council of the EU and the European Commission, and members of the Government of Mexico. It must establish its own rules of procedure, and it is presided over in turn by representatives of the EU and Mexico (IA, Article 8; GA, Article 46).

[142] As pointed out in Section 2.1, IPR chapter provisions include a commitment to accede to four WIPO treaties.

[143] The Dispute Settlement mechanism, which is part of the institutional framework, will not be analysed in this section, since it is described and analysed in Section 2.1.

Article 9 of the IA (Article 47 of the GA) gives the Joint Council the power to take decisions—binding on the parties—and make recommendations, both by mutual agreement. Article 10 of the IA (Article 48 of the GA) establishes the Joint Committee as a body that will assist the Joint Council. This body can delegate any of its powers in the Joint Committee and will determine its functions and duties. Finally, Article 11 of the IA (Article 49 of the GA) establishes that the Joint Council may decide the constitution of any other special committees, which will be defined in its rules of procedure.

The EC-Mexico Joint Council established its rules of procedure as well as the duties and functions of the Joint Committee by Decision No. 1/2000 of March 23rd 2000, that entered into force on February 27th 2001.

Apart from the above-described functions of the Joint Council, which are defined in the IA and the GA, the rules of procedure set up modalities for the agenda and the minutes of the meetings (Articles 8 and 9), and the decisions and recommendations (Article 10). Articles 1-8 of the Appendix regulate the procedures of the Joint Committee, and refer to the same matters as those mentioned above for the Joint Council, including the cases in which the Joint Committee takes decisions or makes recommendations by delegation of the Joint Council. One important point of the rules of procedure of the Joint Council, as well as of the Joint Committee, is that, in both cases, their meetings shall not be public (Article 11 and Appendix, Article 5).

By Decision No. 4/2002 (November 6th 2003), the Joint Council adopted the rules of procedure of the Special Committees: on customs cooperation and rules of origin, on standards and technical regulations, on sanitary and phytosanitary measures, on steel products, on government procurement, and on intellectual property matters (set up by Decision No. 2/2000); and on financial services (set up by Decision No. 2/2001). Like the other two institutional bodies, their meetings are not public (Article 6). Special Committees can make recommendations, when pertinent, which must be forwarded to the Joint Committee (Article 9).

2.4.2. Evaluation of the Functioning of the Institutional Framework

As briefly mentioned in previous sections, as well as in the introduction to this section, the EU-Mexico FTA institutional framework presents a distinct characteristic: its main body, the Joint Council,[144] was invested with the power of making decisions that implied the negotiation of the trade liberalisation and trade-related disciplines of the agreement. Therefore, the institutional framework not only had the traditional function of monitoring and supervising the implementation and administration of the agreement, but also the primary responsibility of the agreement negotiation.

Summarising the main elements explaining this peculiarity — as they have been mentioned several times in previous sections — the agreement consists of three juridical instruments, namely the GA, the IA and the Joint Declaration included in the Final Act[145], a legal construction allowing the EU to overcome the institutional restrictions derived from the competences of the European Commission — which has the authority to negotiate trade in goods — and those of the Community member states — authority over investment, services and intellectual property rights issues — in order to enforce all aspects of the agreement. Therefore, the Joint Council was set up with the mandate to negotiate the trade-related elements of the agreement, under the umbrella of the Interim Agreement, thereby avoiding the requirement of a previous approval of the GA.[146]

Considering that, according to the rules of procedure of the Joint Council and the Joint Committee, their meetings "shall not be public," it should be noted that this fact is an important limitation to evaluate how these bodies have fulfilled their mandates, as well as to analyse their agenda and the contents of the debates on the issues related to the implementation and administration of the agreement. Therefore, the only information sources upon which the analysis can be based are the texts of their decisions and the press releases of the meetings,

[144] Please note that the Parties constitute the Joint Council, so in the end they have the power to negotiate.
[145] See Section 2.1.
[146] See, for example, David Luff (2011) for a detailed explanation of the EU negotiation, enforcement and implementation of preferential agreements, competences and ratification processes.

even if the latter merely expose those points and opinions that have been agreed upon and readied to be made public[147].

The Joint Council has produced 17 Decisions since the enforcement of the agreement (Table 2.5). Three of these (Decisions No. 1/2000, 1/2001 and 4/2002) relate to the setting up of rules of procedure of the Joint Council, the Joint Committee and the Special Committees.

Table 2.5 Decisions of the Mexico-EU Joint Council and Joint Committee

Decision nr/ year	Date	Abstract of contents
JOINT COUNCIL		
Decision No. 1/2000	March 23rd 2000	Adopting Joint Council rules of procedure.
Decision No. 2/2000	March 23rd 2000	Implementing liberalisation of trade in goods, the opening of government procurement markets, a cooperation mechanism in the field of competition, and a consultation mechanism in intellectual property rights, and establishing a dispute settlement mechanism. Annexes I to XVI containing trade liberalisation schedules, regime of origin and other provisions related to government procurement. Joint Declarations I to XV.
Decision No. 1/2001	February 27th 2001	Establishing the Rules of Procedure of the EU-Mexico Joint Council and the Rules of Procedure of the EU-Mexico Joint Committee.
Decision No. 2/2001	February 27th 2001	Implementing Articles 6, 9, 12(2) (b) and 50 of the Economic Partnership, Political Coordination and Cooperation Agreement: liberalisation of trade in services, investment, intellectual property rights and dispute settlement mechanism. Annexes I to III containing list of commitments, entities and model rules of procedure.
Decision No. 2/2002	May 13th 2002	Relating to the accelerated elimination of customs duties of certain products listed in Annexes I and II to Decision No. 2/2000 of the EU-Mexico Joint Council.
Decision No. 3/2002	May 13th 2002	Relating to the tariff treatment of certain products listed in Annexes I and II to Decision No. 2/2000 of the EU-Mexico Joint Council.
Decision No. 4/2002	November 6th 2003	Adopting rules of procedure of the EU-Mexico Special Committees.
Decision No. 5/2002	December 24th 2002	Relating to Annex III to Decision No. 2/2000 of the European Union-Mexico Joint Council of March 23rd 2000, concerning the definition of the concept of originating products. and methods of administrative cooperation.
Decision No. 1/2004	March 29th 2004	Accelerating the elimination of customs duties on certain products listed in Annex II of Decision No. 2/2000 of the EU-Mexico Joint Council.
Decision No. 2/2004	April 28th 2004	Introducing a preferential tariff rate quota for certain products originating in Mexico and listed in Annex I to Decision No 2/2000 of the EC Mexico Joint Council.
Decision No. 3/2004	July 29th 2004	Amending Joint Council Decision No. 2/2000.
Decision No. 4/2004	May 18th 2005	Amending Joint Council Decision No. 2/2001.
Decision	December	Adopting, pursuant to Article 17(3) of Decision No. 2/2000, an

[147] Table 1 condenses the Joint Council and Joint Committee decisions, with a brief description of their contents. Table 2 enumerates the meetings of both institutional bodies since the agreement enforcement. The information about the decisions and the meetings (press communiqués or joint declarations) has been obtained from public sources, all of them mentioned in the References Annex.

Decision nr/ year	Date	Abstract of contents
No. 5/2004	15th 2004	Annex to the said Decision on mutual administrative assistance in customs matters.
Decision No. 1/2005	February 21st 2005	Introducing a corrigendum in Decision No. 3/2004 of the EU-Mexico Joint Council
Decision No. 1/2008	January 15th 2008	Implementing Article 9 of Joint Council Decision No. 2/2001 of February 27th 2001 on the establishment of a framework for the negotiation of mutual recognition agreements.
Decision No. 2/2008	July 25th 2008	Amending Joint Council Decision No. 2/2000, as amended by Joint Council Decision No. 3/2004.
Decision No. 3/2008	December 15th 2008	Amending Joint Council Decision No. 2/2001, as amended by Decision No. 4/2004.
JOINT COMMITTEE		
Decision No. 1/2002	December 20th 2002	Relating to Annex III to the Joint Council Decision No. 2/2000, concerning the definition of the concept of originating products and methods of administrative cooperation.
Decision No. 1/2004	March 22nd 2004	Relating to Annex III to the Joint Council Decision No. 2/2000, concerning the definition of the concept of originating products and methods of administrative cooperation.
Decision No. 1/2007	June 14th 2007	Relating to Annex III to the Joint Council Decision No. 2/2000, concerning the definition of the concept of originating products and methods of administrative cooperation.
Decision No. 1/2010	September 17th 2010	Relating to Annex III to the Joint Council Decision No. 2/2000, concerning the definition of the concept of originating products and methods of administrative cooperation.

Decisions No. 2/2000 and 2/2001 are, as previously stated, the core instruments of trade in goods and services liberalisation, and trade-related disciplines, both strictly corresponding to the GA and IA negotiation mandates. Directly connected to these, Decisions No. 2/2002, 3/2002, 5/2002, and 1/2004, regulate aspects related to trade liberalisation issues, particularly, the first one, accelerating the elimination of duties.

There are five amendments to previous decisions, all of which are related to trade matters. Decision No. 3/2004 (also amended by Decision No. 1/2005) introduces amendments to the Decision 2/2000, following the accession of new members to the EU. Decision 2/2008 also introduces amendments to Decision 2/2000 (as amended by Decision No. 3/2004), following the accession of new members to the EU. In a similar vein, Decision No. 4/2004 (amended by Decision No. 3/2008) introduces amendments to Decision No. 2/2001.

Finally, three Joint Council decisions implement commitments established by the original negotiation mandate. Decision No. 2/2004 introduces a preferential tariff rate quota for tuna loins originating in Mexico. Decision No. 1/2008 set up a framework for the negotiation of mutual recognition agreements — a commitment that had been settled to be agreed no later than three years after the enforcement of the agreement. And Decision No. 5/2004 establishing mutual administrative assistance in customs matters — a commitment that should have been implemented no later than one year after the enforcement of the agreement.

Regarding the 4 Decisions of the Joint Committee (Decisions No. 1/2002, 1/2004, 1/2007, and 1/2010), these relate to regime of origin rules, specifically providing successive extensions of the application of the requirements to be fulfilled by some products to be considered originating products, according to the Joint Council Decision No. 2/2000. In other words, these provisions correspond to the mandate of the Joint Council to decide on a temporary extension of the flexibility of those requirements, as stated at the time of the ratification of the agreement on trade on goods liberalisation.

The alternative way in which the performance of the institutional framework can be reviewed is by observing the issues that have been treated in the Joint Council and Joint Committee meetings (Table 2.6), from the press communiqués released about them. Before going into the

analysis of these meetings, we note that, apart from the Joint Council and Joint Committee meetings, the installation of a Joint Working Group between the EU and Mexico was announced last February.[148] This Joint Working Group will assess the progress of the bilateral political dialogue, cooperation and trade between the parties, and formulate recommendations to serve as the basis for the start of negotiations to modernise the EU-Mexico FTA.

Table 2.6 Meetings of the Mexico-EU Joint Council and Joint Committee

Meeting number	Place	Date
I – Joint Council	Brussels	February 2001
I – Joint Committee	Brussels	October 2001
II – Joint Council	Brussels	May 2002
II – Joint Committee	Puebla (Mexico)	October 2002
III – Joint Council	Athens	March 2003
III – Joint Committee	Brussels	November 2003
IV – Joint Committee	Mexico	November 2004
IV – Joint Council	Luxembourg	May 2005
V – Joint Committee	Brussels	October 2005
VI – Joint Committee	Mexico	October 2006
V – Joint Council	Santo Domingo (Dominican Republic)	April 2007
VII – Joint Committee	Brussels	November 2007
VIII – Joint Committee	Mexico	October 2008
VI – Joint Council	Prague	May 2009
IX – Joint Committee	Brussels	November 2009
X – Joint Committee	Mexico	October 2010
XI – Joint Committee	Brussels	October 2011
VII – Joint Council[149]	Mexico	February 2012
XII – Joint Committee[150]	Mexico	June 2013

The issues treated in the seven meetings held by the Joint Council since 2001 can be divided into three groups: (1) evaluation of bilateral relations (including the treatment of multilateral matters of mutual interest), (2) bilateral cooperation, and (3) trade issues. Regarding this third group, the analysis of the press communiqués does not give any real insight into the existence of contentious issues or into the actions to be taken to solve them. They merely include positive or neutral assertions on the progress of the agreement, written in diplomatic language.

Nevertheless, it is important to note how the issue of the framework for future negotiations established in the GA has been assessed. For example, the following references, extracted from the press communiqués of the meetings of the Joint Council, show how the issue of the review clauses was treated, making it evident that no progress has been made in these aspects of the negotiation, notwithstanding that the parties reaffirm their "intention" or their "interest":

- III Meeting, March 2003: "(…)15. The parties reviewed the general state of bilateral trade issues and appreciated the work done over the last year by the technical bodies foreseen in the Agreement, with the objective of ensuring the development of the trade flows and the deepening of administrative cooperation. In this sense, they reiterated the importance of fulfilling the trade commitments reached at the Joint Committee of October 2002";
- IV Meeting, May 2005: "(…) 13. With the regard to the work ahead, the parties took stock of the negotiation on the FTA review clauses in agriculture, investments and services, committing themselves to making progress, with a view to deepening such an FTA";

[148] Press communiqué of Mexico Foreign Ministry, February 13th 2014.
[149] According to some official sources of information, the VIII meeting of the Joint Council should have been held during the first semester of 2014; nevertheless, there is no public registry of its realisation.
[150] The press communiqué of the XII Joint Committee meeting declares that the next meeting will take place in Brussels during the second semester of 2014. At the time of writing, no information was available in relation to the realisation of this meeting.

- V Meeting, April 2007: "(…) 17. The Parties examined the state of play of negotiations on the review clauses on agriculture, services and investments, and confirmed their intention to make progress";
- VI Meeting, May 2009: "(…) 26. The Parties reiterated their interest in moving forward in the negotiation under the revision clauses foreseen in the Mexico-EU FTA in the areas of agriculture and fishing, services and investment, with the aim of deepening their bilateral trade relations";
- VII Meeting, February 2012: "(…) 22. The parties noted the state of play of the negotiations in accordance with the review clauses in the FTA, and reaffirmed their interest to consider all other options to deepen bilateral trade relations".

In relation to the treatment of trade issues[151] by the Joint Committee in its 12 meetings held since the enforcement of the agreement, the conclusions drawn are very similar to those emerging from the analysis of the Joint Council meetings. Supposedly focused in a more detailed manner on the implementation aspects of the trade agreement, the information that can be extracted from the press communiqués does not add any new elements to the assessment of the evolution of the bilateral agenda.

No specific topics under treatment by the Special Committees are revealed, other than general mention of their progress and positive results reached. In some cases, an instruction to technical experts is given to push forward work on specific situations, without giving any further reference to them.

Only in four areas are concrete references made to problems requiring corrective actions or commitments to be undertaken to facilitate trade flows. These include:

- Customs procedures: problems affecting economic operators associated with the payment of taxes through customs brokers were addressed, and the Parties noted that improvements have been made by introducing new measures to facilitate the payment of duties and taxes directly by the companies.[152]
- Standards and technical regulations, on which an agreement was reached to explore areas in which equivalence of technical standards and conformity assessment procedures could be mutually recognised, among others, for electrical and electronic products; additionally, a mention was made about the progress on modification and adoption of norms.
- In the area of SPS measures, both parties confirmed their determination to implement transparent import conditions according to the recommendations of the international standard organisations.
- A specific recognition was made by the EU to Mexico, welcoming the advances proposed to improve the protection of geographical indications[153].

Lastly, the Joint Committee has also addressed the issue of the review clauses, in a way practically identical to that done by the Joint Council, as can be observed from some of the references that can be found in the press communiqués:

- II Meeting, October 2002: "(…) The parties reiterated their commitment to optimising the measures adopted in the framework of the Agreement. To do so, they urged that the technical bodies established by the Agreement continue their work, in order to ensure that trade flows are developed normally, by including the reduction in unwarranted technical barriers that affect bilateral trade".
- IV Meeting, November 2004: "(…) examined the review clauses on the chapters of agriculture, services and investment, with the objective to reach agreements to further liberalise their respective markets".
- V Meeting, October 2005: "(…) The parties also reviewed and took stock of the state of progress in the discussions on the review clauses established in the Free Trade

[151] Press communiqués generally subdivide the treatment of the issues into three groups: political dialogue, cooperation and trade. Only the last of these is considered here.
[152] This topic was addressed in the X and XI Joint Committee meetings.
[153] This issue has been raised by some European sectors as a non-tariff barrier. See Section on Identification of NTBs.

Agreement in the areas of agriculture, services and investment. The parties confirmed their intention to conclude such a review by the end of 2005."

- VI Meeting, October 2006: "(…) work on the technical negotiation of review clauses on agriculture, services and investment was examined. In this respect, the parties confirmed their intention to conclude this process".
- VII Meeting, November 2007: "(…) The parties agreed that the work on the review clauses of the EU-Mexico FTA on agriculture, services and investment should be accelerated."
- VIII Meeting, October 2008: "(…) Both parties examined the state of play of the FTA review clauses regarding agriculture and fishery products, services, and investment. They took note of the entry into force of Decision 1/2008 related to the framework for Mutual Recognition Agreement on Services and jointly agreed to intensify the efforts in order to achieve further progress in those areas, in view of the deadlines set in the FTA."
- X Meeting, October 2010: "(…) Mexico and the European Union agreed on the common interest for deepening the mutual trade liberalisation through the provisions of the review clauses of the EU-Mexico Free Trade Agreement on agriculture, trade in services and investment. The Parties took note of the results of the negotiation processes carried out in 2010, and confirmed the importance of reaching ambitious results in conformity with the interests of each Party";
- XI Meeting, October 2011: "(…) The Parties agreed on their common interest in deepening the mutual trade liberalisation through the provisions of the review clauses of the EU-Mexico Free Trade Agreement on agriculture, services and investment. The Parties underlined their commitment to continuing this process and envisaged the possibility of enlarging the scope of the reviews to other areas in order to reach ambitious results in conformity with the interests of each Party."

2.4.3. Conclusions

In terms of the general evolution of the bilateral relationship and specifically from the point of view of its results and effects on bilateral trade and investment flows, the EU-Mexico FTA can be characterised as successful. Trade barriers have been dismantled as programmed — with a few exceptions that are mentioned in the corresponding sections of this study. These exceptions are not important contentious issues, but concern a small number of fields with lasting trade obstacles that have already been subject to a claim, but have still not been solved; they include mainly non-tariff barriers or trade issues in which negotiation progress has not been achieved as ruled by the Joint Council decisions.[154] It should, therefore, be reasonable to conclude that the institutional framework of the agreement has accompanied its evolution and fulfilled the functions for which it was instituted, in spite of the unsolved issues that can be attributed more to a lack of political will from the parties than to a failure of the agreement institutions.

At the time, the agreement was evaluated as innovative in respect of the other EU agreements, and also to most of the last generation of FTAs, because it did not merely negotiate trade liberalisation and trade-related disciplines, but also set up a framework for future negotiations.

There is a consensus among different authors about the fact that review clauses contained in the agreement had not only been innovative, but were legally binding for the parties, thereby guaranteeing their enforcement within the established timelines. In other words, the wording of the review clauses appears as mandatory, even if no sanctions or alternative remedies have been added to this mandate; for instance, recourse to the dispute settlement mechanism in cases of non-compliance. Nevertheless, even accepting that they are legally binding, each one of the review clauses implies a negotiation process without clear obligation to lead to a conclusion, just the same as the negotiation of tariff schedules or the other trade-related disciplines.

[154] Evidence of this, for example, the Joint Council Decision 2/2001, that, in its Article 35 Review clause, establishes that "With the view of the objective of progressive liberalisation of investment, the Community and its Member States, and Mexico affirm their commitment to review the investment legal framework, the investment climate and the flow of investment between their territories, consistent with their commitments in international investment agreements, not later than three years after the entry into force of this Decision."

The evidence after almost 15 years of the agreement enforcement shows that the innovative idea did not result in a further deepening of the agreement. It can be argued, on a first view, that the institutional framework is to be blamed for this non-fulfilment, but a closer examination must take into account the fact that merely setting up a framework for future negotiations does not, in and of itself, guarantee that there will be a sustained commitment to reach an agreement. In other words, the *ex-post* analysis of this alleged failure — in the sense of an analysis focused on the results obtained — suggests that circumstances surrounding each one of these commitments was not sufficiently compelling to facilitate the negotiation. The preliminary conclusion is, therefore, that the failure cannot be attributed to the configuration or the functioning of the institutional framework.[155] In any case, the abovementioned observations reinforce the idea of including these pending issues in the modernisation agenda, especially if a deeper degree of integration and equivalence with other trade agreements — e.g. NAFTA — are the objectives intended to be reached.

Regarding the possible improvements to the scenario of a modernisation of the agreement, the following observations are considered as consistent with the preceding analysis:

- There are not failures or non-fulfilment of tasks that may be attributed to the design of the institutional framework or to its operational procedures (frequency of meetings, representation, etc.).
- In a similar sense, the observed non-fulfilment of the negotiation of the review clauses cannot be attributed to its design, but, rather, to the fact that, in the case of issues to be negotiated, it seems that the conditions were simply not conducive to an agreement. Notably, the sectoral approach made it difficult to reach a balanced outcome. The lack of complementarity of needs and interests of the parties has resulted in a failure to advance in the originally planned or intended direction.
- The current situation — i.e. the scenario of a possible modernisation of the accord — does not face the same circumstances, nor the same urgencies. Therefore, a similar institutional design can perfectly adapt to the future agreement from the point of view of their administration and implementation functions and duties.
- However, to make the commitments legally binding to the parties, it is recommendable to give the institutional bodies the power to monitor non-compliance, enabling them to make recommendations to the governments on issues of mutual interest where non-compliance has been observed[156].
- The dispute settlement mechanism should be reviewed to include trade-related disciplines that have been excluded or not included in it — which is possible only if the commitments to negotiate in areas such as intellectual property rights and investment go beyond what is currently agreed to include more detailed and legally binding provisions.
- Finally, the roster of Special Committees should also be reviewed, at least from two perspectives: first, because some of them may not currently have the same validity that they had at the time of the agreement's negotiation; second, in the light of their effectiveness as communication channels to address problems and obstacles to be considered and solved by the Joint Committee and/or the Joint Council.

[155] The references to these issues in the press communiqués on the meetings of the Joint Council and the Joint Committee reaffirm this conclusion.

[156] The model of NAFTA is a good reference to follow on this point.

3. Economic analysis

The purpose of this chapter is to present a descriptive analysis of economic developments in the EU and Mexico in the period just before and that since implementation of the FTA, and to conduct an *ex-post* impact evaluation of the FTA against this background.

We start, therefore, with an analysis of economic trends and developments in Mexico and the EU. This analysis includes general economic developments for both the EU and Mexico since the signing of the FTA in 2000, and an analysis of the evolution of trade between the EU and Mexico in goods and services and of FDI — beginning six years prior to the entry into force of the FTA and ending as recently as possible. The aim of this exercise is not only to provide a description of the two economies, but, by presenting trends and shares, also to help the reader put the findings of the *ex-post* evaluation of the FTA into perspective.

The second part of this chapter is dedicated to the *ex-post* economic impact analysis of the FTA, based on gravity analysis and CGE modelling. This exercise serves to identify the impact of the FTA by comparing the current situation to a situation where there would not have been an FTA in place. The results of the CGE modelling exercise are presented at the overall, macro-economic level, at sector level, and for a selected number of social and environmental indicators. Finally, we also briefly consider the impact of the FTA on total factor productivity in Mexico, based on a review of the relevant literature.

3.1. Economic trends and developments

Data sources used

For the general economic development, we used commonly recognised sources and databases, such as OECD Stats and the World Bank. International trade data are taken from WITS (UN COMTRADE) in HS1988/92 classification, to allow for sufficient length of time series, i.e. starting six years before the FTA. Because of data quality, we do not disaggregate further than two-digit sector levels.

We conducted the analysis of the trade and FDI developments at HS2 level to provide a higher level of detail than can the GTAP sectors of the CGE model. The trade statistics are retrieved from UN COMTRADE via the WITS platform. For retrieving statistics of trade in services, we consulted the Trade in Services Database (Francois and Pindyuk 2013). The OECD TiVA database is used to retrieve statistics on trade in value added. FDI statistics are retrieved from UNCTADStat.

3.1.1. General economic developments in Mexico and the EU

Economic developments in Mexico

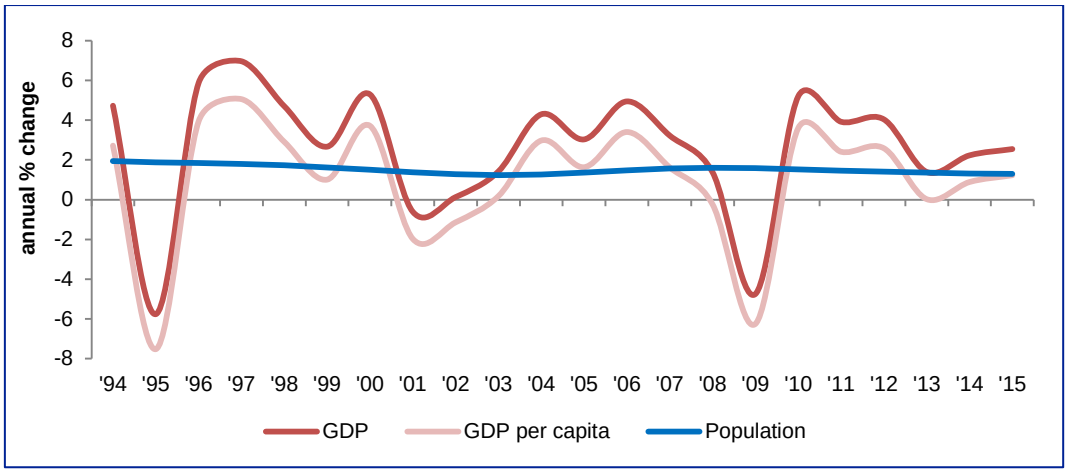
Mexico is classified as an upper middle income country by the World Bank and had a GDP of US$1.261trn in 2013.[157] The country gains interest from global investors and business leaders, as they see it as an emerging market with growth prospects and as an ideal location for reaching the US Market[158]. Mexican income per capita is about one-third of income per capita in the US, and income is highly unequally distributed.[159]

GDP and productivity

Figure 3.1, below, shows the developments in Mexican GDP growth in the past 20 years. It shows that GDP and GDP per capita have been growing according to the same pattern, with some serious relapses in 1995 (the Mexican peso crisis), 2001 and 2009 (global economic crisis). GDP per capita grows at a slightly slower rate than aggregate GDP. The main reason for this difference is the steady Mexican population growth, which is indicated by the blue line in.

[157] World Bank, link: http://data.worldbank.org/country/mexico.
[158] McKinsey & Company (2014), A tale of two Mexicos: Growth and prosperity in a two-speed economy. McKinsey Global Institute, March 2014. Preface.
[159] CIA World Factbook, link: https://www.cia.gov/library/publications/the-world-factbook/geos/mx.html.

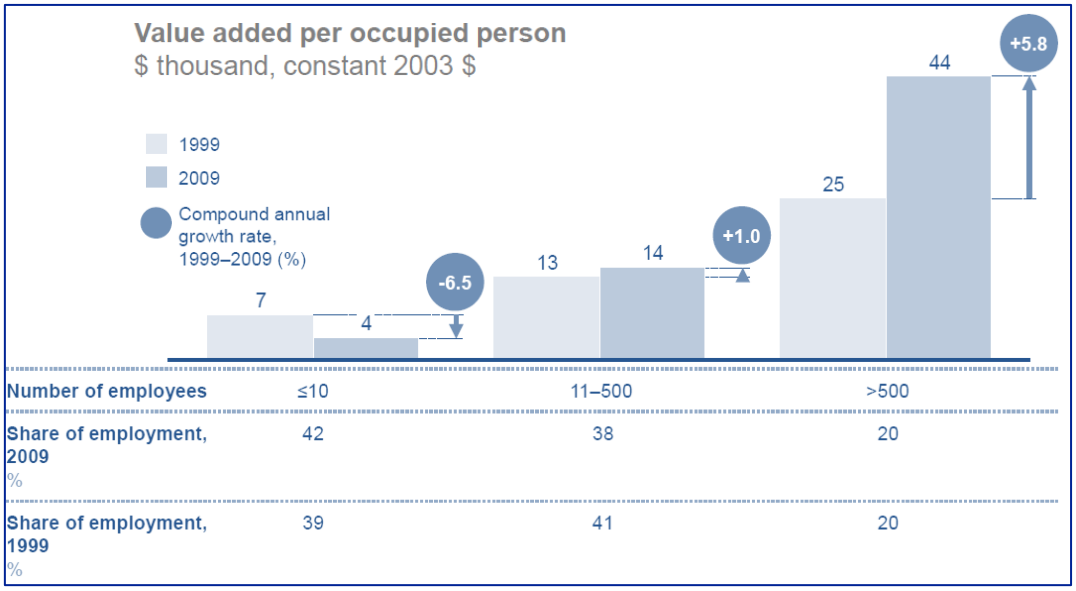
Figure 3.1 Mexican GDP growth in the past 20 years



Source: World Bank, World Development Indicators.

Mexico has been struggling to raise its growth rates and improve living standards for the past three decades, despite extensive economic and trade reforms, including an unprecedented and far-reaching trade agreement with the US and Canada (NAFTA). Mexican economic growth is falling behind compared to other developing nations. The main reason for this seems to be that multifactor productivity is lagging, thereby offsetting the positive contributions to GDP of labour force growth and human capital accumulation (OECD 2013b, p.12). The annual growth rate of labour productivity has, on average, been 0.8 percent between 1990 and 2012. The traditional economy of Mexico, which consists of small and often informal enterprises, is growing faster in terms of jobs than the highly productive and internationally competing modern part of the economy. Hence, the share of Mexican workers in the traditional economy is increasing over time, which leads to lower aggregate productivity (McKinsey 2014, p.7). This is illustrated by the figure below, where we see that the employment share of small firms in total employment is increasing, while its labour productivity is decreasing.

Figure 3.2 Developments in labour productivity of Mexican firms



Source: Censos Económicos 1999 & 2009, Instituto Nacional de Estadística y Geografía; in McKinsey Global Institute (2014).

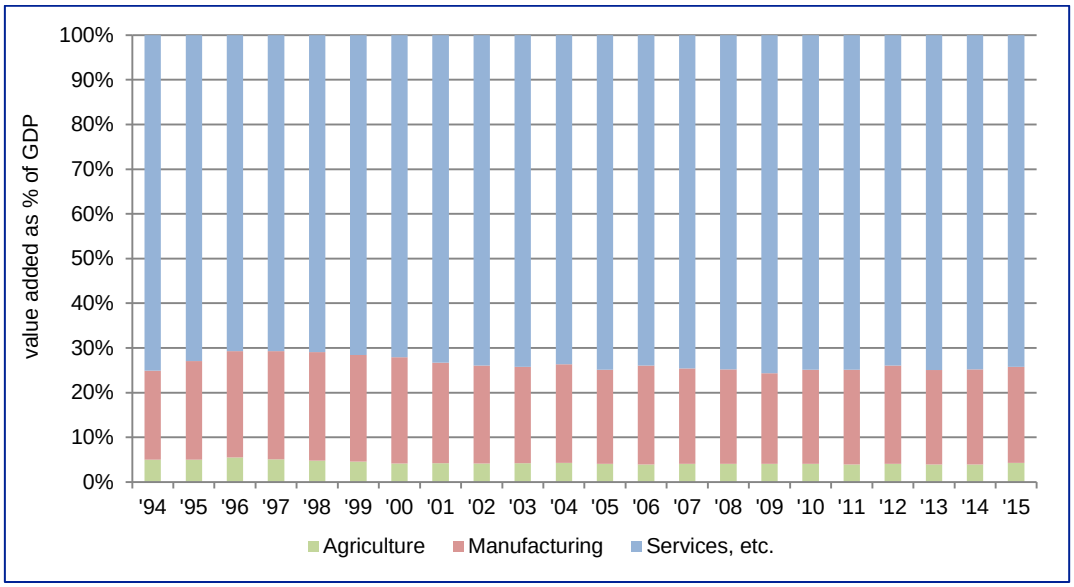
Despite these productivity issues, it is expected that Mexican economic growth will accelerate in the coming years, due to (i) reforms recently approved and implemented by the government, (ii) the government's announcement of a large private-public investment programme in the coming five years, (iii) increased private consumption owing to an improved outlook for Mexican

households, and (iv) benefits from the improved outlook for the US economy, Mexico's main trade partner.[160]

Sectoral growth

Figure 3.3, below, shows the sector shares of agriculture, industry and services in total Mexican GDP. It makes clear that services are the most important contributor to GDP, accounting for more than 60 percent of GDP for most years. The agricultural sector is relatively small compared to industry and services. The sectoral shares in GDP have not changed much over the past 20 years.

Figure 3.3 Sector shares in total GDP for the past 20 years, Mexico



Source: World Bank, World Development Indicators.

When considering sectoral employment shares in total employment, it becomes clear that the share of people employed in the agricultural sector has been declining in the past 20 years, from 24 percent in 1995 to 13 percent in 2011. Employment in services has clearly increased, from 54 percent in 1995 to 62 percent in 2011 (see Figure 3.4).

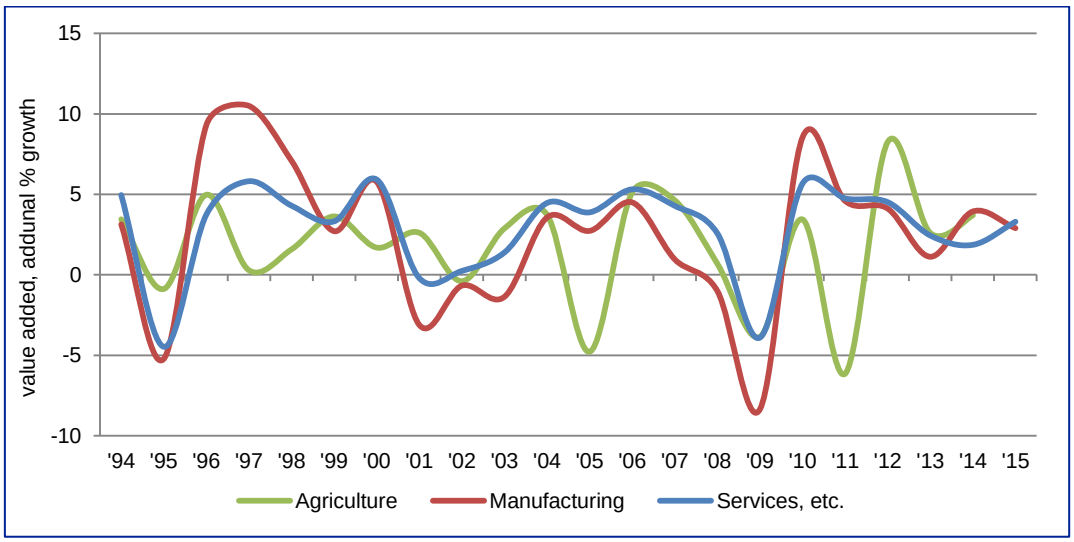
[160] Rabobank (2014), Country Report Mexico. Rabobank Economic Research Department, June 6th 2014, p.2.

Figure 3.4 Sector shares in total employment for the past 20 years, Mexico

Source: World Bank, World Development Indicators.

Figure 3.5, below, shows the growth rates of these three sectors in the past 20 years. We observe that value added of industry and services have followed a similar growth pattern, while agriculture has followed a different path. There was a large negative effect on value added due to the 1994/95 and 2008/09 crises.

Figure 3.5 Annual percentage growth of Mexican agriculture, industry and services value added



Source: World Bank, World Development Indicators.

Price levels

In the past decades, and particularly before 2000, the Mexican economy experienced high inflation rates, with an average inflation rate of 69.9 percent in 1980-1989 and 20.5 percent in 1990-1999. Figure 3.6, below, presents the developments of price indices. Consumer and producer prices have increased at a similar rate in the past 20 years. We see a small change after the year 2000; the annual price increases seem to become less steep. This is probably related to the inflation targeting policy of the Central Bank, which was adopted in 1999 and gradually implemented until formal application in 2001. The implementation of this inflation

targeting policy was possible only after the constitutional reform of 1993 that granted greater autonomy to the Central Bank.[161]

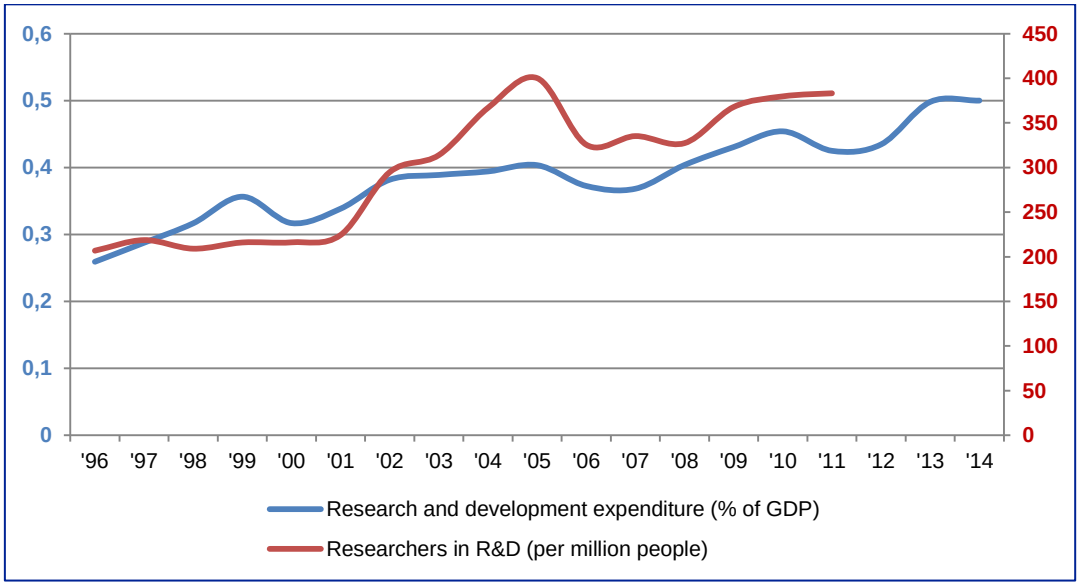
Figure 3.6 Development of price levels in Mexico

Source: World Bank, World Development Indicators.

Science and technology

Figure 3.7, below, presents two indicators related to science and technology, namely R&D expenditures (both public and private) as a percentage of GDP and the number of researchers working in R&D. Both indicators are increasing over time. The latter indicator increased significantly after the year 2001. However, the OECD (2013a, p.36) reports that the share of GDP spent on R&D in Mexico's business sector is still the lowest of all OECD countries.

Figure 3.7 Research and development in Mexico



Source: World Bank, World Development Indicators.

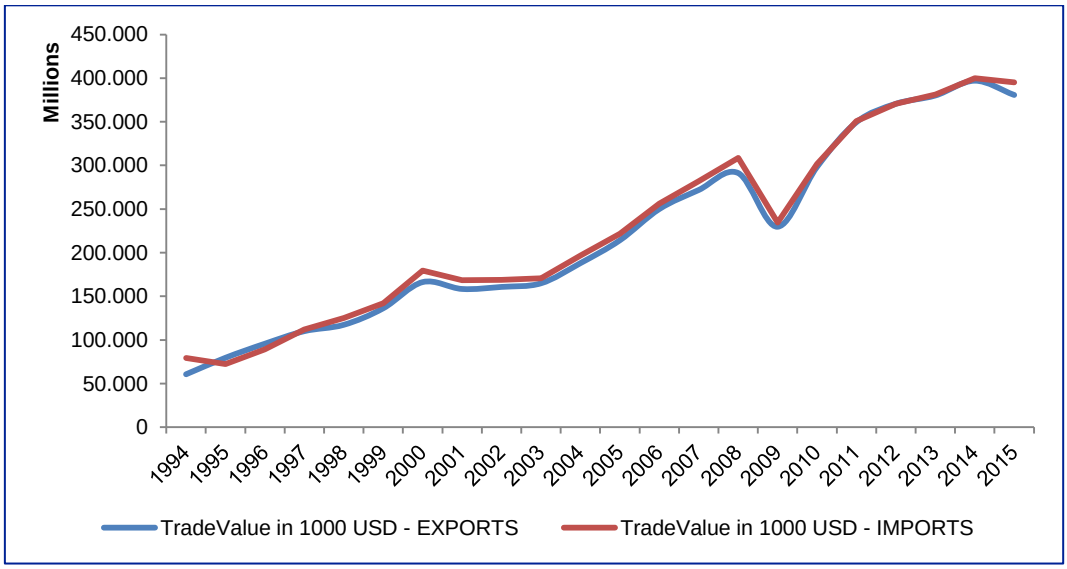
[161] http://www.focus-economics.com/country-indicator/mexico/inflation.

International trade

In the past two decades, Mexican trade policy has shifted from import substitution to an outward, export-oriented focus. In this period, the degree of trade openness has doubled, with the trade value now at approximately 60 percent of GDP (OECD, 2013a, p.156). The overall trade-weighted average tariff on Mexican imports is 2.9 percent, with import duties ranging from 0 to 35 percent. In addition, with some exceptions, all imports are subject to a VAT of 15 percent.[162]

Figure 3.8, below, presents total imports and exports of Mexico over time. It shows that they follow the same pattern and are relatively equal in value, although there is a trade deficit in most years. In 2013, the trade deficit was USD 1.09 bn. A large part of exports go to the US, due to the proximity and size of the US market, and the Mexican export sector is often seen as excessively dependent on the US market.[163] In 2013, exports to the US accounted for 78.9 percent of total Mexican exports, followed, at a distance, by the EU (5.2 percent), Canada (2.7 percent) and China (1.7 percent).[164] Mexican exports to the world are dominated by a few products: electrical machinery, equipment and parts, telecommunications equipment, sound recorders, television recorder (20.6% of total exports in 2013), vehicles other than railway or tramway rolling stock (20.3%), nuclear reactors, boilers, machinery and mechanical appliances, computers (14.1%) and mineral fuels, oils, waxes and bituminous sub (12.8%).

Figure 3.8 Total imports and exports of Mexico over time



Source: WITS / UN COMTRADE.

Maquiladoras

The phenomenon of *Maquiladoras* is important for Mexican exports. Maquiladoras are companies that enjoy special tax breaks for assembling export products with imported inputs. This policy has been in place since the 1960s. Maquiladoras are responsible for 65 percent of manufacturing exports, with total annual export values of more than USD 178 billion per year (PwC Mexico, 2013, p.3). However, in 2013 the Mexican government decided to remove a range of deductions and allowances for maquiladoras, which could be detrimental to the Mexican export sector (*The Economist*, 2013).

Economic developments in the EU

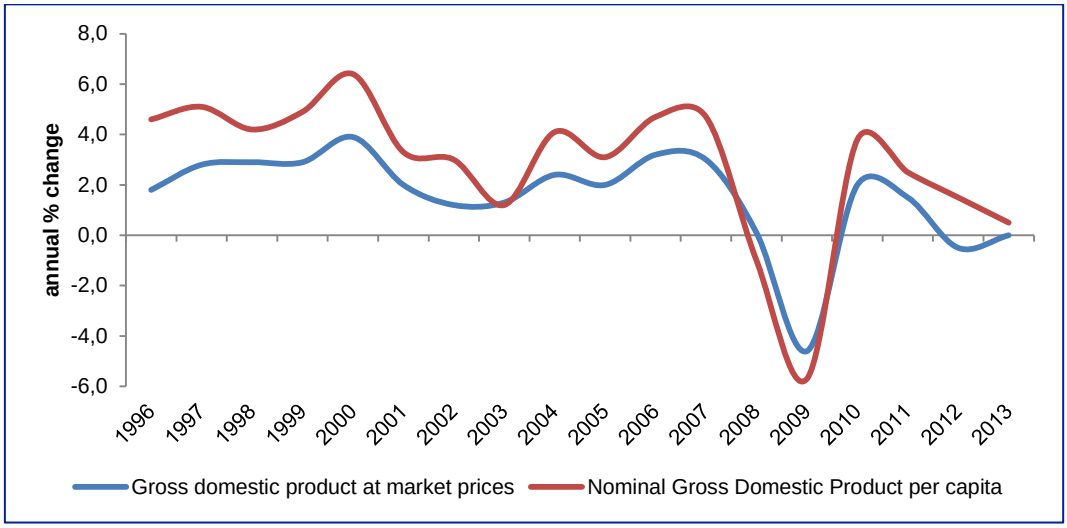
We now turn to the economic developments in the EU, which was significantly smaller at the time of signing the FTA with Mexico compared to its current size. In the year 2000, when the FTA with Mexico entered into force, the EU still consisted of 15 member countries: Austria,

[162] The Economist Intelligence Unit, link: http://country.eiu.com/Mexico.
[163] The Economist Intelligence Unit, link: http://country.eiu.com/Mexico.
[164] WTO, link: http://stat.wto.org/CountryProfiles/MX_e.htm.

Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Portugal, Spain, Sweden and the UK. This group of countries is described later in this chapter as the "EU15". After 2000, 13 more Member States joined the EU at different points in time.[165] When these countries became part of the EU, they automatically joined the FTA with Mexico. For the sake of data comparability, throughout this section we present the time series for the EU15 only.

Figure 3.9, below, shows the GDP growth of the EU15 aggregate over the past 20 years. The GDP of the EU15 has been growing, except in the crisis years of 2008/09 and 2012. We see that GDP per capita growth is generally higher than aggregate GDP growth, with the exception of the crisis years. In contrast to Mexico, capital and productivity growth drive the overall growth in the region.

Figure 3.9 EU15 GDP growth in the past 20 years



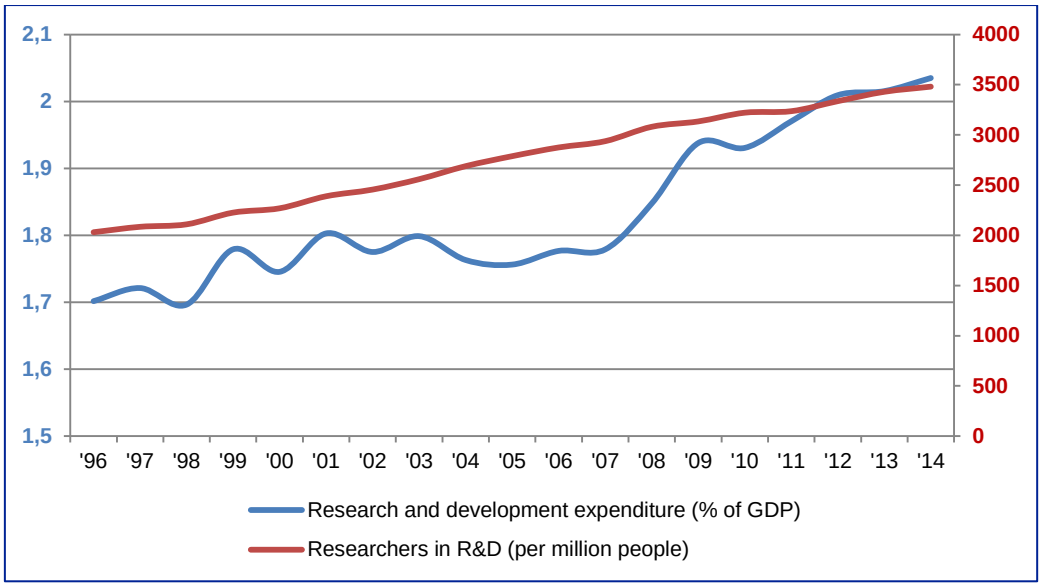
Source: Eurostat.

Figure 3.10, below, shows developments related to science and technology in the EU. It illustrates that both R&D expenditures (public and private) as a percentage of GDP, as well as the numbers of researchers working on R&D, are growing over time, but also that both figures are significantly higher in the EU compared to Mexico. However, the growth rates of both R&D indicators are higher for Mexico.[166]

[165] Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia.

[166] The compound annual growth rates over the period 1996-2011 for the indicators "R&D expenditure (% of GDP)" and "Researchers in R&D (per million people)" for Mexico are, respectively, 3.49% and 4.33%. The compound annual growth rates over the period 1996-2012 for the same indicators for the EU are, respectively, 1.01% and 2.81%.

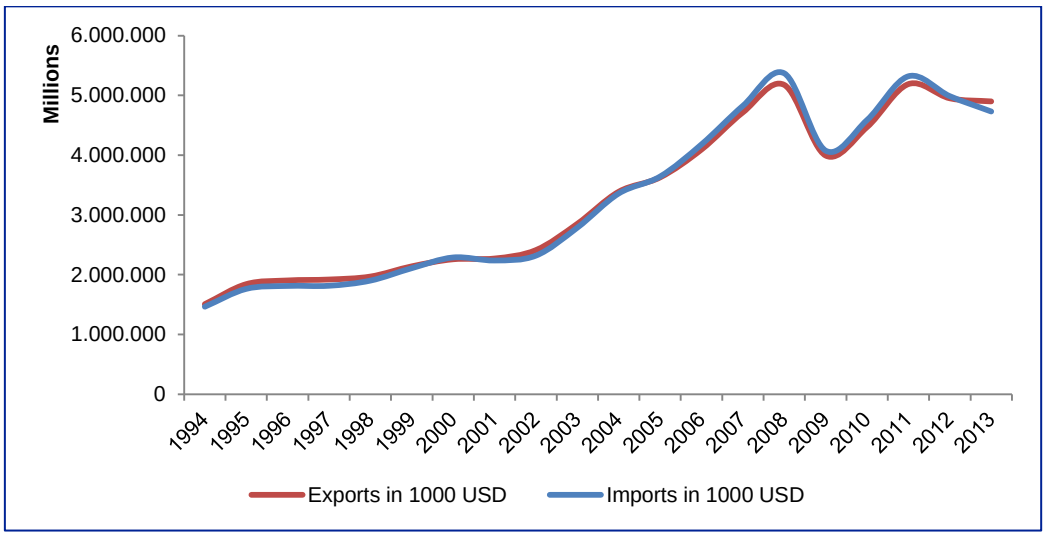
Figure 3.10 Research and development in the EU



Source: World Bank, World Development Indicators.

Figure 3.11, below, shows total imports and exports of the EU15 over time. These have been growing according to the same pattern. During the crisis years of 2008/09, there was a serious fall back to 2005 levels, and, in 2012/13, values went down again after a recovery of trade in 2010/11.

Figure 3.11 Total imports and exports of EU15 over time



Source: WITS / UN COMTRADE.

3.1.2. The evolution of trade and FDI between Mexico and the EU

In the year 2000, the FTA between Mexico and the EU entered into force, with the part of the agreement related to trade in services entering into force in 2001.[167] In this section, we will analyse the evolution of trade between the EU and Mexico in goods and services and of FDI — beginning six years prior to the entry into force of the FTA and ending as recently as possible.

Before presenting the developments in the past 20 years in respect of bilateral trade and FDI, we will first describe how the tariff structures of both parties changed as a consequence of the FTA. To this end, we provide an overview of the tariffs of both Mexico and the EU, before and after the FTA, differentiated by agricultural and non-agricultural products.

Tariff profiles

The tables below provide tariff profiles for both Mexico and the EU15 (and, subsequently, the EU28). In Table 3.1, we observe that the EU is the third biggest source of Mexican imports. For the EU, we see that effectively applied tariffs (both simple average and weighted average) have gone down for all product groups (agricultural and industrial products and petroleum). Duty-free imports have increased significantly for all categories compared to the situation before the FTA.

Table 3.1 Tariff profile Mexico, duties faced by main trade partners, 1995 and 2009

Partner Name	Imports Value in US$ '000s (2009)	Simple Average AHS		Weighted Average AHS		Share of duty-free imports	
		1995	2009	1995	2009	1995	2009
Agricultural products							
US	13,797,409	6.99	0.85	6.47	0.76	23.2%	93.3%
Canada	1,312,307	7.33	1.36	3.06	1.04	64.6%	98.2%
EU15	**907,887**	**14.07**	**9.51**	**11.49**	**5.71**	**4.6%**	**65.0%**
China	173,777	14.64	14.64	12.03	10.83	8.0%	21.8%
Brazil	146,429	13.17	11.79	14.22	9.79	7.9%	10.9%
Industrial products							
US	89,758,309	5.96	0.14	6.24	0.11	24.1%	98.5%
China	31,738,162	14.35	10.33	14.40	4.38	3.5%	45.1%
EU15	**22,274,094**	**12.99**	**0.00**	**10.39**	**0.00**	**16.0%**	**100.0 %**
Japan	10,961,980	12.87	4.10	10.90	2.36	15.0%	52.3%
Canada	5,808,153	6.47	0.00	5.64	0.00	31.7%	100.0%
Petroleum							
US	8,091,816	4.36	0.00	4.36	0.00	0.0%	100.0%
EU15	**2,309,255**	**7.27**	**0.00**	**7.27**	**0.00**	**0.0%**	**100.0 %**
Canada	75,849	4.36	0.00	4.36	0.00	0.0%	100.0%
Japan	71,243	7.27	3.50	7.27	2.91	0.0%	0.0%

Source: WITS / TRAINS.

The OECD (2013a, p.157) mentions that Mexican tariffs have reduced significantly in the past years, but there is room for further reduction. Further liberalisation of tariffs and investment would enable Mexico's deeper integration into global value chains. Moreover, especially in services sectors, non-tariff measures are still prevalent, limiting trade.

Table 3.2, below, provides a similar table for the EU side, in which we see imports from the main trade partners for the total EU and tariff information. When focusing on Mexico, we see that both simple and weighted average effectively applied tariffs have decreased.

Table 3.2 Tariff profile EU, duties faced by main trade partners, 1995 and 2010

Partner Name	Imports Value in US$ '000s (2010)	Simple Average AHS		Weighted Average AHS		Share of duty-free imports	
		1995	2010	1995	2010	1995	2010
Agricultural products							
Brazil	15,664,826	6.22	5.92	6.40	3.10	43.4%	59.9%
US	9,559,561	8.79	6.45	3.70	3.25	37.2%	33.4%
China	5,188,421	6.45	5.77	4.86	5.24	52.4%	42.4%
Switzer-land	4,644,188	9.34	4.64	10.69	0.43	9.2%	87.7%
Canada	2,317,914	8.54	6.02	3.42	1.76	44.6%	69.2%
Mexico	**1,046,320**	**7.22**	**1.43**	**8.11**	**1.71**	**11.9%**	**67.0%**
Norway	547,658	9.45	5.32	5.09	3.68	44.4%	40.2%
Japan	256,497	10.10	7.39	8.18	6.18	15.1%	12.7%
Industrial products							
China	366,848,078	2.55	3.87	3.86	3.42	37.7%	36.5%
US	202,210,144	6.10	3.90	4.65	1.77	13.5%	43.8%
Switzer-land	106,610,555	6.12	0.08	4.84	0.00	19.8%	100.0%
Japan	87,332,209	6.23	4.00	6.44	3.26	2.2%	29.2%
Norway	39,278,607	6.08	0.13	5.28	0.36	11.7%	88.0%
Canada	27,512,952	6.14	3.90	3.15	1.02	42.0%	67.9%
Brazil	25,177,282	2.22	3.78	1.59	1.58	68.8%	62.6%
Mexico	**13,483,842**	**2.49**	**0.00**	**1.81**	**0.00**	**57.7%**	**100.0 %**
Petroleum							
Norway	47,487,814	2.89	0.00	0.35	0.00	94.0%	100.0%
US	6,857,432	2.89	1.98	5.66	2.25	1.9%	1.2%
Mexico	**3,361,119**	**0.00**	**0.00**	**0.00**	**0.00**	**100.0 %**	**100.0 %**
Brazil	2,900,126	0.00	0.00	0.00	0.00	100.0%	100.0%
Canada	982,501	2.89	1.98	3.68	1.56	36.3%	30.6%
Japan	455,845	2.89	2.86	5.77	2.21	0.0%	0.0%
Switzer-land	223,000	5.77	0.00	5.77	0.00	0.0%	100.0%
China	106,123	0.00	0.00	0.00	0.00	100.0%	100.0%

Source: WITS / TRAINS.

Tariff Rate Quotas

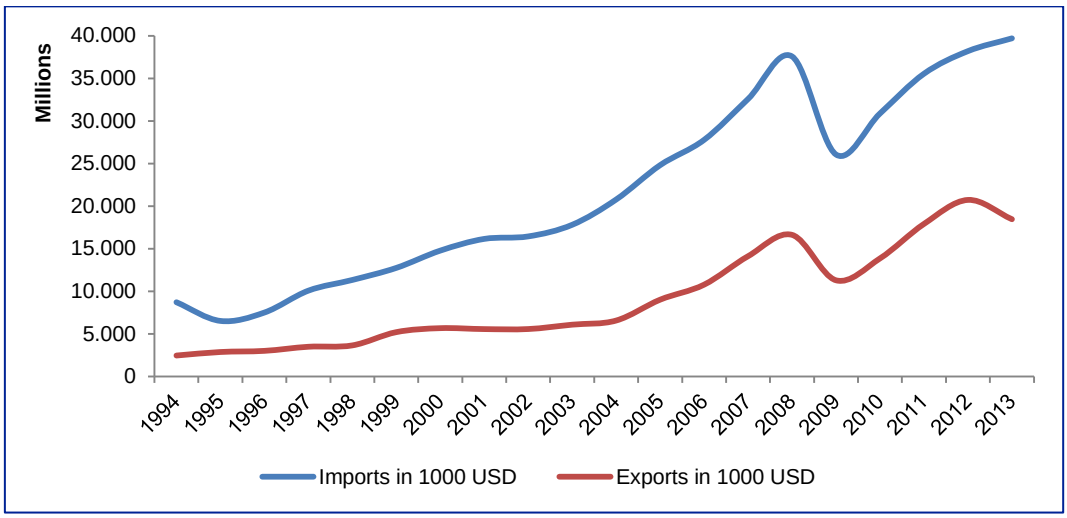
The FTA between Mexico and the EU also includes Tariff Rate Quotas (TRQs) for 53 products originating in Mexico, defined as 8-digit product codes.[168] In Annex F, we have identified the TRQs in place and the concerning inner and outer TRQs. It can be observed that, in 2013, the EU did not import most of the products with a TRQ from Mexico at all. The only two products for which the TRQ has been filled in 2013 are 0709 20 00 (fresh or chilled asparagus) and 2009 19 11 (orange juice). Stakeholders indicated that, despite the FTA, Mexican agricultural export products have even better market access conditions in other markets than the EU, leading Mexican exporters to divert their agricultural exports to these markets instead of fully using EU quotas.

[168] http://www.sice.oas.org/Trade/mex_eu/english/Decisions_Council/Dec2_Annexes_e/Annex_1_e.pdf (see page 1-3).

Bilateral trade

Figure 3.12, below, presents imports and exports of Mexico from and to the EU15 over the past 20 years. Bilateral imports and exports grow according to the same pattern. The value of total bilateral imports is higher than the value of exports, and the gap is widening over time. There is a drop in both imports and exports in the period of the global crisis around 2009. It should be noted here that the EU is still not a big export partner for Mexico, with a share in total Mexican exports of 5.2 percent.

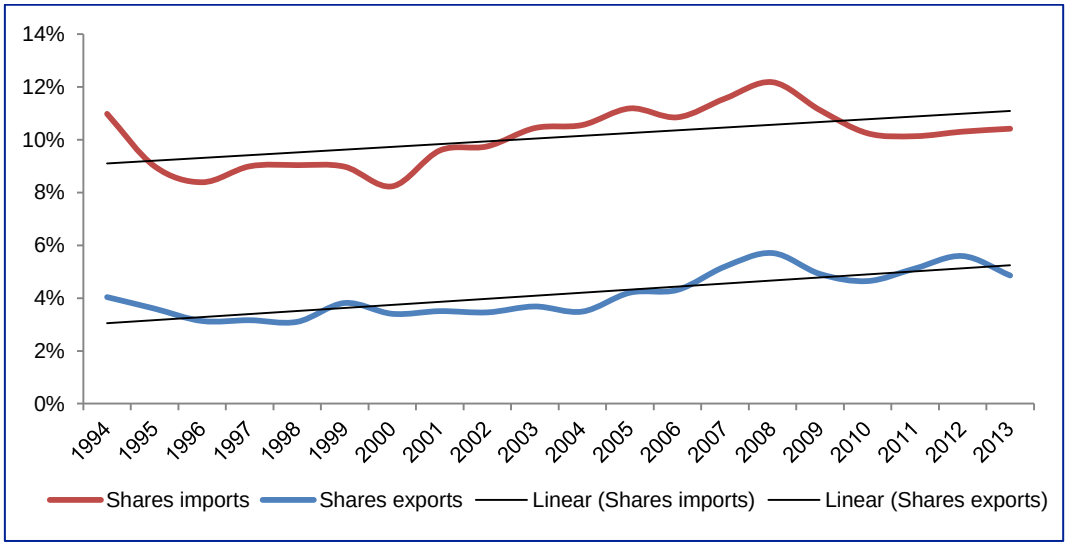
Figure 3.12 Mexican imports from and exports to the EU15 over time



Source: WITS / UN COMTRADE.

The figure above shows that, since the early 2000s, bilateral trade is increasing at a faster rate than before; however, this observation also holds for total exports of Mexico and the EU15 to the world in general (see Figure 3.8 and Figure 3.11). Therefore, below, we present the shares of bilateral trade between Mexico and the EU15 in total trade to see whether trade with the EU15 has intensified.

Figure 3.13 Share of EU15 in Mexico's trade flows



Source: WITS / UN COMTRADE.

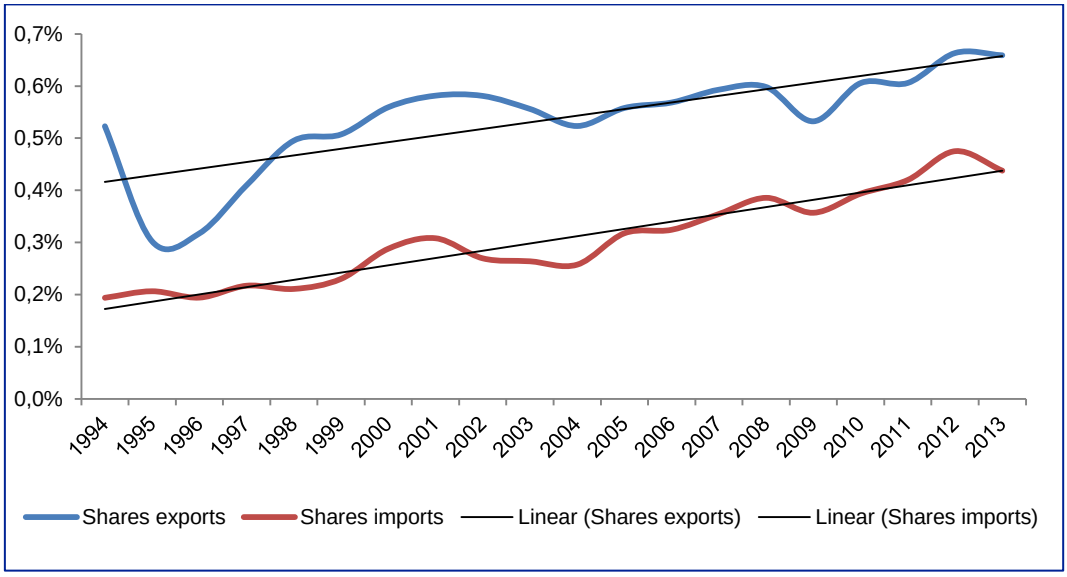
Figure 3.13 above shows the share of the value of Mexican exports and imports to the EU15 as a percentage of total Mexican exports and imports to the world. Next to the shares, linear trend lines are presented. We observe that both shares are gradually increasing over time, indicating that the EU15 is becoming more important as a trade partner for Mexico than are other

countries. The increased market share may be indicative of an impact of the FTA, although the changes are small.

According to Mexican stakeholders, the reasons why the bilateral trade shares have not increased significantly since 2000, when the FTA was concluded, relate to the fact that a large part of Mexican businesses are not aware of the existence of the FTA and of the opportunities this agreement creates for them. They are focused on other markets than the EU when doing business. Furthermore, stakeholders also mentioned that they perceive SPS, as well as IPR, GI and public procurement, as barriers still limiting their exports to the EU. Differences between requirements for exporting to different EU Member States imply that exporters face additional costs for exporting to different Member States, further limiting the incentive to export to the EU, e.g. because labelling information must be in different languages.[169] Also from the survey, it appears that Mexican companies see the EU as an attractive market; however, EU standards and regulation are complicated and not always transparent.

Figure 3.14, below, includes similar rates and trend lines, but then for the EU15. Also, here we see steadily increasing shares, but at levels that are much lower than for those above. This shows that Mexico is not such an important trade partner for the EU15 at present, but is becoming more important over time.

Figure 3.14 Share of Mexico in the EU15's trade flows



Source: WITS / UN COMTRADE, Ecorys calculations.

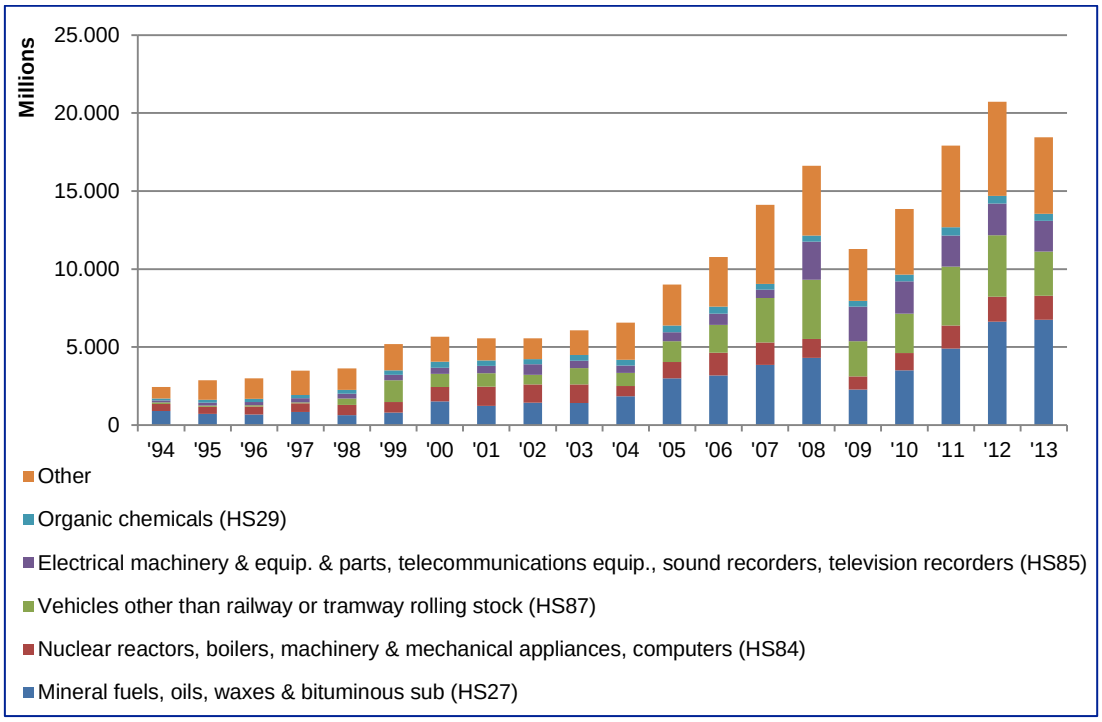
The reasons for this small increase in the share could be that European companies view Mexican standards and regulations as complicated and not transparent, which is supported by the survey results. For goods exporters, tariffs, pre-shipment inspection and other formalities, TBT, rules of origin, and licensing restrictions are most often mentioned as the most restrictive trade barriers when exporting to Mexico. For European SMEs, the high costs of customs administration, tariff barriers, and foreign currency exchange risks are particularly mentioned as barriers to their internationalisation. Also, the lack of business opportunities and information on the market seem to hold back SMEs from trading with Mexico.

The figures above show clear positive developments over the past 20 years, which indicate that the trade relationship between Mexico and the EU has become increasingly important; however, later analyses in section 3.2 should clarify whether the FTA has played a role in these positive trends.

[169] Source: Luz Maria De la Mora (2010) La inversión y el intercambio comercial entre Mexico y la Unión Europea: los retos de la competitividad para el acceso a nuevos mercados, in Coninsx et al. Logros y retos a diez anos del acuerdo global Mexico-Unión Europea.

Figure 3.15, below, shows the most important export sectors of Mexico to the EU15, which include two chemical and three industrial sectors. Together, these five sectors were responsible for 70% of total Mexican exports to the EU in 1994 and 73% in 2013. The category "Other" includes 92 other product groups at two-digit level.

Figure 3.15 Mexican exports to the EU15 by product group (HS 2 digit)



Source: WITS / UN COMTRADE.

The growth in exports of Mexico's biggest export products for the EU market, which can be observed from the figure above, went together with a decrease in the EU's import tariffs on Mexican products, as shown for the set of important export product groups in the table below, although the tariff levels were already quite low before the signing of the FTA.

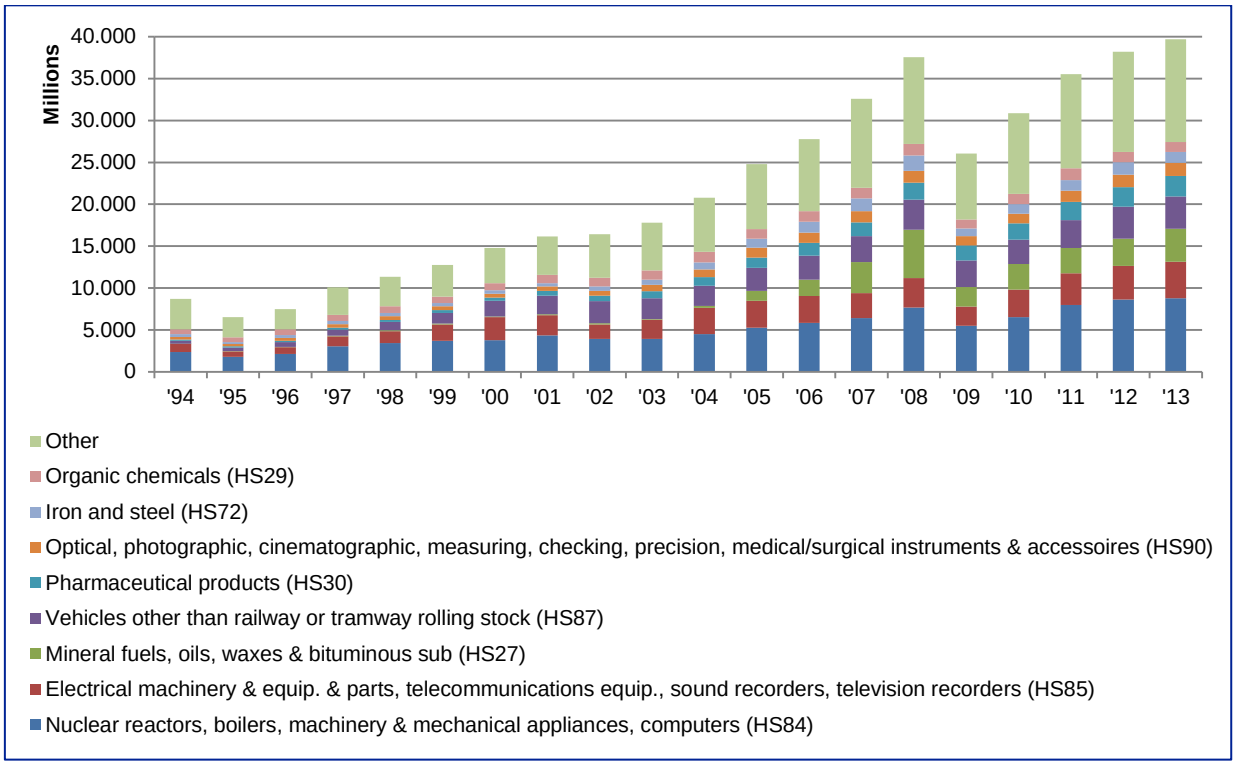
Table 3.3 Simple average AHS tariff levels in 1999 and 2009 for EU imports from Mexico.

Product	Product name	1999	2009
27	Mineral fuels, mineral oils and products of their distillation	0.44	0
29	Organic chemicals	2.01	0
84	Nuclear reactors, boilers, machinery and mechanical appliances and parts thereof	1.69	0
85	Electrical machinery and equipment and parts thereof	2.08	0
87	Vehicles other than railway or tramway rolling stock and parts and accessories thereof	5.96	0

Source: WITS / UN COMTRADE.

Figure 3.16, below, shows the export flows from the EU15 to Mexico by sector. Also, here we see that a small number of sectors is responsible for a large part of trade (69 percent in 2013).

Figure 3.16 Mexican imports from the EU15 by product group (HS 2 digit)



Source: WITS / UN COMTRADE.

This growth in Mexican imports from the EU went together with a decrease in Mexican import tariffs because of the FTA, as shown in the table below for the biggest import products from the EU. As can be seen, initial import tariffs in Mexico were much higher than in the EU.

Table 3.4 Simple average AHS tariff levels in 1999 and 2009 for Mexican imports from the EU.

Product	Product name	1999	2009
27	Mineral fuels, mineral oils and products of their distillation	11.15	0
29	Organic chemicals	9.74	0.03
30	Pharmaceutical products	12.54	0
72	Iron and steel	11.93	0
84	Nuclear reactors, boilers, machinery and mechanical appliances and parts thereof	12.1	0
85	Electrical machinery and equipment and parts thereof	15.78	0
87	Vehicles other than railway or tramway rolling stock and parts and accessories thereof	18.37	0
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	13.25	0

Source: WITS / UN COMTRADE.

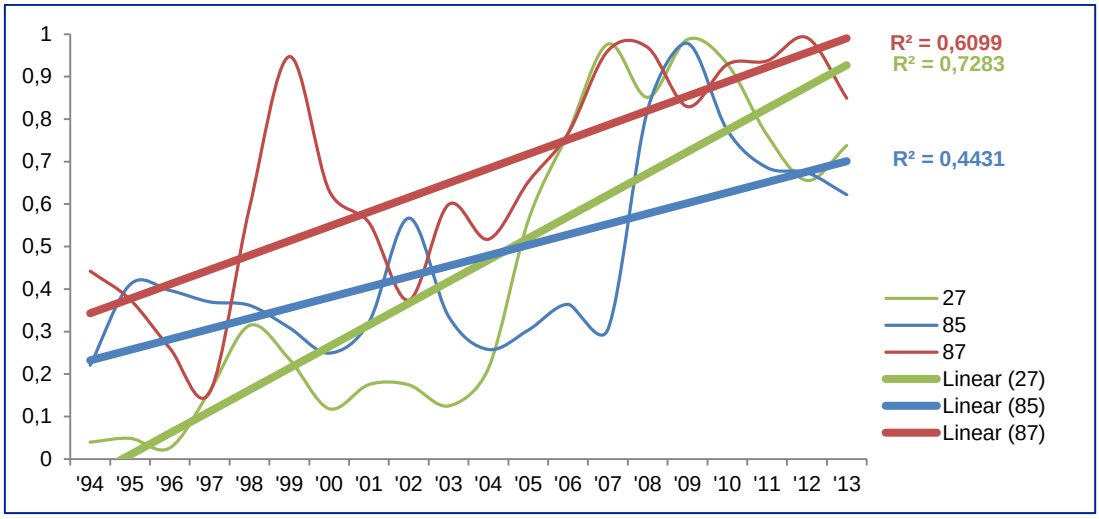
Although the tariff reductions are likely to have played a role in the expansion of trade in these products, it is also clear that they will not be the only explanatory factor. For example, the tariffs on mineral fuels and oils and related products were among the lowest for the products in the table above, but the importance of this product in Mexican exports from the EU has increased considerably since 2005.

Intra-industry trade

From the two graphs above, we can conclude that some big export sectors are important for imports as well, which suggests there is significant intra-industry trade. The intensity of intra-industry trade can be measured with the Grubel-Lloyd index, which indicates the level of similarity between import and export products. For details about the calculation of this index, we refer to Annex B.

This index can have a value between 0 and 1, whereby higher indices represent higher levels of intra-industry trade. An example of the evolution of the Grubel-Lloyd index over time is given below for sectors HS27, HS85, and HS87, as these have been important both in terms of Mexican exports to and imports from the EU.

Figure 3.17 GL index for HS27, HS85, HS87 trade between Mexico and the EU15



Source: WITS / UN COMTRADE, Ecorys calculations.

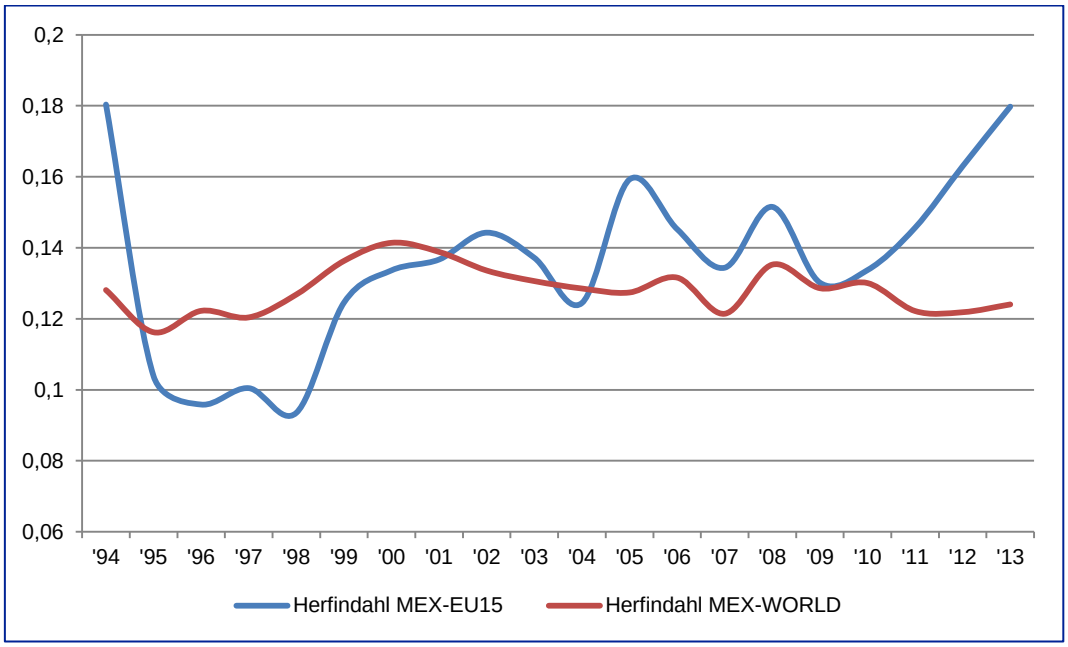
We see large fluctuations over time; however, the trends are in a positive direction. This indicates that intra-industry trade for these three sectors has been increasing over time.

Export diversification

It is interesting to explore whether bilateral trade between Mexico and the EU has diversified over time, i.e. whether exports have become concentrated in a limited number of products or sectors, or if the range of products exported has become more broad. Export diversification can be estimated with the Herfindahl concentration index. This index ranges between 0 and 1, where 0 means high diversification and 1 means high concentration of trade. For details about the calculation of this index, we refer to Annex B.

The Herfindahl index is calculated for bilateral exports from Mexico to the EU15 over the past 20 years; see Figure 3.18, below.

Figure 3.18 Herfindahl index Mexico-EU15 exports and Mexico-World exports, 1994-2013

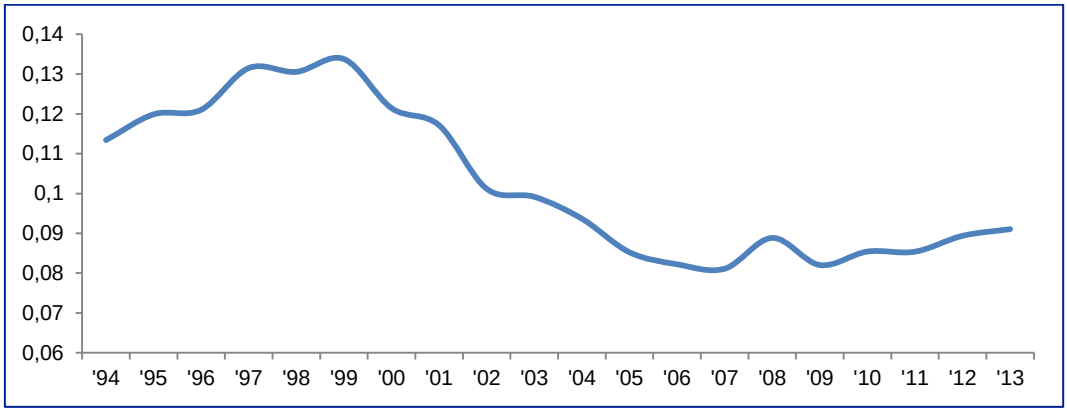


Source: WITS / UN COMTRADE, Ecorys calculations.

We see that the Herfindahl index for Mexico-EU15 exports is increasing between 1998 and 2013, after a decline in 1994/95 and some smaller drops in several other years. The increasing trend in the Herfindahl index indicates that exports from Mexico to the EU15 are becoming less diversified over time, i.e. some concentration takes place. When we compare this with the index for total exports, we see that the latter remains more constant. Recently, Mexican bilateral exports to the EU have been more concentrated than average Mexican exports.

Figure 3.19 below presents the Herfindahl index for exports from the EU15 to Mexico. Here we see that the reverse happens, namely that the Herfindahl index decreases over time and so exports are becoming more diversified.

Figure 3.19 Herfindahl index EU15-Mexico exports, 1994-2013



Source: WITS / UN COMTRADE, Ecorys calculations.

Comparative advantages

To find out in which sector Mexico has a comparative advantage, we use the revealed comparative advantage (RCA) index from Balassa (1965). When the Balassa index for a certain sector is above 1, this sector is seen as having a comparative advantage. For details about the calculation of this index, we refer to Annex B.

In 2013, the following 19 out of 97 Mexican HS2 product groups showed a revealed comparative advantage, according to the Balassa index. Note that these comparative advantages are general and not calculated for a specific relationship with the EU.

Table 3.5 Revealed comparative advantages of Mexico at HS 2-digit level in 2013

HS	Description
01	Live animals
07	Edible vegetables and certain roots and tubers
08	Edible fruit and nuts; peel of citrus fruit or melons
14	Vegetable planting materials
17	Sugar & sugar confectionery
22	Beverages, spirits & vinegar
33	Oils & resinoids, perfumery, cosmetic or toilet preparations
36	Explosives, matches, pyrotechnic products
69	Ceramic products
70	Glass & glassware
78	Lead and articles thereof
79	Zinc & articles thereof
83	Miscellaneous articles of base metal
84	Nuclear reactors, boilers, machinery & mechanical appliances, computers
85	Electrical machinery & equip. & parts, telecommunications equip., sound recorders, television recorders
86	Railway or tramway locomotives, rolling stock, track fixtures & fittings, signals
87	Vehicles other than railway or tramway rolling stock
90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments & accessories
94	Furniture, bedding, cushions, lamps & lighting fittings nesoi, illuminated signs, nameplates & the like, prefabricated buildings

For the EU15, we observe that the Balassa index is >1 for 51 out of 97 sectors. Below, we present the 10 sectors with the highest RCA values, i.e. the most pronounced comparative advantages for the EU15.

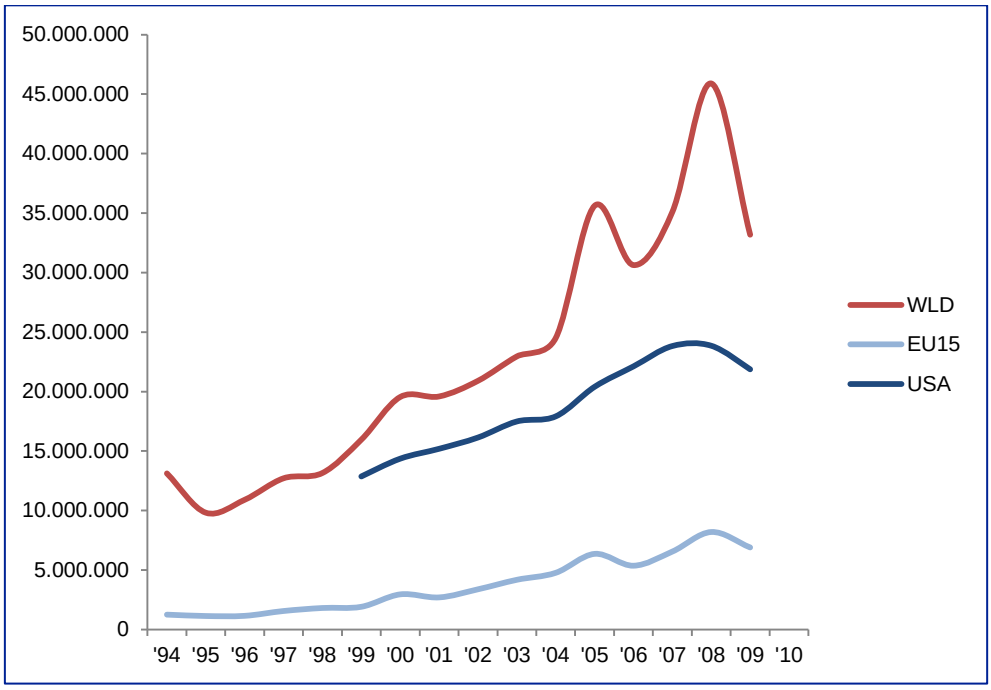
Table 3.6 Revealed comparative advantages of the EU15 at HS 2-digit level in 2013

HS	Description
01	Live animals
04	Dairy, eggs, honey, & ed. products
06	Live trees & other plants
18	Cocoa & cocoa preparations
19	Preps. of cereals, flour, starch or milk
22	Beverages, spirits & vinegar
30	Pharmaceutical products
33	Oils & resinoids, perfumery, cosmetic or toilet preparations
45	Cork & articles of cork
88	Aircraft, spacecraft, & parts thereof

Trade in services

We now turn to trade in services, where market access also improved because of the FTA. Figure 3.20, below, presents Mexico's total exports of services, and exports to the US and EU15. It makes clear that the US is by far the more important trading partner for Mexico as compared with the EU15. Nevertheless, the EU has become more important in Mexico's total services exports, as its share increased from 10 percent in 1994, to 21 percent in 2009. This trend was also visible before the FTA, however, as, in 2000, the share had already increased to 15 percent.

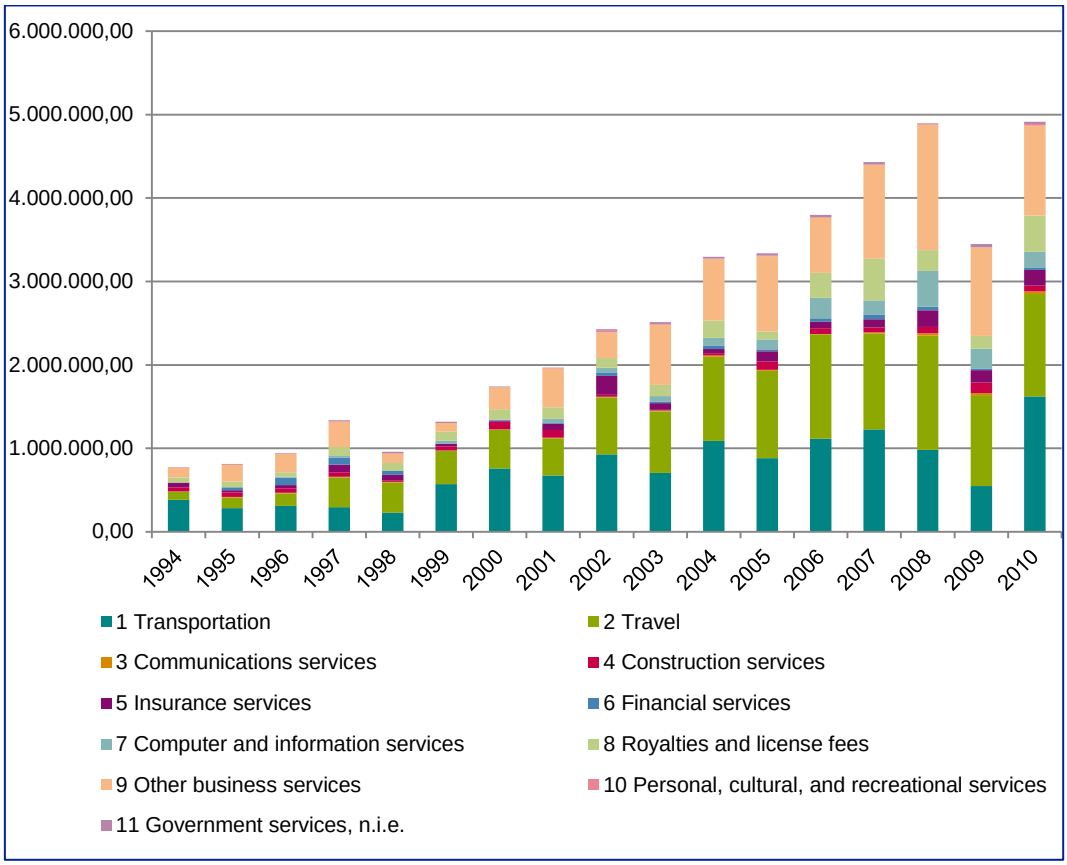
Figure 3.20 Mexican total exports of services



Source: Francois and Pindyuk, Consolidated data on trade in services, 2013.

Figure 3.21, below, presents bilateral exports of services from Mexico to the EU15, split by sector. We see that three out of the 11 sectors are particularly exported, namely Transportation, Travel, and Other Business Services.

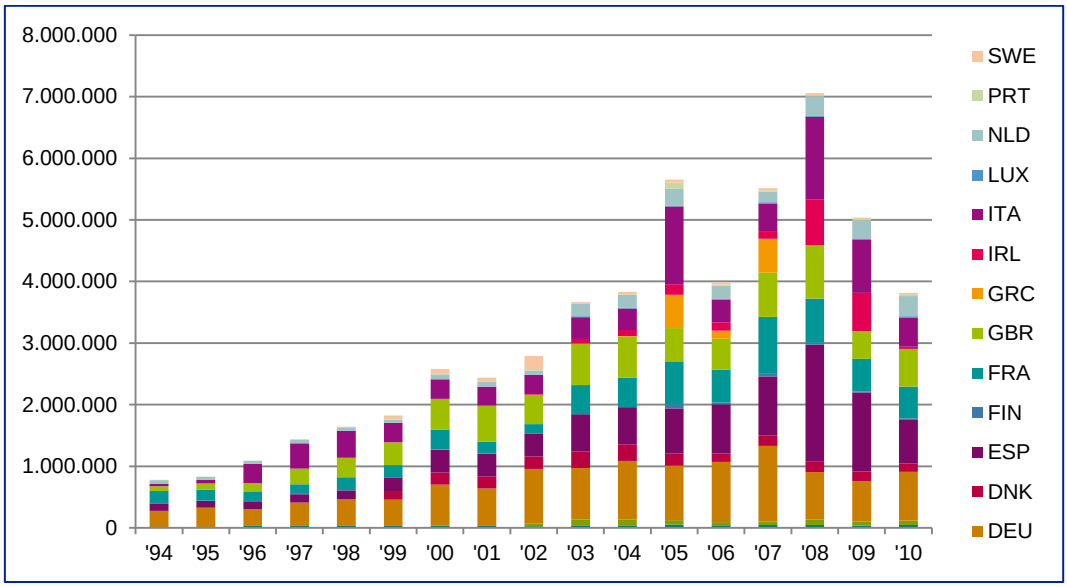
Figure 3.21 Mexican exports of services to the EU, per sector



Source: Francois and Pindyuk, Consolidated data on trade in services, 2013.

The figure below presents the exports of the EU15 to Mexico, split by Member States. We can observe a general increasing trend over time; however, there are significant drops in 2006 and in 2009 and 2010. The largest exporters to Mexico are Germany, Spain, France, the UK and Italy.

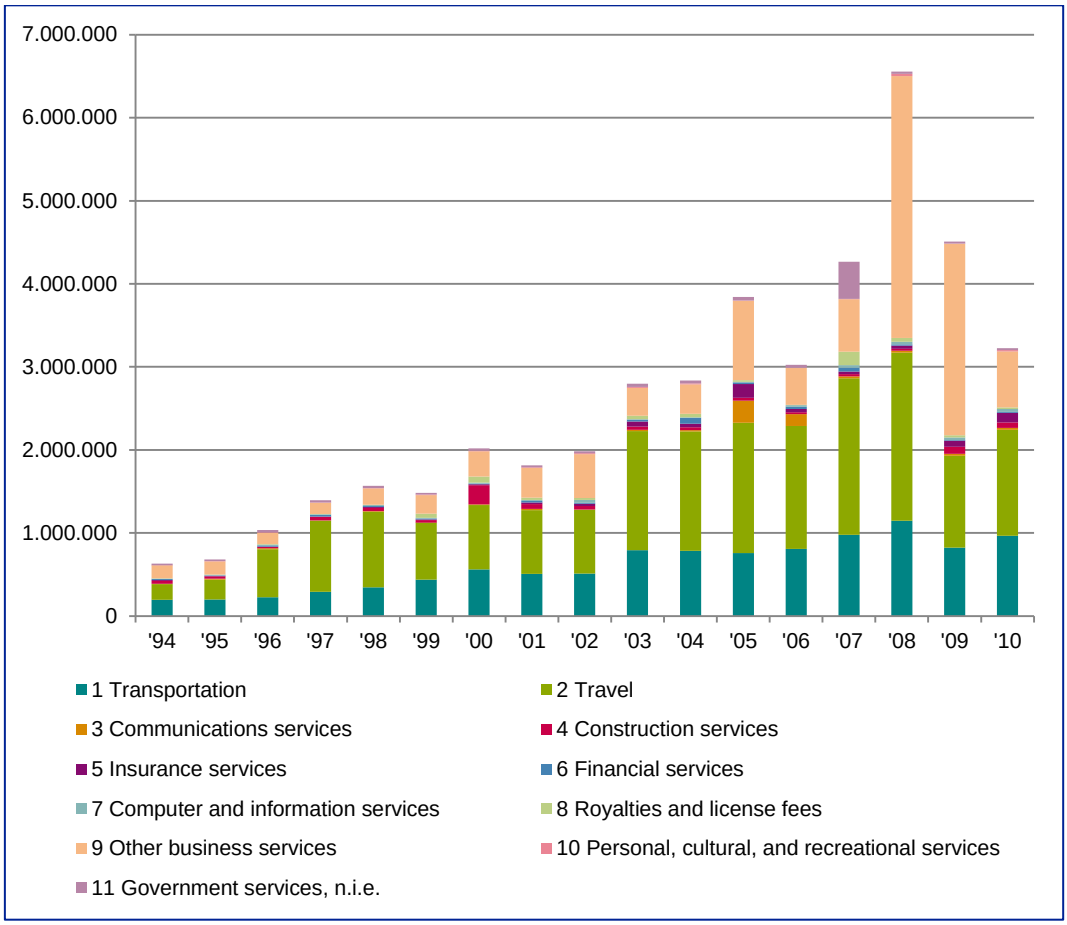
Figure 3.22 Exports of EU15 to Mexico, per Member State



Source: Francois and Pindyuk, Consolidated data on trade in services, 2013.

The Figure below shows again the exports of the EU15 countries to Mexico, but split by sector. Three sectors stand out as significant export products: Transportation, Travel, and Other Business Services. These are the same sectors as were identified for Mexican exports to the EU.

Figure 3.23 Exports of the EU15 to Mexico, per sector

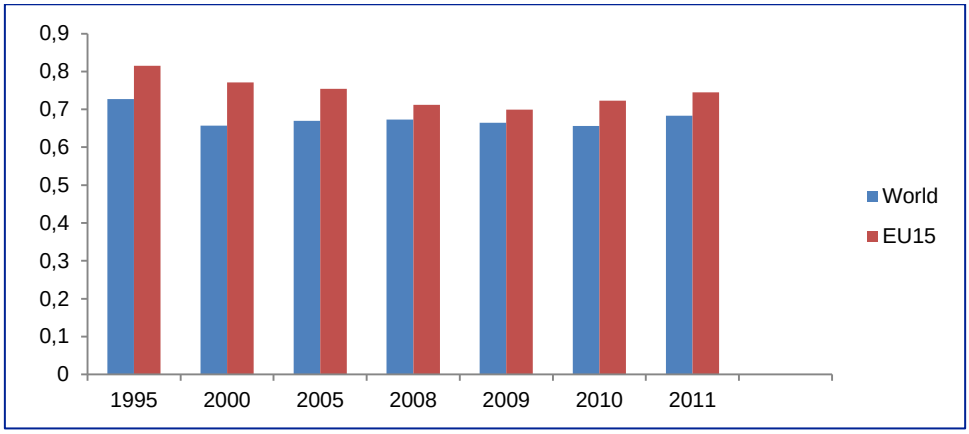


Source: Francois and Pindyuk, Consolidated data on trade in services, 2013.

Share of domestic value added in exports

Final goods and services are often composed of inputs from several countries.[170] Figure 3.24, below, shows the shares of domestic Mexican value added that are embodied in Mexico's total exports to the world and to the EU15. We observe that the share of Mexican domestic value added of exports to the EU15 is higher than in exports to the rest of the world, while declining over time, while the share of exports to the rest of the world is increasing.

Figure 3.24 Share of the domestic VA embodied in Mexico's exports to the world and to the EU15

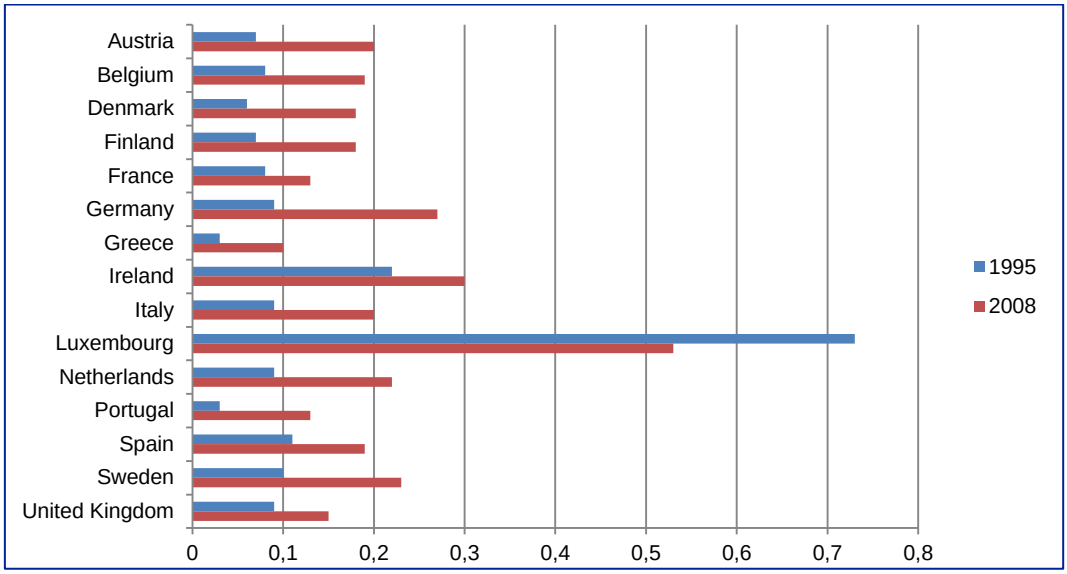


Source: OECD TiVA database.

[170] http://www.oecd.org/industry/ind/measuringtradeinvalue-addedanoecd-wtojointinitiative.htm.

Below, we present the traded value added of the EU15 to Mexico. The indicator and years presented are different than above, due to differences in data availability. Here, we see "value-added embodied in foreign final domestic demand", which shows the exported value added of the EU, both through direct final exports and via indirect exports of intermediated products through other countries, to Mexican final consumers, which can be households, government, charities, etc.

Figure 3.25 Value added embodied in foreign final domestic demand as % of GDP, exports EU15-MEX



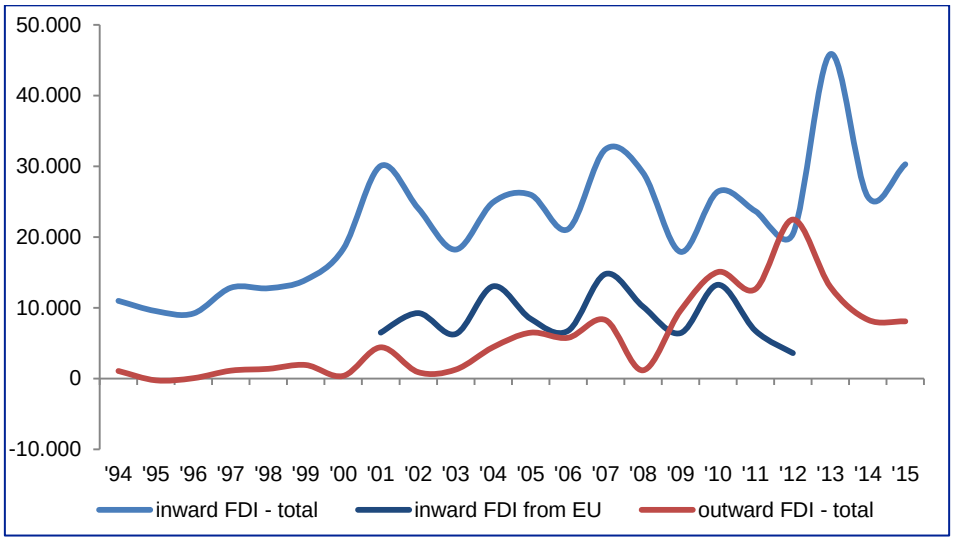
Source: OECD TiVA database.

Except for Luxembourg, we see that the share is higher in 2008 than in 1995, so the share of value in the final products or services consumed in Mexico that is added in the EU countries has increased.

FDI flows between Mexico and the EU

Free Trade Agreements not only affect trade in goods and services, but also flows of FDI. The figure below presents the total inward and outward FDI flows for Mexico over time. Both total inward FDI flows and FDI flows from the EU are presented for the years for which data are available. Outward FDI flows have increased significantly in recent years.

Figure 3.26 Mexican inward and outward foreign direct investment flows, annual

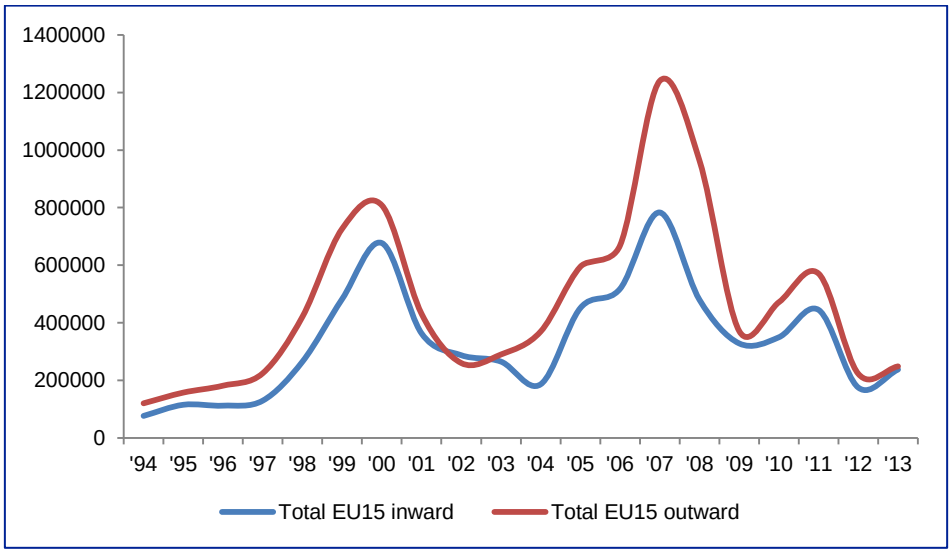


N.B. data are in US Dollars at current prices and current exchange rates in millions.
Source: UNCTADStat.

According to stakeholders, the main argument for EU companies to go to Mexico is the lower labour costs. Labour costs are said to be 20% lower than in China, for example.[171] Other sources mention that Mexico is an attractive destination for FDI because of Mexico's proximity to the US market and Canada. Because of NAFTA, Mexico is a point of access to a potential market of one billion consumers. Furthermore, the business environment benefits from the number of FTAs that Mexico has concluded (45 in total) and the low complexity of export procedures.[172]

Figure 3.27, below, shows data on FDI flows from and to the EU. We see that outward FDI flows are generally higher than inward FDI flows. The share of EU FDI outflows that are destined for Mexico represents 1.5 percent in 2001 and 1.6 percent in 2012.

Figure 3.27 EU15 Inward and outward foreign direct investment flows, annual



N.B. data are in US Dollars at current prices and current exchange rates in millions.
Source: UNCTADStat.

[171] Based on a study Bank of America-Merrill Lynch, as cited e.g. in http://www.reuters.com/article/economy-mexico-wages-idUSL2N0CR1TY20130404

[172] BBVA (2015), Evaluation of the effects of the Free Trade Agreement between the European Union and Mexico on bilateral trade and investment. Working paper No 15/14, May 2015.

Table 3.7, below, presents some figures on outward FDI from Mexico to some EU15 countries. Information on investment flows to the US is added as a comparison.

Table 3.7 Outward FDI from Mexico to some EU15 countries and the US in mln USD

Country	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12
Austria	-	-	-	-	-21	-5	-1	-16	-	-	-	-
Belgium	-	3	.	-	-	-	-	-	-89	-107	33	-22
Czech Rep.	-	-2	5	-	-	-16	-126	-116	267	-31	3	-
Denmark	-	-	-	-	-4	2	15	1	19	36	112	17
Finland	9	-1	1	-	-	-	-	-	2	-	1	-
France	44	-2	109	-24	265	411	-123	495	346	-191	336	166
Germany	-	-27	-28	5	-14	11	242	-7	14	-60	49	104
Ireland	-	-	.	535	1476	-	-	-	-	-	-	-
Italy	-	-1	1	1	6	-	-	21	-231	236	-4	14
Luxem-bourg	-	117	68	61	39	144	352	248	224	139	-738	-71
Portugal	-	-1	-1	-	-	-	-	-	1	2	-	-
Spain	345	85	470	27	-485	218	-	250	653	1591	-	865
Sweden	-33	.	.	.	-67	.	.	.	.	.	.	.
US	-716	2349	2173	-629	-19	2265	291	731	2469	190	2491	2801

Source: UNCTADStat.

In the table above, we observe a lot of negative numbers, indicating that these are reverse FDI flows. This has to do with the composition of FDI flows. For associates and subsidiaries in Mexico with the parent company in the EU (or US), FDI flows consist of the net sales of shares and loans to the parent company, *plus* the parent firm's share of the affiliate's reinvested earnings, *plus* total net intra-company loans provided by the parent company. For branches in Mexico, FDI flows consist of the increase in reinvested earnings, *plus* the net increase in funds received from the foreign direct investor from the EU (or US). FDI flows with a negative sign indicate that at least one of the components in the above definition is negative, which is not offset by positive amounts of the remaining components.

According to BBVA (2015) based on UNCTAD, the European counties that invested most in Mexico since the FTA are the Netherlands (13.3% of total accumulated FDI in Mexico), Spain (12.8%), Belgium (4.4%), the UK (2.6% and Germany (2.3%). The US is responsible for 45.7 percent of accumulated FDI over the period 2000-2014.

BBVA's research also shows that there is a positive relationship between FDI from the EU to Mexico and Mexico's manufacturing trade to the world. Mexican stakeholders indicated that the current EU-Mexico FTA has not been the key explanatory factor behind increased FDI. According to them, FDI is more strongly affected by Mexico's investment promotion policies (e.g. tax incentives) and by the 15 bilateral investment treaties that Mexico has with individual European countries on pre-establishment and post-establishment. At the same time, most of these treaties are indicated to be old, only the one with Spain is said to be up-to-date, which suggests room for improvement, especially now that the EU has the mandate (instead of Member States) for investment treaties.

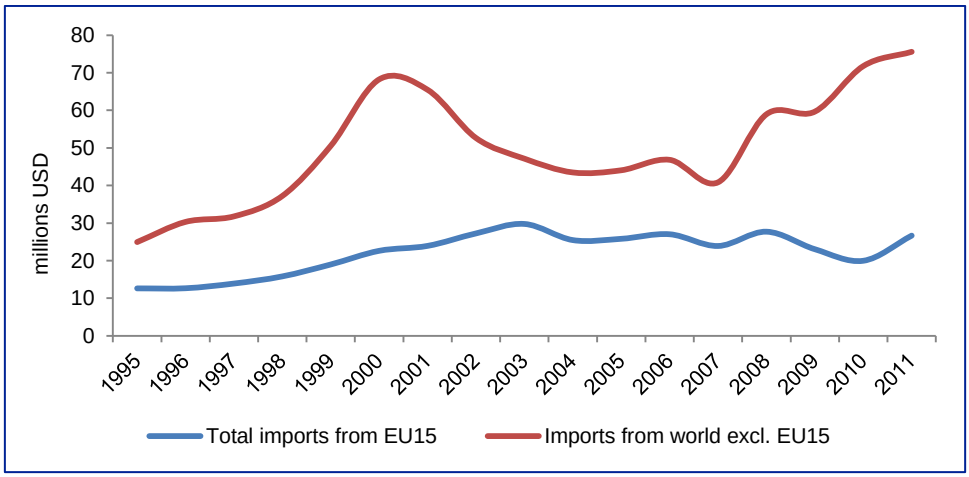
Changes in public procurement

Public procurement is another area where the FTA achieved further market opening. We analysed changes in public procurement with the help of WIOD, which contains input-output tables (WIOTs) from 1995 to 2011. This enabled us to see which goods and services have been imported from the EU by the Mexican government and vice versa.

The figure below shows the imports of the Mexican government from the EU15 and from all other countries except the EU15. The data presented in this figure concern final consumption expenditures by the Mexican government. Although, in the first years after the agreement

entered into force, the EU increased its share of total government imports, from 2008, this share declined again. As no other trade agreements involving Mexico entered into force around that time, the loss of relative preferences cannot explain the change in the trend. In the first years after the agreement entered into force, the EU increased its share of total government imports, suggesting a positive impact of the FTA. From 2008, however, this share declined again. As no other trade agreements involving Mexico entered into force around that time, the loss of relative preferences is not likely to explain the change in the trend. It should be noted that variation in the demand (total and by sector) can be significant and, therefore, it is difficult to draw general conclusions from this trend.[173]

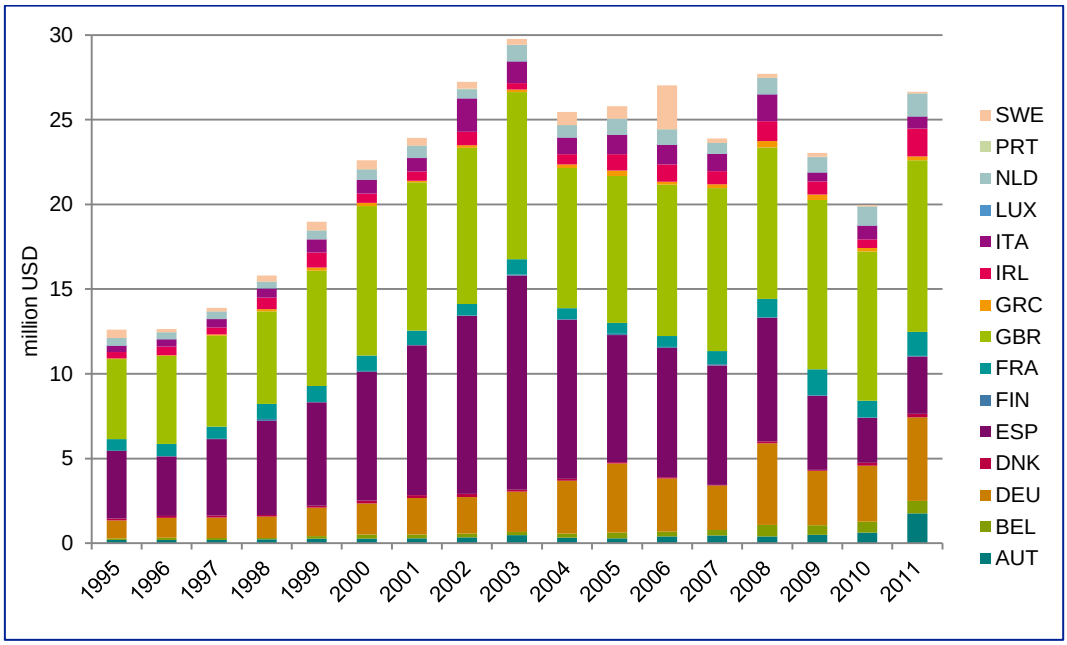
Figure 3.28 Imports of the Mexican government



Source: WIOD, Ecorys calculations.

We will now look at which particular EU Member States have been important trading partners for the Mexican government in the past. Figure 3.29, below, again shows the Mexican government's consumption expenditures. We see that Germany, Spain and the UK are by far the strongest clients for the Mexican government.

Figure 3.29 Imports of the Mexican government from the EU15 by Member State

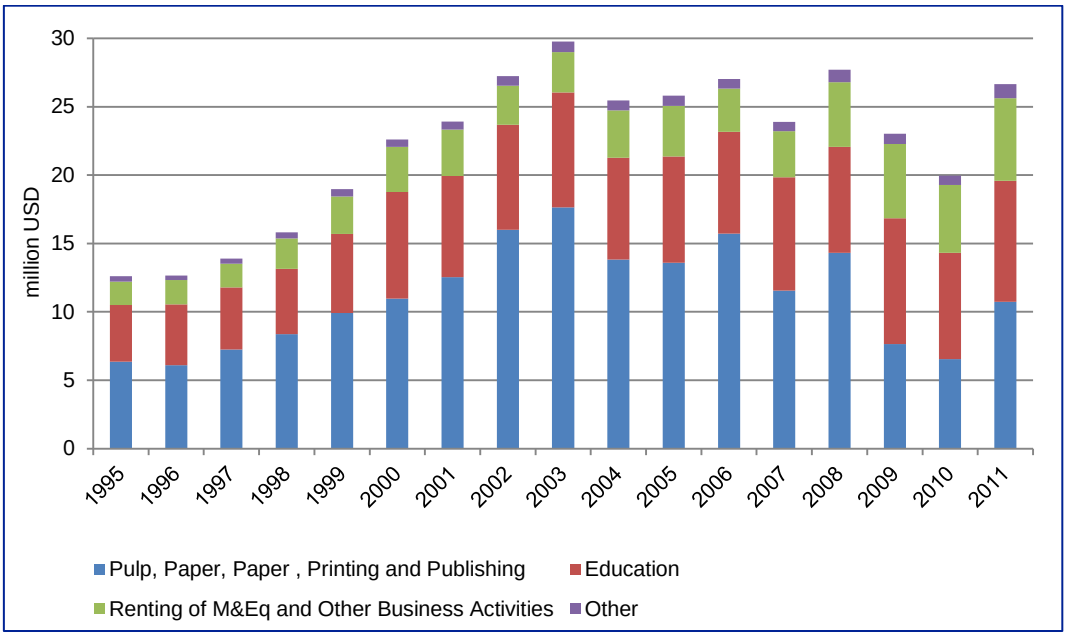


Source: WIOD, Ecorys calculations.

[173] See, for example, the WTO's *Trade Policy Review 2013*. p. 101 shows that there is quite some variation in the size of international procurement, as well as in the share of international procurement vis-à-vis national procurement. No further detailed data have been identified.

Figure 3.30, below, presents the imports of the Mexican government from the EU15 per sector. From the 35 sectors in the WIOD database, three sectors stand out: (1) pulp, paper, printing and publishing, (2) education, and (3) renting of machinery and equipment and other business activities. The pulp, paper, printing and publishing sector has become less important in recent years, and a closer look at the data shows that the decline of EU imports in government consumption is largely due to an increase in the use of domestic sources in this sector; in other words, competition from Mexican companies in this sector has increased. In addition, the US has been able to increase its market share in this sector. These developments partially explain the declining share of the EU of total government imports.

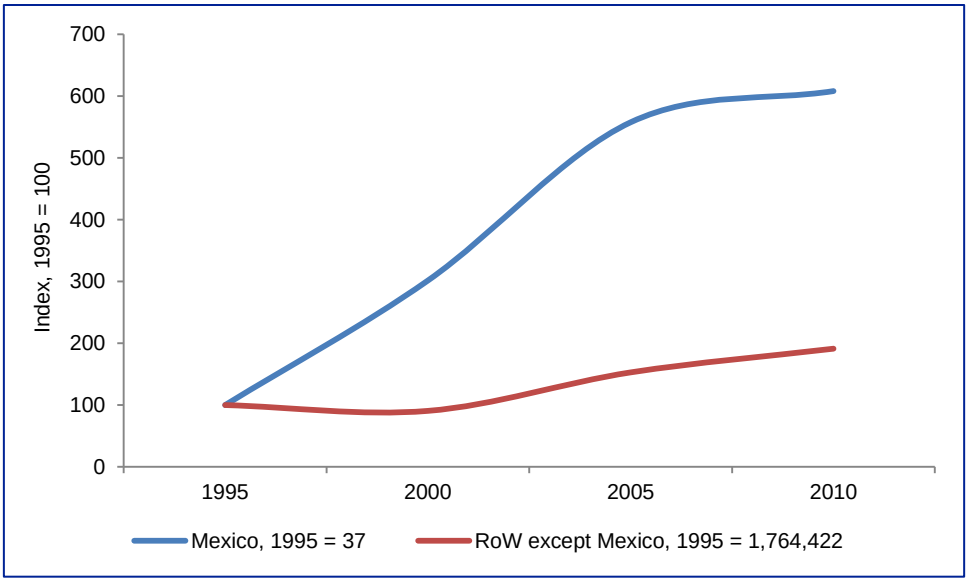
Figure 3.30 Imports of the Mexican government from the EU15 by sector



Source: WIOD, Ecorys calculations.

Figure 3.31, below, shows the total imports of the EU15 governments from Mexico and from the rest of the world. The information is presented as indices (1995 = 100) as the values of the two groups differ widely. Imports from Mexico represented only 0.002 percent of total imports in 1995, in 2010 this percentage was 0.007.

Figure 3.31 Imports of the EU15 governments from Mexico and the rest of the world



Source: WIOD, Ecorys calculations.

The five biggest import products, which are together responsible for 91 percent of imports in 2010, are the following:

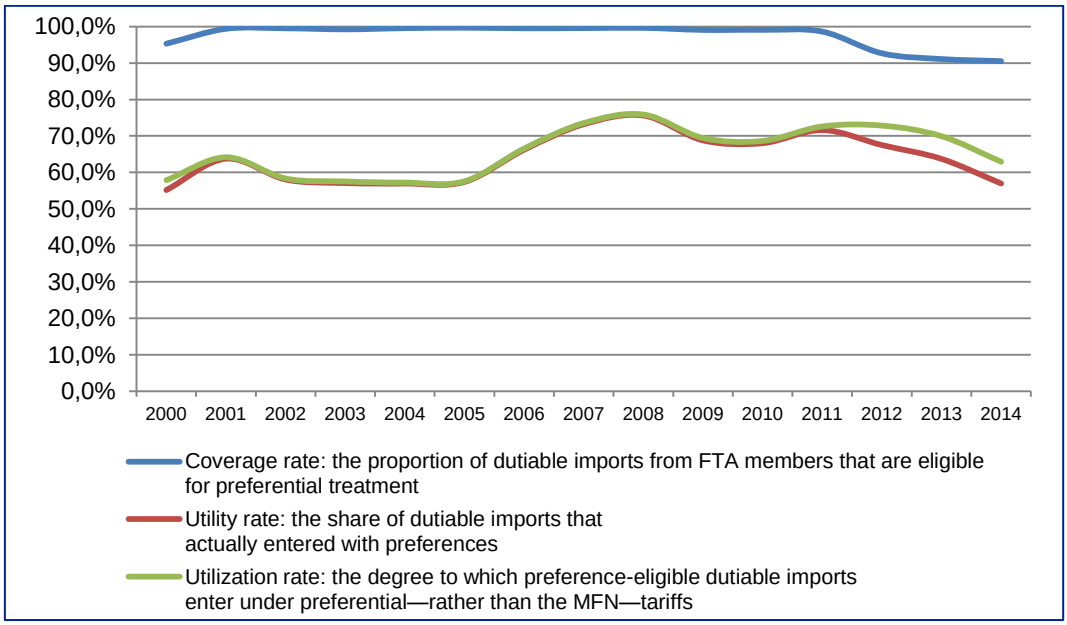
1. Chemicals and chemical products
2. Inland transport
3. Electrical and optical equipment
4. Wholesale trade and commission trade, except of motor vehicles and motorcycles
5. Retail trade, except of motor vehicles and motorcycles; repair of household goods

3.1.3. Utilisation of the FTA

As part of the EU-Mexico FTA, most import tariffs of both partners were liberalised, so that they became lower than MFN tariffs, or even zero. It is interesting to see the extent to which Mexican exporters have made use of the preferential treatment that was created by the FTA.

When we look at the coverage rate of the FTA (the proportion of dutiable imports from Mexico that are eligible for preferential treatment by the EU because of the FTA), we see that almost all exports of Mexico to the EU fell within the scope of the FTA, as the coverage rate has been close to 100% for a long time (see Figure 3.32, below). Only recently, the coverage rate dropped to 90%. This indicates that a greater share of Mexican exports to the EU (in value terms) fall outside the scope of the FTA in recent years.

Figure 3.32 Utilisation of the EU-Mexico FTA over time by Mexican exporters



Source: COMEXT, Adjusted EU-EXTRA Imports by tariff regime dataset.

The share of dutiable imports that entered with preferences is often lower than the coverage rate if firms choose to ignore the FTA's preferential regime. This could be due to the compliance costs related to administrative and technical requirements, which may be higher than the non-preferential MFN tariff. It therefore gives an indication of the attractiveness of a preferential regime of the EU-Mexico FTA compared to MFN treatment. As shown in the Figure, this also happened under the EU-MEX FTA. The utility rate (the share of dutiable imports that entered with preferences) is much lower than the coverage rate. The utility rate has gradually increased over time, but dropped recently, in line with the decrease in the coverage rate. The utilisation rate (the share of preference-eligible imports that entered with preference) has moved according to the same trend as the utility rate.

We did not find a clear explanation for the decrease in coverage rate and in the utility/utilisation rate. An increase in imports of specific products that still face tariffs under the FTA (mainly agricultural products) could be an explanatory factor.

3.1.4. Small and medium-sized enterprises

MSMEs comprise a large part of the Mexican economy. Table 3.8, below, presents the current numbers of companies in different MSME size classes that are registered at the Ministry of Economy and part of the formal economy, excluding agriculture.

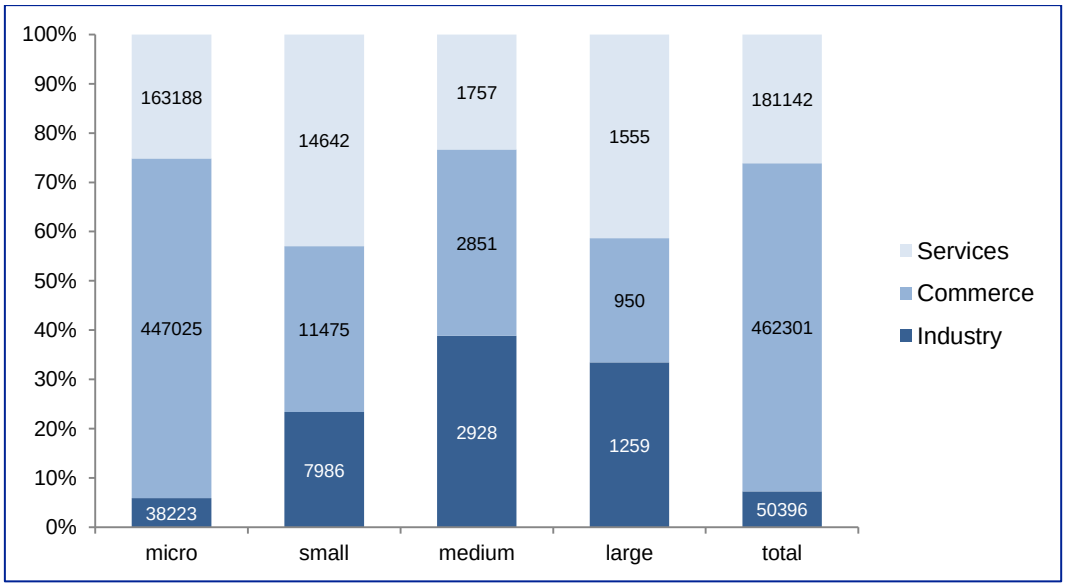
Table 3.8 Number of MSMEs in Mexico per size class, excluding agriculture, as of September 23rd 2015

Size class	Number	%
Micro	648,436	93,5%
Small	34,103	4,9%
Medium	7,536	1,1%
Large	3,764	0,5%
Total	693,839	100,0%

Source: Website of the Secretaría de Economía.

Micro enterprises are by far the largest group, and, together, they are responsible for 93.5 percent of the total number of registered enterprises. Figure 3.33 shows the distribution of these MSMEs and large companies over different sectors of the economy.

Figure 3.33 Number of MSMEs in Mexico per sector, excl. agriculture, as of September 23rd 2015



Source: Website of the Secretaría de Economía.

Of course, even more companies than presented above are active in the informal sector. According to government representatives, the informal sector currently constitutes 60 percent of the overall economy. In order to get companies registered, the Mexican government has recently implemented the Growing Together initiative, targeting informal SMEs, which now offers a tax reduction for the first year of registration.

Mexican SMEs contribute around 35% of total production and they generate 73% of employment, which meant more than 19.6 million jobs in 2013. However, its export potential is said to be far from optimal.[174] Of the 693,839 companies (not only SMEs) currently registered at the Ministry of Economy, 0.82 percent are exporting and 2.03 percent are importing.[175] A

[174] http://www.forbes.com.mx/pymes-clave-en-el-crecimiento-exterior/.
[175] Secretaría de Economía.

consultancy company, IQOM, claims that SMEs contribute only 5% of total exports, annually generating sales abroad of less than USD 10 million.[176] Given their limited involvement in trade activities, the FTA impact on SMEs is likely to be modest, as discussed further in section 3.2.4.

3.2. Economic impact analysis

Based on the above observations, we see that Mexico and the EU have become more important to each other in terms of international trade. However, from the analyses in the previous section, it is difficult to attribute this fully to the FTA, as there may be other forces at play. Therefore, we will now turn to the economic impact assessment to explore the role of the FTA, comparing a situation with and without the FTA.

Our *ex-post* evaluation of the impacts of the FTA on Mexico is based initially on two quantitative methods: *gravity analysis* and Computable General Equilibrium (CGE) modelling. Subsequent analysis of specific issues is based on the results from these quantitative exercises and complemented with qualitative analysis. In this section, we first discuss the gravity analysis results and subsequently present the CGE results. The latter are presented at macro level and at sector level and for a number of environmental indicators. We conclude with a short consideration of the impact of the FTA on Mexican TFP, since this was identified as a major obstacle to economic growth in Mexico, and the impact on SMEs, as well as on the informal economy.

3.2.1. Gravity analysis

The current EU-Mexico agreement was negotiated in the 1990s, signed in 1997, and came into force in 2000. Although it was considered comprehensive at the time, it is not as comprehensive as more recent agreements, especially in addressing new issues linked to NTMs. [177] Although many non-tariff issues are addressed in the agreement, they often do not entail further liberalisation, as shown in Chapter 2; its focus is primarily on reduction of tariff barriers (with the exception of primary and processed food products). However, flanking the trade agreement is the GA and frameworks intended to provide technical assistance.[178] In this section, we discuss the use of an econometric framework known as a gravity model to identify the impact of the current agreement on EU-Mexico trade beyond tariffs. While the computation model (the CGE model) that follows is used to estimate changes in trade volumes due to tariff and possibly NTM reductions, the econometric modelling discussed here identifies other trade volume effects, above tariffs. These other trade volume effects would give an indication of the extent to which trade costs have been reduced, which could then be included in the CGE model-based analysis that follows.

The gravity model is a standard and well-known empirical workhorse in international trade. [179] An econometrically estimated gravity model provides estimates of how the physical and socio-economic distance that falls between partners, as well as policy, determines bilateral trade flows. In this framework, we essentially control for factors that determine general supply and demand conditions, as well as natural sources of trade costs. All these factors — distance, supply capacity, or common language, for example — impact on trade between individual partners (such as the EU and Mexico). Once we have controlled for these, we are able to isolate additional trade volumes that follow, for example, from having a specific trade agreement. Essentially, controlling for country-specific structural features of the gravity model, estimates of pairwise coefficients provide measures of the impact that distance between two trading partners has in terms of *trade costs* between the two countries.

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[176] http://www.forbes.com.mx/pymes-clave-en-el-crecimiento-exterior/.

[177] Indeed, following the 2013 EU-CELAC Summit in Santiago, Mexico and the EU set up a Working Group to explore options for a comprehensive and ambitious modernisation of the trade pillar of the UE-Mexico Agreement.

[178] An example is the Mexico-EU Programme for Competitiveness and Innovation (PROCEI), which has targeted integration of SMEs into supply chains, especially in the aerospace sector.

[179] See, for example, Head, Keith and Thierry Mayer (2014). "Gravity Equations: Workhorse, Toolkit, and Cookbook," in K. R. Elhanan Helpman and G. Gita eds, *Handbook of International Economics.* Elsevier, 131-95.

Our gravity analysis is based on trade, policy, and trade cost data for 2011, and provides a basis for estimating the impact of the current agreement. Technical details on the econometric estimates are discussed in Annex B. Here, we focus on the primary findings. Based on the gravity modelling, we find that the current agreement does not generate additional trade beyond what is expected based on tariff elimination alone. In technical terms, with two exceptions discussed in a moment, there is no statistical support for the case of trade creation effects beyond those due to tariffs alone. As such, while the agreement does generate trade, this has followed from tariff reductions. These trade effects are, therefore, the primary focus of the CGE assessment that follows this section.

The two exceptions are other transport equipment (aircraft), and petro-chemicals, where we identify additional trade — meaning more than predicted by in the gravity model by tariff elimination alone — between the EU and Mexico. For other transport equipment, we estimate trade cost reductions, expressed as a tariff equivalent, of 17.73 percent for EU exports to Mexico and 19.96 percent for Mexican exports to the EU. The exceptional effect in other transport equipment is probably related to the fact that this sector is a strong sector, with a lot of FDI in Mexico. It is an example of an industry with a strong global value chain. According to stakeholders, the EU-Mexico FTA is not a primary explanatory factor for this FDI and related trade. Investment conditions are likely to be more important. For petrochemicals, we estimate trade cost reductions, expressed as a tariff equivalent, equal to 13.98 percent in the case of EU exports to Mexico, and 12.01 percent in the case of Mexican exports to the EU. One explanatory factor for the exceptional effect in petrochemicals put forward by a stakeholder is related to the fact that Mexico has only one supplier on the market: Petróleos Mexicanos (Pemex, the state oil company). The decision of one company can, therefore, have a major influence on trade and investment flows, which are not necessarily related to the FTA.

It should be emphasized that the core FTA agreement itself is focused on tariffs, and so these are the basis for our primary *ex-post* analysis of the impact on trade volumes, GDP, and other macro and sectoral indicators. However, we also include the contribution of our estimated non-tariff trade cost reductions in the analysis.

3.2.2. CGE modelling results

In order to estimate empirically the impact of the Agreement and to estimate the contribution of the Agreement to the overall evolution of the Mexican and EU economies, we define a "negative" experiment. In this counterfactual, we assume the EU and Mexico to apply, respectively, the most-favoured-nation (MFN) level of tariffs vis-à-vis each other. This is based on the results of the gravity analysis in the previous section, which show no significant effects beyond tariff reductions. Although trade cost reductions were identified in two sectors, we cannot immediately link them to text in the agreement, and, as indicated in the previous section, there are alternative explanations for these observations. Therefore, while, in this section, we focus on the tariff-only counterfactual scenario, in Annex E we also present the results of a counterfactual scenario that includes trade cost reductions in the petrochemicals and other transport equipment sectors.

The CGE analysis provides us with estimates on how the two economies would have fared in case the Agreement would not have taken place, or, turning it around, how the Agreement impacted the two economies.

Macro-economic impact of the Agreement

The estimated aggregate impact of the Agreement is marginal for the EU, although somewhat larger for Mexico. Table 1 shows the estimated percentage change in GDP in all regions due to the FTA, as estimated by the model. As can be seen from

Table 3.9, Mexico's GDP would have been 0.34 percent lower if the Agreement had not been implemented. However, the difference for the EU is rather marginal; the Agreement is estimated to have led to a 0.01 percent increase in GDP. This asymmetrical effect is due to the difference in importance of the two countries to each other as trading partners.

Table 3.9 GDP, percent impact

Country	Value, € m (2011)	% change
EU	13,217,925.95	0.01
Mexico	875,224.00	0.34
Turkey	579,516.11	-0.01
Canada	1,330,416.77	0.00
US	11,619,282.40	0.00
MERCOSUR	2,143,452.16	0.00
Andean Pact	459,179.87	0.01
Central America	127,578.12	0.00
Chile	187,743.53	0.01
ACP countries	1,134,822.26	0.00
China	5,471,059.09	0.01
Japan	4,410,803.31	0.00
Rest of World	11,547,862.61	0.00

Table 3.10 shows what these GDP changes imply in terms of annual real income changes, compared to the scenario with no EU-Mexico FTA in place. The gains for Mexico from the FTA are estimated at2,876 million EUR in real income. Although in percentage terms the gains for the EU are marginal, given that the size of the EU GDP is significantly larger than that of Mexico, the gains in relative income in Euros are almost half of Mexico's gains, amounting to an estimated 1,559 million euros annually.

Table 3.10 Real income (annual)

Country	value, € m	Change in € m
EU	13,217,925.95	1.559
Mexico	875,224.00	2.876
Turkey	579,516.11	-65
Canada	1,330,416.77	-80
US	11,619,282.40	141
MERCOSUR	2,143,452.16	-84
Andean Pact	459,179.87	27
Central America	127,578.12	-4
Chile	187,743.53	12
ACP countries	1,134,822.26	-25
China	5,471,059.09	286
Japan	4,410,803.31	-23
Rest of World	11,547,862.61	-232

Tariff liberalisation triggered increases in trade, amounting to a 1.5-1.7% increase in Mexico's aggregate exports and imports, and a 0.05 percent increase in the EU's aggregate trade flows, coming from bilateral trade changes, according to the modelling results. Again, the asymmetry in numbers is due to Mexico’s having a much smaller share of total EU trade than vice versa. As can be seen from Table 3.11, below, Canada's exports and imports are also estimated to be marginally affected, with a 0.12 percent decrease taking place due to tariff liberalisation in the Agreements, both in imports and exports. This is due to a small trade diversion effect. As tariffs in goods were liberalised on EU-Mexico trade flows, some of the products that were relatively

cheaper to import from Canada for Mexico in the counterfactual scenario are now replaced by EU providers. Similarly, some of the exports destined for Canadian markets in the counterfactual scenario, due to trade costs reductions, become more competitive when exported to EU markets, hence an increased demand for these products from European markets and a shift in exports towards the EU. Nevertheless, the change in Canadian exports is rather small.

Table 3.11 Value of exports and imports, percent impact

Country	Value of exports, € m f.o.b.	% change	Value of imports, € US$ c.i.f.	% change	Terms of trade
EU	4,826,440.08	0.1	4,956,292.13	0.1	0.0
Mexico	275,325.27	1.6	236,942.70	1.7	0.1
Turkey	125,349.14	0.0	172,127.74	0.0	0.0
Canada	349,070.40	-0.1	342,966.48	-0.1	0.0
US	1,443,984.36	0.0	1,845,500.01	0.0	0.0
MERCOSUR	268,188.60	0.0	243,406.70	0.0	0.0
Andean Pact	89,527.79	0.0	92,280.74	0.0	0.0
Central America	56,466.27	0.0	69,256.21	0.0	0.0
Chile	79,224.42	0.0	56,690.67	0.0	0.0
ACP countries	352,470.69	0.0	390,997.30	0.0	0.0
China	1,433,269.73	0.0	1,133,544.36	0.0	0.0
Japan	663,563.99	0.0	646,359.24	0.0	0.0
Rest of World	3,991,057.60	0.0	3,767,574.27	0.0	0.0

The estimated changes in aggregate trade flows are driven by changes in bilateral flows, in particular by increases in Mexico-EU bilateral trade flows. As can be seen in Table 3.12, below, EU exports to Mexico increased slightly more, by 19 percent, than did Mexican exports to the EU, which increased by 15 percent compared to the counterfactual scenario. Nevertheless, given the value of total trade flows being significantly higher in the EU, a much smaller change takes place in the aggregate changes in exports and imports for the EU than for Mexico, as discussed above.

Table 3.12 Bilateral Exports (% quantities)

	Value in million euros (2011)	% change
EU exports to Mexico	26,936.61	18.8
Mexico exports to EU	19,523.06	15.5

Reductions in tariffs between the trade partners are estimated to have resulted in minor losses in tariff revenues. For the EU, the change is 235.9 million euros which, in terms of percentage change in tariff revenues, is insignificant, at 0.01 percent. For Mexico, the loss is larger, at 625.3 million euros, and, in percentage terms, 0.14 percent.

Table 3.13 Tariff revenues forgone

Country	in € m	% change
Mexico	-625.34	-0.14
EU	-235.90	-0.01

In Mexico and the EU, according to the modelling results, the gains from the FTA were passed through to workers in the form of real wage increases. Similarly to the case with the GDP changes, the increase in real wages was much larger in Mexico, as can be seen from Table 3.14,

below. Low-skilled workers in Mexico gained a bit less compared to the other skill groups, with medium-skilled gaining the most. The difference is due to a contraction of the electrical machinery sector, which employs a greater percentage of low-skilled workers, hence decreasing the demand for these workers relatively more than for other skill categories, resulting in smaller wage increases compared to those for the other skill groups. The estimated increases in real wages were between 0.24 and 0.45 percent.

Table 3.14 Real wages, percentage impact

Country	Low Skill	Medium Skill	High Skill
EU	0.02	0.02	0.02
Mexico	0.24	0.45	0.36
Turkey	-0.01	-0.01	-0.01
Canada	0.00	-0.01	-0.01
US	-0.02	0.01	0.00
MERCOSUR	0.00	-0.01	-0.01
Andean Pact	0.00	0.00	0.00
Central America	-0.02	-0.01	-0.01
Chile	0.01	0.01	0.01
ACP countries	0.00	0.00	0.00
China	0.00	0.00	0.00
Japan	0.00	0.00	0.00
Rest of World	-0.01	0.00	0.00

Sector-level impact

In order to learn more about the underlying changes across the economies, we now move on to the disaggregate, sector specific changes in output and employment, as well as resulting effects on EU-Mexican bilateral trading patterns, as compared to the counterfactual scenario.

Table 3.15, below, shows how the removal of tariffs under the Agreement is estimated to have changed sectoral output, together with the sectoral shares of total value added, for both the EU and Mexico.

Table 3.15 Change in output by sector

Sectors	Mexico		EU	
	% impact on output	% value added shares	% impact on output	% value added shares
Rice: GP 1, 23	-0.45	0.02	-0.05	0.02
Cereals & oilseeds, oils: GP 2, 3, 5, 21	-0.17	0.50	-0.02	0.49
Vegetables, fruit, nuts: GP 4	-0.14	1.41	-0.02	0.41
Sugar, cane, beet: GP 6, 24	-0.60	0.41	-0.06	0.12
Milk and dairy products: GP 11, 22	0.10	0.71	0.00	0.64
Beef: GP 19	-0.05	0.17	-0.01	0.12
Other meat: GP 20	-0.13	0.24	0.00	0.36
Other ag.: 7, 8, 9, 10, 12	-0.02	0.91	0.00	0.80
Food products nec: GP 25	0.10	2.85	0.00	1.41

Sectors	Mexico		EU	
	% impact on output	% value added shares	% impact on output	% value added shares
Beverages and Tobacco Products: GP 26	0.01	0.84	0.00	0.75
Fisheries: GP 14	0.04	0.10	0.00	0.09
Energy: GP 15, 16, 17	-0.08	1.39	0.00	0.53
Other primary, non-ag: 13, 18	-0.43	1.41	-0.01	0.48
Textiles: GP 27	-0.30	0.25	0.14	0.50
Wearing Apparel: GP 28	-0.64	0.41	0.11	0.44
Leather Products: GP 29	-0.70	0.25	0.05	0.25
Petrochemicals: GP 32	-0.13	0.33	0.02	0.15
Chemicals: GP 33	-1.24	2.37	0.11	3.41
Electrical machinery: GP 40	-11.45	2.60	-0.19	0.71
Motor vehicles: GP 38	16.54	3.19	-0.14	1.61
Other transport equipment: GP 39	0.04	0.46	0.18	0.62
Other machinery: GP 41	-1.61	2.76	0.01	4.32
Metals and metal products: GP 35-38	-2.34	2.51	0.00	2.88
Wood and paper products: GP 30-31	-2.47	0.93	0.01	2.36
Other manufactures: GP 34,42	0.03	1.51	0.01	1.65
Electricity: GP 43	-0.36	0.50	0.01	1.55
Gas manufacture, distribution: GP 44	-0.52	0.09	0.00	0.13
Water: GP 45	-0.19	0.01	0.01	0.27
Water transport: GP 49	0.34	0.09	0.04	0.31
Air transport: GP 50	0.09	0.10	0.02	0.32
Land, other transport: GP 48	0.40	6.73	0.00	3.05
Finance: GP 52	0.26	2.10	0.00	3.30
Insurance: GP 53	-0.09	0.53	0.01	0.91
Business services: GP 54	0.20	18.68	0.00	23.33
Communications: GP 51	0.16	2.17	0.00	2.45
Construction: GP 46	0.44	6.66	0.01	6.88
Distribution services: GP 47	0.92	14.32	0.01	7.07
Other services: GP 55, 56, 57	0.19	19.50	0.01	25.32

In the EU, in line with aggregate GDP changes, in most sectors the resulting change is estimated to be close to insignificant. At most, some sectors experience changes between 0.1 and 0.2 percent compared to the counterfactual scenario. While the output of the textiles, apparel and other transport equipment sectors increased by 0.14, 0.11 and 0.18 percent respectively, electrical machinery and motor vehicles contracted by 0.19-0.14 percent. This is primarily due to the underlying structure of the economy and the composition of the tariff liberalisation. The most pronounced decrease in tariffs imposed by Mexico on EU exports took place in apparel, leather, and textiles products, followed by other transport, hence the increase in these sectors in the EU, according to the modelling results. As these sectors expanded,

resources were drawn mainly from two sectors: electrical machinery and, to some extent, motor vehicles. Nevertheless, these changes are all estimated to be very small and marginal, all amounting to less than 0.2 percent.

In Mexico, larger changes took place because of the FTA, with two sectors dominating these changes: electrical machinery and motor vehicles. While electrical machinery contracted by 11.4 percent, the motor vehicles sector expanded by 16.5 percent according to the modelling results. The sectors where the most important reduction of tariffs on Mexican exports took place were textiles, clothing, leather products, and motor vehicles. As tariffs on clothing and textiles products were cut for imports arriving from the EU, it stimulated more imports and led to increased competition from the EU squeezing out some less competitive Mexican producers from the market, hence these sectors did not expand.

To better understand what caused the contraction in electrical machinery compared to the counterfactual scenario, marginally in the EU and to a greater extent in Mexico, we must remember the underlying liberalisation undertaken in the FTA. The textiles, apparel and leather products exhibited peak industrial tariffs in both the EU and Mexico. Mexican tariffs against EU exports in clothing products were initially 24 percent, which was much higher than the average industrial tariff, but was also more than double the tariffs the EU imposed on Mexican exports in the same sector. Mexican and EU exporters, apart from exporters of clothing and textiles products, faced the highest tariffs before liberalisation in motor vehicles (and other transport in case of EU exporters), amounting to about 9 percent ad valorem tariffs. However, in the case of electrical machinery, tariffs were among the lowest. Nevertheless, the tariff changes were the primary driver of change in all these sectors in the model. Clearly, therefore, it was changes in tariffs in other sectors that drove the change in electric machinery observed in the modelling results, as there was very little to liberalise in this sector itself in terms of tariffs. Therefore, based on the preliminary tariff structure, sectors with the highest initial tariffs; namely clothing, textiles, and motor vehicles in Mexico and, in addition, other transport in the EU, could have been expected to expand, based on the tariff structure. The clothing and textiles sectors did not expand in Mexico, as there were significantly larger trade cost cuts for EU exporters, who gained in competitiveness against Mexican producers and pushed some of them out of production. In contrast, the motor vehicles sector significantly expanded in Mexico, drawing resources away from electric machinery, resulting in a contraction of this sector. Given the large expansion of the motor vehicles sector in Mexico, resulting in increased competition in the EU markets, together with expanding textiles and clothing sectors (and other transport sector) in the EU, the motor vehicle sector in the EU contracted slightly. In addition, similarly to Mexico, electric machinery also contracted.

The Mexican motor vehicles sector is substantially larger than the electrical machinery or textiles and clothing sectors as a share of total value added. With the estimated expansion of the motor vehicles sector, an important part of the reallocation of value added in motor vehicles had to come from the rest of manufacturing. What we therefore see in the model is that the expansion of the motor vehicles sector, which benefits from the elimination of a 9 percent tariff in the EU, requires that resources be shifted out of other sectors. A similar mechanism was seen in the EU with the expansion of the textiles, clothing and other transport sectors, which absorbed resources from other sectors.

One might ask why resources were drawn from electrical machinery and not from other sectors and why electrical machinery was disproportionately impacted by this reallocation of resources, compared to the rest of manufacturing. Part of the reason for this is shown by the cost share data in Table 3.16. It can be seen from the table that electrical machinery is a sector where, compared to the rest of manufacturing, a relatively large share of total costs comes from imported inputs both in the EU and in Mexico. In electrical machinery, imported inputs are 26 percent of total costs, compared to a cost share of 21 percent in the rest of manufacturing in Mexico, and 31 in the EU compared to 25 percent for the rest of the manufacturing sector. This means that a greater share of production costs in these sectors depends on global, rather than local, cost conditions. In other words, compared to other manufacturing, electrical machinery is particularly “foot loose”, meaning firms will find it easier to relocate elsewhere because they are less dependent on local conditions. The "foot loose" nature of the electric machinery sector compared to the other sectors can also be seen from the higher share capital in value added in this sector compared to other manufacturing (see also Table 3.16, below).

Table 3.16 Production Costs: Value Added and Input Shares in Manufacturing

	Mexico		EU	
	Manufacturing excl. electrical machinery	Electrical machinery	Manufacturing excl. electrical machinery	Electrical machinery
Value Added	33.9	42.4	30.3	27.7
Imported Inputs	21.0	26.1	25.1	30.7
Domestic Inputs	45.1	31.5	44.7	41.7
Capital share in value added	0.65	0.77	0.34	0.42

As tariffs were liberalised between Mexico and the EU, the most pronounced direct impact is estimated to have taken place in bilateral trade flows. Table 3.17, below, presents changes in bilateral exports, together with the value and the share of flows.

Mexican exports from the EU increased most in the motor vehicles sector, by an estimated 68.8 percent, which is also the sector that expanded the most. This is followed by textiles, clothing, and apparel products, for which exports from the EU increased between by between 23 and 51 percent according to the modelling results. As explained above, tariffs in these sectors were substantially diminished, hence the rather significant increase in exports. However, tariffs were reduced even more on EU exports to Mexico, resulting in higher increases in EU exports in these sectors, with estimates ranging from 37 to 70.9 percent. Consequently, the increased competition from the EU squeezed some less competitive producers out and, even if Mexican exports increased in these sectors, output did not increase as discussed above. The sector in which exports decreased the most was electrical machinery, by 7.8percent. This decrease is driven by the shrinking electrical machinery sector, which, as discussed above, contracted by an estimated 11.4%.

In relation to the EU's exports to Mexico, apart from clothing and textiles products, the biggest increase is estimated to have occurred in motor vehicles, due to significant reductions in import tariffs in this sector by Mexico. Exports to Mexico in this sector increased by 62.8 percent. As discussed above, this nevertheless, did not lead to an increase in output in this sector compared to the counterfactual scenario, as imports in this same sector from Mexico increased much more, leading again to increased pressure on less competitive EU producers, crowding out some of these from the market. Instead, the increased exports took place mainly by shifting exports destined to other markets towards Mexico. A similar trend occurred in electric machinery, where, although output marginally decreased in the EU, exports to Mexico nevertheless increased due to lower trade costs.

Table 3.17 Bilateral exports

	Mexico exports to the EU			EU exports to Mexico		
	value, mln EUR	share of exports	% change	value, mln EUR	share of exports	% change
Rice: GP 1, 23	0.0	0.0	-2.2	0.3	0.0	0.4
Cereals & oilseeds, oils: GP 2, 3, 5, 21	60.1	0.0	-0.5	54.3	0.0	0.2
Vegetables, fruit, nuts: GP 4	134.5	0.0	-0.5	4.4	0.0	0.1
Sugar, cane, beet: GP 6, 24	9.4	0.0	-3.3	5.7	0.0	2.8
Milk and dairy products: GP 11, 22	2.9	0.0	-0.9	107.1	0.0	1.0
Beef: GP 19	19.1	0.0	-1.0	3.1	0.0	0.0
Other meat: GP 20	1.7	0.0	-1.2	14.3	0.0	1.0
Other ag.: 7, 8, 9, 10, 12	183.2	0.0	-0.4	76.5	0.0	0.3
Food products nec: GP 25	267.0	0.0	0.0	321.0	0.0	0.3

	Mexico exports to the EU			EU exports to Mexico		
	value, mln EUR	share of exports	% change	value, mln EUR	share of exports	% change
Beverages and Tobacco Products: GP 26	210.0	0.0	-0.6	235.2	0.0	0.7
Fisheries: GP 14	1.2	0.0	-1.1	0.5	0.0	1.1
Energy: GP 15, 16, 17	2,127.1	0.1	0.0	0.0	0.0	-0.4
Other primary, non-ag: 13, 18	302.3	0.0	1.3	70.6	0.0	3.2
Textiles: GP 27	56.5	0.0	34.1	429.3	0.0	37.0
Wearing Apparel: GP 28	54.4	0.0	23.4	284.6	0.0	43.1
Leather Products: GP 29	78.1	0.0	51.2	170.1	0.0	70.9
Petrochemicals: GP 32	30.8	0.0	3.4	571.0	0.0	2.5
Chemicals: GP 33	1,602.5	0.1	22.3	5260.0	0.2	25.5
Electrical machinery: GP 40	2,038.1	0.1	-7.8	803.5	0.0	9.5
Motor vehicles: GP 38	3,834.5	0.2	68.8	2,767.4	0.1	62.8
Other transport equipment: GP 39	196.1	0.0	11.7	749.0	0.0	34.1
Other machinery: GP 41	2,595.1	0.1	1.8	6,685.6	0.2	6.5
Metals and metal products: GP 35-38	1,231.9	0.1	3.4	2,188.4	0.1	21.8
Wood and paper products: GP 30-31	61.2	0.0	3.0	688.0	0.0	31.4
Other manufactures: GP 34,42	201.5	0.0	8.2	623.7	0.0	17.5
Electricity: GP 43	9.8	0.0	-0.5	2.7	0.0	0.2
Gas manufacture, distribution: GP 44	18.1	0.0	-0.7	2.2	0.0	0.5
Water: GP 45	0.1	0.0	0.0	2.1	0.0	0.4
Water transport: GP 49	74.6	0.0	-0.6	9.7	0.0	0.4
Air transport: GP 50	281.8	0.0	-0.3	1,003.5	0.0	0.5
Land, other transport: GP 48	816.1	0.0	-0.7	180.7	0.0	0.4
Finance: GP 52	604.7	0.0	-0.6	50.2	0.0	0.8
Insurance: GP 53	841.0	0.0	-0.9	2,459.8	0.1	0.8
Business services: GP 54	603.0	0.0	-0.5	156.5	0.0	0.5
Communications: GP 51	185.5	0.0	-0.7	67.3	0.0	0.8
Construction: GP 46	204.8	0.0	-0.7	8.6	0.0	1.1
Distribution services: GP 47	120.2	0.0	-0.8	415.2	0.0	1.2
Other services: GP 55, 56, 57	463.8	0.0	-1.2	464.3	0.0	1.2

Social effects

The CGE results also provide some indicators on social effects, notably in terms of wage changes and labour displacement. Here, we present the main modelling results, which will be further elaborated upon in the next chapter.

Changes in wages are available for different skill levels. Estimated percentage changes for Mexican workers' wages are presented in Table 3.18, below. Changes in wages were driven by changes in demand for workers. As electrical machinery contracted in Mexico, according to the modelling results, demand for workers in this sector dropped and, therefore, wages of workers

in this sector also decreased. The decrease in wages is estimated to be roughly the same across all skill groups in this sector. However, as can be seen from the table, the share of low-skilled workers employed in the sector is much higher than the share of medium- or high-skilled workers, so the contraction in this sector hurt the low-skilled more. At the same time, the motor vehicles sector expanded, resulting in an increase of around 14 percent in wages across all skill groups. This sector again employs a relatively high share of low-skilled workers, compensating the losses for low-skilled workers at the aggregate level. Nevertheless, in the short run, a greater burden was placed on, and greater adjustments were required from, low-skilled workers, with more than double the labour displacement rate compared with that for high-skilled workers. The model estimates that labour displacement is 3.4 percent for the low-skilled group, while it is 1.9 percent for the medium-skilled workers and 1.44 percent for high-skilled workers.

Table 3.18 Impact on Mexican workers (%)

	Low-skilled		Medium-skilled		High-skilled	
	share	% change	share	% change	share	% change
Rice: GP 1, 23	0.00	-0.5	0.00	-0.6	0.00	-0.6
Cereals & oilseeds, oils: GP 2, 3, 5, 21	0.01	-0.3	0.00	-0.3	0.00	-0.3
Vegetables, fruit, nuts: GP 4	0.04	-0.2	0.00	-0.3	0.00	-0.2
Sugar, cane, beet: GP 6, 24	0.01	-0.7	0.00	-0.8	0.00	-0.8
Milk and dairy products: GP 11, 22	0.01	0.0	0.00	-0.1	0.00	-0.1
Beef: GP 19	0.00	-0.2	0.00	-0.4	0.00	-0.3
Other meat: GP 20	0.00	-0.3	0.00	-0.5	0.00	-0.4
Other ag.: 7, 8, 9, 10, 12	0.03	-0.1	0.00	-0.1	0.00	-0.1
Food products nec: GP 25	0.04	0.0	0.01	-0.3	0.01	-0.2
Beverages and Tobacco Products: GP 26	0.01	-0.1	0.00	-0.3	0.00	-0.2
Fisheries: GP 14	0.00	0.0	0.00	0.0	0.00	0.0
Energy: GP 15, 16, 17	0.00	-0.1	0.00	-0.2	0.00	-0.2
Other primary, non-ag: 13, 18	0.02	-0.5	0.00	-0.5	0.01	-0.5
Textiles: GP 27	0.01	-0.4	0.00	-0.6	0.00	-0.5
Wearing Apparel: GP 28	0.01	-0.7	0.00	-1.0	0.00	-0.9
Leather Products: GP 29	0.01	-0.8	0.00	-1.0	0.00	-0.9
Petrochemicals: GP 32	0.01	-0.3	0.00	-0.5	0.00	-0.4
Chemicals: GP 33	0.05	-1.3	0.01	-1.5	0.01	-1.4
Electrical machinery: GP 40	0.03	-10.2	0.01	-10.4	0.01	-10.3
Motor vehicles: GP 38	0.04	14.6	0.01	14.4	0.01	14.4
Other transport equipment: GP 39	0.01	-0.1	0.00	-0.4	0.00	-0.3
Other machinery: GP 41	0.08	-1.6	0.02	-1.8	0.01	-1.7
Metals and metal products: GP 35-38	0.04	-2.2	0.01	-2.4	0.01	-2.3
Wood and paper products: GP 30-31	0.02	-2.3	0.01	-2.6	0.00	-2.5
Other manufactures: GP 34,42	0.02	-0.1	0.01	-0.3	0.00	-0.2

	Low-skilled		Medium-skilled		High-skilled	
	share	% change	share	% change	share	% change
Electricity: GP 43	0.01	-0.4	0.01	-0.7	0.00	-0.6
Gas manufacture, distribution: GP 44	0.00	-0.6	0.00	-0.8	0.00	-0.7
Water: GP 45	0.00	-0.3	0.00	-0.5	0.00	-0.4
Water transport: GP 49	0.00	0.2	0.00	-0.1	0.00	0.0
Air transport: GP 50	0.00	0.0	0.00	-0.3	0.00	-0.1
Land, other transport: GP 48	0.10	0.2	0.04	-0.1	0.04	0.0
Finance: GP 52	0.00	0.2	0.02	-0.1	0.04	0.0
Insurance: GP 53	0.00	-0.2	0.00	-0.4	0.01	-0.3
Business services: GP 54	0.02	0.0	0.08	-0.2	0.15	-0.1
Communications: GP 51	0.03	0.0	0.01	-0.2	0.01	-0.1
Construction: GP 46	0.16	0.3	0.01	0.0	0.02	0.1
Distribution services: GP 47	0.09	0.6	0.32	0.4	0.04	0.5
Other services: GP 55, 56, 57	0.10	0.2	0.38	0.0	0.62	0.0
% labour displacement		**3.4**		**1.9**		**1.4**

In the case of the EU, given that the resulting output changes were estimated to be very small, changes in both wages and labour displacement were also very small, as can be seen in Table 3.19, below. While wages decreased somewhat, by 0.14-0.19 percent in the motor vehicles and electrical machinery sectors, wages increased by about 0.16percent in other transport and 0.13% in textiles, in line with output changes. Due to a relatively higher share of low-skilled workers employed in in the contracting sectors compared to workers of other skill levels, the displacement ratio is estimated to be a bit higher than for medium- and high-skilled workers, are about 0.05 percent for low skill workers.

Table 3.19 Impact on EU workers (%)

	Low-skilled		Medium-skilled		High-skilled	
	share	% change	share	% change	share	% change
Rice: GP 1, 23	0.00	-0.1	0.00	-0.1	0.00	-0.1
Cereals & oilseeds, oils: GP 2, 3, 5, 21	0.02	0.0	0.00	0.0	0.00	0.0
Vegetables, fruit, nuts: GP 4	0.02	0.0	0.00	0.0	0.00	0.0
Sugar, cane, beet: GP 6, 24	0.00	-0.1	0.00	-0.1	0.00	-0.1
Milk and dairy products: GP 11, 22	0.02	0.0	0.00	0.0	0.00	0.0
Beef: GP 19	0.00	0.0	0.00	0.0	0.00	0.0
Other meat: GP 20	0.00	0.0	0.00	0.0	0.00	0.0
Other ag.: 7, 8, 9, 10, 12	0.03	0.0	0.00	0.0	0.00	0.0
Food products nec: GP 25	0.02	0.0	0.01	0.0	0.01	0.0
Beverages and Tobacco Products: GP 26	0.01	0.0	0.00	0.0	0.01	0.0

	Low-skilled		Medium-skilled		High-skilled	
	share	% change	share	% change	share	% change
Fisheries: GP 14	0.00	0.0	0.00	0.0	0.00	0.0
Energy: GP 15, 16, 17	0.00	0.0	0.00	0.0	0.00	0.0
Other primary, non-ag: 13, 18	0.01	0.0	0.00	0.0	0.00	0.0
Textiles: GP 27	0.01	0.1	0.00	0.1	0.01	0.1
Wearing Apparel: GP 28	0.01	0.1	0.00	0.1	0.00	0.1
Leather Products: GP 29	0.01	0.0	0.00	0.0	0.00	0.0
Petrochemicals: GP 32	0.00	0.0	0.00	0.0	0.00	0.0
Chemicals: GP 33	0.06	0.1	0.02	0.1	0.03	0.1
Electrical machinery: GP 40	0.01	-0.2	0.00	-0.2	0.01	-0.2
Motor vehicles: GP 38	0.03	-0.1	0.01	-0.1	0.02	-0.1
Other transport equipment: GP 39	0.01	0.2	0.01	0.2	0.01	0.2
Other machinery: GP 41	0.09	0.0	0.04	0.0	0.05	0.0
Metals and metal products: GP 35-38	0.06	0.0	0.02	0.0	0.03	0.0
Wood and paper products: GP 30-31	0.04	0.0	0.02	0.0	0.02	0.0
Other manufactures: GP 34,42	0.03	0.0	0.01	0.0	0.02	0.0
Electricity: GP 43	0.01	0.0	0.01	0.0	0.01	0.0
Gas manufacture, distribution: GP 44	0.00	0.0	0.00	0.0	0.00	0.0
Water: GP 45	0.00	0.0	0.00	0.0	0.00	0.0
Water transport: GP 49	0.00	0.0	0.00	0.0	0.00	0.0
Air transport: GP 50	0.00	0.0	0.00	0.0	0.00	0.0
Land, other transport: GP 48	0.02	0.0	0.04	0.0	0.03	0.0
Finance: GP 52	0.00	0.0	0.05	0.0	0.04	0.0
Insurance: GP 53	0.00	0.0	0.02	0.0	0.01	0.0
Business services: GP 54	0.04	0.0	0.10	0.0	0.18	0.0
Communications: GP 51	0.01	0.0	0.03	0.0	0.02	0.0
Construction: GP 46	0.23	0.0	0.02	0.0	0.03	0.0
Distribution services: GP 47	0.05	0.0	0.13	0.0	0.06	0.0
Other services: GP 55, 56, 57	0.10	0.0	0.43	0.0	0.38	0.0
% labour displacement		0.05		0.03		0.03

Environmental effects

In this section, we discuss the impact of the FTA on natural resource intensity, change in global shipment, and CO_2 emission changes in the different regions, which come from the CGE model. In Chapter 5, these are elaborated upon in more detail.

Table 3.20, below, shows percentage changes in natural resource intensity uses in both Mexico and the EU. The resulting changes after tariff liberalisation were rather small; the highest change is estimated to have occurred in land use in Mexico, with a marginal increase of 0.13 percent.

Table 3.20 Natural resource intensity percent

Resource	Mexico	EU
Land	0.13	0.01
Fisheries	0.02	0.00

Global transport also changed only marginally, as can be seen in Table 3.21, below. Given the geographical location of the EU in relation to Mexico, the increased trade led to an increase in air and water transport according to the modelling results, by 0.17 and 0.06 percent respectively. In contrast, land and other transport declined marginally.

Table 3.21 Global Transport

Transport	% change
Global shipping	0.04
Water	0.06
Air	0.17
Land/other	-0.04

CO_2 emissions decreased in Mexico compared to the counterfactual scenario without an EU-Mexico FTA, with a decline of 0.41m tons, corresponding to 0.1 percent decrease in Mexican CO_2 emissions. This is due to a change in sectoral output, and primarily driven by, on the one hand, electronic machinery contracting, while, on the other, motor vehicles expanded, since electrical machinery is associated with greater CO_2 emissions. At the same time, the model estimates that a small increase took place in the EU, with the change being only one-tenth in percentage changes; nevertheless, in volume terms, it was slightly higher, at about 0.56 million tons. This slight increase is driven by the growing clothing sector, which had slightly higher CO_2 emissions than the contracting sectors.

Table 3.22 CO_2 emissions

Country	value, MT	change in MT	change in %
EU	4,031.99	0.56	0.01
Mexico	405.13	-0.41	-0.10
Turkey	264.26	-0.01	0.00
Canada	555.62	0.18	0.03
US	5,629.62	-0.10	0.00
MERCOSUR	473.36	0.00	0.00
Andean Pact	122.90	0.03	0.03
Central America	55.76	0.01	0.02
Chile	73.43	0.01	0.01
ACP countries	623.53	-0.06	-0.01
China	5,343.41	0.33	0.01
Japan	1,073.59	0.06	0.01
Rest of World	7,969.68	0.00	0.00

3.2.3. Mexico's total factor productivity

Given the importance of TFP in explaining Mexico's lagging economic growth (relatively speaking), we undertook a short review of the existing literature related to the impact of the FTA on total factor productivity in Mexico, to assess whether the agreement has had any effect on Mexico's TFP. We first summarized the theory relating to this relationship between trade liberalisation and TFP, and then presented some findings from Mexico-specific studies.

TFP theory

Total factor productivity can be affected by trade liberalisation through different channels. The firm heterogeneity theory[180] says that the impact depends on the productivity levels of individual companies. Only the more productive companies benefit from trade liberalisation; less productive companies could be driven from the market, due to increased product and factor market competition. Large companies tend to be more productive than SMEs, so have a higher chance of surviving. Therefore, average productivity increases. Furthermore, regardless of their productivity levels, individual companies could benefit from trade liberalisation through better access to (cheaper) inputs and economies of scale, as the size of the market increases. The effect of trade liberalisation also depends on the sector (export-oriented, import-competing, non-traded). Logically, companies in export-oriented sectors, in general, benefit more from trade liberalisation.

Evidence on the effect of trade and trade barriers on Mexico's TFP development

Empirical evidence shows that, until the late 1980s, the Mexican TFP level was higher than that of the US. However, from 1990 onwards, productivity levels in Mexico started to decline relative to those of the US. In 2007, Mexican TFP was only 61 percent of US TFP (Ferreira, Pessôa and Veloso, 2011, p.6).

Since 1988, Mexico has moved from an inward-oriented to an outward-looking economy. Several trade liberalisation initiatives, especially the conclusion of the NAFTA agreement in 1994, have led to significant increases in trade and FDI flows. Several studies indicate that this development has increased the productivity of manufacturing sectors, and, in particular, that of medium-sized and large companies. However, a clear positive effect of NAFTA on aggregate TFP cannot be demonstrated (UNIDO 2005, p.xii).[181]

Calderon-Madrid and Voicu (2004, p.18) find that enhanced access to imported inputs, because of NAFTA, had the most significant positive effect on productivity in Mexico. Firms with larger shares of imported inputs show stronger productivity growth. Firms that face stronger import competition do not become more productive.

In Section 3.1.1 we describe the development in Mexico's aggregate productivity, where labour resources tend to reallocate to less productive sectors. McKinsey (2014, p.13) mentions that less productive companies that attract local labour are still protected from foreign competition by remaining trade barriers, due to concerns regarding imports from lower-cost regions such as China. These remaining tariffs, antidumping rules and costly custom procedures, may protect jobs in the less productive parts of the economy, but they also limit aggregate productivity growth.

Overall, evidence on the effect of the EU-Mexico FTA on TFP is very limited, and the direction of the effect is not entirely clear, as TFP could have been affected through different channels (competition forces, improved access to inputs, etc.). However, based on the above, we do not expect that the FTA has had any significant impacts on aggregate productivity levels and has not been able to break the trend of low productivity growth in Mexico, which makes its economic growth fall behind compared to similar countries.

[180] Melitz, (2003); Melitz & Ottaviana (2008).

[181] Hernández Laos, E. (2005), Productivity performance in developing countries – Country case study Mexico. UNIDO Productivity Performance Project. http://www.unido.org/data1/wpd/Index.cfm.

3.2.4. Impact on Mexican SMEs

As discussed in Section 3.1.4, the export potential of Mexican SMEs is said to be far from optimal.[182] Of all the companies (not only SMEs) currently registered at the Ministry of Economy, only 0.82 percent are exporting and 2.03 percent is importing.[183] SMEs are said to contribute to 5% of total exports, annually generating sales abroad of less than USD 10 million.[184]

The percentage of exporting companies seems to be low, even though Mexico has concluded several FTAs. Given that SMEs, on average, export more to neighbouring countries than to more distant destinations, it is expected that the volume of SME exports to the EU have remained small. However, many companies, especially SMEs, are likely to have benefited more indirectly from these FTAs, including the EU-Mexico FTA. For instance, it could be that they are supplying goods and/or services to the exporting companies. While there is no quantitative evidence for this, this view was shared among Mexican stakeholders, although this effect seems relevant for only a limited number of companies.[185] This is also in line with the observations of Ruíz[186] who notes that there are only few medium-sized firms, indirectly involved in trade with the EU in the sense that they have been able to establish successful relations with EU firms based in Mexico. These examples are observed mainly in the higher value added manufacturing sector (notably in sectors such as auto parts, electronic equipment and aeronautical sectors). Ruíz also notes that, if Mexican SMEs export directly to the EU, it mainly concerns traditional, low to medium value added products, such as fresh foods, textiles, leather goods and handicrafts. Although size is one explanatory factors (SMEs usually are not able to supply goods in large quantities), the lack of skills, innovation, infrastructure and access to finance are also cited as important underlying reasons for lack of competitiveness and, consequently, an inability to seize the export opportunities provided by the FTA.

It should be noted that the EU and Mexico have had cooperation programmes aimed at increasing Mexican SMEs' competitiveness, export capacity and internationalisation in the EU[187]. These programmes might have had an impact on the export capacity of Mexican SMEs, but they are not part of the FTA; they fit into the framework of the GA. Hence, the effects of these programmes cannot be attributed to the FTA.

3.2.5. Impact on Mexico's informal economy

As section 3.1.1 briefly indicates, Mexico's economy is characterised by a relatively large informal sector, which limits TFP growth. The impact of trade liberalisation on informality is complex, and region-, sector- and context-specific. The formalisation effect of the EU-Mexico FTA on tradable goods is likely to be higher than the impact on non-tradable goods, in sectors such as services, hotels and restaurants, and construction. Mexico's informal economy and the different effects of trade liberalisation are analysed in more detail in the next chapter, in particular in sections 4.1.2 (description) and 4.2.2 (impact of the FTA). This analysis shows that the overall impact of the FTA on Mexico's informal economy is unclear.

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182 http://www.forbes.com.mx/pymes-clave-en-el-crecimiento-exterior/.
183 Secretaría de Economía.
184 http://www.forbes.com.mx/pymes-clave-en-el-crecimiento-exterior/.
185 As indicated in section 1.3, the survey organised for this project generated too few answers to provide more information on the effects on SMEs.
186 Lorena Ruíz García (2009) A critical analysis of globalization, in Harris, J. (2009) The Nation in the Global Era: Conflict and Transformation
187 E.g. Programa de Competitividad e Innovación México-Unión Europea, see www.procei.mx. Another example is Programa Integral de Apoyo a la Pequeña y Mediana Empresa México Unión Europea (PIAPYME), which aimed to increase the competitiveness and export capacity of Mexican SMEs, especially by providing business development services to firms targeting the EU market.

3.3. Conclusions of the economic analysis

Mexico is an upper middle income country. Its economy has grown in recent decades, although less strongly compared to those of other developing countries. This difference can be explained by a lower growth in total factor productivity, due to a growing share of Mexican workers in the traditional sector.

In the past two decades, Mexican trade policy has shifted from import substitution to an outward, export-oriented focus. In this period, trade openness has doubled. The EU-Mexico FTA of 2000 was part of this trade liberalisation process. Bilateral trade has intensified between the two trade partners, although it remains relatively unimportant.

The CGE model has estimated that the FTA has led to an increase in GDP of 0.34 percent for Mexico and 0.01 percent for the EU, compared to a situation where there would not have been an FTA. The FTA triggered increases in trade, amounting to an increase of 1.5-1.7percent in Mexico's aggregate exports and imports, and a 0.05 percent increase in the EU's aggregate trade flows, according to the modelling results. Looking at the results for bilateral trade flows, EU exports to Mexico increased by 19 percent, and Mexican exports to the EU increased by 15 percent.

Reduction in tariffs between the trade partners resulted in minor losses in tariff revenues. For the EU, the estimated change is EUR 235.9 million, which is insignificant, equivalent to a 0.01percent change in tariff revenues. For Mexico, the estimated loss is EUR 625.3 million, which is also small in percentage terms (0.14%).

In the EU, the changes in output at sectoral level are estimated to have been small, varying between 0 and 0.2%. In Mexico, the estimated output effects are somewhat more pronounced, with the largest changes taking place in two sectors: motor vehicles (+16.5%) and electrical machinery (-11.5%), according to the modelling results. The motor vehicle sector witnessed a large reduction in import tariffs in the EU, thereby increasing export opportunities and related output increases. The expansion of this sector led to a contraction of the electrical machinery sector. Although tariffs for textiles and clothing on Mexican exports to the EU were also high, these sectors did not expand in Mexico, as there were significantly larger tariff reductions for EU exporters, who consequently gained competitiveness against Mexican producers and pushed some of them out of production. The large reduction in tariffs in motor vehicles, textiles and clothing is also visible in the effect on bilateral trade, as these are the sectors with the largest changes in bilateral trade flows compared to the counterfactual without an FTA in place.

The actual trade data and the CGE results suggest that the economic effects of the EU-Mexico FTA have been small but positive. One of the reasons identified is that Mexican businesses simply have not been aware of the existence of the FTA and of the opportunities this agreement creates for them. They have been focused on other markets than the EU when doing business, notably the US. Furthermore, stakeholders also mentioned that SPS is still an issue for Mexican firms for bilateral trade to the EU, as well as IPR, GI and public procurement. For both sides of the Atlantic, the survey results suggest that the trade partners see each other as attractive markets; however, standards and regulation are regarded as complicated and sometimes opaque.

4. Social and human rights analysis

This section looks at the social effects of the FTA, notably focusing on the four ILO decent work pillars (job creation, guaranteeing rights at work, extending social protection and promoting social dialogue), the informal economy, poverty and inequality. It starts with an overview of main trends and developments in the evaluation period (from the mid-1990s to the present situation), followed by an analysis of the impact of the FTA in these areas. Section 4.4 specifically focuses on human rights and how these are impacted by the FTA. Apart from some general results derived from the CGE model, which are available for both the EU and Mexico,[188] the assessment focuses on impacts in Mexico.

4.1. Social trends and developments

4.1.1. Identification and description of current state of play of the four ILO decent work pillars

Job creation

Employment

Since 1991 Mexico's employment-to-population ratio[189] has been quite stable and relatively high for the overall population, hovering between a low of 55.3% in 1995 and a high of 58.8% in 2007 (see table 4.1, below). For the Latin America and the Caribbean region, the employment-to-population ratio increased from 56.2% in 1990 to 60.9% in 2007 and 61.9% in 2011. Consequently, while Mexico started off slightly above the region's average ratio, it has been lagging in more recent years. While official Mexican unemployment rates might be low, according to the ILO, not enough formal, decent jobs are available for Mexico's labour force. As for the Latin America and the Caribbean region, the ILO sees a need for Mexico not only to increase economic growth and productivity, but also to improve inclusive and employment-led growth and create more formal and decent jobs.[190] Reducing the size of the informal sector plays an important part in this (further discussed later in this chapter).

Table 4.1 Employment-to-population ratio, by gender and age group (%)

	Total 15+	15-24	25+	Female 15+	15-24	25+	Male 15+	15-24	25+
1991	56.8	50.3	60.4	32.6	32.9	32.5	82.3	68.1	90.2
1992	57.8	52.1	60.8	34.6	34.1	34.9	82.8	70.5	89.6
1993	55.3	48.6	58.6	34.6	32.0	35.9	77.9	65.6	84.5
1994	58.3	50.2	62.1	37.5	33.2	39.4	81.3	67.5	88.3
1995	58.3	51.3	61.4	37.4	34.6	38.6	81.5	68.1	87.8
1996	57.5	48.5	61.3	37.1	32.7	38.9	80.1	64.5	87.2
1997	56.8	44.9	61.6	37.2	29.9	40.0	78.8	60.3	86.6
1998	57.7	44.7	62.7	39.7	31.2	42.7	78.0	58.7	85.8
1999	58.8	45.2	63.9	41.3	31.8	44.6	78.6	59.1	86.2
2000	57.0	41.8	62.6	40.7	29.2	44.6	75.4	54.7	83.3
2001	57.2	42.2	62.4	41.0	29.7	44.7	75.2	54.9	82.9
2002	58.6	43.3	63.9	42.8	30.9	46.7	76.1	55.8	83.8
2003	57.5	42.3	62.6	42.0	30.1	45.8	74.7	54.8	81.7
2004	54.7	38.3	60.1	40.4	28.0	44.2	70.5	48.4	78.4
2005	57.2	41.0	62.4	41.4	28.4	45.3	74.7	53.4	82.0
2006	56.8	50.3	60.4	32.6	32.9	32.5	82.3	68.1	90.2
2007	57.8	52.1	60.8	34.6	34.1	34.9	82.8	70.5	89.6
2008	55.3	48.6	58.6	34.6	32.0	35.9	77.9	65.6	84.5

188 Namely: wages, prices and welfare effects.

189 The employment-to-population ratio is defined as the proportion of a country's working-age population that is employed. For most countries, the working-age population is defined as persons aged 15 years and older, although this may vary from country to country.

190 ILO 2014, Global employment trends, p. 50.

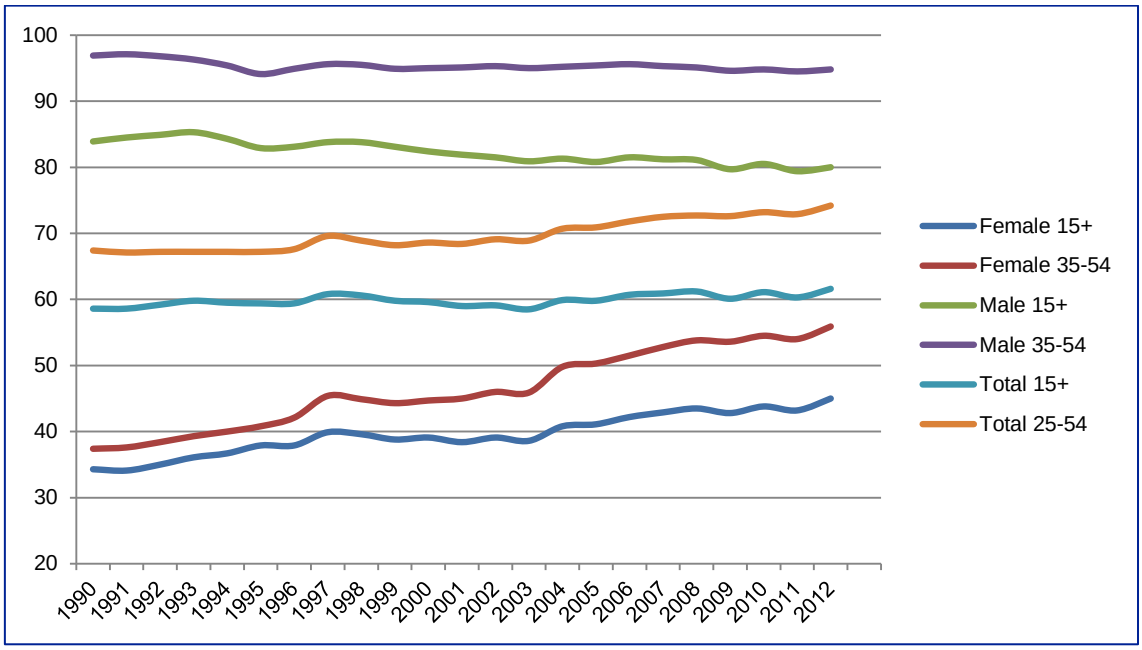
2009	58.3	50.2	62.1	37.5	33.2	39.4	81.3	67.5	88.3
2010	58.3	51.3	61.4	37.4	34.6	38.6	81.5	68.1	87.8
2011	57.5	48.5	61.3	37.1	32.7	38.9	80.1	64.5	87.2
2012	56.8	44.9	61.6	37.2	29.9	40.0	78.8	60.3	86.6
2013	57.7	44.7	62.7	39.7	31.2	42.7	78.0	58.7	85.8
2014	58.8	45.2	63.9	41.3	31.8	44.6	78.6	59.1	86.2
2015	57.0	41.8	62.6	40.7	29.2	44.6	75.4	54.7	83.3

Source: ILO KILM.

Furthermore, there are major differences in the development of the employment ratio between men and women. So, while the male ratio, which was more than twice as high as the female ratio in 1990, has been declining, the female ratio has seen a substantial increase, by 10.2 percentage points, to 42.8% in 2012. Despite this increase, it is still only slightly above half of the male ratio.

A similar trend is visible in the participation rate, as presented in the figure below. The total female participation rate has increased from 39.1% in 2000 to 45% in 2012. For the age cohort of 35- 54, the increase was from 44.7% to 55.9%. Both rates are substantially below the male participation rates, even though these have seen a minor decrease over time. The decrease in participation rates of men is mostly because of declining rates of unskilled males. It is unclear what the reasons for this decline are; they could include international migration, an income effect, or perhaps increasing participation in illegal activities.

Figure 4.1 Labour force participation rate by gender (%)



Source: ILO KILM.

It seems clear that social norms play an important role in the lower employment rate of women; men are considered the breadwinners and women are responsible for domestic tasks. This is especially the case for married men and women. Opposition to these gendered roles, because of economic necessity to support household incomes, a decline in the reproductive rate or changing social norms, is likely to be a factor in the increasing female participation rate.[191] The processes of urbanisation and industrialisation have also contributed to increased female labour participation.

[191] Covarrubias, 2013, Social norms and women's participation in salaried employment.

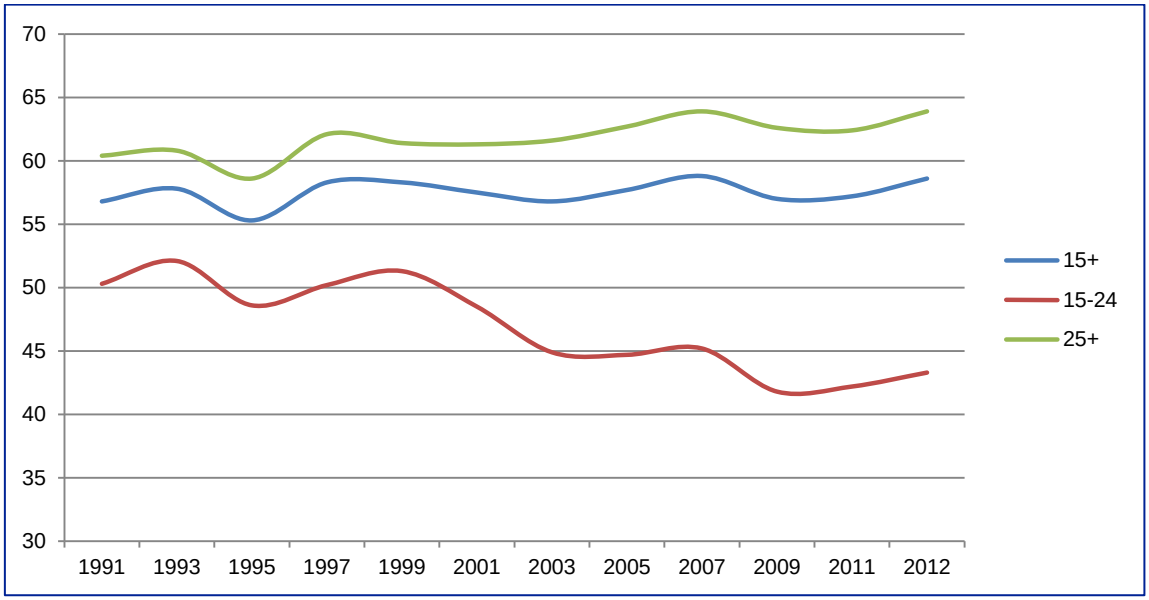
Developments in employment also differ by sector. Through trade liberalisation, including, notably, NAFTA, Mexico experienced an export surge in manufacturing production and employment during the second half of the 1990s, mainly due to the booming *maquiladora* sector. This was especially important for the textiles sector, as *maquiladoras* mainly hired women, contributing to an increase in their employment rate. The *maquiladora* sector has, however, not developed significant linkages with the rest of the economy, and has declined from 2000 onwards, drastically reducing the rate of formal job creation in Mexico.[192]

While employment grew in the manufacturing sector, employment in the agricultural sector declined, largely due to imports from the US. As NAFTA removed tariffs on agricultural goods, US production, which is subsidised and has higher average productivity levels than that of Mexico, displaced millions of Mexican farmers. Although vegetable and fruit production did expand considerably (from 17.3 million tons in 1994 to 28.2 million in 2012) and provided for around 3 million seasonal jobs, it was not enough to replace the lost employment.[193] However, it can also be argued that Mexican agriculture was already providing less employment, due to efficiency increases.[194] During the 1990s job losses were greatest for men, but, in the 2000s, the decline for women in agriculture was greater.[195]

In fact, Mexican women are mostly employed in the services sector, and this sector has expanded in Mexico. Of all employed women 70% worked in services in 2000; this number increased, to almost 80%, in 2011. In rural areas, in particular, the services sector employs mainly women, mostly in petty trade and personal services. For males, the services sector is also the biggest sector, employing 47% and 51% of all employed men in 2000 and 2011, respectively.[196]

The differences between the age groups are not as substantial as the gender difference. However, there has been an interesting development over time, as shown in Figure 4.2.

Figure 4.2 Employment-to-population ratio total, per age group (%).



Source: ILO KILM.

The ratio for the 15-24 age group is the lowest, and is declining, whereas, for the other age groups, the employment-to-population ratio has mostly been rising over the last two decades. This decline for the 15-24 age cohort reflects the lack of jobs in general, combined with the

192 CEPAL 2007, Employment Challenges and Policy Responses, in Argentina, Brazil and Mexico, p. 101.
193 Center for Economic Policy and Research 2014, Did NAFTA help Mexico? An assessment after 20 years, p. 14.
194 Angeles Villarreal 2010, NAFTA and the Mexican economy, p. 12.
195 FAO 2010, Gender dimensions of agricultural and rural employment, p. 128.
196 ILO KILM Indicator 4a.

growing number of young people entering the labour force.[197] The changing expectations of younger people, due to education and urban lifestyles, also impact their activity rates. Few quality jobs are available, and the precarious, informal jobs that are available are not particularly attractive.

It is not the case that this cohort postpones employment because of education; there is, in fact, a high incidence of young people not engaged in education, employment or training (NEETs): approximately 22% of the total age cohort over the past decade[198]. One likely factor in this is the temporary decrease in female labour force participation between the age of 20 and 25, which is related to child-bearing. After the age of 25, female labour force participation grows again.[199]

Unemployment

The unemployment rates[200] in Mexico have been consistently lower than those for the Latin America and the Caribbean region. However, there have been strong increases in unemployment, especially around 1995 and again around 2009, as can be seen in Table 4.2, below. In both instances, the increase can be related to wider economic developments; the "peso crisis" of December 1994 and the introduction of NAFTA, also in 1994[201], and the recent global financial crisis for the latter years. The 1994 spike of unemployment can be explained by a combination of the peso crisis and the implementation of trade liberalisation and privatisation, as the Mexican government had failed to provide the proper institutional and regulatory framework for this.[202]

Table 4.2 Total unemployment rate (%)

		1991	1995	1999	2003	2007	2009	2011	2012	2013	2014	2015
Mexico	Total	3.0	6.9	2.5	3.0	3.4	5.2	5.3	4.9	5.0	5.2	4.3
	Female	4.2	8.6	3.5	3.6	3.7	4.8	5.2	4.9	5.0	5.0	4.5
	Male	2.6	6.0	2.0	2.6	3.2	5.4	5.3	4.8	5	5.4	4.2
Latin America and Caribbean	Total	7.5	9.4	11.2	11.2	7.9	8.1	6.7	6.4			

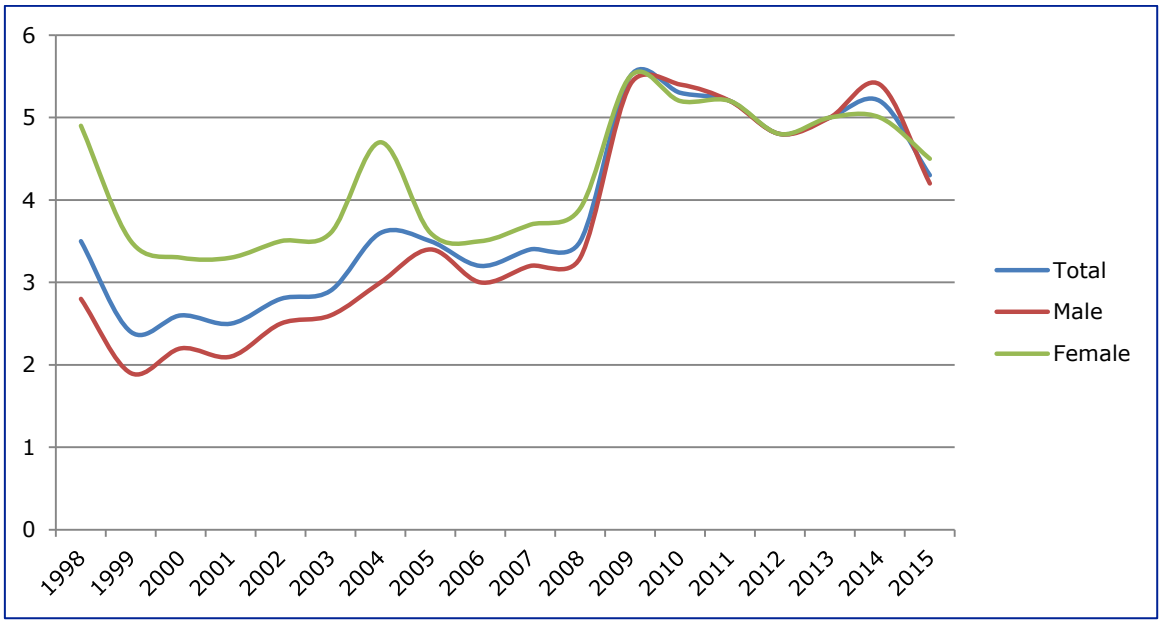
Source: ILO KILM for Mexico, CEPALstat for regional.

While the unemployment rate is low, it is an indicator that does not cover important aspects of the Mexican employment situation. First, unemployment is under-reported because of the lack of a nationwide unemployment insurance scheme.[203] Furthermore, the substantial informal economy, for which estimates range between 20% and 60% of total urban employment,[204] acts as a buffer to the growth of reported unemployment. Another buffer is migration to the US, which strongly increased after the signing of NAFTA in 1994. By 2005 between 11% and 14% of the adult working-age population resided in the US.[205]

197 Mejia-Palles, 2012, *A Life Course Perspective on Social and Family Formation Transitions to Adulthood of Young Men and Women in Mexico*, p. 49.
198 UCW, 2013, The NEET trap: A dynamic analysis for Mexico, p. 6.
199 Duval-Hernández and Romano, 2009, *A cohort analysis of labor participation in Mexico*, p. 17.
200 The unemployment rate is defined mathematically as the ratio resulting from dividing the total number of unemployed (for a country or a specific group of workers) by the corresponding labour force, which itself is the sum of the total persons employed and unemployed in the group.
201 Martin 2000, *Employment and unemployment in Mexico in the 1990s*, p. 3.
202 Angeles Villarreal 2010, *NAFTA and the Mexican economy*, p. 8.
203 ILO Social Protection.
204 Martin 2000, *Employment and unemployment in Mexico in the 1990s*, OECD 2013 Employment Outlook – How does Mexico compare?
205 Jonakin 2009, *Labour and Its Discontents: The Consequences of Orthodox Reform in Venezuela and Mexico*.

The difference between male and female unemployment in Mexico has been quite small, and it appears that the unemployment rates have been converging over the last decade and, in particular, over the last few years (see Figure 4.3).

Figure 4.3 Total unemployment rate (%)



Source: ILO KILM.

One of the most pressing issues is the lack of employment opportunities for young people, as indicated above. Low levels of education and vocational training, a lack of prior work experience, a skills disconnect between higher education and formal labour markets, and inflexible labour laws are the main barriers to youth employment. According to survey data, companies often view young applicants as underprepared for formal jobs, not only in terms of their hard skills, but also "soft skills" such as emotional intelligence and communication abilities. Young workers' lack of accreditation and certifiable skills is one of the biggest barriers they face in entering formal job markets. Unemployment or underemployment is the reality for 60% of youth with less than 10 years of education.[206]

In the period 2000 to 2010 the share of NEET youth (Not in Education, Employment, or Training) was about 22% of the youth population. In absolute terms, the NEET youth increased from 3 to 4,5 million. In 2000 the share of NEETs among female youth was 35%, whereas it was only around 8% among male youth. An important explanation for this gender divide is the fact that household chores are excluded from NEET status. The gender divide has narrowed slightly over the 2000 to 2010 period, but remained substantial: in 2010 the share of female youth in the NEET category was about three times that of male youth.[207]

Mexico's First Job Law is a programme launched in 2007 to encourage formal youth employment and extend social security coverage. After a young person has been employed by an enterprise for 10 months, the government reimburses the enterprise's contributions to social security. Therefore, at the tenth month, the first month is reimbursed, at the 11th month, the second month is reimbursed, and so on.

When it comes to the duration of unemployment, Table 4.3, below, shows that most the unemployed are unemployed for a relatively short amount of time, up to six months. Even with improvements evidenced in the data, seen in the diminishing percentage of the "undefined" group, long-term unemployment does not increase. A long job search is a "luxury", which most people cannot afford, and consequently, instead of being unemployed for long, individuals lower

[206] AS 2013, *Bringing Youth into Labor Markets: Public-Private Efforts in Mexico*, p. 2.
[207] UCW 2013, *The NEET trap: a dynamic analysis for Mexico*, p. 9.

their reservation wages and take any job to regain an income source, whether in the formal or informal economy. This is especially the case for the lowest educated and least skilled.[208]

Table 4.3 Unemployment by duration in months, as a share of total unemployment (%)

	1995	1997	1999	2001	2003	2005	2007	2009	2011	2012
<1	24.5	25.1	29.0	27.9	27.6	32.8	33.6	30.2	30.2	27.2
1- 3	30.7	30.9	34.3	35.5	36.0	34.5	36.5	35.7	37.6	39.5
3-6	21.3	13.8	14.8	12.8	15.7	17.3	14.6	18.2	17.1	18.3
6-12	5.4	3.5	4.5	2.4	3.2	4.0	2.4	4.1	3.5	3.2
>12	1.2	1.4	1.3	0.8	0.7	2.1	2.4	1.7	1.8	1.7
Undefined	16.9	25.4	16.2	20.7	16.8	9.3	10.6	10.2	9.8	10.1

Source: ILO KILM.

Unemployment by education level

In 1995 the unemployment rate was highest for those with educational attainment at primary level or lower; however, it has declined strongly since and is lowest from 2005 onwards. On all three levels, the unemployment rates fluctuate in the period shown.

Table 4.4 Unemployment by level of education (%)

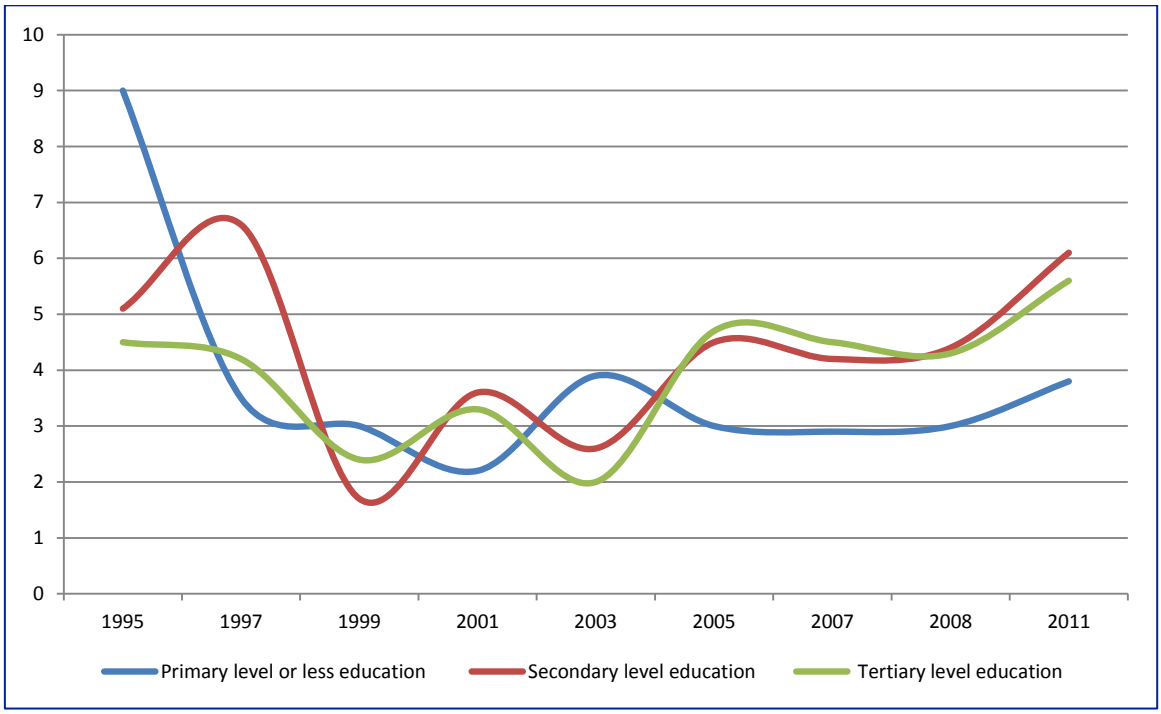
Year	1995	1997	1999	2001	2003	2005	2007	2008	2011
Primary or lower	9.0	3.5	3.0	2.2	3.9	3.0	2.9	3.0	3.8
Secondary	5.1	6.6	1.7	3.6	2.6	4.5	4.2	4.4	6.1
Tertiary	4.5	4.2	2.4	3.3	2.0	4.7	4.5	4.3	5.6

Source: ILO KILM.

In 2003-2004 there was a remarkable growth in unemployment among those with tertiary level educational attainment, of 3 percentage points. The main development over time has been the rise of unemployment for those with secondary and tertiary level educational attainment. However, this rise is limited to 2 or 3 percentage points.

[208] Duval-Hernández and Romano 2009, *A cohort analysis of labor participation in Mexico*.

Figure 4.4 Unemployment by level of education (%)



Source: ILO KILM.

Inactivity

The low rates of unemployment are overshadowed by the high rates of inactivity[209], presented in table 4.5, below. For this indicator, there is a substantial difference between male and female Mexicans, for all age groups.

Table 4.5 Inactivity rate, per gender and age group

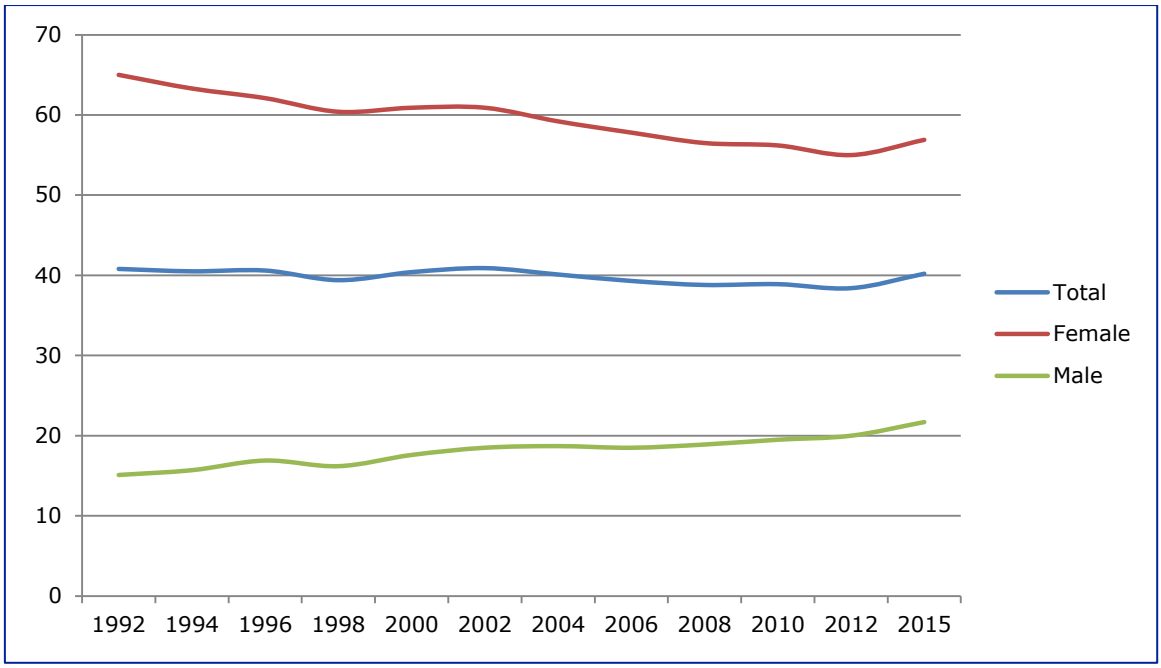
	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2012	2015
Total 15+	40.8	40.5	40.6	39.4	40.4	40.9	40.1	39.3	38.8	38.9	38.4	40.2
15-24	45.9	45.4	46.1	45.3	47.4	50.6	51.4	51.2	51.4	52.1	52.2	54.4
15-64	38.9	38.5	38.4	37.2	37.9	38.4	37.5	36.5	35.9	35.8	35.1	36.4
25-54	32.8	32.8	32.4	31.1	31.4	30.9	29.3	28.2	27.3	26.8	25.8	26.9
65+	67.0	66.8	69.7	68.1	70.6	70.7	71.6	71.5	71.1	72.0	72.6	73.0
Female 15+	65.0	63.3	62.1	60.4	60.9	60.9	59.2	57.8	56.5	56.2	55.0	56.9
15-24	64.4	63.7	63.6	62.3	63.5	65.9	66.6	65.4	65.2	66.3	65.7	68.0
15-64	63.2	61.5	60.2	58.3	58.8	58.7	56.8	55.2	53.8	53.3	51.9	53.4
25-54	60.6	58.4	56.5	54.3	54.6	53.5	50.5	48.7	46.8	45.7	44.1	45.4
65+	86.4	85.0	86.0	84.7	85.8	85.9	85.7	85.3	85.0	84.9	84.6	85.8
Male 15+	15.1	15.7	16.9	16.2	17.6	18.5	18.7	18.5	18.9	19.5	20.0	21.7
15-24	27.1	26.8	28.2	28.2	31.1	35.0	35.6	36.4	37.1	37.6	38.6	41.1
15-64	13.3	13.7	14.6	14.0	15.0	16.0	15.9	15.6	16.1	16.4	16.7	17.8
25-54	3.4	4.3	4.8	4.5	4.9	4.8	4.8	4.5	4.9	5.2	5.2	5.8
65+	42.5	43.8	49.2	47.3	51.5	51.7	53.8	54.2	53.3	55.5	57.3	57.5

Source: ILO KILM.

There has been a pattern of convergence from 2000 to 2012, mostly owing to the decrease in female inactivity, but also because of a rise in inactivity for men, especially for the 15-24 and 65+ age groups.

[209] The inactivity rate is the proportion of the working-age population that is not in the labour force.

Figure 4.5 Inactivity per gender, aged 15+ (%)



Source: ILO KILM.

Guaranteeing rights at work

Mexico has been a member of the ILO since 1931 and has ratified seven of the eight fundamental ILO conventions. The convention that Mexico has not ratified is the Right to Organise and Collective Bargaining Convention (No. 98). Furthermore, there are some other conventions that are regarded as having priority, which Mexico has not ratified; namely, the Labour Inspection Convention (No. 81), Employment Policy Convention (No. 122) and Labour Inspection (Agriculture) (No. 129).[210]

The ILO's Committee of Experts on the Application of Conventions and Recommendations (CEACR) has made many comments since the 1990s, in the form of direct requests and observations, in respect of the application of ILO standards. The comments adopted by the Committee cover a wide range of conventions, including the fundamental conventions on Forced Labour (No.29), Freedom of Association and Protection of the Right to Organise Convention (No.87), Equal Remuneration (No.100), Discrimination (No.111) and Worst Forms of Child Labour (No.182)[211].

Freedom of Association and Protection of the Right to Organise Convention

In the period under review, the 1990s up to 2012, there have been regular comments on the Freedom of Association and Protection of the Right to Organise Convention (No.87). The comments mostly concern the severe restrictions on the right to strike, in general and in particular for public administration workers, as well as the legal limitations on trade union pluralism in certain sectors (banking, state agencies) and the ban on re-election in trade unions.[212] Over time, the comments and requests remain very similar, which is an indication that improvements have been limited.

[210] ILO NORMLEX Ratifications for Mexico http://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102764.

[211] ILO NORMLEX Comments adopted by the CEACR: Mexico http://www.ilo.org/dyn/normlex/en/f?p=1000:13201:0::NO:13201:P13201_COUNTRY_ID:102764.

[212] ILO NORMLEX Observation http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:2326537:NO.

Wages and Equal Remuneration

The exposure of protected Mexican firms to international competition since the 1980s has led to cost saving adjustments in the composition of the labour force and remuneration. As such, there was a fall in real wages of 21.2% in 1994-1996, associated with the peso crisis and recession. Wages did not recover to their pre-crisis level until 2005, 11 years later. By 2012, they were only 2.3% above the 1994 level, and barely above their level of 1980.[213] According to ECLAC, Mexico is the region's only country where the minimum wage is lower (0.66 times) than the poverty threshold. In addition, it is estimated that almost 14% of Mexican workers earn even less than the minimum wage.[214] Until recently, there were different minimum wage levels set for different regions of the country. According to government representatives, the Mexican government is currently looking to establish one minimum wage level that is equal for all workers in the country.

Regarding the Convention on Equal Remuneration (No.100), the CEACR has recognised the government's activities and programmes to minimise the gender pay gap. The committee has been commenting on the lack of clarity in the phrasing of Mexico's legal act on Equality at Work for Women and Men since 2001, and asking the Mexican government to undertake further measures and report on them to reduce the gender pay gap. Whereas the international convention uses the phrasing "the principle of equal remuneration for men and women for work of equal value", in the national law, "equal wages for work of comparable value" is used. The lack of clarity of the latter phrasing makes the Committee request the Mexican government to take measures to give full legislative expression to the principle of the convention. Furthermore, the government is requested to improve the compilation, analysis and dissemination of statistical data on the gender pay gap, as this is fundamental to taking appropriate measures to reducing the gap. This request was first made in 1992.[215] A similar request, also first made in 1992, regards the establishment of a system for objective job evaluation, in particular, in order to establish a broad scope of comparisons for the principle of "equal wages for work of equal value" to be applied.[216]

The worldwide average gender wage gap in the second half of the 2000s was around 18.4%. In table 4.6, below, the gender wage gap in Mexico over time is presented. As can be seen, Mexico performs a little better in terms of gender wage equality compared to the world average, (although not in comparison with Costa Rica).

Table 4.6 Overall gender wage gap (%)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Mexico	11.1	17.0	15.0	17.3	17.0	17.7	17.2	15.7	16.0	16.5	15.5	-	17.4	17.4
Brazil	24.3	21.8	18.9	19.7	17.7	18.8	17.7	-	21.6	-	-	21.8	-	-
Costa Rica	-	-	-	-	-	8.8	2.1	8.0	3.5	2.4	2.2	-	14.7	-

Source: ITUC 2012, p.54.

Mexico's trade liberalisation process has had a complex effect on the gender wage gap. Based on research covering the period 1987 to 1993, the gender wage gap increase over that period is explained by higher premiums for skilled work, as men are, on average, more skilled. It is concluded that, in the long run, trade can be beneficial to women through decreasing discrimination, as industries are required to abandon unequal practices. However, any improvement depends upon factors such as improvements in women's education and skills.[217]

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213 Center for Economic Policy and Research 2014, Did NAFTA help Mexico? An assessment after 20 years, p. 1.

214 http://www.cepal.org/en/comunicados/mejora-del-salario-minimo-contribuye-reducir-la-desigualdad-dice-la-cepal.

215 ILO NORMLEX Observation http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3146205:NO.

216 ILO NORMLEX Direct request http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3146201:NO.

217 Artecona & Cunningham 2002, Effects of Trade Liberalization on the Gender Wage Gap in Mexico.

The gender wage gap differs widely per sector, as can be seen for 2008 in Table 4.7, below. In agriculture, mining, utilities, construction, transport and finance, the gender wage gap is lower than the average, which might reflect the low incidence of female employment in these sectors, and the females that are employed tend to be higher skilled. For manufacturing, hotels and restaurants, health and social work, other services and employment in households, the gender wage gap is markedly higher than the average for this year (17.4%).

Table 4.7 Gender wage gap per sector in 2008 (%)

Sector	M/F gap
Agriculture	6.1
Fishing	17.7
Mining	0.5
Manufacturing	28.2
Utilities (gas, water, electricity)	6.8
Construction	-40.8
Wholesale, retail	18.6
Hotels, restaurants	26.8
Transport, storage, communication	-1.5
Finance	16.1
Real estate, renting, business	19.9
Public administration, defence	13.0
Education	16.9
Health, social work	29.8
Other community and personal services	23.3
Employed in households	35.8

Source: ITUC 2012.

Occupational safety

A Convention that has been commented upon regularly up to 2012 is the Occupational Health and Safety convention (No.155). Issues include the raising of awareness among employees of their right to remove themselves from a work situation which presents imminent and danger to their life or health, without having to fear undue consequences. Another recurring comment by the CEACR regards the article on requirement for employers to collaborate on occupational health and safety whenever two or more companies engage in activities simultaneously at one workplace, where the Mexican government is urged to take the necessary measures in order to enforce this article of the convention.[218]

Looking at some statistics on occupational accidents, we observe that there was a lower incidence of fatal occupational accidents in 2012 than in 2000; however, there has not been a steady decline. The non-fatal accidents have increased over the timeframe (see table 4.8). The lowest number of non-fatal accidents was in 2003, at 359,000, it has been increasing again since, in particular from 2007 to 2008.

Table 4.8 Cases of occupational injury

	1990	1994	1998	2002	2006	2008	2010*	2011*	2012*	2013*	2014*
Fatal	1,212	3,002	1,459	1,361	1,328	1,412	1,433	1,578	1,534		1330
Non-fatal (x1.000) **	518	1,112	407	388	388	509	507	536	557	542	528

Source: ILOSTAT.
* Includes cases of occupational disease and cases of injury due to commuting accidents.
** With lost workdays.

[218] ILO NORMLEX Direct request http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3087357.

Child labour

Since 1990 Mexico has ratified several international conventions regarding child labour. In 1990 the United Nations Convention on the Rights of the Child, and, in 2002, the optional protocol to this Convention prohibiting the sale of children, child prostitution and child pornography. The Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, supplementing the United Nations Convention against Transnational Organised Crime was ratified in 2003.[219]

Also in 1990, Mexico ratified the Convention on the Worst Forms of Child Labour (No.182). However, importantly, to date it has not defined these "worst" forms of child labour as a first step in taking measures to eliminate them. Furthermore, no National Commission on Child Labour has been established, nor has a tripartite commission responsible for the definition of a list of worst forms of child labour and the formulation of a national plan to eliminate them.[220]

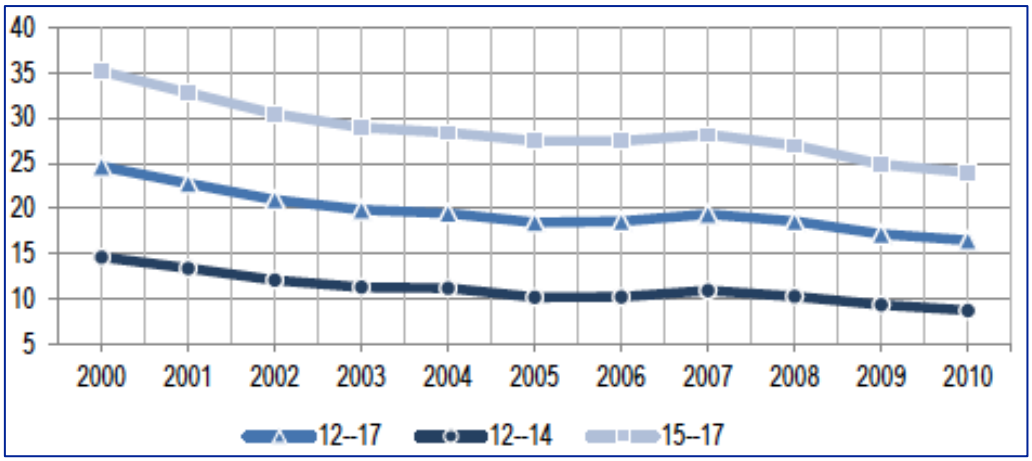
On June 17th 2014, Mexico amended Article 123 of its Federal Constitution, to increase the minimum age for employment from 14 to 15 years old. On June 10th 2015, the ILO Minimum Age Convention (No.138) was ratified by Mexico. Until then, Mexico was the only Latin American country that had not yet done so. According to Mexican law, the minimum working age is now in line with the age recommended by Convention, which is 15 years or the age equivalent to the completion of basic education.[221] However, there is an exception for developing countries which may reduce the minimum age to 14 years. The employment of children aged 14 to 16 is regulated, work in locations serving alcoholic drinks is prohibited, for example, as is hazardous or unhealthy work, work that requires excessive exertion, and work in non-industrial establishments after ten at night. Work for persons under 18 years, night shifts in industry, and night work in bars, taverns and brothels, as well as work involving exposure to ionising radiation, is also prohibited.[222]

There has been a sharp increase in the reported cases of children under 14 involved in plantation work over the period 2010 to 2012. In respect of child labour there are several comments made by the CEACR, such as the Direct request on the Plantations convention. The committee notes that the employment of children on plantations remains widespread across the country, and, therefore, requests that the Mexican Government provide further information on the impact of initiatives relating to child labour on plantations and to indicate any additional measures contemplated in this regard.[223]

As can be seen in Figure 4.6, below, child labour decreased from 2000 to 2010, although it remains an important phenomenon; in 2007 3.6 million children aged between 5 and 17 were engaged in child labour; that is 12.5% of this age cohort. These 3.6 million children included 1.1 million children under the age of 14, which is the legal minimum age of employment. Nearly 42% of these working children did not attend school at all,[224] while most working children attend school while also working.

[219] UCW 2012, The Mexican experience in reducing child labour.
[220] Unicef 2011 The rights of children and adolescents in Mexico: A present day agenda.
[221] Unicef 2011 The rights of children and adolescents in Mexico: A present day agenda.
[222] UCW 2012, The Mexican experience in reducing child labour.
[223] ILO NORMLEX Direct request www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3146342:NO.
[224] Unicef 2009 Child rights in Mexico.

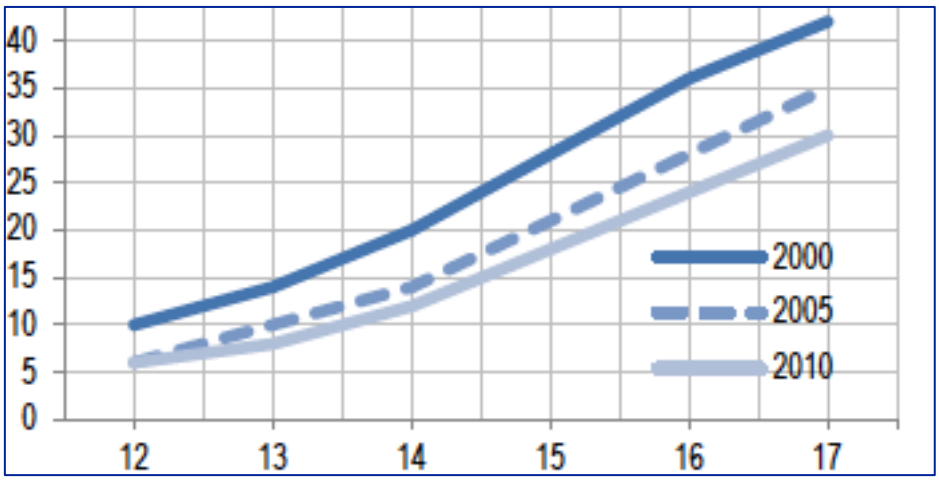
Figure 4.6 Child involvement in employment per age group (%)



Source: UCW 2012 The Mexican experience in reducing child labour.

The reduction in child labour has occurred for all child group ages, although the incidence of child involvement in employment still increases strongly with age.

Figure 4.7 Child involvement in employment by age, in 2000, 2005 and 2010 (%)



Source: UCW 2012 The Mexican experience in reducing child labour.

While children's involvement in employment decreased, school attendance has risen over the period from 2000 to 2010: from 89% to 93% for the 12 to 14 year olds, and 64% to 71% for the 15 to 17 year olds. Consequently, young Mexican people are beginning to stay in school longer before entering the labour market.[225]

The main reasons for the reduction in children's employment appear to be the improvement in level of education of heads of households, the reduction in the number of children per household, the improvement in living standards and, to a lesser extent, the improvement in secondary school quality and access. Some of these developments can partly be attributed to the *Oportunidades* programme, further discussed below. The programme has also had a direct effect on reducing children's employment.[226]

Most of children's employment takes place in rural areas, accounting for 7 out of 10 children involved in employment, whereas it is 3 out of 10 in cities. This reflects the kind of activities the children are involved in; the most common is in farming and livestock sectors, followed by

[225] UCW 2012, *The Mexican experience in reducing child labour*.
[226] UCW 2012, *The Mexican experience in reducing child labour*.

commerce, services, manufacturing and construction. [227] Mexico is one of the countries in which child labour outside of the agriculture sector, namely in the services sector, has gained in relative importance over the last few years.[228] In terms of gender differences, in 2007 boys' involvement in employment was around double that of girls; however, this leaves out household chores.

Forced labour

The convention on Forced Labour (No.29) was not commented upon in the 1990s. Following comments made by the International Confederation of Free Trade Unions (ICFTU), in 2002 the CEACR requested the Mexican government provide information on measures taken to prevent, suppress and punish the trafficking of persons for the purpose of exploitation. In 2007 a national act was introduced to prevent and punish those found guilty of human trafficking. In 2012 the Committee expressed its concern about the rehabilitation of victims of human trafficking. [229]

Extending social protection

The Mexican social security system is rated in the World Social Security Report (2014/2015) as "semi-comprehensive". The system in Mexico includes (at least one) statutory programme(s) on:

- Sickness;
- Maternity;
- Old age;
- Employment injury;
- Invalidity;
- Survivors;
- Family allowances;
- And limited provisions for unemployment.

In the 1990s the Mexican government passed reforms concerning social security. These included the introduction of individual capitalisation accounts in the pension system. In respect of the health system, Social Insurance (*Seguro Popular*) was implemented. Since 2000 the country introduced specific legislation on the social rights of children, persons with disability and the elderly. Between 2001 and 2008, only about one third of the economically active population had formal employment, with access to work-related social security for healthcare.[230]

The *Progresa* programme up to 2002 and the *Oportunidades* programme since then combine cash transfers and free health services with improvements to the supply of those health services. The main goal of the programme is to develop human capital in the form of health and education, to break the intergenerational cycle of poverty. The programme reaches 25% of the population. The cash transfers are estimated to average US$69 per month per family, with a family maximum of US$220 per month. Besides the cash transfers, families receive a basic health package and nutritional supplements, as well as school supplies and scholarships for children. Since 2000 more additional services and transfers have been added, such as savings accounts for students who finish their schooling, cash support for elderly family members and energy subsidies.[231]

Conditions apply to these transfers: these include school registration and regular attendance by all children, participation in workshops on education of parents and teenage children, and attendance by all family members at scheduled appointments for healthcare. There is a large

[227] Unicef 2010, *The rights of children and adolescents in Mexico: A present day agenda*.
[228] ILO 2013, *Marking progress against child labour - Global estimates and trends 2000-2012*.
[229] ILO NORMLEX Observation http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3065545.
[230] ECLAC 2012, Social protection systems in Latin America and the Caribbean: Mexico.
[231] ILO 2013, *Cash transfer programmes, poverty reduction and empowerment of women: A comparative analysis*.

role for women in *Oportunidades*, as the woman responsible for the household management is the one who receives the cash transfers.[232]

The programme has shown direct effects in terms of school attainment and performance. Between 1990 and 2012 there was a significant reduction (26.6%) in the educational underdevelopment of young people between the ages of 6 and 15. Furthermore, there are effects seen later in the young persons' progress through the system as well. Young people aged between 15 and 25 who benefited from *Oportunidades* have higher employment levels and higher income from work, compared to non-beneficiaries. Those who participated in the programme for at least six years and completed at least a primary level of education and experienced, on average, an increase of 12% in their wages. For those who completed secondary education, the average increase in wages is 14%.[233]

Unemployment insurance

There is no unemployment insurance in Mexico, but there are specific programmes to support unemployed people, such as the *Programa de Apoyo al Empleo* (PAE), which consists of active labour market policies, and the *Programa de Empleo Temporal Ampliado* (PETA).[234] PETA funds projects that employ local workers, aged 16 and older, in areas such as health promotion, preserving cultural heritage sites, building local infrastructure, alleviating the effects of natural disasters, conserving nature and promoting local development. The scheme covers the salaries of the workers (set at 99% of the local minimum wage) for a maximum of 132 days a year, as well as the necessary materials for the project.[235] The beneficiaries of PETA represented 11.1% of jobseekers in 2008 and 16.7% in 2009.[236]

In Mexico City, an unemployment benefit programme, *Programa seguro de desempleo del distrito federal*, was established in 2007. It consists of unemployment benefits being paid to persons aged 18 and older and living in Mexico City, who have lost their jobs. The monthly benefit amounts to 30 days of minimum wage and its maximum duration is six months. Beneficiaries need to have worked for at least six months prior to becoming unemployed. They are not allowed to receive any other income transfers and are expected to search actively for new employment. The programme aims to promote the incorporation of workers into the formal economy, partly by promoting training in order to increase the skills of Mexico City's workforce.[237]

Social protection levels are low in Mexico, which is mainly due to the high rates of informal sector employment, which leaves this share of the population without social protection. There is no unemployment benefit insurance at present.[238] Legally employers are obliged to give severance payments to workers who are laid off, but in practice such payments are scarce and heavily concentrated within the higher income deciles of the formal sector.[239] However, over the last decades there have been improvements in social services, most notably through the conditional cash transfer programs aimed at reducing poverty, the *Progresa* program introduced in 1997 and *Oportunidades* since 2002 – these are further discussed in section 2.3.

Proportion of elderly above statutory pensionable age receiving an old age pension

In 1997, Mexico began the transition from a public system of pensions to one administered by private managers and based on individual capitalisation accounts. There is extensive segmentation of pension provision in Mexico; there are more than 100 different pension schemes for workers in different sectors. Besides the contributory schemes, there are also non-

[232] ILO 2013, *Cash transfer programmes, poverty reduction and empowerment of women: A comparative analysis*.
[233] ILO 2014, World of Work Report.
[234] ILO 2014, *World Social Protection Report* 2014/2015.
[235] ILO Social Protection Platform http://www.social-protection.org/gimi/gess/ShowTheme.do?tid=2667.
[236] ILO 2014, *World Social Protection Report 2014/2015*.
[237] ILO Social Protection Platform http://www.social-protection.org/gimi/gess/ShowTheme.do?tid=2667.
[238] OECD 2014, *Society at a glance highlights: Mexico*.
[239] ECLAC 2012, *Social protection systems in Latin America and the Caribbean: Mexico*.

contributory schemes, separate from the private pension system, such as the Food Pension and the 70 and over programme.[240]

The proportion of people over the pensionable age who are receiving an old age pension was very low in 2000; pensions covered only 4% of the old age population. However, since 2002, it has been increasing, particularly in 2011 and 2012 (see table 4.9, below).

Table 4.9 Old age pension recipient ratio above retirement age of 65 (%)

2000	2002	2004	2006	2008	2010	2011	2012
4	4.1	8.2	12.6	9.7	-	29	36.8

Source: ILO social security inquiry database.

Over the last decade, the considerable increase reflected 17.8m people covered in 2000, rising to 41.2m in 2010. Nevertheless, only 37% of these workers made regular contributions to the system. The density of contributions, i.e. the percentage of working time registered in AFORES *(Administradoras de Fondos para el Retiro*, the Retirement Funds Administrators)*,* is only 56%. This means that they actively contribute only a small part of the time they are supposed to contribute, so they are not fully eligible to receive a pension (based on full-time work). In this regard, the real coverage of the contributory pension system is weak. Moreover, it excludes nearly half of the economically active population.[241]

Total social protection expenditure

The percentage of GDP that Mexico spends on social protection has doubled since 1990. Despite this growth, it remains well below the regional average of Latin America and the Caribbean, as can be seen in table 4.10 below.

Table 4.10 Public social protection expenditure (as % of GDP)

	1990	1995	2000	2005	2007	2009	2011	2012
Mexico Total	3.26	4.33	5.3	6.92	6.9	8.22	7.72	7.41
Excluding health care	-	-	2.94	4.28	4.27	5.1	4.97	-
Regional average - Total	8	9,6	10,2	11,4	12	13,6	13,2	-

Source: ILO social security inquiry database.

Promoting social dialogue

With the opening of the economy in the 1980s and 1990s and the economic restructuring, the lack of a strong and autonomous labour movement meant that workers' interests did not receive due attention. Moreover, neoliberal restructuring led to widespread job losses in the highly unionised sectors of manufacturing and the public sector, and unions found themselves severely weakened. Falling unionisation rates, coupled with the initial acceptance of the reforms by labour, have led to a certain de-legitimisation of the unions.[242]

In Mexico, there is a wide diversity of unions in terms of size and scope. The Congreso del Trabajo, CT, is the prevailing organisation, because of its large membership (67% of the private sector and nearly 100% of the public sector in 2004), close relationship with the state and institutional resources. The trade unions affiliated to the CT have precedence in collective bargaining and are favoured in exclusivity clauses, in line with the corporatist history of Mexico's industrial relations. Since around 2000 there has been an increase in independent unions, especially those representing new employees of new firms at the northern border.[243]

Despite these developments and Mexico's labour law, which establishes a broad range of workers' rights, a Human Rights Watch report points toa dominance of pro-management unions,

[240] ECLAC 2012, *Social protection systems in Latin America and the Caribbean: Mexico*.
[241] ECLAC 2012, *Social protection systems in Latin America and the Caribbean: Mexico*, p18.
[242] Cardoso, A. 2004, *Industrial relations, social dialogue and employment in Argentina, Brazil and Mexico*.
[243] Cardoso, A. 2004, *Industrial relations, social dialogue and employment in Argentina, Brazil and Mexico*.

which obstructs legitimate organisation of labour. According to this report, a reform in the labour law in 2012 has failed to address the lack of transparency and democracy and to protect the right to form independent unions and bargain collectively.[244]

The ITUC Survey of violations of Trade Union Rights classifies Mexico as a country in which there is systematic violation of trade union rights. Legal constraints include barriers to the establishment of organisations, through the requirement of being registered. The Register of Associations can, however, decline a request when they believe the union does not meet the requirements. Furthermore, there is a trade union monopoly for state employees, and they are not allowed to leave their union. The ITUC lists numerous violations over the last few years, including unfair dismissals of, and assaults on, workers who attempt to organise strikes, union busting by certain companies, blacklisting of trade union affiliated workers and collective bargaining by corrupt organisations to prevent bargaining in good faith.[245]

The ICTWSS database[246] provides data on government intervention in wage bargaining and the predominant level at which wage bargaining takes place between 1990 and 2010. In respect of government intervention, the government participates directly in wage bargaining. Bargaining predominantly takes place at the local or company levels, and, to a lesser extent, at higher levels such as sector, industry, cross-industry or central level.[247]

There is little reliable information available on trade union density and collective bargaining coverage. However, the OECD data, below, show a decline in union density[248] since the 1990s.

Table 4.11 Trade union density (%)

1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2012	2013
22.4	18.4	14.5	15.4	15.6	15.9	17.5	16.3	15.7	14.4	13.6	13.6

Source: OECD stat.

In respect of the dialogue between government, employers and employees, the convention on tripartite consultations (No.144) was commented upon first by the CEACR in 1990, in the form of a request to provide information on consultations held. This request was repeated several times, up to 2006, as it appears that the government provided only brief reports, without providing information on the frequency of the consultations or on the nature of any reports or recommendations made because of the consultations. In 2012 the Committee did receive a detailed report. In 2013 the main concern was whether the government was consulting with all representative, instead of merely the largest organisations of employers and workers.[249]

4.1.2. Informal economy

Description of the current state of the Mexican informal economy

According to the ILO, the term *informal economy* refers to "all economic activities by workers and economic units that are — in law or in practice — not covered or insufficiently covered by formal arrangements". These activities are not included in the law, which means the workers are either operating outside the formal reach of the law, or they are not covered in practice, which means that the law is not applied or not enforced.[250] Within the informal economy, there

[244] Human Rights Watch 2014, *World Report 2014, Mexico*.
[245] ITUC 2010, 2014, *Survey of violations of Trade Union Rights, Mexico*.
[246] Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts.
[247] Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS).
[248] Trade union density corresponds to the ratio of wage and salary earners that are trade union members, divided by the total number of wage and salary earners (OECD Labour Force Statistics). Density is calculated using survey data, wherever possible, and administrative data adjusted for non-active and self-employed members, otherwise. http://stats.oecd.org/Index.aspx?DataSetCode=UN_DEN.
[249] ILO NORMLEX Direct request http://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3139118.
[250] http://www.ilo.int/global/topics/employment-promotion/informal-economy/lang--en/index.htm.

can be no decent work, as the labour law does not cover informal workers, nor are they covered in the social protection system.

There are different ways in which to measure informal employment. The ILO KILM database provides the following table, which omits agricultural employment.

Table 4.12 Share of persons employed in the informal sector in total non-agricultural employment (%)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2005	2006	2007	2009	2011
Total	30.9	30.7	30.1	29.7	34.8	33.9	33.2	32.3	31.9	29.0	28.1	27.3	34.1	35.0
Female	33.1	27.7	27.5	28.2	32.4	30.9	30.3	30.8	30.7	26.1	26.3	25.9	31.8	33.0
Male	29.5	32.6	31.8	30.7	36.3	35.8	35.0	33.3	32.7	30.8	29.3	28.5	35.7	36.4

Source: ILO KILM.

Another indicator that is often used to measure informal employment is social security coverage. According to this measure, informality in Mexico was relatively stable during the 1990s, but has risen since 2000. However, the share of employees without a written employment contract, another indicator of informal employment, in total employment has stayed relatively stable, at around 30% since 1992, up to 2008.[251] The peso crisis in 1994-95 and the crisis in the first half of the 2000s have increased both informality and unemployment.[252]

It is generally agreed that informal employment in Mexico represents more than half of total employment.[253] Government representatives are even mentioning a current informality rate of around 60 percent. However, there is a wide variation across different states, ranging between 45 and 80% of total employment. [254] The probability of informality is higher in regions close to Mexico City, and lower for regions close to the US-Mexico border. Also, in states with higher exposure to globalisation, the probability of informality is lower than in states with low exposure to globalisation.[255]

Identification of national (historical) issues related to the functioning of the informal economy

The Mexican economy, like those of other countries in Latin America, has always been characterised by a parallel economy. Think, for example, of street vendors and their micro-businesses. Many of them are well organised, with representatives negotiating with the government. Mexico's population has had to react to various economic shocks, through adopting new survival strategies, including the establishment of micro-businesses. Employment in the informal economy appears to be a natural alternative to cope with increases in unemployment and decreases in (household) income.[256] Individuals accept an informal job when a formal job is not available. Some workers may even prefer an informal job, as it allows them to avoid paying taxes and having to comply with other regulations. Individuals accept an informal job if the benefits of informality outweigh the costs of informality.[257]

The biggest issue related to the informal economy is that, in 2007, it leaves 22 out of 40 million people in the working population without social security cover.[258]

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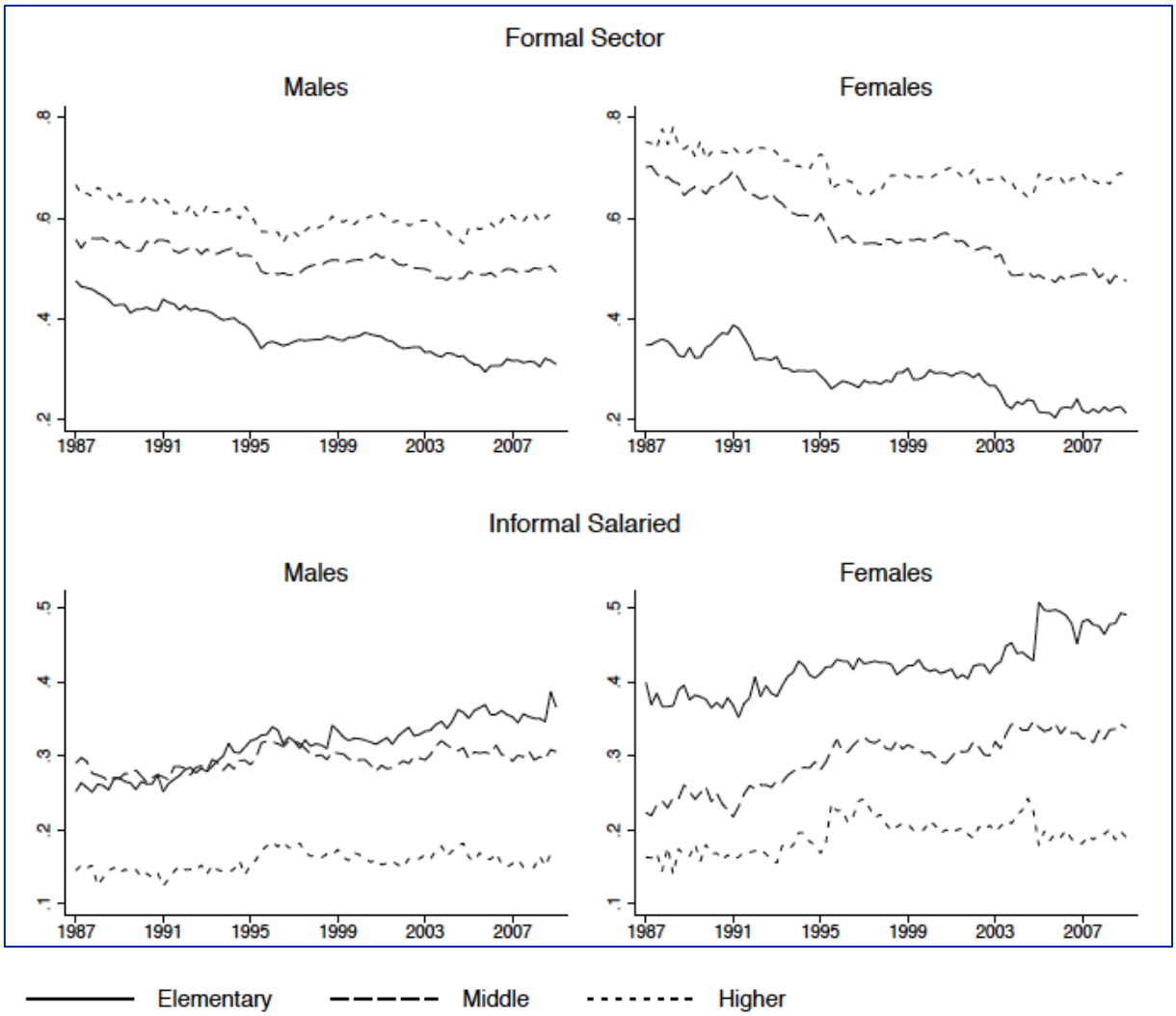
251 OECD 2008, Declaring work or staying underground.
252 Rodriguez-Oreggia 2007, *The informal sector in Mexico: Characteristics and Dynamics*.
253 Martin 2000, *Employment and unemployment in Mexico in the 1990s*; Rodriguez-Oreggia 2007, *The informal sector in Mexico: Characteristics and Dynamics*; ILO 2013, *Green jobs in Mexico*.
254 OECD 2013, *The determinants of informality in Mexico's states*.
255 Aleman Castilla 2006, *The effect of trade liberalization on informality and wages: Evidence from Mexico*.
256 Brambila Macias and Cazzavillan 2009, *The dynamics of parallel economies. Measuring the informal, Research in Economics*.
257 OECD 2013, *The determinants of informality in Mexico's states*.
258 Duval-Hernández and Romano, 2009, *A cohort analysis of labor participation in Mexico*.

Education and formal employment

As can be seen in Figure 4.8, below, formal sector participation clearly increases with education. Over the 1990s and 2000s the formal sector represents above 60% of the employed skilled population, while this sector only represents about 30% for employed unskilled individuals. Women with middle and high education levels have higher participation rates in the formal sector than do men. For unskilled workers, there is an opposite gender distribution.[259]

Figure 4.8 Employment shares per sector according to level of education (%)



Source: Duval-Hernández and Romano 2009, *A cohort analysis of labor participation in Mexico*.

Over time, the participation rates of workers with elementary education have increased in the informal sector.

Gender patterns

For males, there is higher participation in the informal sector among youths, but this stabilises over time. Participation in the informal sector increases again after the age of 60, especially among workers with low educational attainment. This suggests that many individuals who cannot afford to retire continue to work in the informal salaried sector.

For females, the situation is more complex. The highest shares in the informal sector occur for teenagers. After the age of 20, there is a rising trend of participation among women with low educational attainment; the informal sector consequently provides important employment

[259] Duval-Hernández and Romano, 2009, *A cohort analysis of labor participation in Mexico*, p. 10.

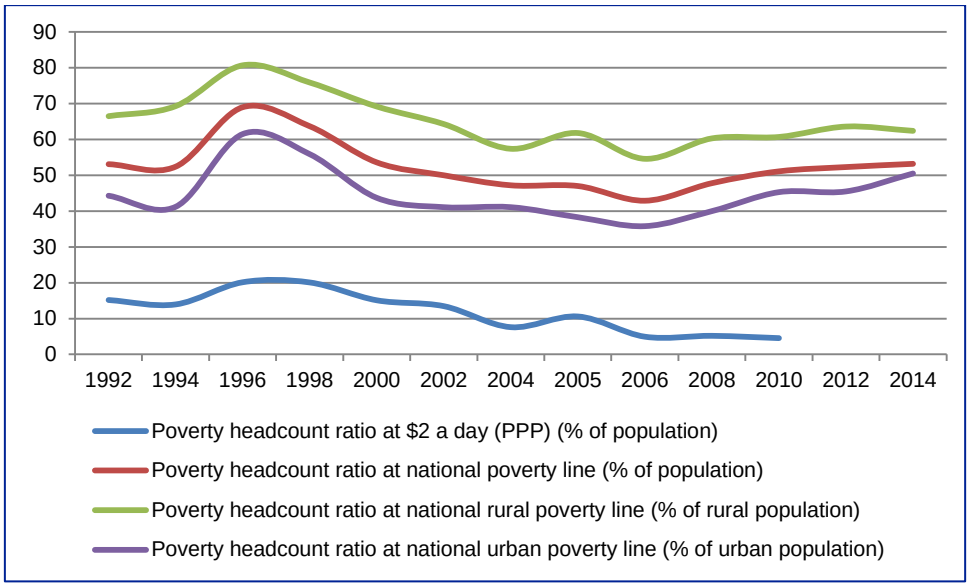
opportunities for these women as they age. Women with higher educational attainment are more likely to work in the informal sector when they are young; as they age, their participation rate stabilises at a low level.[260]

4.1.3. Poverty and inequality

Based on the internationally accepted definition of poverty — i.e. people with an income of USD 2 per day or less at purchasing power parity — in 2010 about 4.5 percent of the Mexican population was living below the poverty line. This percentage has significantly decreased, from 20.1 percent in 1996, as can be seen in Figure 4.9, below.

However, based on the national definition of poverty[261] (as defined by Mexico's National Council for the Evaluation of Social Development Policy), the ratios are significantly higher and seem to have increased recently. Furthermore, the national poverty indicators show that urban poverty is lower than rural poverty (by 18 percentage points in 2012).

Figure 4.9 Poverty headcount ratios for Mexico



Source: World Bank – World Development Indicators.

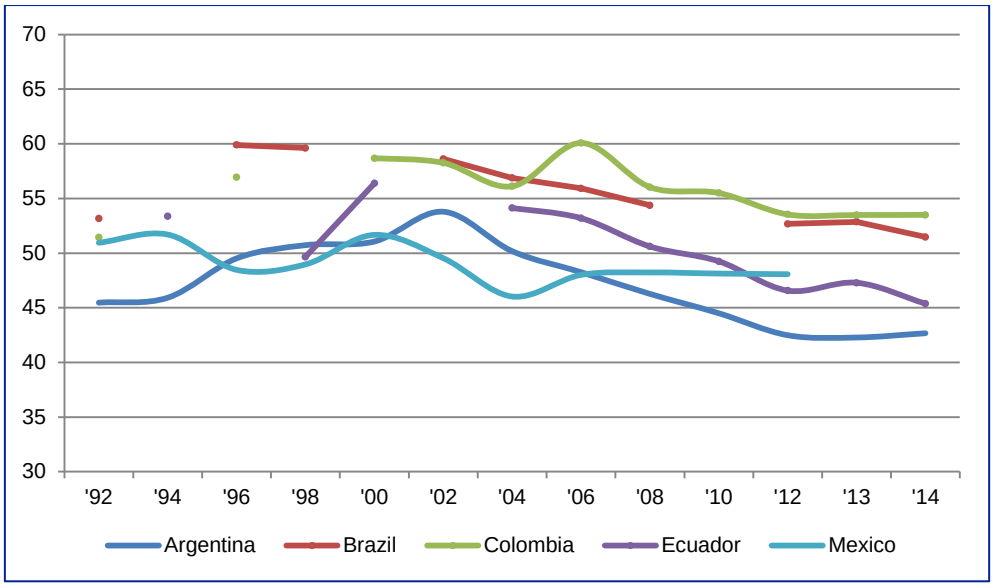
A commonly used indicator of inequality is the Gini index. This index measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality. As a general rule, a Gini coefficient of 0.5-0.7 is considered high, i.e. indicates high inequality. Mexico's Gini coefficient was just below this level in 2012. However, on occasion, it has been more than 0.5, which indicates inequality to be an issue in Mexico.

Below, we present the Gini index for the past 20 years for Mexico and several other Latin American countries. While inequality increased in certain years, there is a general, albeit very gradual, observable downward trend. The inequality level for Mexico is similar to that of Argentina, and lower than that of Brazil and Colombia, but the trend seems to be more or less in line with the trend in other parts of Latin America.

[260] Duval-Hernández and Romano 2009, *A cohort analysis of labor participation in Mexico*.

[261] CONEVAL employs a multidimensional approach to measuring poverty levels, taking into account current per capita income, level of education, access to health services, access to social security, the quality and the size of one's home, access to basic services in the dwelling, access to food, and the degree of social cohesion.

Figure 4.10 The Gini index for Mexico



Source: World Bank – World Development Indicators.

4.2. Social impact of the FTA on decent work and informality

4.2.1. Impact of the FTA on decent work pillars

Creating jobs

The CGE model is not able to assess changes in overall employment. The model assumes a fixed level of employment, consequently allowing only wages to change, whereas a significant shock in the labour market, in reality is likely to result partly in a change in employment *and* partly in a change in wages. This combined effect is therefore only captured in the model in terms of wage changes. The changes in employment need to be deduced from this, e.g. based on available information on unemployment and inactivity.

According to the modelling results, wage changes have been very small, but positive, for all skill levels in Mexico, with medium-skilled workers benefiting most (+0.45 percent) and low-skilled workers the least (+0.24 percent). Wages of high-skilled workers are estimated to have increased by 0.36 percent. It is likely that these wage increases have been slightly lower than expected, and part of the positive effect has resulted in an increase in employment (i.e. job creation). In other words, these wage increases represent a higher demand for labour at all skill levels. While official unemployment is not extremely high in Mexico (4.9 percent in 2012), there are high levels of inactivity, informal employment and NEET[262], and, generally, there are not enough *formal* decent jobs available to Mexico's labour force. Given this spare capacity in labour supply, it can be assumed that the wage increases, as observed by the model, have translated into job creation, albeit at very low levels.

For the EU, the impact of the FTA on wages has been insignificant, with percentage changes of +0.02 for all three skill sets. This shows that demand for labour has only increased marginally and, therefore, effects on employment are negligible.

At sectoral level, the employment effect is taken into account in the CGE model using the concept of labour displacement. This concept refers to the inter-sectoral labour movement, assuming a fixed employment at national level. These results are discussed in Chapter 3. Whereas we know that NAFTA has displaced millions of Mexican farmers, the labour displacement resulting from the FTA with the EU has been more limited. Moreover, the changes between sectors for each of the three skill levels rest on the assumption of free mobility of

[262] Not in in Education, Employment or Training.

labour, whereas, in reality, there might be obstacles to moving from one sector to another, due to a gap in type of skills of the employees and the skills required.

Guaranteeing rights at work

The analysis of guaranteeing rights at work does not seem to have significantly improved during the evaluation period. In addition, the EU-Mexico FTA does not contain clauses promoting labour standards, although, in the exception clauses, it is mentioned that the trade measures cannot interfere with state-imposed obligations regarding working conditions. The direct effects of the FTA are, therefore, assumed to be limited, but there may be some indirect effects stemming from the agreement, due to shifts in trade and production brought about by the agreement. For certain sectors, for which exports to the EU have significantly increased (i.e. motor vehicles, leather products, textiles), the FTA could have pushed the Mexican producers to comply with the EU product and production regulations in order to enable entrance to the EU market. While some of these standards relate to the quality of products, others also directly affect working conditions (e.g. restrictions on the use of dangerous chemical substances). In addition, some pressure to improve labour standards may have arisen from EU-based companies that intended to do business with Mexican companies, but we have found no clear evidence of this.

When looking at the rights of women, it is clear that Mexican women are mostly employed in the services sector (80 percent of all employed women in 2011). Most of the Mexican service sectors have experienced a small positive effect on output as a result of the FTA, so it is highly unlikely that the rights of women at the workplace have come under more pressure due to the FTA.

Extending social protection

In the area of social protection, despite the fact that some improvements have taken place in the evaluation period, the impacts from the FTA are likely to have been very limited. In theory, the coverage of social protection schemes could be expanded through trade liberalisation because of an increase in incomes and a corresponding change in societal preferences. The higher average living standards may then lead to increased demand for more social security provided by a more efficient and broader social security system. However, with an estimated impact of the FTA on Mexican GDP of 0.34 percent, the impact on social protection through this channel is likely to have been insignificant.

The FTA impact on social protection may also be linked to potential impacts that the agreement may have had on the size of the informal economy and either its increase or decrease. However, as will be explained in section 4.2.2, the exact direction of the effect is not clear and is dependent on many factors. The links from the FTA to the informal economy to social protection are, therefore, also not completely clear.

Promoting social dialogue

When looking at social dialogue, in theory it may be the case that societal interest in issues related to social dialogue[263] gradually increases because of the higher economic growth and higher average living standards that would be brought about by the FTA. However, given the very modest contributions of the FTA to GDP and income growth, the strength of these impacts has probably been very small and social dialogue continues to be influenced by factors not related to the FTA.

4.2.2. Impact on informality

The link between trade liberalisation and the informal economy has been studied quite extensively, but without a conclusive outcome. As shares of informal employment have been quite persistent across countries, while trade has increased intensively during recent decades, it appears that trade alone will not lead to a decrease in informal employment. The relation between trade liberalisation and the informal economy is, in fact, complex and context-specific. Country-specific characteristics, such as labour market institutions, labour market rigidity, capital mobility, level of economic development, heterogeneity of the informal workforce and

[263] Such as stronger engagement of the social partners in the design of employment and social policies, societal reform processes, legislative proposals, assessing impacts resulting from trade policy, and dialogue pertaining to restructuring and flanking measures.

trade composition all seem to matter. Different methodologies and measures of informality used across studies also account for some of the diverging outcomes of the research on the link between trade and the informal economy.[264]

The first category of studies finds that trade liberalisation can lead to an *increase* in the size of the informal economy, mostly ascribed to trade pushing formal firms to cut production costs and outsource to the informal economy. A second category emphasises the positive aspects that trade liberalisation can lead to, such as capital mobility, the formalisation of credit, and the upgrading of skills, which can make the informal economy benefit from trade and increase formalisation. Labour markets that can facilitate the adjustment processes, low administrative barriers and forms of regional trade integration can support this formalisation of the informal economy. [265] A further category of studies finds no, or a negligible, relationship between trade and the informal economy.[266] And, finally, some studies find an increase in overall employment, including an increase in informal employment. It is argued that this latter increase is due to the entrance of formerly inactive individuals. As formalisation is associated with high costs, entry into the formal sector would be too costly for inactive persons. The shift from informal to formal employment within the same industry is associated with lower costs, which points towards the possibility of informal employment as a stepping stone to formal employment. Active measures should be taken to ensure the informal economy decreases; informal workers should be enabled to take up jobs in the formal sector and firms in the informal sector should get access to capital, to encourage the formalisation of informal activities.[267]

An increase and liberalisation of trade could have a formalising effect and, as such, lead to an improvement and increase in levels of decent work. However, as described above, the impact of trade on the informal economy is complex and depends on several country-specific characteristics. The labour market in Mexico is characterised not only by substantial informal employment, but also by a high percentage of inactivity among the female working-age population. Trade might lead to the activation of these inactive individuals, leading to an initial rise in informal employment. However, with the prospect of rising levels of formal activity, the long-term perspective could be an increase in formal employment and a contraction of the informal economy. Another perspective is that informal employment is only a stepping stone for specific workers; highly educated males, and is, in fact, a dead end for female and uneducated workers. This implies that measures need to be in place to ensure the transition to formal employment.

Furthermore, it seems that informal employment is mostly concentrated in non-tradable goods, in sectors such as services, hotels and restaurants and construction.[268] This could mean that, by increasing employment in tradable sectors, formal employment would also increase. Based on research over the period 1989 to 2002, it is confirmed that trade liberalisation reduced the incidence of informality in tradable industries. However, the benefits of trade liberalisation have not spread to the labour force in non-tradable sectors.[269] [270]

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264 OECD 2013, *A Literature Review on Trade and Informal Labour Markets in Developing Countries*.

265 Sinha 2011, Trade and the Informal economy in Jansen, M., Peters, R., Salazar-Xirinachs, J. (2011). *Trade and Employment: From Myths to Facts*, EC and ILO.

266 Koujianou Goldberg, P., & Pavcnik, N. 2003, "The response of the informal sector to trade liberalization", *Journal of Development Economics*, 72(2), 463-496.

267 Arias, J., Artuc, E., Lederman, D., Rojas, D. 2013, "Trade, Informal Employment and Labour Adjustment Costs". World Bank Policy Research Working Paper 6614.

268 Bosch and Maloney 2006, *Gross Worker Flows in the Presence of Informal Labor Markets. The Mexican Experience 1987-2002*.

269 Aleman Castilla 2006, *The effect of trade liberalization on informality and wages: Evidence from Mexico*.

270 The experience of survey respondents is that the size of the informal economy has increased as a result of the FTA. However, it should be noted that the number of people who answered this question is limited.

4.3. Social impact of the FTA on poverty and inequality

4.3.1. Introduction

The quantitative social analysis is based on household survey data and on the results of the CGE model. It should be noted that the latter model only looks at the incremental effect of the FTA, leaving other developments and policies as fixed and therefore assumes that no flanking or accompanying measures have been taken by the governments. This method isolates the effects of the FTA.

The CGE modelling results include an overall welfare impact indicator, the equivalent variation. This indicator allows us to measure the monetary welfare impact of a macroeconomic shock. The average welfare for Mexico is estimated to have increased by 0.35 percent because of the FTA, while, for the EU, this effect is much smaller, at 0.01 percent.

Important drivers for changes in welfare are changes in income and changes in expenditures. A higher income increases welfare through the increase in spending capacity, in turn improving purchasing power; lower prices increase welfare because of lower costs of consumption, in turn also improving purchasing power. The table below shows an overview of the effects for Mexico on equivalent variation, income and expenditures.

Table 4.13 Estimated welfare effects for Mexico

Indicator	Effect of the FTA for Mexico	Effect of the FTA for the EU
Equivalent variation	+ 0.35%	+0.01%
Income – Average wage change	+ 0.33%	+0.02%
Expenditures – average consumer price change	+ 0.11%	0.00%

For Mexico, we observe that the average wages and average consumer prices have slightly increased because of the FTA; the former is positive for welfare and the latter decreases for welfare as the costs of consumption increase.

The estimated positive change in income is much larger than the price effect, and, therefore, overall welfare in Mexico is estimated to have increased. The effects for the EU are negligible.

In respect of the effect on consumers, we note that most consumers are estimated to have benefited from the agreement in terms of purchasing power, as rising incomes are higher than the price increases according to the modelling results. Although changes are small for unemployed people, the results are likely to be more negative, although this will also depend on their expenditure patterns (further explored in 4.3.3). Consumers could also have benefited from increased variety of products and services. As the analysis in section 3.1.2 shows, import penetration of EU products has increased in Mexico in the past decades, and EU exports to Mexico have become more diversified. This could point to increased consumer product variety (and possibly higher quality products), but it is difficult to draw strong conclusions in this respect. Many of the imported products from the EU seem to be industrial products and may, therefore, not have a strong (direct) effect on consumers. We found no evidence on this on the ground, as stakeholders indicate that most imports still come from the US and, increasingly, from Asian countries.

Despite the overall gains in welfare, the CGE model cannot estimate whether the impact differs across various income groups and what the impact is on the incidence and depth of poverty. Price and wage changes predicted by the CGE model affect households differently because of differences in consumption baskets and sources of income across households. To analyse the social effects for Mexico in more detail, we supplement the CGE results with information on expenditure levels and distribution across product groups at individual or household level. These data stem from household survey data.

4.3.2. Approach and assumptions

In line with the abovementioned welfare impacts, we identified the following channels through which the FTA affects individual and household welfare levels:

1. Changes in purchasing power because of changed consumption prices. This reflects the household as a consumption unit.
2. Changes in cash income because of changes in wages. This reflects household supply on the labour market.

The way we incorporate these two channels in the impact on welfare is determined by the information available from the household survey data:

1. Analysis of the welfare impact of the price effect on consumption: We have matched the sectors of the CGE model analysis to the 15 aggregated sectors in the household survey, in order to assess price changes and their impacts on welfare.
2. Analysis of the welfare impact of the wage effect on consumption: The wage income of each household is linked to the average wage changes within the country. A distinction of wage changes using skill levels has not been carried out, because the household data list wage income for the household, which does not allow for wage income from different household members with jobs at different skill levels. Households without data on wage income are treated as having no wage income effect.

The welfare measure that we use is based on a translation of price and wage effects into a monetary value. The overall effect on welfare can, therefore, be interpreted as an equivalent variation in income levels, but now at a more detailed level. This allows us to analyse the impact of the FTA in terms of changes in disposable income of households.[271] The outcome of the analysis is a change in disposable income, because of the income and expenditure effect. The new disposable incomes in the hypothetical situation before the introduction of an FTA are then used to recalculate the number of people living below the poverty line, as well as some inequality measures. The social indicators used in the analysis include:

- Poverty headcounts, to measure the incidence of poverty both in absolute and relative terms.
- Dispersion of poverty, to address the incidence of the population being just below or above the poverty line.
- Poverty gap, to reflect the depth of poverty for those that are below the poverty line.
- The GINI coefficient that provides a measure of income inequality.
- The decile dispersion ratio, to reflect the impact on income inequality between the richest 10 percent and poorest 10 percent of households.

Poverty headcounts are provided separately for specific groups of the population in terms of sex, age, education level and geographical region. In our calculations, we use expenditure and income data presented at the household level. We have extrapolated these data to individual person expenditures and incomes, in such a way that we can analyse poverty indicators according to the person-level breakdown characteristics. To take into account scale economy effects within the households, the OECD equivalence scale has been used in this extrapolation.

4.3.3. Quantitative analysis of social effects of the FTA

Impact on poverty

Table 4.14, below, provides an overview of the impact of the FTA for a selection of poverty and inequality indicators. The impact is presented for the current situation, with the FTA in place (first column) and for the counterfactual, i.e. the situation today if there were no FTA (second column). The third and fourth columns show the counterfactual, but looking only at price effects

[271] It should be noted that, when looking at disposable income, we only take into account wage changes, no changes in other types of income (e.g. return on capital).

(third column) and only at wage effects (fourth column), as far as we could explicitly analyse these based on the available household survey data. The table furthermore includes the social indicators when only incorporating the expenditure effect or the wage income effect on disposable incomes. As such, we generated a range of effects to address potential sensitivity of the outcomes to the assumptions that we need to make. This ensures careful interpretation of the findings, given the limitations to our analysis, which relies on assumptions regarding, for example, wage effects.

Absolute poverty line

Poverty incidence can be expressed in terms of the absolute and relative poverty rate. The absolute poverty rate used is the percentage of population with income or expenditure levels below the poverty line of USD 2,329 per month per household for urban areas and USD 1,490 per month per household for rural areas. For Mexico, the number of people living below the absolute poverty line is around 58.3 million . As the total population consists of 117.4million people according to the household survey, this is 49.7 percent . This is in line with what we observe in Figure 4.9, above. Owing to the FTA, the number is estimated to have marginally reduced, as compared to the counterfactual scenario, from 58.43 to 58.34 million (a reduction of 0.2 percent), largely because of the wage effect.

The sensitivity of these findings to the definition of the poverty line used can be checked using the dispersion of poverty incidence between 80 – 120 percent (see table 4.14) of the poverty line. With the FTA, currently 13.5 percent of the population is living with a disposable income of between 80 and 100 percent of the (absolute) poverty line[272]. Without the FTA, this percentage would not change. Another 9.9 percent of the population lives between 100 and 120 percent of the absolute poverty line[273]. And, here also, in a situation without the FTA this share would not change (change lower than 0.02 percentage points). For both the lower and higher poverty line, poverty follows a similar trend as observed with the used absolute poverty line. Results are, therefore, robust in terms of the level of the poverty line.

Extreme absolute poverty line

Currently, an estimated 18.87 million people in Mexico live in extreme poverty. This is around 16 percent of the total population. Extreme poverty is only very marginally affected by the FTA: compared to the counterfactual, the FTA has reduced the share of people living in extreme poverty by 0.05 percentage points.

Depth of poverty

Next to the incidence of poverty (i.e. the number of people living in poverty), the depth of poverty (i.e. the severity of the poverty) is an important indicator, measured by the poverty gap. The poverty gap tells how far the income or expenditures of the poor falls below the poverty line, on average. The results show that the disposable income level of the average poor person is 14 percent below the poverty line, and that the FTA did not change the depth of poverty based on our calculations.

Relative poverty line

The relative poverty line shows poverty to be dependent on social context, taking income inequality into consideration. Therefore, this indicator reflects differences in income distribution and poverty at the same time. A person or household is considered to be relatively poor when his/her income is below 75 percent of the median income. The relative poverty is estimated to have marginally increased because of the FTA (an increase of 0.05 percentage points).

Conclusion: impact on poverty

The measures for poverty show very small (extreme poverty line and poverty line) to no (relative poverty, poverty gap) effect of the implementation of the FTA. Also, in the breakdown of poverty by different subgroups of the population in Table 4.14, below, all changes that can be attributed to the FTA are smaller than 0.1 percentage point. Given the necessary assumptions in

[272] 58.34m people live below the (100%) poverty line, while 42.49m people live below 80% of the absolute poverty line. This means that 15.85m people (around 14% of the total population) lives between 80-100% of the absolute poverty line; in the counterfactual, this changes to 15.84m people.

[273] 69.91m people live below 120% of the absolute poverty line, while 58.34mpeople live below 100% of the line. This means that 11.57m people (around 10% of the total population) live at 100-120% of the absolute poverty line.

the CGE modelling and in the further analysis of household survey data, the estimated changes are so small that they can be considered negligible.

Impact on inequality

Regarding inequality between income groups, two indicators are used: the GINI index or coefficient as a general inequality measurement and the decile dispersion ratio.

Gini coefficient

The Gini coefficient measures the inequality among levels of income. A Gini coefficient of zero means perfect equality (every household has the same income). A Gini coefficient of one means total inequality (a few households receive all the income in the country; all others have nothing). The Gini coefficient in Mexico equals 0.58. We observe no effects of the FTA.

Decile dispersion ratio

The decile dispersion ratio measures the relative difference between the income of the upper 10 percent and the lower 10 percent of the population. In Mexico, the difference between the two most opposite income groups in terms of average income is a multiplication factor of more than nine. after the effect of the FTA is estimated to be negligible (a decrease of 0.01 percentage points).

Conclusion impact on equality

With both the decile dispersion ratio and the GINI coefficient remaining at similar levels, there is a clear indication the FTA did not have a strong effect (either negative or positive) on inequality. In combination with the slightly declining number of poor and a constant poverty gap, this, in turn, indicates that most income groups are subject to a slight increase in average disposable income.

Table 4.14 Social indicators: baseline and FTA effects (numbers are in millions of people)

	Situation with FTA	Counter-factual	Counter-factual, only changes in prices	Counter-factual, only changes in wages
Poverty rate (headcount)				
Absolute poverty line	58.34	58.43	58.28	58.55
Relative poverty line	47.76	47.71	47.75	47.74
Extreme absolute poverty line	18.87	18.82	18.82	18.90
Poverty gap (%)				
Absolute poverty line	14	14	14	14
Inequality indicators				
Decile dispersion ratio	9.25	9.26	9.25	9.27
Gini coefficient	0.585	0.585	0.585	0.585
Dispersion of poverty headcount around poverty line				
80% of the absolute line	42.49	42.59	42.45	42.62
120% of the absolute line	69.91	70.02	69.90	70.08
80% of the relative line	34.01	34.16	33.97	34.08
120% of the relative line	60.70	60.72	60.66	60.77
Poverty headcount by sex (absolute poverty)				
Male	28.17	28.22	28.14	28.27

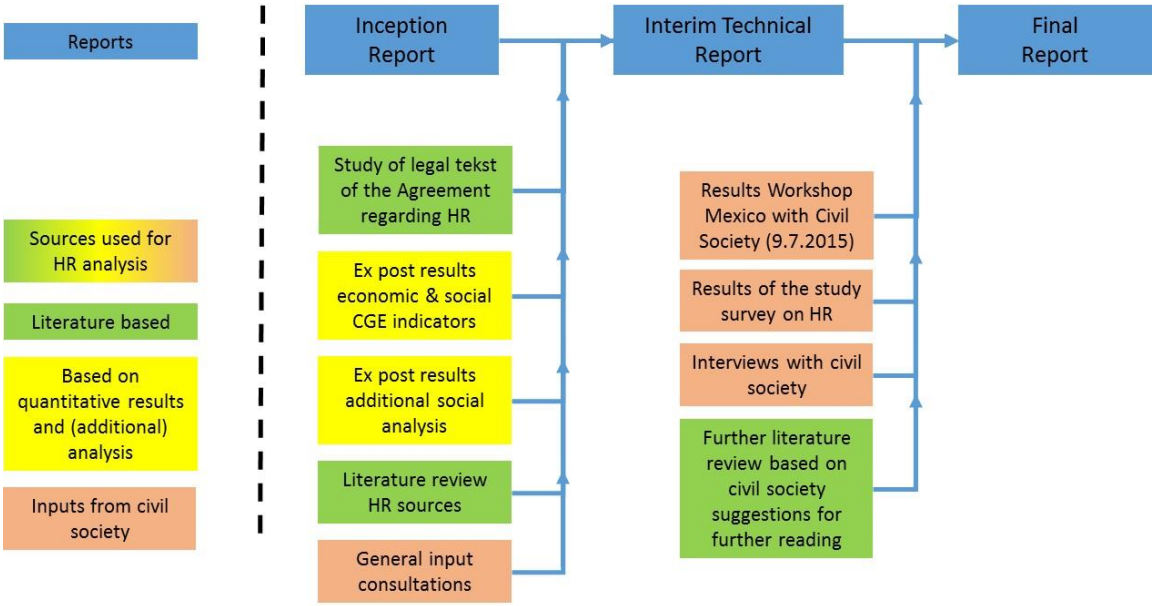
	Situation with FTA	Counter-factual	Counter-factual, only changes in prices	Counter-factual, only changes in wages
Female	30.17	30.21	30.14	30.28
Poverty headcount by age (absolute poverty)				
0-5	7.68	7.70	7.68	7.72
6-12	9.81	9.81	9.81	9.81
13-18	7.71	7.73	7.70	7.75
19-65	29.69	29.74	29.66	29.81
66+	3.44	3.44	3.44	3.45
Poverty headcount by education (absolute poverty)				
Illiterate	7.31	7.29	7.29	7.37
Preschool	0	0	0	0
Incomplete primary school	13.99	14.01	13.99	14.01
Primary school	12.79	12.79	12.76	12.80
Incomplete secondary school	2.79	2.81	2.79	2.81
Secondary school	14.26	14.25	14.25	14.28
Incomplete prep school	1.36	1.40	1.36	1.40
Prep school	3.77	3.77	3.77	3.78
Incomplete professional school	0.78	0.79	0.78	0.79
Professional school	1.24	1.24	1.22	1.24
Graduate	0.07	0.07	0.07	0.07
Poverty headcount by place of residence (absolute poverty)				
Urban	42.45	42.53	42.42	42.63
Rural	15.89	15.90	15.87	15.92
Poverty headcount by geographical region (absolute poverty)				
North	7.71	7.74	7.69	7.74
North central	12.07	12.09	12.07	12.09
Central	22.58	22.62	22.57	22.72
South	15.98	15.98	15.96	16.00

4.4. Human rights

4.4.1. Introduction

The human rights situations in Mexico and the EU, as elsewhere, have complex natures that are influenced by numerous factors that are intertwined, interdependent and interrelated. It is challenging to differentiate the specific impact on the human rights from the EU-Mexico FTA. We approach this task by using various sources. The way these three sources have been used throughout this study is presented below, in Figure 4.11.

Figure 4.11 Use of HR sources throughout the study



- First, we use the *ex-post* analysis results of the economic modelling exercise that has calculated the isolated *ex-post* effect of the FTA on the economic and social indicators. We will interpret these results from a human rights point of view.
- Second, we investigate — by means of a literature review — what effects of the EU-Mexico FTA on human rights have been reported over the past years.
- Third, we take into account the inputs obtained through the consultations with the local human rights organisations and experts who give information about "on the ground" estimations of the effects experienced. The different elements that we draw upon for this source are: the Workshop in Mexico City of July 9th 2015, survey results from a survey held among different stakeholders — with specific human rights questions, interviews with human rights organisations and further literature research.

In this *ex-post* human rights analysis, we follow three steps:

- *Step 1:* Analysis of the legal text of the Agreement to define which human rights were intended to be covered/taken into account (and how) in the course of trade relations between the EU and Mexico.
- *Step 2*: Scoping of sources and analysis on how the FTA has affected the human rights landscape in Mexico (in line with the Human Rights Impact Assessment methodology developed by Walker[274]), and based on the EU Charter of the Fundamental Rights, the Bill of Rights, the core international human rights Conventions, and discussions with key stakeholders.
- *Step 3*: Formulation of conclusions on the incorporation of human rights provisions and elements in the FTA.

[274] Walker S., 2009. *The Future of Human Rights Impact Assessments of Trade Agreements*, Intersentia.

4.4.2. Step 1 - Analysis of the legal text of the Global Agreement

The EU- Mexico FTA consists of two Decisions by the EU-Mexico Joint Council – Decision No 2/2000 of March 23rd 2000 and Decision No 2/2001 of February 27th 2001,[275] referring to the implementation of the articles from the Economic Partnership, Political Coordination and Cooperation Agreement between the European Community and its Members, and the United States of Mexico (Global Agreement) [276] and the Interim Agreement on trade and trade-related matters between the European Community, and the United Mexican States.[277]

Although both Decisions refer to specific articles in these agreements, Article 1 of the GA ("Democratic Clause" [278]), as well as Article 1 of the Interim Agreement, mention human rights as the basis of the agreement:

> Respect for democratic principles and fundamental human rights, proclaimed by the Universal Declaration of Human Rights, underpins the domestic and external policies of both Parties and constitutes an essential element of this Agreement'. [279]

Even though respect for human rights is not specifically provided for in the EU-Mexico FTA, the articles that it is based on are written in the spirit of the agreements they stem from, and, therefore, they are in line with the essential element of the agreements cited above.[280]

While the GA also refers to cooperation,[281] and provides for the suspension of the trade agreement in case of human rights violations by either of the parties in its Article 58, setting a precedent by legally providing for protection of human rights in third-country EU agreements,[282] Decisions of the EU-Mexico FTA do not provide for cooperation in the fields related to human rights, but mention some human rights in their Exceptions Articles.

Decision No 2/2001 refers to such specific human rights as the human right to health, human right to life, human right to liberty and security, protection of personal data, the right to work, and the right to fair and just working conditions (Article 27 on Exceptions). While Decision No 2/2000 makes a reference to the same rights, as well as the right to a clean environment in Article 22 on General exceptions to the title on free movement of goods and in Article 34 on Exceptions to the title on Government procurement.

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275 2000/415/EC and 2001/153/EC, available at: http://eur-lex.europa.eu/resource.html?uri=cellar:a024c280-a801-4dcd-bc46-a3afdd86c3ba.0005.02/DOC_1&format=PDF and http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22001D0153&from=FR [accessed 18 November 2014].

276 Economic Partnership, Political Coordination and Cooperation Agreement between the European Community and Its Members, of the one part, and the United Mexican States, of the other part, 8th December 1997, available at: http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=431 [accessed 15th July 2014].

277 Interim Agreement on trade and trade-related matters between the European Community, of the one part, and the United Mexican States, of the other part, 8th December 1997, available at: http://www.sice.oas.org/TPD/MEX_EU/Negotiations/Interim_e.pdf [accessed 18 November 2014].

278 Szymanski, M. & Smith M.E., *Coherence and Conditionality in European Trade Strategy: Negotiating the EU-Mexico Free Trade Agreement*, available at: http://aei.pitt.edu/2190/1/002257_1.PDF [accessed 18th November 2014].

279 Economic Partnership, Political Coordination and Cooperation Agreement between the European Community and Its Members, of the one part, and the United Mexican States, of the other part, 8th December 1997, available at: http://ec.europa.eu/world/agreements/prepareCreateTreatiesWorkspace/treatiesGeneralData.do?step=0&redirect=true&treatyId=431.

280 This effect is further intensified through the fact that the Global Agreement makes a direct reference to the Universal Declaration of Human Rights already in its Preamble.

281 Global Agreement provides for cooperation in training and education of the most disadvantaged social groups (Article 30), cooperation in the field of social affairs and poverty (Article 36), regional cooperation (Article 37), cooperation on refugees (Article 38, cooperation on human rights and democracy (Article 39), cooperation on improvement of health conditions and social welfare (Article 40).

282 Szymanski, M. & Smith M.E., *Coherence and Conditionality in European Trade Strategy: Negotiating the EU-Mexico Free Trade Agreement*, available at: http://aei.pitt.edu/2190/1/002257_1.PDF [accessed 18th November 2014].

Based on this analysis, we conclude that human rights are partially provided for in the Exception Articles of the Decisions, but a broad perspective on human rights (human rights are universal and indivisible, and are the key aspects of the rule of law) is also justified due to the fact that both decisions are based on the articles from the Agreements that rely on human rights as their basis. However, human rights are mentioned in the legal text in a general manner, without further specification as to their implementation.

In the process of the civil society consultation, several concerns have been voiced that refer to the legal basis for the human rights set out in the agreement.

Firstly, civil society argues that the Democratic Clause is a political statement that lacks legal basis and specific instruments to ensure respect for human rights and its own guidelines.[283] [284] One HR stakeholder commented: "The democratic clause is merely enunciative, due to the lack of a legal implementation instrument, and the EU's role in face of violations of human rights has been only declarative, and limited itself to cooperation actions." (Stakeholder Workshop Mexico City July 9th 2015). Secondly, civil society characterises the Democratic Clause as subordinate to the commercial and financial interests in practice.[285] They argue that there is evidence in practice that, despite some examples of clear violations of human rights (see Box 4.3), the Democratic Clause has not been invoked. In response to this, the Mexican authorities do not deny that there are some human rights violations, but argue that they were not so severe as to invoke the GA's Democratic Clause, but, rather, are being handled in different ways, not through the FTA. Finally, in light of the two previous points, civil society pointed out that the effect of the Democratic Clause was limited to cooperation actions — which, in itself, is a positive element, but it is not considered "strong enough" to guarantee human rights.[286] The same HR stakeholder noted: "Although EU cooperation projects are aimed at the dissemination and respect of human rights, some European companies lack accountability and do not respect the rights of workers, nor the communities in which they settle, nor even collective rights related to the environment or land tenure of indigenous people."

It is important to note that this study is not an impact assessment of the GA, but the *ex-post* impact of the FTA is influenced by what was agreed in the GA. As such, we cover the human rights intentions of the GA insofar that they support the *ex-post* impact evaluation of the FTA.

4.4.3. Step 2 - Overview of the human rights affected by the EU-Mexico FTA and analysis of how the FTA has affected the human rights landscape in Mexico

In this step, we will evaluate whether specific human rights in Mexico are affected by the FTA, and to what degree they have been affected. This step adds to the legal text analysis (which is an indication of the intentions). The overview of human rights is based on the European Charter of Fundamental Freedoms and the core UN human rights treaties.[287]

Since the quantitative *ex-post* results, supplemented by qualitative evidence, suggest that the EU-Mexico FTA has had only a very marginal (economic) impact on the EU (implying an even less pronounced effect on human rights), the human rights analysis will mainly focus on Mexico.

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[283] Asociación Latinoamericana de Organizaciones de Promoción al Desarrollo 2013, "Las relaciones México-Unión Europea en el marco del Acuerdo Global y la Asociación Estratégica: un balance desde la sociedad civil Mexicana", available at: http://www.equipopueblo.org.mx/descargas/MEX%20UE.pdf [accessed 20 September 2015].

[284] Mexican Action Network on Free Trade (RMALC), Ecuador DECIDE and the University of Guayaquil 2011, "La reconquista de México. Informe a 10 años del Acuerdo Global", available at: http://ecuadordecidenotlc.blogspot.mx/2012/04/publicacion-la-reconquista-europea.html.

[285] Asociación Latinoamericana de Organizaciones de Promoción al Desarrollo 2013, "Las relaciones México-Unión Europea en el marco del Acuerdo Global y la Asociación Estratégica: un balance desde la sociedad civil Mexicana", available at: http://www.equipopueblo.org.mx/descargas/MEX%20UE.pdf [accessed September 20th 2015].

[286] Statements made by a prominent HR stakeholder, during the workshop in Mexico on July 9th 2015.

[287] SEC (2011) 567 final, available at: http://ec.europa.eu/governance/impact/key_docs/docs/sec_2011_0567_en.pdf [accessed February 3rd 2014].

Part A: Identification of human rights affected by the EU-Mexico FTA

In this section, we look at whether certain human rights are affected by the EU-Mexico FTA (not how they are affected or what the relative size effect of an impact would be), in order to populate Table 4.15, which helps us to prioritise the HR types of effects that relate to the EU-Mexico FTA.

Information on human rights derived from quantitative econometric analysis

The econometric model focuses on the following quantitative economic and social indicators:

- Wages (real, for different skill categories);
- Employment changes (at sector level);
- Labour displacement (moving of jobs across sectors);
- GDP / National income growth;
- Welfare effects; and
- Trade effects.

The human rights that have been affected through these variables are ticked in the Table below.

Information on human rights derived from the CGE model and from the additional social and environmental analyses

Starting from the economic analysis that affects the production structure of the EU and (in this case) Mexican economies — we carried out a causal chain analysis, looking at the potential social (including human rights) and environmental effects. Some of the indicators from the CGE analysis matter for the HR analysis (e.g. wages, employment), and the additional social and environmental analyses are providing additional insights (e.g. split outs per income group, vulnerable groups) that matter for HR. Based on this information, column (1) of Table 4.15 is filled in.

Box 4.1 Short summary of economic information for the HR analysis

In this Box, we summarise all aforementioned economic information that is relevant from an HR point of view in bullet format:

- Mexican GDP overall has become 0.34 percent higher because of the FTA.
- Real Mexican income has increased by Euro 2.9 billion (each year).
- Total Mexican exports and imports increased by 1.6 percent and 1.7 percent respectively.
- Bilateral Mexican-EU exports have risen much more: 19 percent from the EU to Mexico and 16 percent from Mexico to the EU.
- Total tariff losses for Mexico have been Euro 625 mln; for the EU, Euro 236 mln
- Real wage increases in Mexico due to the FTA were 0.24 percent for low-skilled; 0.45 percent for medium-skilled; and 0.36 percent for high-skilled workers.
- From sectoral output changes, we see that, overall, most agricultural sectors have declined marginally, while the motor vehicles sector (+16.5 percent) and service industries have benefited significantly. Agricultural sub-sectors that have grown are milk and dairy products, other food products, beverages and tobacco, and fisheries. The electrical machinery sector has declined significantly (- 11.5 percent)
- The value added share (i.e. the part added to the final product in Mexico) is by far highest in the motor vehicles sector.
- In terms of bilateral trade patterns, textiles, wearing apparel and leather see a strong increase in bilateral trade, which is also the case for chemicals and motor vehicles. These sectors show both export and import increases.
- Most jobs are created in motor vehicles, and some service sectors, such as finance, distribution services, construction and water transport services; jobs are lost in electrical machinery.
- Labour displacement (i.e. moving of workers from one sector to the other) has been highest for the low-skilled workers (3.4 workers per thousand), followed by the medium-skilled (1.9) and high-skilled workers (1.4).
- Mexican land-use intensity has increased by 0.13 percent because of the FTA; there has been no significant effect on fisheries.
- CO2 emissions have decreased because of the FTA, owing to a shift in intermodal transport to the less-polluting modes (shipping and air) compared to road transport.

- Absolute, relative and extreme absolute poverty have improved, but only very marginally, because of the FTA — this is due to the wage effect.
- The depth of poverty — measured by the poverty gap — has not changed due to the FTA.
- FTA-induced inequality has not increased, according to the decile dispersion ratio and Gini coefficient.
- Effects on poverty split out by gender show no effect.
- Looking at poverty effects split out for different strata of the population, the FTA does not have much impact. There is a marginal increase in the poverty headcount for illiterate people and those with only secondary school diplomas. For all other groups (from pre-school to graduates) the effect is negligible or marginally positive.
- Both urban and rural poverty headcounts show a decline in poverty, although the decrease is larger for the urban population.
- Geographically, we see that the effects of the FTA to reduce poverty have been largest in the centre of Mexico and negligible in the south.

Information obtained from the literature review

The literature review that we have carried out aims to see what has been researched in terms of the *de facto* impact of the EU-Mexico FTA on human rights. We have gone through research articles, books, UN documents and case law with a focus on finding out FTA effects on the human rights situation in Mexico. In Table 4.16, below, the literature that looks at human rights impact assessments in a more general context is presented and the results of the literature review are also used to 'tick' the human rights that could potentially be affected in Table 4.15.

In Box 4.2, below, we present the — very limited — information we could find on the potential impact of the EU-Mexico FTA on human rights.

Box 4.2 Short summary of the literature review for the HR analysis

When studying the literature on the *ex-post* effects of the EU-Mexico FTA on human rights, it turns out that it is very difficult to get a good overview to answer this question. The following main possible effects have been identified in the literature review:

- The EU-Mexico FTA could, through the agreed cooperation initiatives that have been carried out as part of the FTA, affect human rights in a positive way. In addition, economic growth associated with the agreement (e.g. through increased trade and FDI) can help to reduce poverty and deprivation, especially for individuals directly benefiting from the increased opportunities (e.g. through employment opportunities).
- A secondary level effect is, however, related to the impact of increased levels of FDI (to the extent they are associated with the EU-Mexico FTA): leaving the potential positive effect through agreed cooperation initiatives aside, when more EU firms can start economic activities in Mexico and when existing EU firms can start more activities in Mexico (and vice versa), there could potentially be more room for human rights violations (even if the percentage of firms that violate human rights has remained the same, or even decreased). It should be noted that this is a general effect of investment and not specific to EU investment .
- The EU-Mexico FTA could, through the Democratic Clause and clear mentioning of HR in the GA, be used to positively influence HR.
- The way the Democratic Clause is invoked when coming across HR violations that are part of the economic activities boosted by the FTA determines how HR are affected in practice.
- Generally difficult HR situation in Mexico, together with high levels of corruption, do not make it easy to ensure that HR are protected, e.g. workers' rights (including the EU companies operating in Mexico), or to ensure that HR of local indigenous communities are fully guaranteed (when it refers to the operation of the EU companies).

Information on human rights derived from qualitative research among stakeholders and the survey

In the final phase of the study — see Figure 4.11 above — much attention has been given to engaging with civil society — through a workshop in Mexico City, interviews, online

consultations and a survey. Based on these consultations with stakeholders, such as international human rights organisations and local Mexican human rights organisations, as well as the results of the survey, we wanted to add a more field-based approach to the analysis and enrich the previous two information sources with (anecdotal) evidence. The results of the stakeholder consultations are presented in column (3) in Table 4.15 and — without linking each comment directly to individual persons — in Box 4.3, below.

Box 4.3 Short summary of stakeholders' feedback and information for the HR analysis

- Increasing FDI increases the risk of certain types of HR violation and of threats to HR. Clearly, there needs to be proper controls against those types of HR risks. Nevertheless, the growth in FDI is likely to be beneficial in the fight against poverty and deprivation, and specifically in addressing existing impairment of the enjoyment of some other HR (e.g. the right to an adequate standard of living) by certain individuals. This needs to be recognised and anticipated in a future FTA.[288]
- It is not clear to civil society — regarding the effect of foreign investment on HR — who is responsible in case of HR violations.[289]
- The FTA has led to more bilateral cooperation initiatives (social projects), such as the Social Cohesion Laboratory: funding allocation seems to matter positively. [290]
- There is an HR clause in the GA, which is good, but it has practically never been used, despite HR violations having been recognised. Hence, civil society considers the clause to be merely enunciative, and responses to HR violations by officials are considered to be only declarative and focused on cooperation actions. [291]
- The impact of the FTA has been that awareness of HR issues has increased, but the current HR situation is worse than when the FTA entered into force (no causal relationship is assumed). [292]
- Though EU cooperation projects aim to disseminate respect for HR, some European companies lack accountability and fail fully to respect HR of workers of certain communities. [293]
- In harmonisation of national legislation on the environment, the inclusion of the energy sector and regulations, central aspects of HR are not properly considered — for example, in mining mega-projects.[294]
- The EU-Mexico agreement lacks specific instruments to ensure respect of HR, and civil society considers it subordinate to commercial and financial interests. [295]
- The water and electricity sectors are, regrettably, seen as services subject to the rules of international trade, and are treated not as social rights, but as investments. The concern of civil society is that, from the perspective of integral development and HR, privatisation of these services will be to the detriment of the State's obligations as a guarantor of these rights.[296]
- Mismatches between indigenous populations that did not have "property rights" to own land and investors, leading to increased pressure for ownership and possession, could lead to violations of HR.[297]
- Much more involvement of civil society is required, not only in the redrafting of

[288] See minutes of the Workshop of July 9th 2015 in Mexico, as stated by Mr Guerrero, Professor and Researcher of the Center of International Relations of the Faculty of Political and Social Sciences (UNAM).

[289] See minutes of the Workshop of July 9th 2015 in Mexico, as stated by Prof Laura Becerra Pozos, Director of Central America, Mexico and the Caribbean Region, Latin American Association of Organisation of Development Promotion (ALOP).

[290] See minutes of the Workshop of July 9th 2015 in Mexico.

[291] See minutes of the Workshop of July 9th 2015 in Mexico.

[292] See minutes of the Workshop of July 9th 2015 in Mexico.

[293] See minutes of the Workshop of July 9th 2015 in Mexico.

[294] See minutes of the Workshop of July 9th 2015 in Mexico.

[295] Asociación Latinoamericana de Organizaciones de Promoción al Desarrollo 2013, "Las relaciones México-Unión Europea en el marco del Acuerdo Global y la Asociación Estratégica: un balance desde la sociedad civil mexicana", available at: http://www.equipopueblo.org.mx/descargas/MEX%20UE.pdf [accessed September 20th 2015].

[296] Castañeda N., van der Fleirt, L. 2006, Estudio sobre el impacto social y medio ambiental de las inversiones europeas en México y Europa en el sector agua y electricidad. Available at: http://www.equipopueblo.org.mx/publicaciones/investigaciones/descargas/dciinv_ismesae.pdf.

[297] Interview with representatives of The Project on Organizing, Development, Education, and Research (PODER), September 4th 2015.

the FTA, but also as watchdogs in its implementation and repercussions — e.g. through the involvement of the Joint Consultative Committee (JCC); [298]

- Federal Mexican Labour Law now includes the Decent Work Agenda and ILO Core Labour Standards, according to civil society representatives.[299]
- Some civil society organisations claim that Mexican and European companies have violated HR in the past in different countries: the right to consultation, free, prior and informed consent and self-determination; public information; to collective ownership; to a healthy environment; autonomy; to freedom of association, generating offal, forced displacement, disruption of the social fabric, pollution and overexploitation of natural resources in Mexico. The defenders of human rights, especially at the community level, who seek full respect for HR against corporate interests, are often victims of criminalisation, harassment, threats, physical assaults and even murders. Often, companies have the backing of the authorities and the diplomatic corps in both the country of origin and the host country. [300]

Table 4.15, below, combines the human rights that are mentioned in the European Charter of Fundamental Freedoms and the core UN Human Rights treaties in the first two columns, and whether they have been affected by the FTA according to three sources mentioned above: the econometric model (+ additional social and environmental analyses), the literature review, and inputs from stakeholders.

Table 4.15 Overview of human rights potentially affected by EU-Mexico FTA

Human Right	Reference to human rights treaty	Affected according to		
		Eco-model + added analysis (1)	Litera-ture review (2)	Stake-holders (3)
Human dignity	Art. 1 (CFR), Art. 1 (UDHR)			
Right to life	Art. 2 (CFR), Art. 3 (UDHR), Art. 6 (ICCPR), Art. 10 (CRPD)			
Right to the integrity of the person	Art. 3 (CFR), Art. 17 (CRPD)			
Prohibition of torture and inhuman or degrading treatment or punishment	Art. 4 (CFR), Art. 5 (UDHR), Art. 7 (ICCPR), CAT			
Prohibition of slavery and forced labour	Art. 5 (CFR), Art. 4 (UDHR), Art. 8 (ICCPR)			
Right to liberty and security	Art. 6 (CFR), Art. 3 (UDHR), Art. 9 (ICCPR), Art.14 (CRPD), Art. 5 (CERD)			
Respect for private and family life	Art. 7 (CFR), Art. 12 (UDHR), Art. 17 (ICCPR), Art. 16 (CRC), Art. 22, 23 (CRPD), Art. 14 (ICMW),			
Protection of personal data	Art. 8 (CFR)			
Right to marry and right to start a family	Art. 9 (CFR), Art. 10 (ICESCR), Art. 23 (ICCPR), Art. 16 (UDHR), Art. 5			

[298] Mexican Action Network on Free Trade (RMALC), Ecuador DECIDE and the University of Guayaquil (2011), La reconquista de México. Informe a 10 años del Acuerdo Global", available at: http://ecuadordecidenotlc.blogspot.mx/2012/04/publicacion-la-reconquista-europea.html.

[299] Based on interviews.

[300] Conclusiones del Tercer Seminario de la Sociedad Civil en el marco del Quinto Diálogo de Alto Nivel sobre Derechos Humanos entre México y la Unión Europea, April 16th 2015, available at: http://www.idheas.org.mx/conclusiones-del-tercer-seminario-de-la-sociedad-civil-en-el-marco-del-quinto-dialogo-de-alto-nivel-sobre-derechos-humanos-entre-mexico-y-la-union-europea/.

Human Right	Reference to human rights treaty	Affected according to		
		Eco-model + added analysis (1)	Litera-ture review (2)	Stake-holders (3)
	(CERD)			
Freedom of thought, conscience and religion	Art. 10 (CFR), Art. 18 (ICCPR), Art. 12 (UDHR), Art. 14 (CRC), Art. 12 (ICMW), Art. 5 (CERD)			
Freedom of expression and information	Art. 11 (CFR), Art. 19 (ICCPR), Art. 19 (UDHR), Art. 21 (CRPD), Art. 13 (ICMW), Art. 5 (CERD)			√
Freedom of assembly and of association	Art. 12 (CFR), Art. 21, 22 (ICCPR), Art. 20 (UDHR), Art. 5 (CERD)		√	√
Freedom of the Arts and sciences	Art. 13 (CFR), Art. 15 (ICESCR), Art. 27 (UDHR), Art. 30 (CRC), Art. 13 (CEDAW), Art. 30 (CRPD), Art. 5 (CERD)			
Right to education	Art. 14 (CFR), Art. 13 (ICESCR), Art. 26 (UDHR), Art. 28 (CRC), Art. 10 (CEDAW), Art.24 (CRPD), Art. 30 (ICMW), Art. 5 (CERD)	√		
Freedom to choose an occupation and right to engage in work	Art. 15 (CFR), Art. 6 (ICESCR), Art. 23 (UDHR), Art. 11 (CEDAW), Art. 27 (CRPD), Art. 5 (CERD)	√		
Freedom to conduct business	Art. 16 (CFR), Art. 11 (CEDAW)			
Right to property	Art. 17 (CFR), Art. 17 (UDHR), Art. 14 (ICMW), Art. 5 (CERD)			√
Right to asylum, rights of refugees	Art. 18 (CFR), Art. 14 (UDHR), Art. 22 (CRC),	√		
Rights of the migrants		√		
Rights of the indigenous peoples	ILO Convention No.169, UN declaration of the rights of indigenous peoples, Art. 27 (ICCPR), Art. 30 CRC		√	√
Protection in the event of removal, expulsion or extradition	Art. 19 (CFR), Art. 13 (ICCPR)			
Equality before the law	Art. 20 (CFR), Art. 15 (CEDAW), Art. 6,7 (UDHR), Art. 14 (ICCPR), Art. 12 (CRPD), Art. 5 (CERD)			
Non-discrimination	Art. 21 (CFR), Art. 26 (ICCPR), Art. 2 (UDHR), Art. 2 (ICESCR), Art. 2 (ICCPR), Art. 5 (CRPD)			√
Cultural, religious and linguistic diversity	Art. 22 (CFR, Art. 26, 27 (ICCPR), Art. 31 (ICMW) Art. 29 (UDHR)			
Equality between women and men	Art. 23 (CFR), Art. 26 (ICCPR), CEDAW, Art. 3			

Human Right	Reference to human rights treaty	Affected according to		
		Eco-model + added analysis (1)	Litera-ture review (2)	Stake-holders (3)
	(ICESCR), Art. 3 (ICCPR)			
The rights of the child	Art. 24 (CFR), Art. 23, 24 (ICCPR), CRC	√		
The rights of the elderly	Art. 25 (CFR)	√		
Integration of persons with disabilities	Art. 26 (CFR), Art. 23 (CRC), CRPD	√		
Workers' right to information and consultation within the undertaking	Art. 27 (CFR) Art. 23 (UDHR), Art. 27 (CRPD), Art. 25 (ICMW)			√
Right to collective bargaining and action	Art. 28 (CFR), Art. 23 (UDHR), Art.8 (ICESCR), Art. 27 (CRPD), Art. 5 (CERD)		√	√
Right of access to placement services	Art. 29 (CFR), Art. 27 (CRPD)		√	
Protection in the event of unjustified dismissal	Art. 30 (CFR), Art. 23 (UDHR), Art 11 (CEDAW), Art. 27 (CRPD)		√	√
Fair and just working conditions	Art. 31 (CFR), Art. 7 (ICESCR), Art. 23 (UDHR), Art. 11 (CEDAW), Art. 27 (CRPD), Art. 25 (ICMW)		√	√
Prohibition of child labour and protection of young people at work	Art. 32 (CFR), Art. 10 (ICESCR), Art. 16 (CRPD), Art. 30 (CRC)		√	
Family and professional life	Art. 33 (CFR), Art. 7 (ICESCR), Art. 11 (CEDAW), Art. 27 (CRPD)			
Social security and social assistance	Art. 34 (CFR), Art. 9 (ICESCR), Art. 22 (UDHR), Art. 26 (CRC), Art. 11 (CEDAW), Art. 27 (ICMW), Art. 5 (CERD)	√	√	
Right to health, healthcare	Art. 35 (CFR), Art. 12 ICESCR, Art. 25 (UDHR), Art. 24 (CRC), Art. 12 (CEDAW), Art. 25 (CRPD) Art. 28 (ICMW), Art. 5 (CERD)	√	√	√
Right to an adequate standard of living	Art. 11 (ICESCR), Art. 27 (CRC), Art. 28 (CRPD), Art. 25 (UDHR)	√	√	
Access to services of general economic interest	Art. 36 (CFR), Art. 13 (CEDAW)			
Environmental protection	Art. 37 (CFR), Art. 14 (CEDAW), Art. 24 (CRC), Art. 25 (UDHR), Art. 12 (ICESCR)		√	√
Consumer protection	Art. 38 (CFR)			
Right to take part in the conduct of public affairs	Art. 39 (CFR), Art. 25 (ICCPR), Art. 7 (CEDAW), Art. 29 (CRPD), Art. 21 (UDHR), Art. 5 (CERD)		√	√
Right to vote and be elected at genuine periodic elections	Art. 39, 40 (CFR), Art. 25 (ICCPR), Art. 7 (CEDAW), Art. 29 (CRPD), Art. 21 (UDHR), Art. 5 (CERD)			

Human Right	Reference to human rights treaty	Affected according to		
		Eco-model + added analysis (1)	Litera-ture review (2)	Stake-holders (3)
Right to good administration	Art. 41 (CFR)			
Right of access to documents	Art. 42 (CFR)			
Right to petition	Art. 44 (CFR)			
Freedom of movement and of residence	Art. 45 (CFR), Art. 13 (UDHR), Art. 5 (CERD)			
Diplomatic and consular protection	Art. 46 (CFR)			
Right to an effective remedy and to a fair trial	Art. 47 (CFR), Art. 7,8, 10 (UDHR)			
Presumption of innocence and right to defence	Art. 48 (CFR), Art. 11 (UDHR), Art. 14 (ICCPR)			
Principles of legality and proportionality of criminal offences and penalties	Art. 49 (CFR), Art. 14 (ICCPR)			
Right not to be tried or punished twice in criminal proceeding for the same criminal offence	Art. 50 (CFR), Art. 14 (ICCPR)			

Part B: Indication to what degree human rights are affected

Making use of the abovementioned information sources, in this section we analyse the degree to which human rights in Mexico have been affected by the EU-Mexico FTA.

We know that not all human rights are affected by the FTA in the same way. Since the FTA may lead to general changes in the country, and since human rights are interconnected and intertwined with many spheres of life, the impact might be very broad and cover some human rights that may not be directly related to the FTA. But this broad effect is expected to be minimal. We do not look at this broad factor in our analysis because, except for the FTA, there may also be various other reasons for this effect and it is not possible to distil the pure EU-Mexico FTA effect from these other factors.

From the economic modelling *ex-post* results, we have identified the trade measures in the FTA that have affected the human rights situation in Mexico most, as well as the sectors of the economy that have been involved. From the increases/decreases in output of certain sectors, we can deduce in part which groups have been most affected in respect of their human rights environments. It is useful that the econometric results have differentiated the impact of the FTA by different skill groups of the population (low-skilled, medium-skilled and high-skilled workers), because this helps us to look at the different ways in which the FTA has affected the different strata of the population (e.g. the poor, the rich, etc.) differently.

Table 4.16, below, presents the economic, social and environmental effects of the FTA and how they affected the different aspects of the human rights landscape in Mexico. The basis of the assessment is the Human Rights Impact Assessment methodology as developed by Walker,[301] in particular, the ten categories of impact of trade agreements (in our case, FTA) on human rights. However, because we are looking at the *ex-post* effects because the FTA has been in place for 14 years, we adapt the ten categories for an *ex-post* analysis:

- Trade law has complemented human rights law.
- EU-Mexico FTA has promoted the growth and resources necessary for the progressive realisation of human rights.

[301] Walker, S. (2009). *The Future of Human Rights Impact Assessments of Trade Agreements, Intersentia*, p61.

- EU-Mexico FTA has breached human rights in practice.
- EU-Mexico FTA has limited government capacity to promote human rights.
- EU-Mexico FTA has led to a "race to the bottom" in human rights protection as the involved countries have tried to compete on global markets.
- EU-Mexico FTA has limited the use of trade measures to improve the enjoyment of human rights abroad.
- Trade law has conflicted with human rights law.
- Enforcement of the EU-Mexico FTA has been stronger than human rights enforcement, which has led to a prioritisation of trade law over human rights law.
- EU-Mexico FTA and trade institutions have failed to respect the right to take part in the conduct of public affairs.
- Trade "values" (values of the FTA) have threatened human rights "values".

In each part of the table, we concentrate in the analysis on identifying the specific human rights that have been affected by the measures included /caused by the FTA. In the last column, we analyse the extent to which these measures have enhanced or impaired the enjoyment of the relevant rights.

Table 4.16 Human rights impacts from the EU-Mexico FTA

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
Trade law has complemented human rights law	The legal text of the FTA did not complement the human rights as such, because human rights issues were not widely mentioned in the agreement itself — in the exception clauses, it was mentioned that the trade measures cannot interfere with a country's right to regulate. This right to regulate matters for a country's responsibility to uphold the highest attainable standard of physical and mental health (**right to health**), for state obligations on the working conditions (**the right to fair and just working conditions**) limited to trade in services, and for conservation of natural resources (a narrow look at the **right to a clean environment**), **protection of personal data**. A broader GA, as well as the Interim Agreement of 1997, however, addressed the determination to conduct trade relationships based on respect for democracy and human rights have been included in the so-called democratic clause and is supported by the conditionality clause that provides for suspension of trade relations in case of human rights violations. In this sense, it has been characterised as marking a shift in the scope of trade.[302] The effect of the GA and the Interim Agreement on protection and promotion of human rights in Mexico as a third state to the EU has complemented trade law presented in the rest of the FTA. Civil society organisations, however, argue that the democratic clause is merely enunciative and has practically never been used in response to HR violations in practice. Theambitions laid down in the GA and the Interim Agreement in respect of human rights have not been fully put into practice.[303] The current human rights situation in Mexico is marred by a number of violations.[304] [305] [306]	Based on our literature review and our legal analysis of the agreement, and taking into account the human rights situation in Mexico, the EU-Mexico FTA has not complemented human rights law in any significant way. The innovation of the Global Agreement to include human rights in a trade agreement has marked the initiation of a greater focus on human rights; but civil society organisations and other commentators criticise the fact that the Global Agreement has not been put into practice.

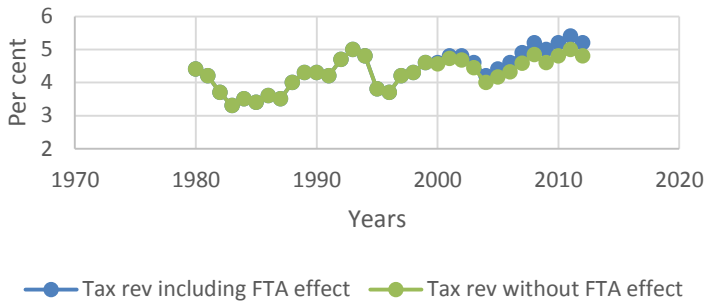
[302] Szymanski, M. & Smith *M.E., Coherence and Conditionality in European Trade Strategy: Negotiating the EU-Mexico Free Trade Agreement*, available at: http://aei.pitt.edu/2190/1/002257_1.PDF [accessed 18 November 2014].

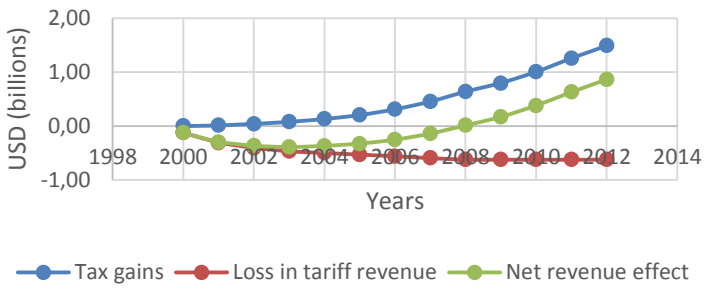
[303] See Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014] and Szymanski, M. & Smith M.E., *Coherence and Conditionality in European Trade Strategy: Negotiating the EU-Mexico Free Trade Agreement*, available at: http://aei.pitt.edu/2190/1/002257_1.PDF [accessed November 18th 2014] for the discussion of the fact that Article 58 has not been invoked since the effectuation of the FTA, despite human rights violations in Mexico, and on the fact that cooperation has not been characterised as particularly intense.

[304] Human Rights Watch, *World Report 2014 - Mexico*, January 21st 2014, available at: http://www.refworld.org/docid/52dfddc812.html [accessed November 17th 2014].

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
	Meanwhile, the actual level of cooperation between the parties in the framework of the GA has been described by one commentator as "minimal" and "minuscule". [307] However, a number of projects have been carried out in the framework of cooperation between the EU and Mexico: meetings of the EU-Mexico Joint Council,[308] bilateral Human Rights Dialogues,[309] and a number of programmes in the fields of human rights, gender, environmental and tropical forest cooperation, the fight against drugs, reproductive and sexual health and rights, poverty-related diseases, and EU-LAC Summits on strengthening links between civil society and institutions/organisations.[310] If the exception clauses in the FTA had been invoked, that might be regarded as an example of trade law complementing human rights law, but they have not.	
EU-Mexico FTA has promoted growth and resources for the realisation of human rights	Increase in international trade activity with the EU has created conditions for growth in national income of Mexico as a state. The model has calculated that growth in national income for Mexico increased by 3.8 billion euros because of the FTA (0.35 per cent). Tariff reductions have caused a loss in government tariff revenue of 0.14 per cent of GDP which is equivalent to 625 million euros. Total estimated increases in domestic tax receipts amounted, however, to 1.5 billion euros because of the higher economic growth of Mexico (see Figure 4.11.A on Tax revenues, below). This means that the total amount of potential resources for realisation of human rights since the FTA came into force has first gone down (the loss in tariff revenue initially was far bigger than the gains in tax receipts), but	The impact of economic growth on human rights in Mexico is manifold. The predicted loss in government tariff revenue has indeed taken place, but tax receipt increases have offset this decline — leading Mexico to have a permanently larger budget in the long run and also allow greater resources for addressing HR issues. We find that the total expenditures on education[312] and health have increased.[313] However, due to the existence of corruption, this effect is probably lower than calculated. Though we can say that

[305] Amnesty International, *Amnesty International Annual Report 2013 - Mexico*, May 23rd 2013, available at: http://www.refworld.org/docid/519f518718.html [accessed November 17th 2014].
[306] United Nations, A/HRC/26/36/Add.1.
[307] Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].
[308] Council of the European Union, VII Joint Council European Union – Mexico, Mexico City, February 9th 2012, Joint Communique, UE-MX 2052/12 Presse 42, available at: http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/EN/foraff/127939.pdf [accessed November 18th 2014].
[309] EU Press Release, The European Union and Mexico hold bilateral Human Rights dialogue, 140320/02, March 20th 2014, available at: http://eeas.europa.eu/statements/docs/2014/140320_02_en.pdf [accessed November 18th 2014].
[310] European Commission, Mexico Country Strategy Paper 2007-2013, E/2007/1063, available at: http://eeas.europa.eu/mexico/csp/07_13_en.pdf See Annex 9 [accessed November 18th 2014].
[312] Total expenditure on education in 1999 was 16.3% of GDP and, in 2011, 19.6%.
[313] World Bank data, Health Expenditure total (% of GDP), available at: http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS [accessed November 18th 2014]

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
	then (estimated since 2008) gone up (because domestic tax receipts started to outweigh the loss in tariff revenues, which have levelled off). In other words, after 2008, the Mexican government has had more funds available that could have been allocated to healthcare, education, social programmes for vulnerable population groups, such as persons with disabilities, children, women, and refugees (this affects several groups of human rights simultaneously, **the right to health, right to education, rights of the disabled, rights of women, children's rights, rights of refugees, rights of migrants**). This was not the case for the transition period before 2008. This is shown in Figure 4.11.B on Revenue effects for Mexican government due to EU-Mexico FTA, below. Figure 4.11.A Tax revenue rates (total)  Source: Author's calculations, CGE results, IMF tax revenue statistics.	the FTA has, post-2008, resulted in a higher budget being available to the central government, there is not enough evidence to say that the higher spending levels are a direct result of the FTA.

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
	Figure 4.11.B Revenue effects for Mexican government due to EU-Mexico FTA  Source: Authors' calculations, CGE results, IMF tax revenue statistics. We need to keep in mind, however, that having the funds available does not necessarily mean that the political choices are made to spend it on those elements that affect human rights in Mexico. Another factor that is of influence on spending is the level of corruption, which stayed relatively stable over the past decade.[311] We indicate these human rights as potentially having been affected because the data show that this is possible, but it remains the internal matter of the state government of Mexico.	
EU-Mexico FTA has breached human rights in practice	Based on the economic modelling results, we see that wages due to the FTA have increased for low-skilled workers (by 0.2 per cent), for the medium skilled group (by 0.5 per cent), and for the high-skilled workers (by 0.4 per cent). At the same time, average consumer prices went up by 0.12 per cent. This suggests that the effect of the FTA has resulted in an increase in disposable income on average for all groups of the population. This has an indirect impact on such human rights as the **right to an**	The geographical extent of this measure is broad. The competition, price and wage effects touch upon all the sectors in society and affect both internationally oriented and domestic ones. We have seen that the pull-effect (pulling labour out of certain sectors into growing ones) has dominated for all skill levels, as is shown by the

[311] See Transparency international, Corruption Perceptions Index Report on Mexico. From the CPI, it becomes clear that the level of corruption in Mexico has remained rather constant (with a value of around 34), but that, relatively speaking, this performance has caused Mexico to lag more and more, dropping from place 58 in 1999 to 106 in 2013, out of a total of 177 countries and territories.

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
	adequate standard of living, the **right to health** (people can access better healthcare), and the **right to education**. In addition, we see that some sectors have grown, while others have declined due to the FTA. The model results point in the direction of a pull effect, away from declining sectors. That is, workers and invested capital are drawn out of declining sectors towards growing ones where returns to capital and labour (i.e. interest earned and wages) are higher. At the same time, there is evidence that some European companies have violated the labour rights of Mexican workers. For example, in the case of Aguas de Barcelona, employee salaries and benefits did not comply with company statutes (**right to fair and just working conditions**). [314] The EU being involved in the infrastructure projects as part of Plan Puebla Panama has been criticised for implicitly allowing possible **human rights violations of indigenous peoples**.[315] The Euzkadi tyre factory owned by Continental, a German consortium, has committed a number of workers' rights violations, such as enforcing a 12-hour work day, increased output without pay, working on Sundays (**right to fair and just working conditions**). [316] Several ICSID cases were criticised for neglecting human rights in favour of the interests of the companies, in particular discussion of the case *Técnicas Medioambientales Tecmed SA v United Mexican States*[317] (**right to health**, **right to clean environment**).[318] However, it must also be said that, precisely due to the GA and human rights provisions therein, the impact of business operations on human rights has received more attention. This is an observable positive effect. **The right to food** was affected by the FTA. The sector has become more	increases in wages. This is despite the fact that the limited levels of education of the least skilled in Mexico are thought to have hampered their mobility to move to other sectors, where they could have benefited more from the FTA by earning higher wages. Labour mobility and absence of the informal economy are two assumptions in the model, however, potentially resulting in human rights violations in practice to a greater extent than our analysis predicts. At the same time, as addressed in the section on social analysis, the informal economy tends to be present mainly in the non-trading sector of the economy. Engagement with key stakeholders has not resulted in more evidence on HR impacts of labour mobility and the effect of the informal economy. Based on the literature review, we can conclude that there have been human rights violations by EU multinational companies in Mexico. Although we could neither ascertain the causal link from the FTA, nor the breadth of these violations beyond the anecdotal evidence provided, these cases have had a negative impact on the human rights obligations of Mexico.

[314] Reveles, R.A. & Rocha, M.P.L., The *EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

[315] Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

[316] Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

[317] *Técnicas Medioambientales Tecmed SA v United Mexican States,* ICSID Case No. ARB(AF)/00/2, available at: https://icsid.worldbank.org/ICSID/FrontServlet, similar case is *Abengoa S.A. and COFIDES, S.A. v. United Mexican States,* ICSID Case No. ARB(AF)/09/2.

[318] Suda, R. (2006) Effect of Bilateral Investment Treaties on Human Rights Enforcement and Realisation, pp.73-160. In Transnational Corporations and Human Rights, ed. by Olivier de Schutter.

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
	open, which has led to more trade in food products. This has increased interdependence between Mexico and other food producers in the EU, something that needs to be taken into account when looking at food safety and security of food supply.[319] Food prices do not go down according to our analysis, but the increased levels of cooperation do point to the potential for higher-quality foods. Also, we have witnessed a small decline in employment in the food processing sector in Mexico. he model suggests a decline in Mexican employment in food-related sectors because of the FTA, and, for a number of food sectors, a decrease in domestic food production as a result of the FTA. The claim of reduction in food production is also made in other publications.[320] In terms of employment, labour displacement of low-skilled workers has accounted for 3.6 per cent of the total labour force, and middle-skilled and high-skilled workers for 2 and 1.5 per cent respectively. This shows that people with lower skill levels have been most incentivised to change jobs. For example, we see a decline in employment in the electrical machinery and other machinery sectors, but a significant increase in employment in the (better-paying) motor vehicles sector. Also, employment in distribution services, construction and transport services increased for low-skilled workers. Combined with the found increases in salary, this has been a move to sectors with higher salaries. The agricultural sectors declined to some extent because of the FTA (isolated effect). The motor vehicles and distribution services sectors have grown by 0.6 and 0.1 per cent respectively, and created more jobs – as the sector skill-composition indicates – mostly for medium-skilled workers. These results suggest that, while positive in the long run because workers move to better-paying sectors, in the immediate short run, labour displacement would have had (at least temporary) negative impact on the right to work for low-skilled workers.	
EU-Mexico FTA has limited government	As mentioned above, the government has, since 2008, acquired more funds to promote human rights. This means there have been funds for	The financial impact of the FTA on the government to invest in the protection and

[319] A/HRC/19/59/Add.2.
[320] Oxfam, The Right to Adequate Food: Progress, Challenges and Opportunities, Oxfam discussion papers, October 2014, available at: http://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/oxfam-dp-the-right-to-adequate-food-20141014.pdf [accessed November 19th 2014].

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
capacity to promote human rights	more social programmes to facilitate promotion of human rights and these funds have, according to civil society actors, had some positive effects. Another element where the FTA may impact on the governments' capacity to promote human rights is through the treatment of international businesses and investors. The entry of multinational companies into the market has caused a number of human rights violations, as described above. Moreover, the entry of large foreign firms with market power has led to discussions in Mexico over tax breaks and other incentives to attract them to certain locations. This has meant that, especially, local governments have sometimes had to balance interests. One of the main recorded human rights violations, the case involving the Euzkadi tyre company, has demonstrated that the government was afraid to scare off investors and was initially reluctant to protect the interests of the workers whose rights were violated and to act against the company involved, and to hold it accountable for the violations.[321] Such revealed hesitation poses a risk of violations of workers' rights occurring in the future.	promotion of human rights is calculated by comparing the outcomes of the *ex-post* economic results with IMF data on domestic tax receipts. They show that there has been a stress on government revenues in the short run due to a decrease in government tariff revenue, but also that, over time, more funds have become available for the Mexican government after the economic growth effects had materialised. However, there is not enough evidence to prove what the money that became available due to FTA was spent on — i.e. whether it was spent on the promotion of human rights. Although we do observe a positive correlation between increased budget revenues of the FTA since 2008 and an increased social expenditure (when the net effect on budget revenues became positive, in 2008, we observe an acceleration in the growth in social expenditures), the overall contribution of the FTA is likely to be only small, given that, even after the budget effects become positive, in 2008, the additional budget revenues are much smaller (about 10%) than the increase in social expenditures. The impact of the presence of foreign investors on the government, notably whether there is a policy chill or hesitation to address quickly any human rights violations, is not statistically shown, although anecdotal evidence has been found.
EU-Mexico FTA has	The Transnational Institute (TNI) report mentions that European companies	Incidents of lowering labour standards by the

[321] Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
led to a 'race to the bottom' in human rights protection to remain competitive	registered in Mexico increased working hours and working at the weekend.[322] This is an indication that the EU-Mexico FTA and/or other drivers that increase competitiveness could have put pressure on human rights. Upon further engagement with stakeholders, no systematic evidence of increased pressure of the EU-Mexico FTA on these human rights has been found. It is useful to look at specific sectors when we want to move beyond (insignificant) total averages. For example, for low-skilled workers in the motor vehicle sector, employment has grown significantly, pulling in workers from the electrical machinery, wood and paper products, and metals and metal products sectors. Looking at vulnerable groups such as migrant workers and refugees, women, children and persons with disabilities, we see that sectors where these groups are traditionally employed, such as basic agriculture, textiles and forestry, have not been severely affected.	European companies operating in Mexico as reported by NGOs show that, based on anecdotal evidence, a risk of a race-to-the-bottom effect is present. However, we have not identified any structural evidence for this, beyond anecdotal evidence.
EU-Mexico FTA has limited the use of trade measures to improve enjoyment of human rights abroad	The FTA does not include such provisions; the scope of exception clauses is very limited. The GA provides for freedom for the parties to use trade measures to improve the enjoyment of human rights abroad in its Article 58. The EU, with the use of its trade incentives, could potentially affect the human rights situation in Mexico, and it has often been criticised for not doing so sufficiently.[323] However, this is a process complicated by multiple factors that depend on the involvement of third parties and the political will of all the states involved.	The FTA itself has not limited the use of trade measures to improve the enjoyment of human rights abroad. The possibility of using the trade measures to improve the enjoyment of human rights has not been used fully (for example, cooperation is reported to be not very intensive and Article 28 has not been invoked, as explained above).
Trade law has conflicted with human rights law	We know that the EU-Mexico FTA and human rights treaties have regulated overlapping subject matter, which could have raised the possibility of the different bodies of law regulating the same subject differently, which, in turn, could have led to a legal dispute. We have found only the anecdotal evidence pertaining to the hesitation of the Mexican government to address a large investor that violated workers' rights because of fears that investors would leave. *Sensu stricto*, this means the enforcement of human rights law was delayed for commercial reasons.	The (legal) position of human rights in the EU-Mexico FTA is a positive sign for the importance of human rights recognition in trade agreements, and has not led to a major conflict between trade and HR law. However, the evidence from the Euzkadi case suggests that conflicts could occur. No systematic evidence of such conflict has been found upon consultation with stakeholders.

[322] Reveles, R.A. & Rocha, M.P.L., The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South, p.22-23, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

[323] Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On. A warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
Enforcement of EU-Mexico FTA has been stronger than enforcement of human rights law	Potentially, trade agreements are considered to have stronger enforcement mechanisms than human rights law. That is also seen to be the case for the EU-Mexico FTA. Although human rights have been integrated into the GA, and Article 58 of the Agreement provides for suspension of the Agreement in case of human rights violations, this Article has not been invoked. Cases of violations of human rights in Mexico have not been used as a reason to stop trade activities in order to motivate the Mexican government to address these violations. This experience has also demonstrated, however, that including human rights in trade agreements is an important step, because it includes the possibility (i.e. threat) to halt/terminate the FTA in case of human rights violations. Including human rights clauses in trade agreements is in line with the external policy of the EU, but it also poses difficulties in terms of consensus and implementation.	Due to the evidence of human rights violations by EU companies that conducted commercial activities in the territory of Mexico, it can be noted that national and international legislation and enforcement mechanisms have been insufficient to prevent those violations. While enforcement of trade provisions was not reported as problematic, absence of straightforward provisions in case of human rights violations in the agreement, as well as non-activation of the suspension mechanism, did not facilitate protection of human rights and did not mitigate the negative effect of the violations.
EU-Mexico FTA has failed to respect right to take part in conduct of public affairs	Parties to the FTA negotiations typically find it challenging to engage civil society in the negotiating process. This has improved, however, through the use of social media in recent years in Mexico. Facebook, twitter, and the setting up of specific platforms are highly facilitative in this respect. Current restrictions on freedom of expression, freedom of association and freedom of assembly are limited in Mexico. Mexico has a tradition of engaging in various FTAs and has gained significant experience in how to engage with civil society. Nonetheless, pluriformity and valuing different (opposing) opinions, and incorporating them, has also proved challenging in the case of Mexico. One example to illustrate this point is the work on the infrastructure project Plan Puebla Panama, which has faced criticism from indigenous peoples, but has not been altered significantly to take this into account.[324] Also, and clearly, a group of stakeholders has, in their "Conclusiones del Tercer Seminario de la Sociedad Civil en el Marco del Quinto Diálogo de Alto Nivel sobre Derechos Humanos entre México y la Unión Europea",[325] stated that they want to be much more involved in the updating of the FTA and monitoring the implementation of social and HR clauses.	Based on our analysis, we think that the FTA has had a small, positive influence on the right to take part in the conduct of public affairs. Mexico's engagement with stakeholders has slightly improved, due to the explicit mentioning of this element in the FTA text. We also need to state that the clearly exogenous development of social media, which allows stakeholders to be better linked and informed, has played a role. It is difficult to ignore these factors.

[324] Reveles, R.A. & Rocha, M.P.L., *The EU-Mexico Free Trade Agreement Seven Years On: a warning to the global South*, available at: http://www.tni.org/files/download/eumexicofta.pdf [accessed November 17th 2014].

[325] Conclusiones del Tercer Seminario de la Sociedad Civil en el marco del Quinto Diálogo de Alto Nivel sobre Derechos Humanos entre México y la Unión Europea, 16 April 2015, available at: http://www.idheas.org.mx/conclusiones-del-tercer-seminario-de-la-sociedad-civil-en-el-marco-del-quinto-dialogo-de-alto-nivel-sobre-derechos-humanos-entre-mexico-y-la-union-europea/.

Categories of impact of FTA on human rights	Human rights effects	Significance: human rights stress; direction of change compared to baseline; nature, magnitude, geographical extent, duration and reversibility of observed changes
Trade 'values' threaten human rights 'values'	As calculated in the model, this FTA is beneficial for the country overall. However, as shown in the literature review, certain practices have not been acted out of the human rights values. And, in some sectors, we have seen employment decline. We observed that these declines are largely owing to the fact that workers have moved to other sectors, and not because they have been made redundant. From engagement with stakeholders, one example has come to the fore, where civil society considers a conflict between trade and human rights values: the water and electricity sectors are seen by the Mexican government as subject to the rules of international trade, not as social rights, but, rather, as investments: i.e. these sectors must be profitable. The concern of civil society is that, from the perspective of integral development and human rights, privatisation of services will be to the detriment of the State's obligations as a guarantor of these rights. This view is also supported by the ILO. Concretely, civil society considers it inconsistent that the Government of the Federal District, on the one hand, looks to run an ambitious human rights programme (leading the way), while, on the other hand, it maintains the handling of private water service contracts that were established in the time of the PRI government following commercial logic.	There has been no sufficient evidence in our analysis to conclude that there has been a regular pattern of trade values threatening human rights values. We have some examples of this, but also we see that increased growth and jobs in certain sectors have contributed to various human rights. Nonetheless, examples of human rights violations that occurred due to trade values being given priority over human rights values remain a concern.

4.4.4. Step 3 – Conclusions

In this step, we will formulate the main conclusions that stem from the *ex-post* analysis and that draw upon the information provided from the literature, stakeholders, and the quantitative assessment of the *ex-post* FTA impact. The conclusions that we consider important from the perspective of human rights, are the following:

- The Democratic Clause is an important element, but, the commitments to HR in the agreement still lack effective mechanisms through which HR could be better monitored and defended.
- Various bilateral cooperation initiatives, e.g. the Social Cohesion Laboratory, and the established importance of funding social projects, are positively received by stakeholders.
- Dialogue with civil society throughout the implementation of the FTA has not been institutionalised (monitoring of the FTA implementation).
- Initial tariff revenue losses have not been large (0.14percent) for the Mexican government, following the implementation of the current FTA, but may have put a *short-term* strain on government resources to cater for policies that would help safeguard human rights, because only in the long term are these negative tariff revenues offset by positive tax effects in terms of income, corporate and value added taxes.
- Labour mobility and displacement occur when the production structure of an economy changes, leading to some sectors expanding and others contracting. We find that labour displacement is greatest for low-skilled workers.
- A clear procedure on how Mexican citizens can act, and which route companies from the countries that are party to this agreement should follow in order to report, address and combat HR violations, is not yet in place.

5. Environmental analysis

The environmental analysis consists of a combination of quantitative and qualitative approaches, using outcomes from the CGE model, environmental data, and further information on the environmental status, developments, main issues and policies. Apart from some general results derived from the CGE model, which are available for both the EU and Mexico,[326] the assessment focuses on impacts on Mexico.

Following a descriptive analysis, outlining the relevant environmental issues from before the FTA went into force, and those that apply today, the impacts of the FTA on these issues are analysed (*ex-post*). The environmental analysis presented below is a shortened version of the full analysis. This full analysis, as well as the quantitative environmental methodology, can be found in the Annexes.

5.1. Environmental trends and developments

With a surface area of 1,972,550 square kilometres, Mexico covers 1.3% of the world's land area, and is home to 10-12% of the world's terrestrial biodiversity. The country's climate and terrain varies widely, and its ecosystems range from high mountains to deep sea, deserts, coral reefs, cloud forests and coastal lagoons.[327] Of the known plant species worldwide, around 10 percent are found in Mexico, and 40 percent of those are endemic, i.e. they only exist in Mexico. The genetic diversity of the known plants has only been marginally researched. Mexico also shows a great variety in cultivated plants, especially maize, and belongs to the group of countries with the greatest number of animals worldwide (amphibians, reptiles and mammals).[328]

Mexico is also abundant in mineral resources, such as silver, zinc, lead, gold, mercury, coal and copper, as well as oil and natural gas. The exploitation of these resources contributes substantially to GDP (8 percent of value added was contributed by oil in 2008, when oil prices were relatively low[329]) and, at the same time, puts pressure on the environment by moving and potentially polluting soil. The oil and gas industries indirectly contribute to climate change. The use of non-renewable resources can consequently also be seen as a cost; in 2010, the costs of environmental degradation and natural resource depletion together were estimated at 7percent of Mexican GDP (down from 10 percent in 2000).[330]

Mexico's main environmental issues include deforestation and desertification, as well as water scarcity — with low water use efficiency — and water pollution, all of which pose problems for ecosystems and biodiversity, and often for human health. Despite some progress, air pollution is still a major issue in urban areas.[331] Mexico is the world's 13th-largest greenhouse gas emitter (down from 9th in 2003). With high vulnerability to climate change impacts, Mexico shows international and national engagement in climate action.[332] However, through its recent opening of private investment/FDI possibilities in fossil fuel extraction, it seems to continue to rely on revenues from these sources, and the share of renewables in electricity production has declined in the last decade.[333]

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[326] Namely: CO_2 emissions, land use, trade in fossil fuels, trade and output in forestry and fisheries sectors.
[327] See Stratos Inc. (2004): Mexico Case Study. Analysis of National Strategies for Sustainable Development; and OECD (2013): OECD Environmental Performance Reviews: Mexico 2013.
[328] Brand et al. (2008): Conflicts in Environmental Regulation and the Internationalization of the State: Contested terrains.
[329] OECD (2013): OECD Environmental Performance Reviews: Mexico 2013.
[330] OECD (2013): OECD Environmental Performance Reviews: Mexico 2013.
[331] Stratos Inc. (2004): Mexico Case Study. Analysis of National Strategies for Sustainable Development; and OECD (2013): OECD Environmental Performance Reviews: Mexico 2013.
[332] OECD (2013): OECD Environmental Performance Reviews: Mexico 2013. For 2003, see Stratos Inc. (2004): Mexico Case Study. Analysis of National Strategies for Sustainable Development.
[333] OECD (2013): OECD Environmental Performance Reviews: Mexico 2013, Will Grant (2014): Mexico energy reform divides opinion.

5.1.1. Development of policies and institutional framework

In 2014, the Environmental Performance Index ranked Mexico 65th out of 178 countries, with a score of 55.03 (out of 100) and an improvement by 7.9% within the last 10 years. Compared to GDP and regional peer sets, Mexico performs well in water resources, as well as climate and energy, but is below the peer average in agriculture (mainly due to high subsidies) and forests (reduction in forest cover).[334] Despite the improvement in the last 10 years, the main issues have stayed the same. It is also worth noting that Mexico is the only OECD country with a track record of negative revenues from environmental taxes in recent years (see figure below). This is due to the structure of the motor fuel tax, which becomes a subsidy if oil prices increase above a certain level.[335]

One of the main issues affecting Mexican environmental performance are the policies in subsidy structures in sectors affecting the environment, such as energy, agriculture, and fisheries.[336] SEMARNAT, to date, does not appear strong enough to influence these policy areas critically; although the Ministry is involved in several inter-ministerial commissions that address issues other than environmental ones, it is noteworthy that no environment units have been created in other ministries, i.e. proper mainstreaming of environmental concerns has not been achieved. Moreover, the responsibilities of policy-making, regulating and implementing are (unclearly) distributed within SEMARNAT itself, which acts both as a policy-making ministry and a regulating and implementing agency, and between other environment sector agencies. The fact that the rules for environment programmes often prohibit synergies among them, and the general inflexibility of earmarked budgets, further reduces the ability to cooperate and implement policies efficiently and flexibly.

In addition to these national-level obstacles to environment-related policy coordination, there are also cooperation difficulties and responsibility overlaps between the national and state level, due to "multiple representations of federal agencies at state level"[337], large environmental performance differences between states, and limited incentives for municipalities to develop long-term sustainability strategies (due to the constitutionally specified term for mayors, which is three years, without the possibility of re-election).

The unclear division of responsibilities between all governmental layers also contributes to difficulties in policy enforcement, as does insufficient fund allocation for SEMARNAT's enforcement agencies. While PROFEPA, the main enforcement agency, performs reasonably with 650 inspectors and 57 percent of the administrative enforcement cases in 2010 resolved, its backlog is growing and its budget has increased sub-proportionally to that of other agencies — from 944 million pesos (4.1 percent of the SEMARNAT budget) in 2002 to 1,013 million pesos (2 percent) in 2011. The water commission, CONAGUA, which is responsible for enforcing water regulations, has only 150 inspectors controlling almost half a million registered users, and many more illegal actors. CONAGUA's budget has increased in the last ten years, but, of course, consists of much more than enforcement activities. The efficiency of enforcement programmes could be improved by more effective targeting of programmes on activities with the largest risk.

5.1.2. Natural resources, ecosystems and biodiversity

Overview of natural resources

Mexico is rich in both renewable and non-renewable natural resources. Among the renewable natural resources are ecosystems and species/biodiversity (which will be discussed in more detail below), as well as air, water, and soil (of which air and water are covered in separate sections). Mexico's main non-renewable resources are fossil fuels and minerals.

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[334] http://epi.yale.edu/epi/country-profile/mexico.

[335] OECD (2013), *OECD Environmental Performance Reviews: Mexico 2013*; IMF/Philippe Karam (2013): *Energy Subsidy Reform. Lessons and Implications*.

[336] See for the following three paragraphs, unless otherwise noted: OECD (2013), *OECD Environmental Performance Reviews: Mexico 2013*.

[337] OECD (2013), *OECD Environmental Performance Reviews: Mexico 2013*, p. 38.

Mexico is the world's largest silver producer, providing 22 percent of the world's supply, and is also abundant in zinc, lead, gold, mercury and copper.[338] The depletion of abiotic resources is less of a concern than their extraction, since mining operations involve heavy interference in soil and landscapes and, as it often involves the use of chemicals, can have disastrous environmental consequences, especially for water resources. A recent spill of 40 million litres of sulphuric acid from a copper mine endangered the water supply of 24,000 people in one of north-west Mexico's driest states and was coined "the worst natural disaster provoked by the mining industry in the modern history of Mexico" by the Minister of Environment, Juan José Guerra Abud.[339] The mining of minerals therefore can be said to affect the country's renewable resources, in particular water.

The Mexican Environmental Accounts provide calculations regarding the cost of natural resource depletion and degradation. When calculating the cost of depletion of natural resources, the Accounts include both renewable resources (water, forest) and non-renewable resources (fossil fuels). For these, precise numbers for extraction/loss can be calculated and transferred into a societal cost. In a separate category, the cost of environmental degradation is calculated, which relates not to the loss in resources, but to the loss in their quality. Issues included here are air emissions, soil degradation, municipal solid waste and waste water, relating to the quality of air, soil, and water.[340]

Environmental degradation is the larger cost at 4.7 percent of GDP in 2011, with air emissions contributing 3.6 percent of GDP alone. The costs of natural resource depletion were calculated to be 1.8 percent of GDP in 2011; the largest contributing factor here is the depletion of fossil fuel resources, which cost 1.5 percent of GDP. It is noteworthy in this context that Mexico managed to reduce the costs of environmental degradation steadily in the last decade, while the costs of natural resource depletion stayed roughly the same, with some small variations. It is also relevant to mention that revenues from oil contributed 8 percent to GDP in 2008,[341] thereby exceeding the environmental cost according to the methodology applied in Mexico's environmental accounts.

Fossil fuel extraction is discussed in the section on climate change; in the following, ecosystems and biodiversity as major Mexican natural resources are described in more detail, going beyond the issues captured in the statistical measures.

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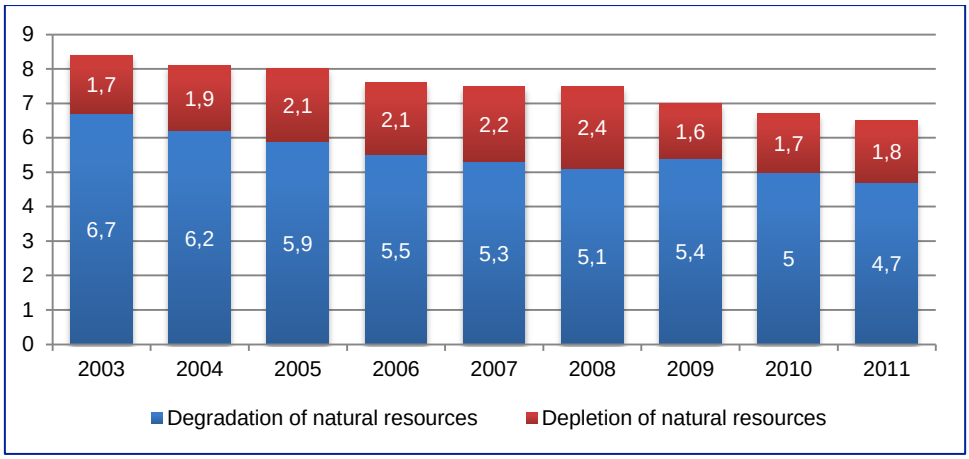
338 USGS (2014): *Mineral Commodities Yearbook 2014*; Stratos Inc. (2004): Mexico Case Study. Analysis of National Strategies for Sustainable Development.

339 http://www.forbes.com/sites/doliaestevez/2014/09/02/no-apology-from-mining-tycoon-german-larrea-for-worst-ecological-disaster-in-mexicos-history/, http://www.resourcegovernance.org/ar/news/blog/mining-environmental-disaster-mexico-sparks-national-debate.

340 On the methodology of calculating the environmental accounts: in general, the "net price method" is used to estimate mineral and forest value; the "damage cost avoided" method is used to estimate environmental degradation value. See, for example: World Bank-Italian Trust Fund Project (2006): International Experiences with environmental and Economic accounting. Available at http://siteresources.worldbank.org/INTEAPREGTOPENVIRONMENT/Resources/GreenaccountinginternationalexperienceFinalEN.pdf.

341 OECD (2013).

Figure 5.1 Costs for depletion and degradation of natural resources as a % of GDP

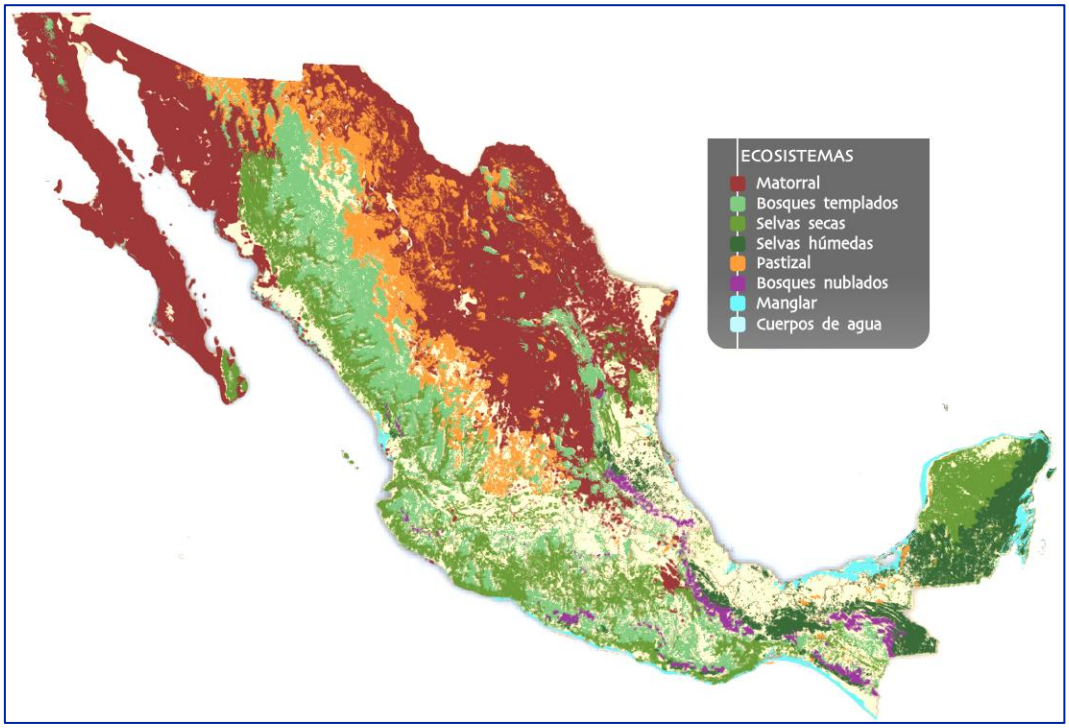


Source: Author's representation, based on INEGI (Instituto Nacional de Estadística y Geografía) (2013): Sistema de Cuentas Nacionales de México. Cuentas económicas y ecológicas de México, 2003-2011. Cambio de año base 2008.

Ecosystems

As outlined above, the country's diverse topography means a wide variety of ecosystems contribute to Mexico's biodiversity. The map below shows their respective location and extension.

Figure 5.2 Ecoystems of Mexico



Matorral: bush; Selvas secas: dry forest; Selvas humedas: rainforest; Pastizal: pasture; Bosques nublados: cloud forest; Manglar: mangrove swamp; Cuerpo de agua: water body.
Source: http://www.biodiversidad.gob.mx/ecosistemas/mapas/mapa.html.

As one can see, over one third of the land area is covered by forest (but two-thirds of the forest is fragmented, reducing the quantity and quality of habitat); tropical forest area declined by 10 percent between 1976 and 2007, but the rate of deforestation has been reduced significantly in the last decade, especially for primary forest.

The seas and coastal waters around Mexico are also important: Mexico is one of the major fishing countries in the OECD, accounting for almost 2 percent of worldwide fish catches (mostly from the Pacific); overexploited fish stocks accounted for almost 4 percent of catches in 2010.[342] Wild shrimp fisheries account for the greatest share of revenues. As most fisheries catch several species besides their targeted one, by-catch and discards are an issue, although precise data are lacking. Illegal fishing adds to the problem, fostered by insufficient enforcement capacity and the poverty of the population, where fishermen do not see economic alternatives.[343]

[342] OECD (2013).
[343] Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem Project (2011): Transboundary Diagnostic Analysis.

Major threats to ecosystems in Mexico are:[344]

- Conversion of forest to crop and livestock production.
- Support programmes for farmers — agricultural subsidies have been reduced, but half of the agricultural support programmes are still production-related measures and therefore particularly environmentally damaging.
- Soil degradation is a major threat to ecosystems and is largely caused by agriculture (overgrazing, excess irrigation, etc.).
- Eutrophication, pollution, habitat loss, invasive species, and unsustainable fishing practices in coastal and marine ecosystems.
- In general, development of economic activities, which put pressure on ecosystems, such as agriculture, tourism, fisheries, and energy; overall, the rapid population growth and urbanisation increase activities in all these sectors and drive the loss of ecosystems, further stressing the need for policy and regulation in areas outside the strict environmental domain.

Clearly, agriculture is one of the key sectors to address when considering ecosystem protection measures. While agriculture only contributed 3.6 percent to Mexican GDP in 2010, but employed 13 percent of the population; agricultural issues are therefore inextricably linked to social issues in Mexico. The volume of agricultural production has increased by 21 percent between 2000 and 2010.[345] Note that land ownership is predominantly organised in a "communal" fashion, either as *comunidades* (Indian communal landholdings) or *ejidos* (where "land is distributed to a group of individual peasants, but land ownership resides with the *ejido* community, rather than the individual"[346]). In 2010, around 70 percent of Mexican forest area was *ejido* land.[347] This affects all policies aimed at ecosystem and biodiversity protection.

Biodiversity

Mexico is a "mega-diverse" country; it is home to 10-12 percent of the world's terrestrial biodiversity; more than 2,600 Mexican species are listed in the IUCN Red List as being under threat. Also, the share of species under threat in Mexico is high compared to in other OECD countries, especially among mammals and birds.[348] Three of the 34 worldwide "biodiversity hotspots" (regions with at least 1,500 endemic species of vascular flowering plants, which have lost at least 70 percent of the original extent of their habitat) can be found in Mexico. These include: the Pine-Oak Forests of the Sierra Madre (including the Sierra Madre del Sur and the Neo-volcanic axis); Mesoamerica (including south-east Mexico, the Atlantic and Pacific coasts and the Balsas river basin); and the southern portion of the California Floristic Province.[349]

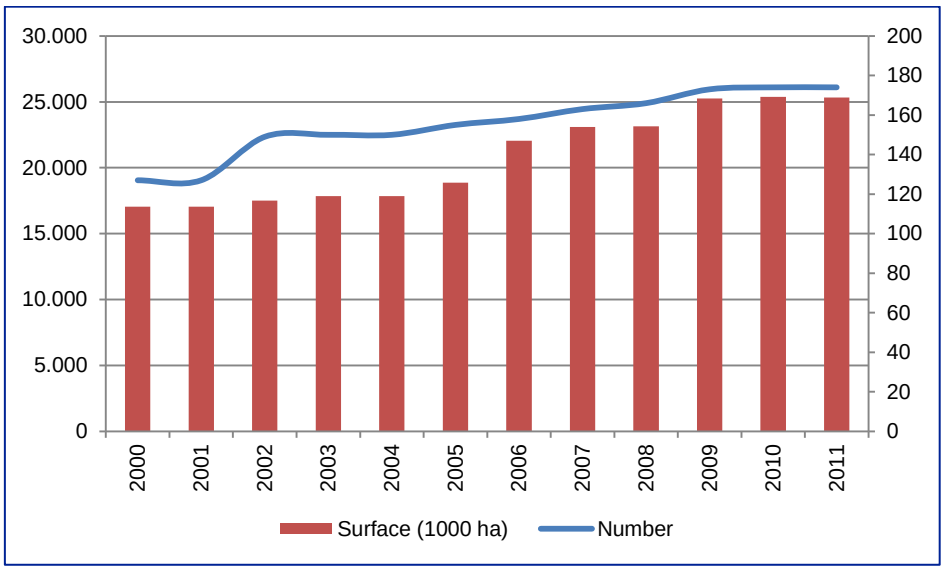
Another interesting feature — particularly against the background of the relevance of agriculture affecting ecosystems — is that the rich biodiversity in Mexico is both natural and cultural. The natural, varied ecosystems, including cloud forests, coral reefs, and mangrove swamps, are home to large numbers of species, and whatever threatens them endangers biodiversity. Apart from that, Mexico has a high level of cultivated plant biodiversity, especially in maize, with 41 types and several thousand varieties.[350]

Between 2000 and 2011, Mexico increased the size and number of federal protected areas, which increased to 12.9 percent of the territory by 2010. However, to reach the goal of 16 percent in 2020, further efforts are needed. The revenue generated from charging for access to the protected areas was equivalent to 7 percent of the federal budget allocated to these areas in 2010, and is invested in protection measures.[351] In the figure below, the red bars, measured on the left axis, show the surface of protected areas (both terrestrial and marine) in Mexico. The blue line, plotted on the right axis, shows the number of protected areas (national parks,

[344] See for terrestrial ecosystems: OECD (2013); for marine ecosystems: Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem Project (2011): Transboundary Diagnostic Analysis.
[345] OECD (2013).
[346] Valdez, Raul et al. (2006), Wildlife Conservation and Management in Mexico.
[347] OECD (2013).
[348] OECD (2013); see also http://www.biodiversidad.gob.mx/pais/quees.html.
[349] http://www.biodiversidad.gob.mx/pais/riquezanat.html.
[350] Brand et al. (2008).
[351] OECD (2013).

biosphere reservations, areas for protection of natural resources, areas of flora and fauna protection, and natural monuments).

Figure 5.3 Surface and number of protected areas in Mexico



Source: INEGI, Anuario estadístico de los Estados Unidos Mexicanos, 2012.

5.1.3. Air pollution

Mexico, and, in particular, Mexico City, is well-known for its air quality problems. "The pollution in Mexico City has been so intense because such a large industrialised population lives within a bowl-shaped valley, with meteorological conditions that limit the circulation of clean air from outside airsheds."[352] According to a survey among Mexicans, air pollution ranks second among the most pressing environmental issues (after water issues).[353] Air pollution is responsible for the largest part of environmental costs in Mexico (3.6 percent of GDP in 2011, whereas other environmental degradation costs 1.1 percent of GDP),[354] but significant efforts have been made to bring it down from around 8 percent of GDP in 2000.[355] These are related both to reducing total emissions and to increased city-level monitoring and air quality management plans.[356]

Emissions and exposure

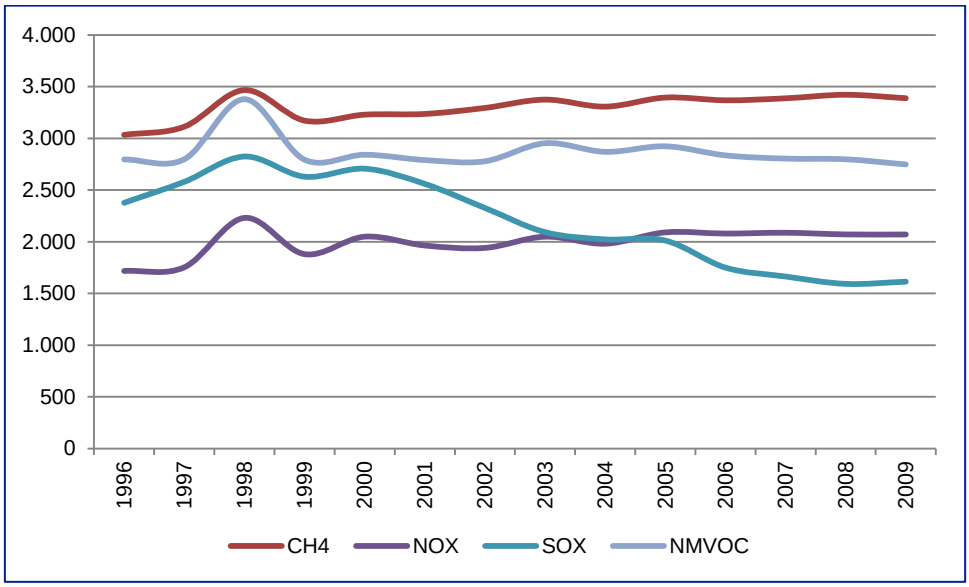
It is important to note that, apart from man-made (anthropogenic) emissions, Mexico also experiences high biogenic and geogenic emissions, especially sulphur dioxide and particulate matter from volcanoes. In some cases, the distinction between biogenic and anthropogenic emissions is not a sharp one, for example in the case of NO_x emissions from soil, which come from the biosphere, but their release is caused by human activities in agriculture.

Looking at total anthropogenic emissions, it can be observed that emissions of methane (CH_4) and nitrous oxides (NO_x) increased significantly between 1996 and 2009 (by 12 and 21 percent, respectively). Most of the increase in NO_x occurred before 2000, and also for CH4 almost half the total increase between 1997 and 2009 took place before 2000. Emissions of non-methane volatile organic compounds (NMVOCs) have been relatively stable (2% decrease since 1996),[357] whereas emissions of sulphur oxides (SO_x) have shown a remarkable reduction from 2.4 million tonnes to 1.6 million tonnes, or 32 percent. The high levels of anthropogenic air pollution in

[352] Adrián Fernández-Bremauntz 2008, *Air Quality Management in Mexico*, p. 56.
[353] OECD2013, p. 33.
[354] INEGI (Instituto Nacional de Estadística y Geografía) 2013, Sistema de Cuentas Nacionales de México. *Cuentas económicas y ecológicas de México, 2003-2011*. Cambio de año base 2008.
[355] OECD (2013).
[356] Adrián Fernández-Bremauntz 2008, *Air Quality Management in Mexico*.
[357] Note that data from the National Emissions Inventory gives a completely different picture of NMVOC's, reporting an increase of 99% between 1999 and 2005. See OECD (2013), p. 31. We will further investigate this to explain the difference between the observations in national emissions inventory and the WIOD database.

Mexico in 1999 were probably caused by the eruption of the Colima volcano in 1998-1999. This volcano is the most dangerous and active volcano in the Sierra Nevada range and is on the list of the world's 16 most dangerous volcanoes (IAVCEI[358]).

Figure 5.4 Anthropogenic air pollutant emissions in Mexico, in '000 tonnes



Source: WIOD Environmental accounts.

The largest contributor to NO_x emissions is the agricultural sector (apart from vehicle emissions in this sector, these are most likely sources from soil, often caused by fertiliser use), followed by inland transport and private consumption (which is also related to private mobility). The electricity sector is another large NO_x emitter in Mexico. The highest emitting states, Coahuila, Veracruz and Jalísco, emit mostly from their power plants and oil and gas fields; in the case of Jalísco, agriculture may play a role as well. For methane, the largest emitter is also the agricultural sector, followed by emissions from waste (under the Community and Social Services sector).

Looking at exposure to particulate matter and ozone pollution, air quality standards are exceeded, particularly in the Valley of Mexico (Mexico City) and Valley of Toluca (just west of the Valley of Mexico) areas almost every second day, by as much as 47 percent in 2005[359]. The main drivers for this type of pollution in the VoT are the rapid pace of urbanisation and the use of not very environmentally friendly transportation, both public and private (cars, buses, trucks)[360].The situation has improved slightly for Mexico City and Guadalajara, but, since 2000, has become worse in the Valley of Toluca. Note that Mexican air quality standards for ozone were already less stringent than those in the US in 2000, and were further lowered in 2006.[361] In terms of mean exposure, the situation is worst in the Monterrey area, but has improved almost everywhere between 2005 and 2009, except for Juárez.

The most important source of particulate matter emissions is geogenic/volcanic, e.g. in the Guadalajara Area caused by the Colima volcano. Human fuel combustion adds to this and has a higher impact due to proximity.[362] In the case of ozone, its precursors are mainly emitted through fuel combustion in electricity and transport.[363] Between 2005 and 2010, Mexico

358 http://www.iavcei.org/.
359 http://app1.semarnat.gob.mx/dgeia/informe_2008_ing/05_atmosfera/cap5_1.html.
360 Mario Molina Center: Public policies for improving air quality, case study: Metropolitan area of valee of Toluca, 2014 (http://centromariomolina.org/english/wp-content/uploads/2014/11/Resumen-Ejecutivo_ZMVT_2014_EN.pdf).
361 Adrián Fernández-Bremauntz (2008): Air Quality Management in Mexico.
362 Environmental Protection Agency / SEMARNAT (2006): 1999 Mexico National Emissions Inventory. Executive Summary.
363 WIOD Environmental accounts and Environmental Protection Agency / SEMARNAT (2006): 1999 Mexico National Emissions Inventory. Executive Summary.

witnessed an increase in deaths due to ambient air pollution (PM and ozone), from 17,954 to 21,594. The number of deaths in relation to population size is average or low compared to other OECD countries,[364] but this may change given the negative trend.

Policy development

Recognising the need to address the air pollution issue, Mexico developed ProAires (Air Quality Improvement Programmes). The programme was initiated in the Valley of Mexico Metropolitan Area in 1990, and, in the following years, the idea expanded to other big cities. Measures include the integration of land-use planning, transport and air quality management policies; support of air quality monitoring systems; and promoting less polluting transport systems (e.g. financial incentives to replace old taxis and buses, improved public transport systems, and vehicle verification systems with a "no driving day" programme). For example, Mexico City has adopted the rapid transit bus system, having low-emission buses drive in dedicated road lanes.[365] In the Valley of Mexico, the implementation of ProAire has yielded significant results: "It is estimated that, between 1997 and 2005, 1,928 deaths were averted due to the reduction in PM10 concentrations and 794 due to the reduction in ozone concentrations."[366]

The development of the National Emissions Inventory (published in 2006, with 1999 as base year) was another important step towards providing input for policies,[367] although, by now, other emissions data are available providing more recent data and time series.

5.1.4. Water

According to a recent survey, water is considered the most pressing environmental issue in Mexico: 20 percent of the respondents in 2011 indicated that water pollution is the major environmental problem in their area, while 19 percent said that water shortages are their main concern.[368]

Water scarcity and use

Water scarcity is an issue for particular regions and their water basins; the regions of Rio Bravo, Lerma-Santiago-Pacífico, the Valley of Mexico, and Yucatán, where 53 percent of the population lives and which contribute 64 percent of national GDP, only possess 17.2 percent of the country's renewable water resources.[369] The map below shows the hydrological-administrative regions that constitute the scope of competence of the River Basin Organisations under the water authority, CONAGUA.

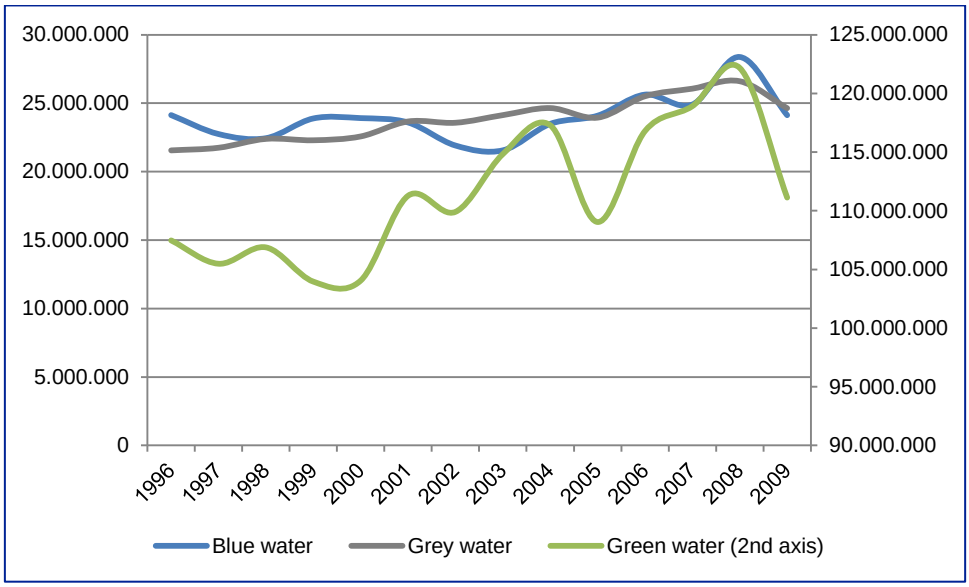
Consequently, water availability per capita varies greatly between regions, between 153 m3/person/year in the Valley of Mexico and 22,185 m3/person/year in the Southern Border (Frontera Sur) region. Apart from the Valley of Mexico region, four further regions can be considered as under water stress (with renewable water resources of less than 1,700 m3/person/year).[370] Overall, Mexico's water stress can thus be considered moderate.[371]

When relating water stress and GDP contribution of regions, it is also important to consider that agricultural activities typically happen in areas with suitable renewable water availability (enough rainfall), while they do not make a large contribution to GDP. From the WIOD database, a timeline of blue, green and grey water use in Mexico can be sourced, covering the period 2000 to 2009. In this categorisation, blue water stands for consumption of surface and ground water; green water is the volume of rainwater consumed, mainly in crop production; and grey water is the volume of freshwater that is required to assimilate the load of pollutants

[364] OECD 2014, The Cost of Air Pollution. Health Impacts of Road Transport, OECD Publishing. http://dx.doi.org/10.1787/9789264210448-en.
[365] Luisa T. Molina et al. 2009, *Air quality, weather and climate in Mexico City*.
[366] OECD 2013, p. 46.
[367] Adrián Fernández-Bremauntz (2008): Air Quality Management in Mexico.
[368] Reported in OECD 2013, p. 33.
[369] CONAGUA 2013, Estadísticas del Agua en México, Edición 2013.
[370] CONAGUA 2013, Estadísticas del Agua en México, Edición 2013. For the definition see CONAGUA 2010, Statistics on Water in Mexico, 2010 edition.
[371] OECD, 2013.

based on existing ambient water quality standards.[372] The three indicators together give a good picture of both freshwater use and water pollution issues.

Figure 5.5 Use of different water types, in 1000 m³



Source: WIOD Environmental Accounts.

Green water use (i.e. rainwater use in agriculture) is around five times higher than blue water use. This shows the importance of rainfall in agriculture. Precipitation is much higher in the southern regions, where agriculture concentrates on different products, such as crops, fruit and vegetables, whereas "pastoral use of land is widespread […], particularly in arid and semi-arid northern Mexico."[373] In fact, the highly arid conditions in many parts of the country "set clear limits to the agricultural use of land"[374] (see also the map in figure 5.16). Based on 2007 data (the latest available), 30.22 million hectares are used for agricultural production in Mexico, or 15 percent of the land area. Only 18 percent of this agricultural land is irrigated, the rest is rain-fed. It must be noted that the yield of irrigation agriculture is around three times as high as that of rain-fed agriculture.[375]

As one can see, green water use has increased over the years (corresponding to increased conversion of other land to agriculture). Although blue water use has increased only slightly since 1996, the importance of irrigation in water use is relevant; Mexico has the sixth-largest irrigation infrastructure area worldwide, and is in 8th place worldwide in renewable water extraction (compared to its rank of 88th in renewable water availability)[376] with agricultural use accounting for 76.6 percent of the water withdrawal. The public water supply represents another 14.5 percent, whereas self-supplying industry and thermoelectric power plants share the remaining 9 percent.[377] In the WIOD database, the share of agriculture is lower (66 percent) and that of the electricity sector is higher (27 percent), because in the blue water methodology, water losses in hydroelectric power plants are included. Note that Mexico has around 5,000 dams and water retention berms, which form part of the water infrastructure and are often used for electricity generation.[378]

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372 See Aurélien Genty et al. 2012, Final Database of Environmental Satellite Accounts: Technical Report on their Compilation. WIOD Deliverable 4.6.
373 Ricardo Améndola, Epigmenio Castillo & Pedro A. Martínez 2006, *Country Pasture/Forage Resource Profiles: Mexico*.
374 Ricardo Améndola, Epigmenio Castillo & Pedro A. Martínez 2006, *Country Pasture/Forage Resource Profiles: Mexico*.
375 CONAGUA 2013, *Estadísticas del Agua en México, Edición 2013*.
376 CONAGUA 2010, Statistics on Water in Mexico, 2010 edition, sourced from FAO; data for 2008.
377 Author's calculations, based on CONAGUA 2013, *Estadísticas del Agua en México, Edición 2013*. Values for 2012.
378 CONAGUA 2013, *Estadísticas del Agua en México*, Edición 2013.

Figure 5.6 Agro-ecological regions of Mexico

Source: FAO, available at http://www.fao.org/ag/agp/AGPC/doc/Counprof/Mexico/figure2.htm.

Wastewater

The use of grey water and the topic of water infrastructure lead us to wastewater issues. Grey water use has slowly, but steadily, risen since 1996, indicating that increasing amounts of wastewater are produced that need to be treated or prepared for appropriate reuse. In 2012, 92 percent of urban wastewater were collected, and 43.5 percent treated. This corresponded to a treatment of 35 percent of municipal pollutants (measured as the five-day Biochemical Oxygen Demand, BOD_5).[379] Industrial wastewater has higher amounts of pollutants, but is treated less frequently, as the graphs below show.

The current treatment rates are, however, a remarkable achievement when looking at the situation in the 1990s. Treatment of municipal wastewater increased from 1.06 km^3 in 1999 to 3.15 km^3 in 2012. In the case of industrial wastewater treatment, it started at 0.69 km^3 in 1999 and showed a rapid improvement after 2009, when it jumped from 1.16 km^3 to 1.91 km^3 in 2012. There are now 2,342 treatment plants for municipal wastewater, and 2,530 for industrial wastewater (numbers for 2012). Only 3 percent of the industrial wastewater undergoes tertiary treatment (i.e. biological treatment to remove dissolved materials); 31 percent receives only primary treatment.[380] A substantial part of Mexican wastewater is reused, particularly in agriculture, but also in industry and partly in thermoelectric power plants.[381] Reuse is helpful from the perspective of water scarcity, but poses environmental and health risks due to the potential contamination of soil and agricultural products, and even the eventual reduction in quality of underlying aquifers. However, at least planned reuse occurs only after secondary treatment. [382]

Policies and management

CONAGUA is the national water agency under the Ministry of Environment (SEMARNAT). It works together with entities at several governance levels: water supply and sanitation fall, by

[379] CONAGUA 2013, *Estadísticas del Agua en México, Edición 2013*.
[380] CONAGUA 2013, *Estadísticas del Agua en México, Edición 2013*.
[381] Data for 2008 in: CONAGUA 2010, Statistics on Water in Mexico, 2010 edition.
[382] Blanca Jiménez-Cisneros 2012, *The Planned and Unplanned Reuse of Mexico City's Wastewater*, available at http://www.reclaimedwater.net/data/files/238.pdf.

constitution, under the responsibility of municipalities; and river basin/aquifer management is performed in 12 River Basin Organizations (corresponding to hydrological-administrative regions, see next section).

Nevertheless, the federal government has recently become more actively involved in water issues, providing more financial resources to municipalities and developing framework programmes.[383]

The federal government's increased engagement meant a tripling of its investments in the water sector over the last decade, and is also reflected in the rising CONAGUA budget: it went from 14,711 million pesos in 2002 (or 64 percent of SEMARNAT's budget) to 36,399 million pesos in 2011 (71.1 percent).[384] In 2011, the Water Agenda 2030 was issued by CONAGUA after a one-year consultation process with key stakeholders at local, state and national level. It identifies 38 initiatives around the themes of basins in balance, clean rivers, coverage of water and sanitation services, and safe settlements. While it does not commit future presidential administrations, it provides a framework for policy development, particularly through the built-in annual stakeholder involvement[385], given the multi-level governance gaps and the fragmented institutional setting.

In economic terms, the water sector is one of the most important environmental services sectors in Mexico, not unlike or even more so than in other countries. Water utilities contributed an estimated 25 percent of the Mexican market in environmental goods and services (EGS) in 1995, although this share has declined to 20 percent in 2006. Water treatment added a share of 17 and 19 percent, respectively, in these years. The rising importance of water treatment is also reflected in the increasing importance of water equipment and chemicals, at a share of the Mexican EGS market of 7 and 10 percent, respectively. Notably, imports of environmental goods are high, contributing 80 percent of all water equipment and chemicals in 2001, and only slightly less (78 percent) in 2006. In the water services sectors, import shares have increased; for water utilities from 33 to 44 percent, and for water treatment works from 33 to a remarkable 66 percent.

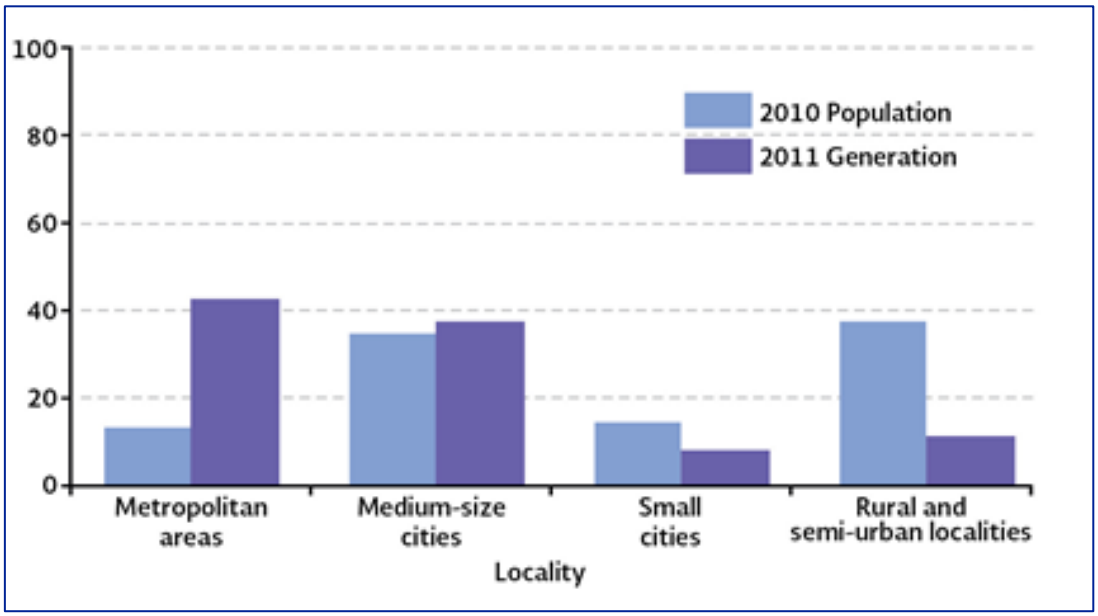
5.1.5. Waste

Municipal solid waste

Municipal waste generation in Mexico increased by 34 percent between 2000 and 2011, faster than economic and population growth. None the less, reflecting lasting differences in income, per capita municipal solid waste (MSW) generation in Mexico is far below the OECD average, at 540 kg per year (an increase from 330 kg in 1995). Large variations exist between urban and rural areas, as well as between income groups.[386]

[383] OECD 2013.
[384] OECD 2013. Budget figures are given in 2011 prices.
[385] OECD 2013.
[386] OECD 2013; SEMARNAT 2008; OECD 2014.

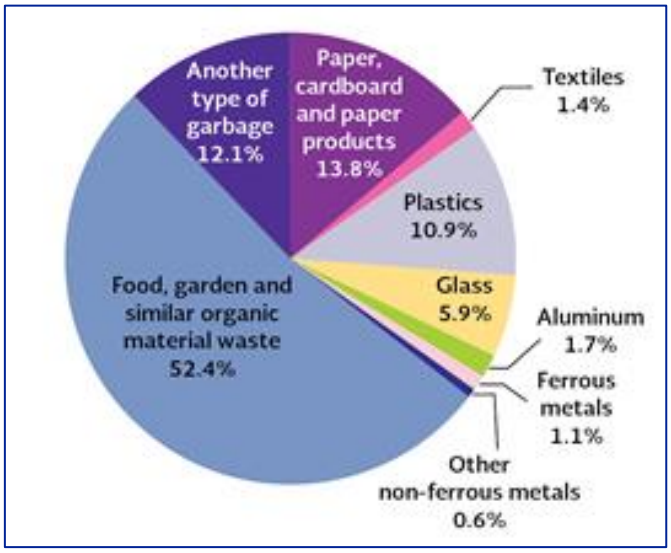
Figure 5.7 MSW generation by type of locality (2011), in %, compared to population



Source: SEMARNAT 2012, *Mexico's State of the Environment Report 2012*.

Roughly half of MSW generated is organic; again, there are differences between regions and income groups, with low-income households having a higher share of organic waste. Of the other significant waste types, many have high recycling potential (e.g. paper, plastics, metals, and glass).

Figure 5.8 MSW composition, 2011



Source: SEMARNAT 2012, *Mexico's State of the Environment Report 2012*.

At federal level, the General Law on Waste Management was adopted in 2003; detailed regulations followed in 2006.[387] The law regulates waste management and procedures for opening and closing waste dumps.[388] Actual responsibility for waste management, however, lies

[387] The instruments included NOM-083-SEMARNAT-2003 for the location, design and operation of disposal sites and the closure of dumps, as well as several related to hazardous waste management (defining characteristics of hazards NOM-052-SEMARNAT-2005, waste management PROY-NOM-160-SEMARNAT-2011, disposal NOM-055-SEMARNAT-2003 and polychlorinated biphenyls NOM-133-SEMARNAT-2000). See OECD 2013.

[388] Emilio Godoy 2012, *The waste mountain engulfing Mexico City*.

with the municipalities. "Between 2007 and 2011 most of the states and more than 250 municipalities issued their respective waste regulations."[389] Waste collection and recycling activities are performed both by municipalities and private parties; the terms and division of responsibilities between them and between different private parties are often unclear, however. This is partly due to the fact that the General Law on Waste Management fails to clarify who owns the waste before it falls under the municipalities' authority — the producer, the collector or the waste dump manager — which makes it difficult to engage in profitmaking garbage activities.[390]

These difficulties help to explain why, although MSW collection rates have increased from 70 percent in 1996 to 93 percent in 2011, recycling rates are still extremely low. They increased from less than 2.5 percent in 1997 to 5 percent in 2011. However, informal recycling activities may play a role alongside formal recycling. According to 2011 data of the officially documented recycling, paper and carton had the highest share in recycled MSW (42 percent), followed by glass (29 percent) and metals (28 percent).[391]

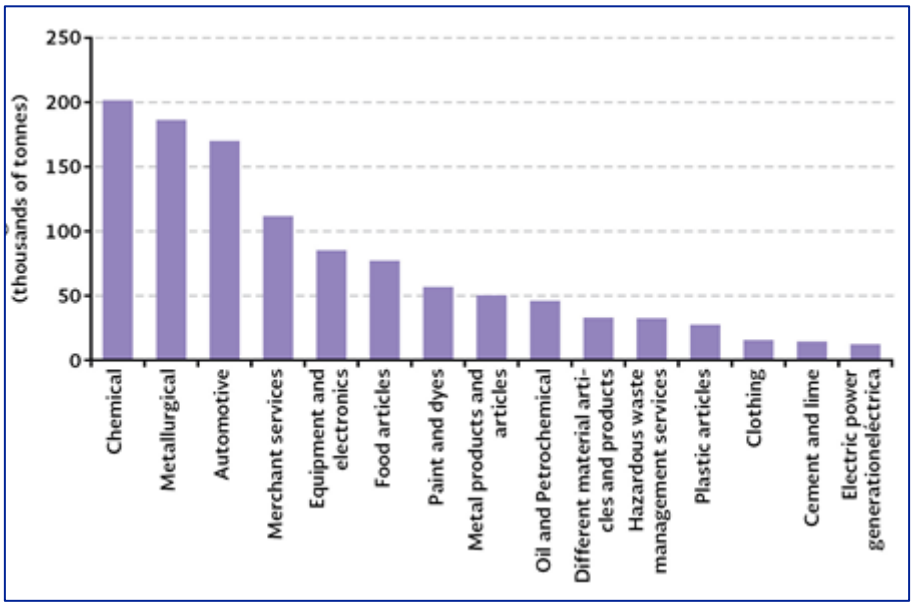
Hazardous waste

Turning to hazardous waste, the data on its generation are difficult to assess, because different estimates arrive at different results and vary between 2.1 and 8 million tonnes per year.[392] The "Registry of Producers of Hazardous Waste" is not available in all states and does not include all hazardous waste producers, and, therefore, its reports are underestimating the actual volumes. The industrial sector operates its own management system in some places, which is not controlled by local authorities and, therefore, their waste generation may not appear in the statistics.[393] The major component is solid waste, which includes, among other things, waste of automotive maintenance, asbestos, fabrics, leather and heavy metals. The main sectors generating hazardous waste are chemicals, metallurgy and automotive.

For the collection and treatment of hazardous waste, the numbers are also inconclusive. According to the OECD (2013), capacity more than tripled since 2000 to 17.6 million tonnes in 2011, thereby exceeding the target set for 2012 in the Programme for environment and natural resources.[394] Similarly, SEMARNAT's state of the environment report of 2008 shows a constant increase in hazardous waste treatment capacity between 1999 and 2008.[395] However, according to the more recent *State of the Environment Report* of 2012, approved installed capacity for hazardous waste management appears to be quite volatile and no clear trend is visible.[396] Due to the uncertainty of the data, no figures on this are reported here.

[389] OECD 2013.
[390] Emilio Godoy 2012, *The waste mountain engulfing Mexico City*; Nathalie Jean Baptiste 2007, *People, Nature & Waste. The Ecological Value of Waste in Urban Areas*. Case of Jiutepec, Morelos, Mexico.
[391] SEMARNAT 2012, OECD 2013.
[392] It should be noted that the data on MSW generation in Mexico has limitations as well, as it is also based on estimates, rather than direct measurements; nevertheless, these estimates appear to be more consistent. See Nathalie Jean Baptiste 2007, *People, Nature & Waste. The Ecological Value of Waste in Urban Areas*. Case of Jiutepec, Morelos, Mexico.
[393] Nathalie Jean Baptiste 2007, *People, Nature & Waste. The Ecological Value of Waste in Urban Areas*. Case of Jiutepec, Morelos, Mexico.
[394] OECD 2013.
[395] SEMARNAT 2008.
[396] SEMARNAT 2012.

Figure 5.9 Hazardous waste generation by sector, 2004-2012



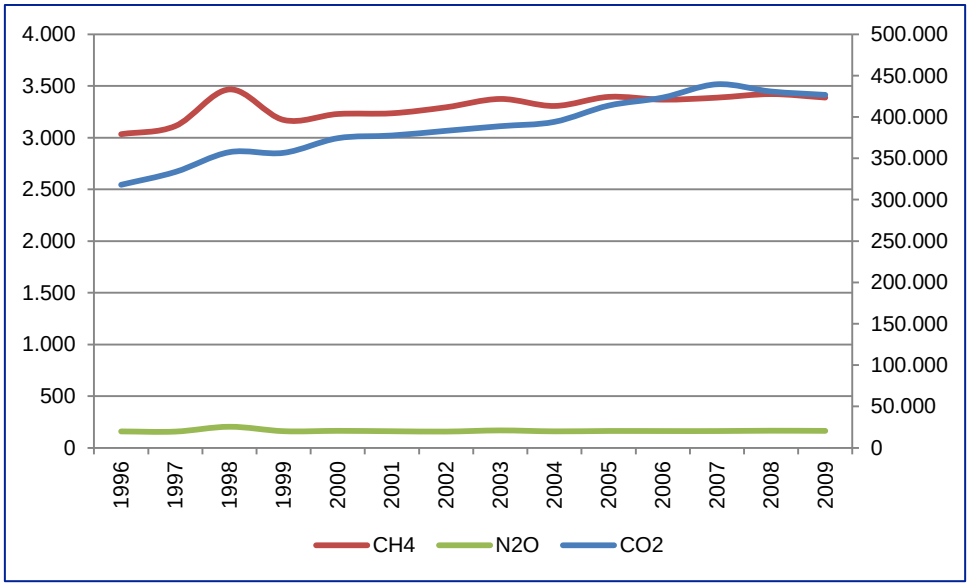
Source: SEMARNAT 2012, *Mexico's State of the Environment Report 2012*.

5.1.6. Climate change

Mexico is simultaneously a large emitter of greenhouse gases, a large supplier of fossil fuels, a vociferous actor on climate change on the international stage, and a country highly at risk from climate change effects.

Emissions and mitigation policies

Figure 5.10 GHG emissions in Mexico, in '000 tonnes; CO_2 emissions shown on right axis

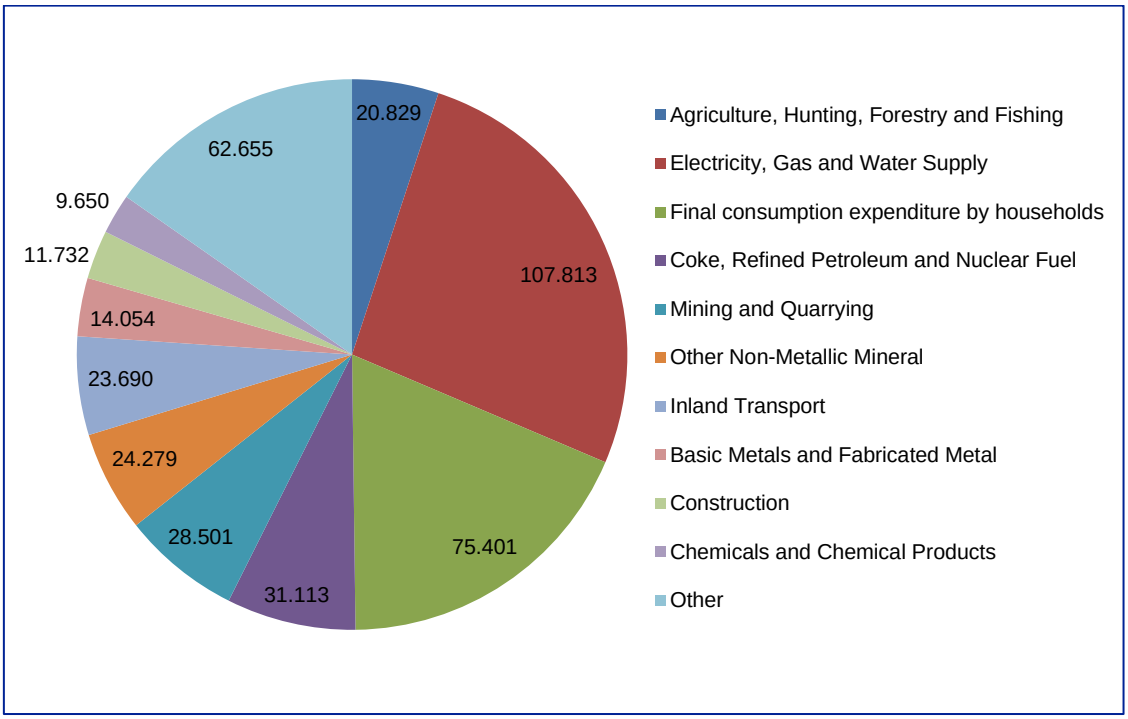


Source: WIOD.

The above data — including only emissions that can be attributed to economic or household activity — indicate that methane and nitrous dioxide have only shown a small increase in the depicted period (by 12 and 3 percent, respectively), while CO_2 emissions have risen significantly (by 34 percent). According to UNFCCC data, CO_2 emissions from Land Use, Land Use Change

and Forestry (LULUCF, not included in the above data) amounted to 69,778,000 tonnes in 2006, equivalent to an additional 17 percent of the CO_2 emissions for that year.[397]

Figure 5.11 Contribution of different sectors to CO_2 emissions in Mexico, 2009 (in '000 tonnes)



Source: WIOD Environmental Accounts.

For the non-LULUCF CO_2 emissions, the major emitting sectors in Mexico are electricity, gas and water supply, followed by final consumption expenditure by households (which includes both private cars and residential fuel use). Other important CO_2 emitters are the refining industry, mining and quarrying, and further metal and mineral processing.

For methane, the largest emitter is agriculture and forestry (2.25m tonnes of CH_4 in 2009), followed by Other Community, Social and Personal Services (789,000 tonnes), which includes waste management and, therefore, the significant emissions of methane from landfilled waste (see also the section on waste management).[398]

Greenhouse gas emissions in Mexico are predominantly linked to the energy sector, as well as the country's various natural resources and their processing, complemented by private fuel use (mainly transport) and some (methane) emissions from waste and agriculture. (Note that agricultural activities also play a large role in emissions from land use change, which are not included in this sectoral data.) The sector shares have not varied greatly over the years; compared to 1995, mining and quarrying as well as construction have gained in importance.

The transport sector is the fastest-growing consumer of energy in the country. The rate of private car ownership increased from 10 to 19 cars per 100 inhabitants in the last 10 years; half of this increase can be attributed to imports of used cars from the US, which are older than 10 years and consequently lag more recent fuel efficiency developments.[399] As mentioned above, the structure of the Mexican fuel tax, which turns into a subsidy if the oil price crosses a certain threshold, is a problem in this context. "According to an OECD estimate, this was equivalent to subsidising CO_2 emissions from transport at a rate of US$234 per tonne of CO_2"[400] in 2008. Other energy subsidies, such as on electricity use, are in place as well; they are meant to

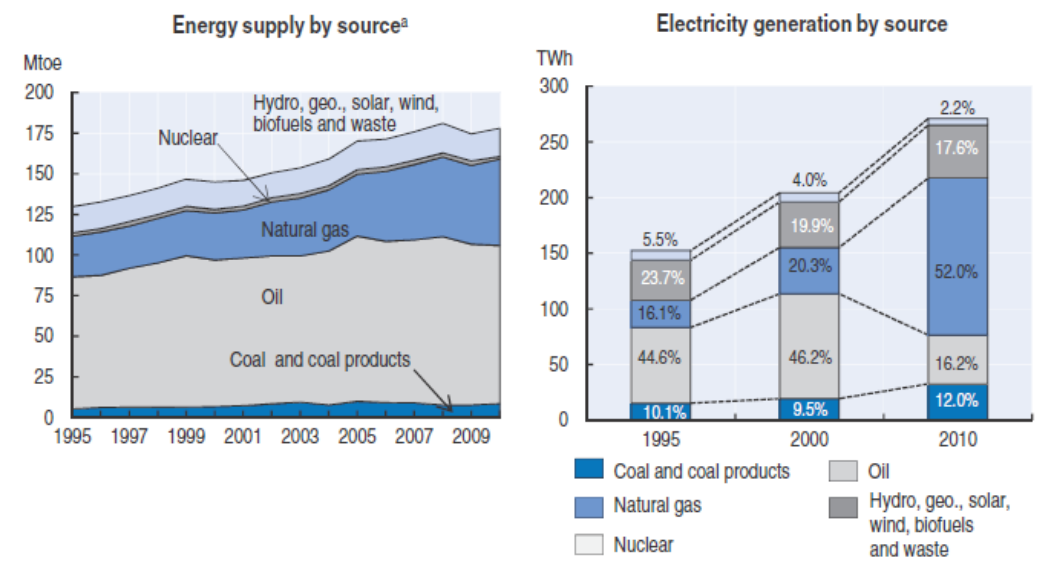
397 See http://unfccc.int/di/DetailedByParty.do.
398 Data source: WIOD Environmental Accounts. See also OECD 2013.
399 OECD 2013.
400 OECD 2013, p. 63.

ensure access to energy services for low-income households, but are inefficient as higher income groups profit disproportionately from these subsidies and this drives up their costs. "In 2008, the energy subsidies cost more than twice the amount spent on anti-poverty programmes and 1.4 times the health budget"[401].

Energy policy

The achievements of Mexican climate policy are interlinked with the country's energy policy. This is related to energy subsidies (as discussed above), renewable energy development, and own fossil fuel extraction. The last is very significant economically; revenues from oil contributed 8 percent of GDP in 2010, and 30 percent of the tax revenues is related to oil production.[402] The use of renewable energy in Mexico increased only marginally between 2000 and 2010; the share of renewables in electricity production even declined. Biomass is the main renewable fuel (48% of overall energy consumption covered by renewables); in electricity production, hydro has the largest share (78%), followed by geothermal energy (14%) — this makes Mexico a world leader in geothermal electricity production — and a very small share of wind energy (2.6 percent or electricity generation from renewables in 2010).[403] Relevant projects under the PECC include a wind power project and the promotion of self-supply projects for electrical energy generation with renewables.

Figure 5.12



a) Total primary energy supply. Breakdown excludes electricity trade.
Source: OECD-IEA (2012), *Energy Balances of OECD Countries.*

Fossil fuel extraction and electricity production/transmission/distribution in Mexico was state-owned and monopolised for decades. These sectors were also some of the notable exceptions for granting FDI access under NAFTA (no private company, domestic or international, was allowed to invest), although, since 1992, there have been some exceptions, such as own electricity generation for industrial use, for example by the cement industry. Independent power producers (IPP) were also allowed, but they were obliged to sell all electricity to the Federal Electricity Commission (CFE), the state-owned electricity company (apart from electricity for own consumption, rural communities or export). Between 1996 and 2011, the share of the private sector — mostly IPPs — in total electricity generation increased from 2 percent to 40 percent, although the CFE was still the main power producer. Most of the new capacity supplied by IPPs were gas-fired power plants; the development of renewables capacity was difficult because of the obligation to sell all electricity to the CFE at a fixed feed-in tariff, leaving renewables uncompetitive.

401 OECD 2013, *OECD Environmental Performance Reviews: Mexico 2013*, p. 76.
402 OECD 2013, *OECD Environmental Performance Reviews: Mexico 2013*.
403 OECD 2013, *OECD Environmental Performance Reviews: Mexico 2013*.

Climate change vulnerability and adaptation policies

Mexico has good reasons for being active on climate change, as its ecosystems and population are highly vulnerable to the effects. According to SEMARNAT's report for its 2009-2012 Special Climate Change Program, 15 percent of Mexico's territory, 68 percent of the population, and 71 percent of GDP are highly exposed to the risk of adverse climate change effects. Apart from increased temperatures, potential effects include changes in rainfall patterns (reduced rainfall in the north, heavy seasonal rainfall in the south), with drought and flood risks, and increased hurricane activity and intensity.[404] Sea level rise is expected to be "more dramatic than the global average"[405] along the Gulf of Mexico; it would inundate wetlands and lowlands, erode beaches, and increase the salinity of rivers and aquifers. The population would be directly affected by increased coastal flooding and by the threatened coastal structures.[406] Ecosystems would suffer from these changes, particularly forests in arid zones and marine ecosystems.[407] Ocean acidification (also caused by CO2 emissions) additionally endangers coral reefs.

5.1.7. Green growth and environmental goods and services

This section looks at two special links between the economy and the environment: first, the relationship between economic growth and environmental performance is considered; in the context of "green growth", the attempt to decouple economic growth from the depletion and degradation of resources. However, there is also a clear positive link between the economy and the environment, namely in the so-called Environmental Goods and Services "sector". The most important Environmental Services sectors in Mexico, as in most of the world, are water and waste management, together accounting for 59 percent of the "environment market" in Mexico (this market includes environmental goods production in addition to services, but services usually have the larger share)[408].

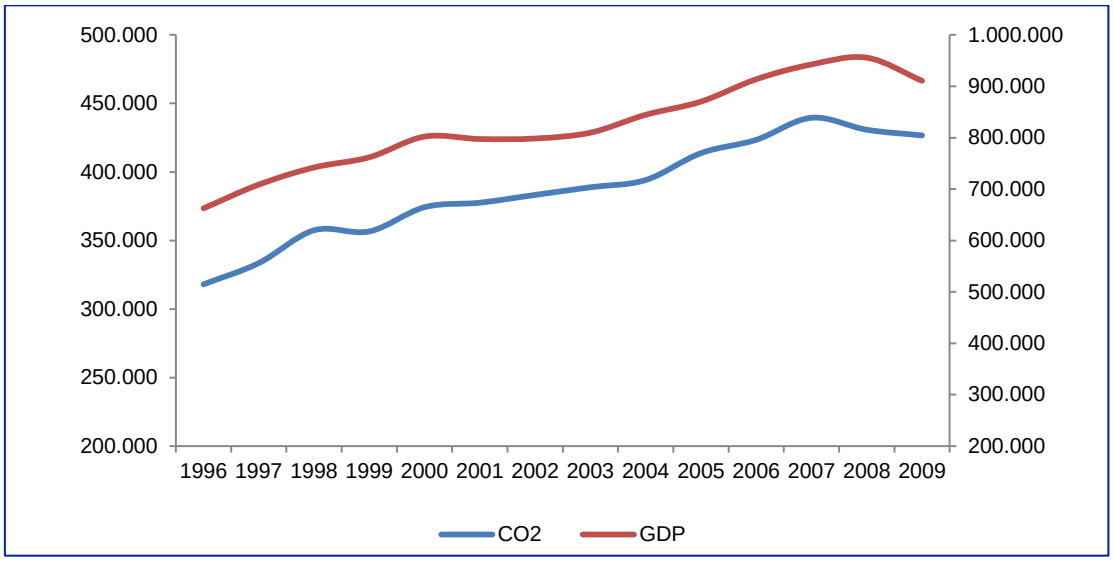
The two concepts are related in that improved environmental goods and services provision lead to "greener" growth, i.e. improved resource efficiency and reduced environmental impacts, while generating economic opportunities from EGS. In this sense, green growth indicators are a way to show how well the EGS sector is working. However, both issues are influenced by different kinds of policies, which need to be taken into account.

Green growth

Plotting CO_2 emissions against GDP for Mexico, it becomes clear that a decoupling of GHG emissions and economic growth has not been achieved until 2009: both are closely related. CO2 intensity per unit of GDP increased slightly between 2000 and 2009.[409]

[404] SEMARNAT 2009, Programa Especial de Cambio Climático 2009-2012; SEMARNAT 2014, Special Climate Change Program 2014-2018.
[405] Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem Project 2011, Transboundary Diagnostic Analysis, p. 28.
[406] Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem Project 2011, Transboundary Diagnostic Analysis.
[407] SEMARNAT 2014, Programa Especial de Cambio Climático 2014-2018 (PECC). Índice general.
[408] OECD 2013, *OECD Environmental Performance Reviews: Mexico 2013*.
[409] Author's calculation, based on WIOD and WDI data.

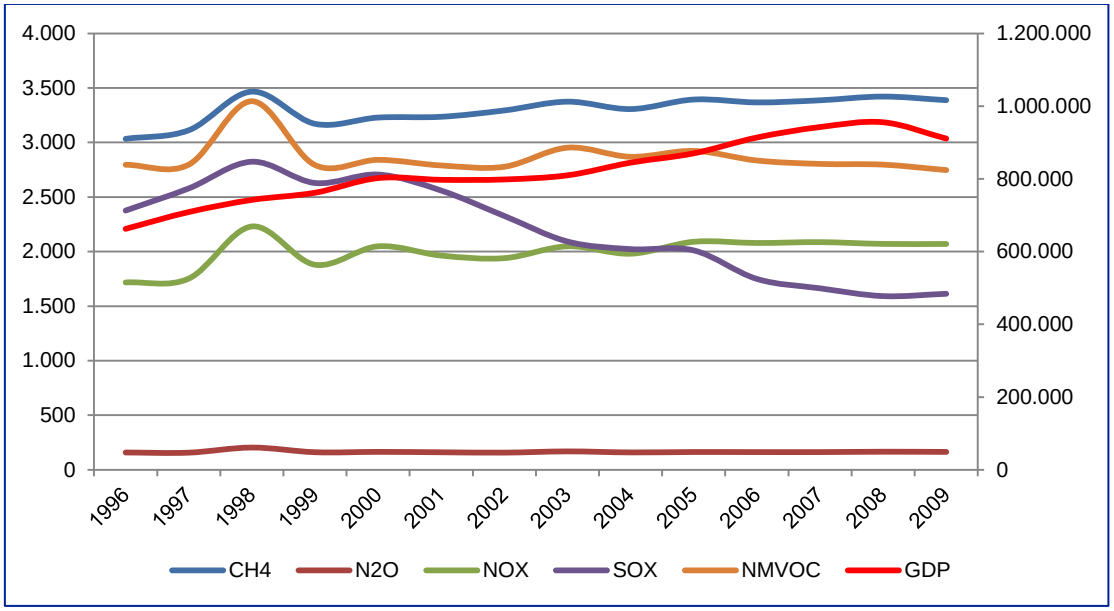
Figure 5.13 CO_2 emissions and economic growth, 1996-2009; GDP on right axis



Emissions in '000 tonnes shown on left axis, GDP in millions of constant 2005 dollars shown on right axis.
Sources: WIOD Environmental Accounts, World Bank WDI.

For most air pollutants, however, the picture is different: despite economic growth, they stayed roughly constant over the years. This can be attributed to two facts: first, to avoid most air pollutants, end-of-pipe technologies are available; this allows their mitigation without changing economic structure and operations, as is the case for CO_2 emissions. Second, as outlined above, the agricultural sector is a large emitter of many of the pollutants shown, but does not contribute a large share of GDP; therefore, there is a limited relationship between the two indicators. By contrast, CO_2 emissions come to a much larger extent from industrial and household activities and are, therefore, more closely related to GDP and welfare. In order to tackle environmental issues that are related to economic activity, therefore, Mexico needs to use economic policies (taxes, charges, subsidy reductions), which will reduce the environmental impact of the activities.

Figure 5.14 Air pollutant emissions and economic growth, 1996-2009; GDP on right axis



Emissions in 1,000 tonnes shown on left axis, GDP in millions of constant 2005 dollars shown on right axis.
Sources: WIOD Environmental Accounts, World Bank WDI.

Notably, most "green growth" efforts in Mexico mentioned by OECD and UNEP are related to GHG emission reductions.[410] The Special Climate Change Programme (PECC, described in the section on climate change) is seen as the cornerstone of green growth, and the development of renewable energy — particularly wind power — is presented as the main success story. (Interestingly, the 2014 PECC original draft included a reference to geothermal energy, in particular, but this was replaced by more general wording in the final version, mentioning renewables. There seem to be unresolved issues, most likely between ministries, as regards the types of renewable energy to focus on.[411]) In the Mexican context, the issue of "green economy" is understood as a twofold aim to combat both climate change and poverty, and President Felipe Calderón has made clear that he does not want to view this as a dilemma.[412]

However, in Mexico many environmental resources and services (in addition to the atmosphere also water, air and soil) are insufficiently or inadequately priced, often due to poverty concerns.[413] For instance, water abstraction for agriculture is "virtually free of charge"[414], and, in general, water tariffs do not reflect the level of water stress in the area (i.e. externalities are not reflected in the price), and only a few municipalities charge for waste services. Price signals that reflect the environmental cost of the use of water, and the environmental benefit of sound waste management, would provide incentives to act in a "greener" way in everyday economic activities.

Environmental goods and services

The lack of a market for environmental services due to insufficient price signals leads us to the next topic, environmental goods and services (EGS). Liberalisation of trade in these goods and services has been the subject of international trade talks for quite some time, and there have been several unilateral and plurilateral initiatives to define environmental goods and to reduce applied tariffs. The main classifications still used are those proposed by the OECD, APEC and UNCTAD; the APEC list of environmental goods, in particular, was connected to a political initiative by APEC states to unilaterally reduce trade barriers in these products. In addition, several "climate-friendly goods" lists have been developed (by the World Bank and ICTSD, for instance), and different countries and country groups have submitted environmental goods for discussion in the WTO.[415]

Based on these developments, the more recent "Green Goods Initiative" for a "Trade in Environmental Goods Agreement" under the WTO brings together a group of industrialised and developing countries (both APEC and others)[416] and is currently negotiating on sectors to be covered.

Environmental services so far have hardly been covered in international trade talks; the Trade in Environmental Goods Agreement is foreseen to become a "living agreement", to which services can later be added. This would also allow to be taken into account potential technology developments, i.e. new environmental goods. Both issues are examples of the problems with the classification of environmental goods in general; another one is "dual use" of goods, which may or may not serve an environmental purpose, or the related issue of a sub-product of a certain product category being identified as an environmental good, while only the main category can reasonably be included in statistics and national tariff lines. Another issue with

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410 UNEP Green Economy Advisory Services, http://www.unep.org/greeneconomy/AdvisoryServices/CountryProfiles/Mexico/tabid/104141/Default.aspx; OECD green growth information, http://www.oecd.org/greengrowth/greengrowthinactionmexico.htm.

411 http://switchboard.nrdc.org/blogs/amaxwell/guest_blog_inspecting_mexicos.html.

412 UNEP Green Economy Advisory Services, http://www.unep.org/greeneconomy/AdvisoryServices/CountryProfiles/Mexico/tabid/104141/Default.aspx.

413 See for the following paragraphs, unless otherwise noted: OECD 2013.

414 OECD 2013, *OECD Environmental Performance Reviews: Mexico 2013*.

415 See Enrique Lendo 2005, Defining Environmental Goods and Services: A Case Study of Mexico; or Mahesh Sugathan 2013, *Lists of Environmental Goods: An Overview*.

416 Australia, Canada, China, Costa Rica, Chinese Taipei, the EU, Hong Kong (China), Japan, Korea, New Zealand, Norway, Switzerland, Singapore, United States. See http://trade.ec.europa.eu/doclib/press/index.cfm?id=1116. Further WTO members have reportedly shown interest: Chile, Peru and Turkey, see http://www.ictsd.org/bridges-news/biores/news/environmental-goods-agreement-trade-talks-move-forward.

trade liberalisation in environmental goods and services is the question of non-tariff measures; so far, talks and negotiations have only covered tariffs.[417]

In non-trade statistics, EGS classifications serve a broader purpose, namely to scope the size of the environmental sector in a particular country, or worldwide. The abovementioned OECD list of EGS was developed from that perspective, based on joint work with Eurostat.[418] The difference in angle has implications for the definitions; national statistical classifications of EGS are much broader because they do not need to take into account the compatibility of a particular category with trade statistics, and they are not the results of negotiations connected with a direct political commitment to lower tariffs. Different from the APEC list and the current negotiations, such classifications also include services. Notably, under services trade negotiations, environmental services show up as well. Following similar categories, as in environmental goods lists, environmental services are classified under air pollution services, water management services, etc.[419] Discussing environmental goods and services separately in different forums is indeed useful, since the trade barriers to goods and services are quite different and require different approaches.

Both the trade and the environmental sector and services aspects are of interest in the context of this study. As already mentioned in the sections on waste and water, the management of these two environmental issues is the most important environmental (service) industry in Mexico (as in most of the world), and their size has increased. However, environmental goods (which have a smaller share of the EGS market) is where trade rules can have the most direct and measurable effect. It should be noted that environmental goods usually support the provision of environmental services, and there is consequently a link between the two.[420]

Turning to EGS trade, it was fostered in Mexico even before the APEC initiative by a move to unilaterally put a zero tariff on imported anti-pollution equipment that was not competing with locally manufactured equipment.[421] Mexico is one of the world's largest importers, and an important exporter, of environmental goods: in 2012, Mexico exported US$ 8.8 billion worth of EGs and imported US$15.5 billion (based on APEC list goods), making it the 8th-largest exporter and the 6th-largest importer worldwide.[422] The downside of Mexico's trade deficit is that a "widespread preference for imported technology has hindered technology diffusion and transfer to Mexican firms, particularly small and medium-sized enterprises."[423] The main environmental goods exports from Mexico include fluorescent lamps and multi-layered insulating glass windows. Mexico is also internationally competitive in equipment for monitoring air quality and atmospheric emissions, and in services to optimise energy use in industrial processes.[424]

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417 See, for example, Jaime de Melo 2014, *The launch of an environmental goods agreement: a timid agenda*; Mahesh Sugathan 2014, *The road ahead for the environmental goods agreement talks*.

418 See Steenblik, R. 2005, Environmental goods: a Comparison of the APEC and OECD lists, and Mahesh Sugathan 2014, *The road ahead for the environmental goods agreement talks*.

419 See http://www.wto.org/english/tratop_e/serv_e/environment_e/environment_e.htm. See also Ron Bisset et al. 2003, Sustainability impact assessment of proposed WTO negotiations: environmental services with particular reference to water and waste management. Final Report, commissioned by DG TRADE.

420 In a very strict sense, one could argue that environmental goods as such do not exist – only environmental services exist, which are supported or made possible by certain goods that can be called environmental.

421 OECD 2013.

422 Based on UN COMTRADE data, see Terence P. Stewart 2014, Environmental goods trade talks — The challenges and the opportunities. Within APEC, Mexico is the 5th-largest importer and the 7th-largest exporter; see Rene Vossenar 2013, *The APEC list of environmental goods: An analysis of the outcome and expected impact* (based on COMTRADE / WITS data.

423 OECD 2013.

424 Enrique Lendo 2005, *Defining environmental goods and services: A case study of Mexico* and Joachim Monkelbaan 2011, *Trade preferences for environmentally friendly goods and services.*

Table 5.1 EGS market in Mexico

	Mexican market[a] (% of total)		Mexican industry[b] (% of market)	Number of Mexican companies[c]	Imports (% of market)	
	1995	2006	2006	2006	2001	2006
Equipment						
Water equipment and chemicals	7	10	22	200	80	78
Air pollution control	6	4	29	100	75	75
Instruments and information systems	1	2	11	30	90	90
Waste-management equipment	4	5	71	300	40	40
Process and prevention technology	-	1	80	30	20	20
Services						
Solid waste management	16	15	73	1 200	20	28
Hazardous waste management	1	2	56	350	40	40
Consulting and engineering	4	4	50	900	50	50
Remediation/industrial services	8	7	43	120	60	60
Analytical services	-	1	67	70	40	40
Water treatment works	17	19	34	2 340	33	66
Resources						
Water utilities	25	20	57	1 360	33	44
Resource recovery	6	6	21	1 200	70	80
Clean energy systems and power	5	5	17	100	80	86
Total	**100**	**100**	**45**	**8 300**	**46**	**56**
Total (% GDP)	**0.4**	**0.6**	**0.3**			

a) Revenue from Mexican customers of all companies worldwide.
b) Revenue generated by Mexican companies as a share of the Mexican environmental market.
c) Includes enterprises of the public sector, mostly in water, wastewater and waste management.
Source: Ferrier (2010), graphical presentation by OECD (2013).

Under the APEC EGS initiative, Mexico has committed "to reduce by the end of 2015 our applied tariff rates to 5% or less, taking into account economies' economic circumstances, without prejudice to APEC economies' positions in the WTO. Economies will also eliminate non-tariff barriers, including local content requirements that distort environmental goods and services trade."[425] It is unclear whether this will lead to a significant change, since most national tariff lines for environmental goods are below 5 percent already: the simple average tariff on APEC-defined EG in Mexico is 2.3 percent, and only 4.3 percent of Mexican EG imports face tariffs higher than 5 percent. Among those products are, notably, wind power electricity generating sets, as well as non-electric water heaters (which include solar water heaters).[426] Moreover, there is no clear path for a commitment on NTBs. In contrast to other APEC members, Mexico currently is not part of the Trade in Environmental Goods Agreement initiative, nor does the EU-Mexico agreement include any specific provisions on EGS.

Finally, there is another way to classify EGS in a trade context, namely by broadening the scope to include Environmentally Preferable Products — which, in terms of their use, are equivalent to their "non-environmental" counterparts, but they are produced in an environmentally friendly way. Such products can be differentiated from other goods by labelling schemes. They would notably include agricultural products, which have, so far, been absent from EGS talks due to the difficulty of differentiating organic and sustainable products from other products.

Organic farming has indeed been increasing in Mexico, particularly between 1996 and 2001, mainly driven by foreign demand; more than 12 major sustainable agriculture certification schemes are used to export such products to the US, Canada, Japan, Western Europe and Australia. Sustainable coffee is the most important agricultural product. Other Environmentally Preferable Products relevant to Mexico could include sustainable tourism, as well as forestry and

[425] http://egs.apec.org/.
[426] All data for 2011. See Rene Vossenar 2013, The APEC list of environmental goods: an analysis of the outcome and expected impact.

fisheries. For example, hotels can be granted environmental certificates (the first was granted in 2002). Fisheries have adopted certification/labelling schemes, e.g. indicating that tuna is "dolphin safe" (since 2001).

Several authors have argued that including such products in a liberalisation scheme could help Mexico achieve its sustainable development goals, environmental as well as social.[427] Clearly, "liberalising" trade in these goods is not a straightforward issue. "However, as most organic and sustainable (…) produce require labelling and certification, streamlining certification procedures for these products, reducing labelling confusion, and assisting developing countries (…) could be ways of expanding opportunities and challenges for existing and potential exporters of these products from developing countries."[428]

5.2. Assessing environmental impacts of the FTA

5.2.1. Ex-post environmental analysis: attribution of trends to the existing FTA

The actual environmental analysis of the FTA aims to single out which of the developments described in the analysis can be attributed to the FTA. In general, the environmental impact assessment of the FTA takes three impact channels into account:

- First, the implications for environmental externalities and resource use associated with **economic activity** triggered by the FTA.
- Second, **regulatory effects**, as the harmonisation of regulation and standards can mean an upgrade of environmental protection in Mexico (although it should be noted that these can hardly be derived from the FTA as such; rather, the FTA could strengthen or speed-up ongoing processes).
- Third, **increased trade** may also stimulate trade in environmentally friendly goods (such as green technology) and environmentally unfriendly goods (such as fossil fuels), or increase transport.

The assessment uses a combination of quantitative and qualitative analysis to attribute some of the trends described in the baseline for the FTA.

Overall, a couple of issues are worth noting when looking at the impacts of the EU-Mexico FTA on the environment.

Dominant influence of NAFTA

As for all effects of the FTA, the environmental effects are small compared to the effects of NAFTA. Moreover (and related to the first point), the literature on the effects of the FTA on Mexico focuses largely on the effects of NAFTA. Even then, with an agreement that has profoundly affected Mexico's economic and trade structure, the environmental effects are not fully clear. The evidence of Mexico becoming a "pollution haven" due to NAFTA is inconclusive: "the amount of dirty industry decreased more in Mexico than in the United States"[429], but other accounts do report NAFTA-induced negative effects, such as toxin leakages from *maquiladora* factories, and point out the more general issue of increasing waste water and air pollution problems due to economic and trade growth.[430] It also has to be noted that, in some particular areas, the effects of NAFTA have been quite pronounced, such as in Mexico's rapidly increasing maize imports from the US, including genetically modified varieties.[431]

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427 Enrique Lendo 2005, *Defining environmental goods and services: a case study of Mexico*; Joachim Monkelbaan 2011, *Trade preferences for environmentally friendly goods and services*; Mahesh Sugathan 2013, *Lists of environmental goods: an overview*.
428 Mahesh Sugathan 2013, *Lists of environmental goods: an overview*.
429 Kevin P. Gallagher 2004, *Free trade and the environment: Mexico, NAFTA, and beyond*.
430 Sierra Club (n.d.), *NAFTA's impact on Mexico*.
431 Timothy A. Wise 2007, *Policy space for Mexican maize: protecting agro-biodiversity by promoting rural livelihoods*.

NAFTA did not induce the expected progress in the regulatory sphere to deal with these problems. Even though Mexico invested in environmental protection in the lead up to NAFTA,[432] "shortly after NAFTA was signed and fiscal and financial woes set in, attention to the environment nose-dived"[433]. And, while NAFTA included a significant side agreement on the environment, its effects are limited as well; the North American Commission for Environmental Cooperation (NACEC) "has been effective in carrying out its limited mandate, enabling citizen groups to monitor environmental progress and convening cross-national information sharing and research efforts in North America"[434], but was not equipped to address the fundamental problem of managing Mexico's economic growth in a sustainable manner.

When analysing the environmental impact of the EU-Mexico FTA, it is important to bear in mind that NAFTA had a much larger effect on trade, the economy and environmental damage and regulation in Mexico; and, even for NAFTA, the evidence is often inconclusive. While the CGE model analysis and all quantitative analyses based on it can take the NAFTA influence into account, all qualitative attributions of effects to the EU-Mexico FTA need to be seen against this background.

FTA vs. Global Agreement and other FTAs and BITs

The task of this analysis is to look at the effects of the FTA on the environment. The FTA is, however, linked to the GA, which is a much broader effort at cooperation, including on environmental issues.[435] However, it is the FTA that has binding provisions and its effects should be the core of the analysis. The analysis will, therefore, focus on the effects of the FTA, being aware that sometimes it is difficult to identify the real cause for some developments. Especially for regulatory changes, it is rather unlikely that their introduction is a response to the FTA — they might be connected to the GA, other international obligations, or domestic considerations. Of course, the indirect, "soft" linkages and the mutually reinforcing nature of the various agreements and collaboration initiatives under the GA are sometimes worth mentioning, but the precise influence of the Trade Agreement as such within this web of dialogues is impossible to single out.

It should also be noted that the EU-Mexico FTA and the GA are less ambitious in terms of binding environmental commitments than other comparable FTAs; e.g. they do not include an obligation to enforce domestic environmental law or a formal environmental dispute settlement mechanism (such as the US-Chile FTA, for example).[436] Also, investment provisions in the EU-Mexico FTA "remain very weak in substance, except for the detailed opening commitments in the financial services sector"[437]. This means that, to date, outside of financial services, FDI of EU countries in Mexico was covered under 16 comprehensive Bilateral Investment Treaties (BITs) with EU member states, but was not related to the FTA.

5.2.2. Natural resources, ecosystems and biodiversity

Natural resources

According to the CGE model, the FTA has had a decreasing effect on fossil fuel extraction and other primary industries in Mexico (-0.08 percent in output in fossil fuel extraction, -0.43 percent in other primary sectors, including mining and forestry) and, as a consequence, on natural resource depletion. The agreement has had an effect on land use intensity in Mexico, increasing it by 0.13 percent.

Fisheries activities in Mexico have increased by 0.04 percent because of the agreement according to the modelling results. However, this is less than the calculated increase in GDP; consequently, the fisheries intensity indicator given by the model increased by only 0.02 percent. Although the agreement includes a review clause on agricultural and fisheries products

[432] See also Carlos Murillo Rodríguez 2008, La cooperación ambiental en los tratados de libre comercio (Environmental cooperation and free trade agreements).
[433] Kevin P. Gallagher 2004, *Free trade and the environment: Mexico, NAFTA, and beyond*.
[434] Kevin P. Gallagher 2004, *Free trade and the environment: Mexico, NAFTA, and beyond*.
[435] See e.g. the Joint Communiqué of 12th Joint Committee meeting under the GA, where parties note successful dialogues on environment and climate change, and discuss investments in wind power.
[436] See e.g. http://www.ustr.gov/about-us/press-office/fact-sheets/archives/2001/december/free-trade-chile-summary-us-chile-free-trade.
[437] European Commission 2014, *Restrictions on Foreign Direct Investment in Mexico*.

for renegotiation after three years, not much has happened in this respect. Only the specific case of a preferential tariff rate quota for tuna loins has been implemented. However, the Mexican project for facilitation of the FTA (Proyecto de Facilitación del Tratado de Libre Comercio entre México y la Unión Europea, PROTLCUEM) did include a pilot tracking system in two chains of seafood products (wild shrimp and aquaculture).[438] In addition, a technical assistance project was implemented with courses on legal fishing certificates. These measures were implemented to ensure the marketability of the products in the EU. In addition, they may have had an effect on the sustainability of the fishery sector through a reduction in illegal fishing and an improvement of data on catches. These are typical examples of EU product standards affecting environmental performance in a country exporting to the EU. It should be noted, however, that these measures are not a legally required part of the FTA, but were implemented as part of a facilitation project triggered by the FTA.

Environmental degradation is another issue related to natural resources and ecosystems and will largely be covered in the sections on water, waste and air pollution. It can be noted that the effects of a reduction in the forestry sector are ambiguous, since a functioning forestry sector may be able to prevent forest conversion or even contribute to forestation, and can affect forest quality both positively and negatively. Also, the main threat to forests in Mexico is the agricultural sector, which is much more important in terms of output than the forestry sector (see also the following section on ecosystems).

Ecosystems

Looking at ecosystems, as outlined in the descriptive section, they are mostly affected by the development of economic activities that put pressure on them, including agriculture, tourism, and energy; the forestry and fisheries sector mentioned above, is important to consider in an ecosystems context as well.

Notably, most agricultural activities are estimated to have declined in Mexico because of the FTA; only milk and dairy products have increased, which may have contributed to forest conversion (for livestock production) and soil degradation (due to overgrazing). The reduction in extractive industries can be considered to have had a positive impact on ecosystems (all other things being equal). Tourism is not covered as such in the CGE model, only as part of a larger sector including also public services, such as education, healthcare and waste water management, which, as an aggregate, contributes a large share of the Mexican economy, and has increased slightly further due to the FTA (+ 0.19 percent).

It is hard to draw a conclusion on the environmental impact of this sector, since the reduction in extractive industries would be a positive effect, whereas increased tourism usually puts pressure on ecosystems (although the pressure may be less in the case of eco-tourism). Given these both positive and negative effects of the FTA on ecosystems, the net impact is unclear, but, considering the size of the FTA-related changes in sector output, it is estimated to be very small.

Biodiversity

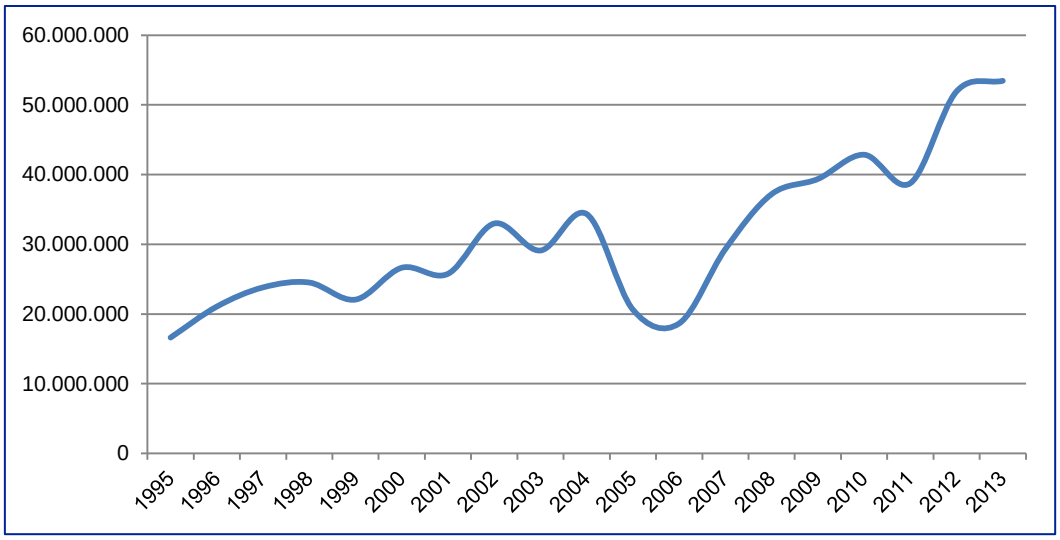
First of all, the FTA affects biodiversity through its effects on ecosystems, especially in the biodiversity hotspots; as outlined above, these impacts have been mostly ambiguous — fishing has increased due to the agreement, but may have become more sustainable. It is difficult to say anything about the forestry sector, as the sector aggregation with the model reports it together with mining; this combined sector has decreased its output, with unclear effects on ecosystems and biodiversity; and, finally, most agricultural activities have shown a decline due to the FTA, which reduced pressure on ecosystems and biodiversity. One could, however, also argue that, if Mexico had exported more agricultural products to the EU (as opposed to elsewhere), adherence to EU requirements or voluntary standards common in the EU may have contributed to more sustainable production.

An example for Mexican producers trying to meet EU requirements, relevant in a biodiversity / GMO context, is honey. Honey is a relevant product in Mexico-EU trade – roughly 70 percent of

[438] Proyecto de Facilitación del Tratado de Libre Comercio entre México y la Unión Europea, PROTLCUEM (Facilitation Project of the Free Trade Agreement between Mexico and the European Union) (n.d.): Resultados e impactos del PROTLCUEM (Results and impacts of PROTLCUEM).

Mexican honey exports (in value terms) go to EU countries[439] – and it is a product where it is hard for producers to influence the GM content. The EU-Mexico FTA includes provisions on Mexican honey exports: it reduced the tariff duty, at least for a quota of 30,000 tonnes, to 50 percent of the MFN/GSP rate. (Mexican honey exports to the EU have, to date, stayed below this quota, peaking at around 24,000 tonnes in 2013).[440]

Figure 5.15 EU honey imports from Mexico, in €



Source: Eurostat, EU trade since 1988 by HS2-HS4 (DS-016894), HS code 0409, Natural honey. Data are for EU-15, but do not change if the countries of the different enlargement rounds are added (data appear to be dominated by Germany and the UK, with minor imports by Spain, France, Italy, and the Netherlands).

From the data, the influence of the agreement is not very clear. Exports already increased before the FTA, and there was a noticeable drop in 2005-2006, despite the agreement (although this seems to follow the general decrease in EU honey imports during those years).

The European Court of Justice ruled that honey which contains trace amounts of pollen from GM crops authorised for human consumption in the EU must be labelled if the amount of GM pollen surpasses 0.9 percent. Because of this ruling, and since GM soybeans may now be planted commercially in Mexico without area restrictions, all honey shipments from Mexico must undergo laboratory testing to identify and quantify the type of GM presence. As a result, Mexican honey producers are faced with paying for the mandatory testing and, if found to have more than 0.9 percent GM pollen, new labelling before their products can be sold to European consumers.[441] This has led to the interesting case that an EU regulation has created a group of stakeholders in Mexico opposing the government's approval of GM cultivation.

The case of GM honey is, therefore, an example of EU regulations influencing agricultural production processes, or at least the debate about them. Again, it should be noted that the major drivers behind GMO cultivation and other policies affecting biodiversity in Mexico are domestic and/or NAFTA-related.

Summarising, the sectors in Mexico affecting biodiversity are impacted by the agreement as follows, based on the modelling (see Chapter 3):

- The forestry and mining sector has decreased its output, but, as we cannot establish to what extent this is the case for both subsectors, the effect on biodiversity (and ecosystems) is unclear.
- Agricultural activities have declined due to the FTA; therefore, the impact of agriculture on ecosystems and biodiversity has been reduced.

[439] Source: WITS/UN Comtrade.
[440] Source: WITS/UN Comtrade.
[441] USDA Foreign Agricultural Service 2012, Mexico cautiously moves forward with biotechnology, *Mexico Agricultural Biotechnology Annual*, Global Agricultural Information (GAIN) Report No. MX2051.

- The fishing sector has increased its output, but may have become more sustainable.

Given these both positive and negative effects of the FTA on biodiversity, the net impact is unclear, but, considering the size of the FTA-related changes in sector output, it is estimated to be very small.

5.2.3. Air pollution

This section provides a quantitative assessment of the impact of the FTA on Mexico's emissions of classical air pollutants, based on the results of the CGE model. The quantitative simulations only take direct effects of economic activity on emissions of air pollutants into consideration. Therefore, indirect effects related to economic development, such as improved technology or shifts in preferences towards emission abatement are not taken into account. Since these indirect effects are expected to have a reducing effect on emissions, the estimates below can be considered as the upper limits of FTA-induced emission change.

The FTA has affected both the volume of economic activity for the different sectors, as well as the composition of the overall economy. Both these changes affect emissions volumes, therefore the FTA-induced changes have been split into two components, labelled the scale effect and the composition effect. The scale effect expresses the increased volume of emissions due to an increase in economic activity. The composition effect expresses a change in emissions due to a change in sector composition of the economy. For details on the methodology and aggregation method, please refer to Annex D.

According to the GCE results and estimation of the impact of emissions, the FTA contributed to a reduction in some air pollutants, most notably in the emissions of sulphur oxides, and an increase in others, but the effects are quite small. The overall impact of the FTA on the classical air pollutants, including baseline values for emissions, is presented in the table below.

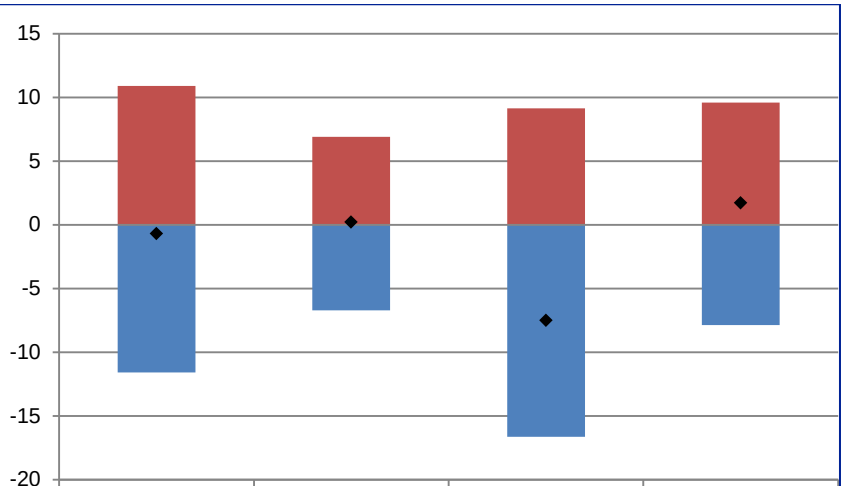
Table 5.2 Baseline values and FTA-induced changes of air pollutant emissions, in '000 tonnes

	CH_4	NO_X	SO_X	NMVOC
Baseline level	3,229	2,049	2,706	2,841
FTA-induced change	-0.70	0.20	-7.50	1.71
FTA-induced change (in %)	-0.02%	0.01%	-0.28%	0.06%

Source: Authors' calculations based on CGE results and WIOD database. Data refer to yearly emissions.

Figure 5.16 shows the total effect divided into scale and composition effects. As can be seen, the composition effect more than compensates for the scale effect in the case of CH_4 and SO_x. Most anthropogenic SO_x emissions in Mexico come from the agricultural, electricity and petrochemicals sectors, which all have reduced output because of the FTA.

Figure 5.16 Decomposition of FTA-induced change in emissions of classical pollutants in Mexico ('000 tonnes)



	CH4	NOX	SOX	NMVOC
Scale effect	10,89	6,91	9,13	9,58
Composition effect	-11,60	-6,71	-16,63	-7,87
Total effect	-0,70	0,20	-7,50	1,71

Source: Authors' calculations, based on CGE results and WIOD database. Data refer to changes in yearly emissions.

In the case of NMVOCs, there was a reducing effect due to the FTA-induced contraction in the petrochemicals and agricultural sectors; however, a large share of NMVOCs is emitted by private households, and their activities were assumed to be in line with GDP (and therefore with the scale effect).

Overall, it becomes clear that the influence of the FTA on air pollution has been rather limited, which reflects its small impact on economic developments compared to other drivers.

Apart from these impacts through the economic channel, air pollution effects through the trade channel, namely increased transport, are noteworthy. According to the CGE model, land transport decreased by 0.04% due to the agreement. Water and air transport increased by 0.06% and 0.17%, respectively; this can be assumed to have increased NMVOC, black carbon, SO_2, NOX and CO emissions, but with impacts largely outside Mexican (or EU) borders. According to the CGE model, the worldwide CO2 emissions have increased by 0.6m tonnes because of the FTA (see also under climate change). Given the large amount of CO2 emissions worldwide, this change is zero when expressed as a percentage.

It is unclear whether there have been any regulatory effects of the FTA regarding air pollution. Clearly, trade and production of transport equipment has increased because of the agreement, but, to the authors' knowledge, no clear efforts have been made to bring Mexican vehicle emission standards into line with EU standards.

Another interesting issue is whether increased trade in environmental goods and services may have contributed to improved air quality — improved filters or waste management are a trade-induced type of "technology improvement" that cannot be captured in the above quantitative calculations, but may have played a role. Their impact is assessed in section 5.2.7 in the paragraphs on environmental goods and services.

5.2.4. Water

Looking at water scarcity, the effect of the FTA can be assumed to have been generally positive: agriculture clearly is the main water user, and the FTA had a reducing effect on agricultural output, based on the CGE modelling results. Hydroelectric power plants are also major water consumers due to evaporation; according to the CGE results, output in the electricity, gas and water sector has decreased because of the FTA as well. Whether this leads to a result in water

use is dependent on whether this decrease in output affected all utilities (electricity, gas, water) equally, or in different ways, and to what extent hydro decreased. Summarising, the effect of the FTA on water and water quality is mainly indirect, through changes in sectoral output and GDP. Most changes point to a reduction in water scarcity because of the FTA. However, given the size of the changes, the effects are estimated to be small.

In the case of waste water and waste water management, it is difficult to establish a direct link to the FTA. It has increased Mexican GDP and, therefore, it is likely that municipal waste water production has increased, too. Moreover, public and personal services have grown because of the FTA; this includes tourism, which reportedly has put Mexican waste water systems under considerable stress.

The FTA may also have contributed to an improved provision of water management services, through trade in EGS; this question will be addressed further in section 5.2.7.

5.2.5. Waste

The case of solid waste is similar to that of waste water — a direct link to the FTA is hard to show. Again, municipal solid waste production can be assumed to increase in line with, or even more than GDP, so the FTA has contributed to this increase. Most hazardous waste in Mexico is generated by the chemical, metallurgical and automotive sectors; this means the FTA's effect is ambiguous, since it contributed to an increase in the transport equipment sector, but to a decrease in metals and chemicals. Although, according to Mexican statistics, drilling wastes do not fall under the definition of hazardous waste any more, they may be relevant to mention here; the FTA's effect on energy extractive industries in Mexico has been a negative one, thereby reducing this type of waste.

International activities related to waste management to date have often been in the framework of CDM projects, and, as such, are unrelated to the FTA. In contrast to water and waste water management, the situation of waste management and the regulatory framework have not improved significantly in recent years, which makes it unlikely that imports of EGS from the EU have had a large positive impact. Again, their potential effects are discussed in section 5.2.7.

5.2.6. Climate change

Mitigation

This section starts with and focuses on a quantitative assessment of the FTA's effects on greenhouse gas emissions through the economic channel, mostly using the same methodology as in the section on air pollution. Looking at the quantitative results, there are two sides to the impacts of the FTA: within and outside Mexico.

Within Mexico, the FTA's effect on GHG emissions has been a reducing one: Mexican emissions of CO_2, CH_4, as well as N_2O have decreased, albeit only slightly, because of the FTA.

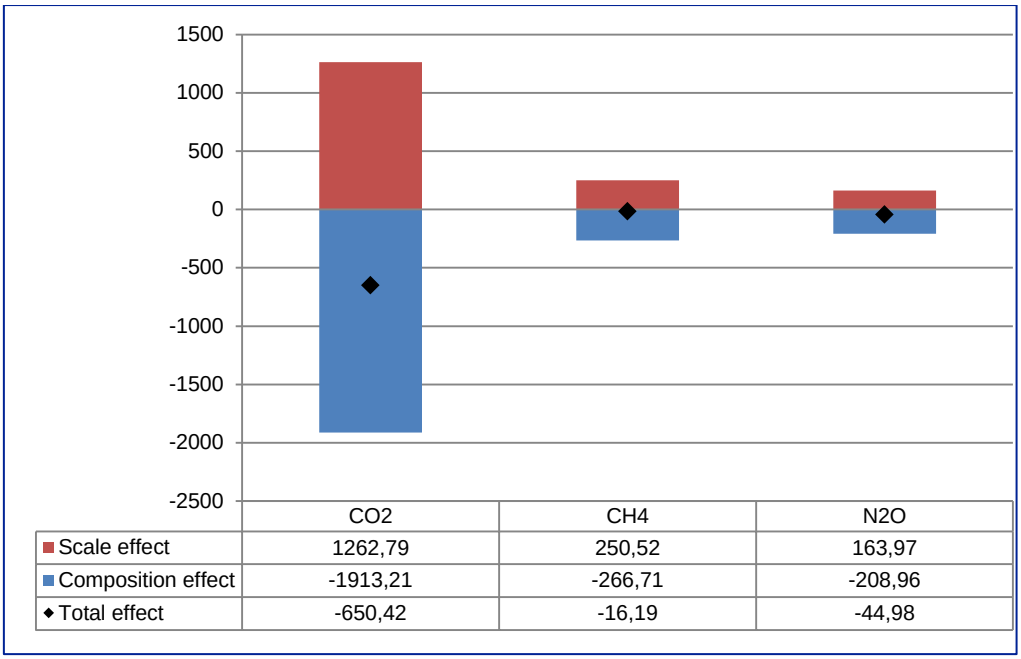
Table 5.3 Baseline values and FTA-induced changes of GHG emissions, in thousand tonnes

	CO_2	CH_4	N_2O
Baseline level	374,334	3,229	164
FTA-induced change	-650.42	-0.70	-0.15
FTA-induced change (in %)	-0.17%	-0.02%	-0.09%

Source: Authors' calculations, based on CGE results and WIOD database. Data refer to yearly emissions.

The effect is most pronounced in the case of carbon dioxide; this can also be seen in the decomposition of the result into scale and composition effects. Note that, in the figure below, emissions of CH_4 and N_2O have been converted into CO_2 equivalents based on their global warming potential, for better means of comparison. Evidently especially for CO_2, the changes in industry composition more than compensated for the effects of overall economic growth. The main CO_2-emitting sectors in Mexico are electricity/gas/water, agriculture and petrochemicals, all of which have shown a relative decline due to the FTA. The only large CO_2-emitting sector positively affected by the FTA is inland transport.

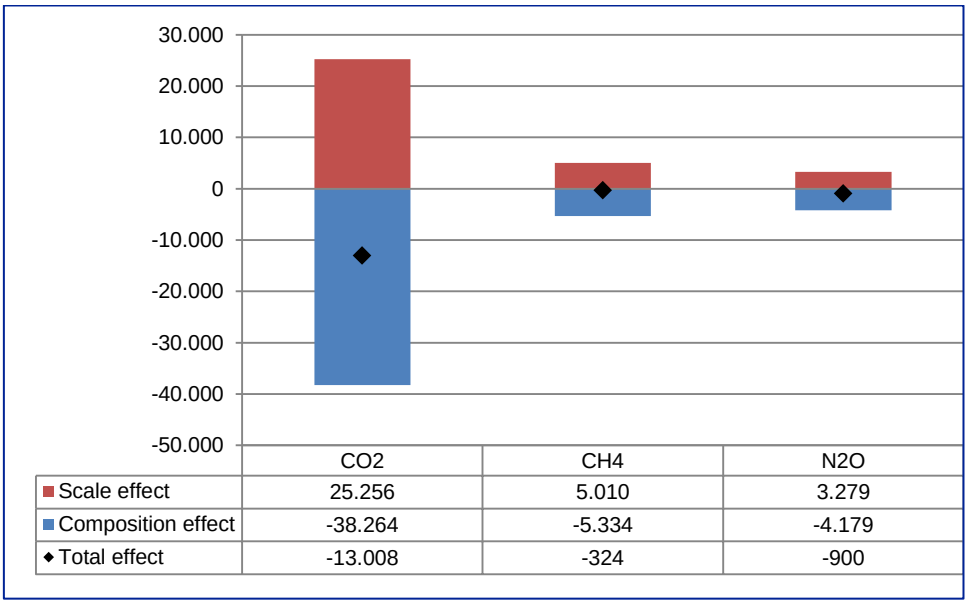
Figure 5.17 FTA effects on Mexican GHG emissions, in '000 tonnes of CO_2 equivalent



Source: Authors' calculations, based on CGE model outcomes, WIOD database, and IPCC Third Assessment Report Global Warming Potential factors. Data refer to changes in yearly emissions.

These effects can also be monetised. In line with previous environmental assessments of trade agreements, and taking a median value from a number of estimates, we use a value of €20 as the (global) social cost of a tonne of CO_2 emitted. As a result, we can conclude that the FTA has led to a reduction in GHG emissions by 712,000 tonnes of CO_2 equivalent, with a value of €14.2 million.

Figure 5.18 External (global) value of FTA effects on Mexican GHG emissions, in € '000



Source: Authors' calculations, based on CGE model outcomes, WIOD database, and IPCC Third Assessment Report Global Warming Potential factors. Data refer to changes in yearly emissions. For a background on the Social Cost of Carbon (SCC) value of €20, please refer to Annex D.

However, the global costs of GHG emissions lead us to the second side of the FTA effects on climate change. In the context of CO_2 emissions, which, through climate change, have global effects, it is particularly important to look at the impact of the FTA on other countries. According

to the CGE modelling calculations, CO_2 emissions in Mexico and the US were reduced because of the EU-Mexico agreement; however, this is more than compensated for by the agreement-induced emission increases in the EU and Canada. The CGE model figures alone do not provide insight into the drivers of these effects, but we may assume that industry reorganisation due to shifting trade flows played a role, as did scale effects. As already indicated, the agreement has had a reducing effect on energy intensive industries in Mexico, such as metals, electrical machinery, (petro-) chemicals and wood and paper products, which can explain the decrease in levels of emissions. The EU also experienced slight decreases in metals and electrical machinery due to the FTA, but an increase in the wood and paper industry and in the petrochemicals and chemicals sectors.

Worldwide, the agreement has led to a CO_2 emission increase of 600,000 tonnes, which is roughly equivalent to 0.015 percent of the EU's yearly CO_2 emissions.

In the case of other impact channels of the agreement, the conclusions are similar to those on air pollution: in general, increased shipping and air transport due to increased trade means rising greenhouse gas emissions (not only CO_2, but also short-lived climate forcers such as black carbon).

Regarding regulatory changes, no direct link between the FTA and Mexican climate change legislation can be found. As indicated in the introduction to the environmental chapter, collaboration on climate change mitigation is important in the EU-Mexican relations under the GA; this notably included dialogues on environment and climate change and collaboration via the SENER-CONACYT Sustainable Energy Fund, as well as a discussion on wind power investments.

In general, however, investment is not covered under the FTA and is more related to BITs with EU countries, of which Mexico has several. The GA, of which the FTA is a part, provides a forum to discuss investment-related issues, but the FTA itself had hardly any influence on renewable energy investments, apart possibly from increased trade in components (see next section). The role of FDI in the energy sector may change in the future due to the recent domestic regulatory changes in Mexico (described in the baseline section); this could, therefore, be an area for consideration in a possible modernisation of the agreement.

Adaptation

According to our results, vulnerability to climate change has not significantly changed due to the FTA; it has led to a slight increase in greenhouse gas emissions worldwide, but, at the same time, has contributed to a reduction in water-intensive sectors in Mexico. The FTA-induced small sectoral shift away from agriculture and primary sectors also reduced (economic) vulnerability because the sectors most affected by climatic changes diminished in importance.

In terms of adaptation activities, it is again hard to find a direct link between the FTA and related policies and measures. What can be noted is the increase in dairy and meat production, related to pastures and potentially overgrazing, as well as the reported increase in land-use intensity due to the FTA. Both run counter to efforts to adapt production to climate change.

It can therefore be concluded that the agreement led to a relative reduction in agricultural output (and thereby reduced the value at stake due to climate change), but made the activities more land-use intensive and potentially more damaging (which may increase the impact of climate change).

5.2.7. Green growth and environmental goods and services

Based on the evidence presented above and taken from the CGE model, the impact of the FTA on green growth in Mexico through the economic channel is small and mixed. Intensity of air pollutant emissions and greenhouse gas emissions went down because of the FTA, and the main water consuming sectors were influenced negatively. However, land-use intensity increased and also fisheries intensity rose slightly. As outlined in the previous sections, it is hard to find evidence on a direct influence of the FTA on regulation that may have promoted green growth, although e.g. in the case of fisheries, the increased adherence to EU standards as promoted by the PROTCLEUM may have improved the sustainability of the sector.

Turning to environmental goods and services, in a survey among environmental industry companies, Ferrier (2010) found that the increase in the EGS market in Mexico may have been stimulated a bit by NAFTA and other FTAs, albeit only indirectly (increasing the presence of foreign firms who bring higher standards of environmental operations with them). European firms, especially French and British, seem to be strongly represented in water and wastewater infrastructure; these are also the areas that have shown particularly strong increases in import shares between 2001 and 2006. However, this development can be attributed to BITs with EU member states, rather than to the FTA. The EU-Mexico agreement does not contain any specific provisions on EGS. While environmental services have the largest share of the environmental market in Mexico, the services part of the EU-Mexico FTA focuses on insurance and banking services.

Another main driver of the environmental market is domestic regulation, which is less closely connected to FTAs. The increasing import shares show that none of the trade agreements has stimulated the domestic environmental industry in Mexico.

In the specific case of the EU-Mexico FTA, its tariff reductions did not specifically cover any environmental goods; environmental goods could, therefore, be expected to be traded in line with the sector they are part of, unless specific developments are at play.

In order to look at EU-Mexican trade in environmental goods more specifically, observed data on trade flows on a more disaggregate level were used. Environmental goods and services are often defined on the basis of 6-digit or even 8-digit HS codes. For a number of goods, we set observations on these specific trade developments in relation to the CGE results of the more aggregate sector. There is no internationally recognised list of EGS. For the quantitative analysis of EGS, we looked at a comparison of OECD and APEC lists[442] and chose the products based on these two lists. Please note that it is even more difficult to identify trade in environmental services; therefore, the analysis is limited to environmental goods.

The selection of goods took place according to several aims:

- Coverage of several sectors as reported in the CGE outcomes (and trying to cover sectors with large FTA-induced changes).
- Coverage of several environmental issues related to the environmental goods.
- Coverage of products appearing in APEC and OECD lists, and, preferably, in both.

The table below shows an overview of the selected environmental goods, indicating their category in the list (which refers to the environmental issue they relate to), the corresponding sector in the CGE model, and indicating the EGS list where the particular product appears. We also checked the products for dual use status according to the DG Taxud list; in case they appear on the list, footnotes indicate the dual use categories they fall into.

Table 5.4 Environmental goods trade analysis

HS Code	Description	Environmental goods category	GTAP/CGE sector	Based on EG list:
5801.90	Woven pile & chenille fabrics of other textile materials	Waste water management: Sewage treatment	Textiles (27)	OECD
8541.40[443]	Photosensitive	Renewable energy:	Electrical machinery	OECD, APEC

[442] See Steenblik, R. 2005, Environmental Goods: A Comparison of the APEC and OECD Lists. OECD Trade and Environment Working Paper 2005-04.

[443] This code is on the Dual Use list in the following categories: 6A002 (Sensors and lasers: Optical sensors or equipment and components therefor); 6A102 (Sensors and lasers: Radiation hardened "detectors"); 6A005 (Sensors and lasers: other lasers); 3A001h (Electronics: Solid-state power semiconductor switches, diodes, or "modules", with certain minimum requirements on voltage, temperature, and current); 3A001e (Electronics: point e includes Solar cells, coverglass-interconnected-cells (CIC) assemblies, solar panels, and solar arrays, which are "space qualified").

HS Code	Description	Environmental goods category	GTAP/CGE sector	Based on EG list:
	semiconductor devices, incl. solar cells	Solar energy	/electronic equipment (40)	
8502.31	Wind-powered electric generating sets	Renewable energy: Wind energy	Other machinery/ machinery and equipment nec (41)	APEC
8404.10	Auxiliary plant for use with boilers (for example soot removers)	Air pollution control	Metals and metal products (35-37)	APEC
3914.00[444]	Ion exchangers / chloride	Water supply: Potable water supply and distribution	Chemicals/ chemicals, rubber, plastic (33)	OECD
8539.31	Fluorescent lamps	Cleaner technologies and products: Heat/ energy savings and management	Other machinery/ machinery and equipment nec (41)	OECD

Sources: Steenblik R. 2005, Environmental Goods: A Comparison of the APEC and OECD Lists; Taxud Dual Use Table; Council Regulation 428/2009; CGE model sector classification; GTAP sector classification.

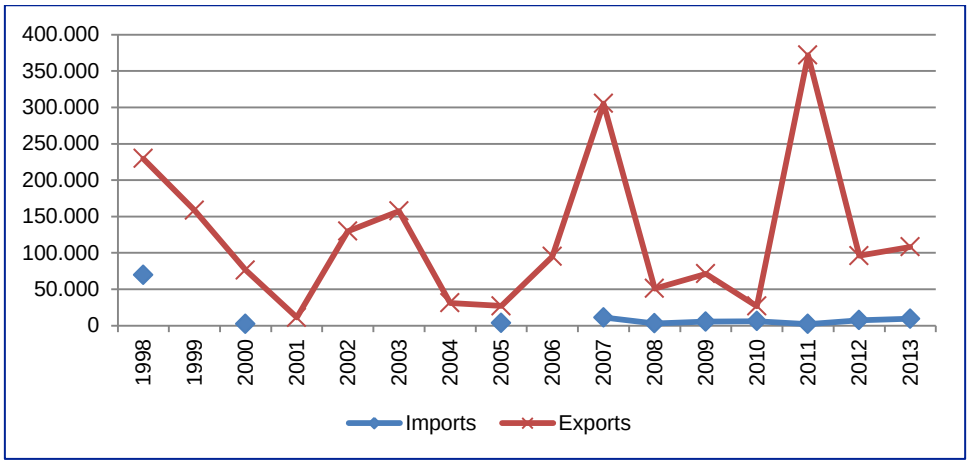
Starting with *woven pile & chenille fabrics of other textile materials, which are used for sewage treatment*, the table below shows the changes in EU imports and exports from/to Mexico between 2000 and 2013 and compares them to the FTA-induced changes in the overall textiles sector.

Figure 5.19 Woven pile and chenille fabrics of other textile materials (used in sewage treatment)

Overview of observed trade changes at product level and FTA-induced changes at sector level	
Product: Woven pile & chenille fabrics	
Change in EU imports from Mexico 2000-2013	+303.20%
Change in EU exports to Mexico 2000-2013	+42.12%
Sector: textiles	
Change in Mexico exports to EU due to FTA	+34.07%
Change in EU exports to Mexico due to FTA	+37.04%
Change in Mexico sector output due to FTA	-0.30%
Change in EU sector output due to FTA	+0.14%

[444] This code is on the Dual Use list in the following category: 0B001f (Nuclear facilities and equipment: Equipment and components, especially designed or prepared for ion-exchange separation process).

Figure 5.20 EU trade with Mexico in woven pile & chenille fabrics of other textile materials, in €



Source: Comext/Eurostat. HS code 5801.90. Data for EU-15; for the applicable years, they are equivalent to EU-25 or EU-27 data.

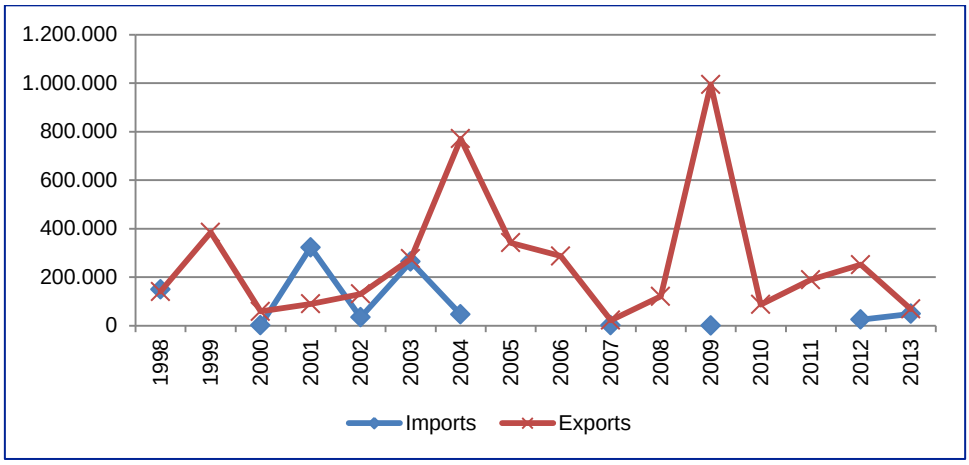
Based on growth rates alone, the development of Mexican exports in this product looks quite spectacular. However, as can be seen in the graph below, Mexican exports to the EU are, in fact, rather negligible and inconsistent. For EU exports to Mexico, it appears from the table that they have grown slightly more than the FTA-induced export change in the textiles sector; however, looking at the graph, they show great variation and no clear pattern related to the FTA can be made out (the growth reported in the table above would depend crucially on the choice of years for comparison). As the product is related to sewage treatment, one explanation for this could be that investments by EU wastewater management firms in Mexico created demand in particular years. This would mean that EU exports of sewage treatment products are more closely related to bilateral investment treaties than to the FTA. Another point is that the trade values are very small overall; therefore the volatility may be related to single contracts with individual supplying firms, which may not have been renewed every year. In general, the analysis of this particular product does not provide enough evidence to suggest that water management in Mexico has improved because of the FTA.

The picture is even less clear for *ion exchangers/chloride*. EU imports from Mexico seem to have increased dramatically, and are sometimes even larger than exports, but again show extreme variation. EU exports are extremely volatile as well, and it cannot be concluded that they have increased in line with the FTA-induced export increase in the chemicals sector.

Table 5.5 Ion exchangers, chloride (used in water supply)

Overview of observed trade changes at product level and FTA-induced changes at sector level	
Product: ion exchangers, chloride	
Change in EU imports 2000-2013	2,627.62%
Change in EU exports 2000-2013	16.44%
Sector: Chemicals	
Change in Mexico exports to EU due to FTA	22.34%
Change in EU exports to Mexico due to FTA	25.48%
Change in Mexico sector output due to FTA	-1.24%
Change in EU sector output due to FTA	0.11%

Figure 5.21 EU trade with Mexico in ion exchangers / chloride, in €



Source: Comext / Eurostat. HS code 3914.00. Data for EU-15; for the applicable years they are equivalent to EU-25 or EU-27 data.

As ion exchangers/chloride are continually used in water supply activities, the volatility of their trade is unlikely to be linked to investment activities. Given the overall small volumes of trade, it is likely that single shipments of individual firms dominate the statistics. It cannot be concluded that an increase due to the FTA has happened and, therefore, we cannot deduce from this product that water management has improved because of the FTA, either.

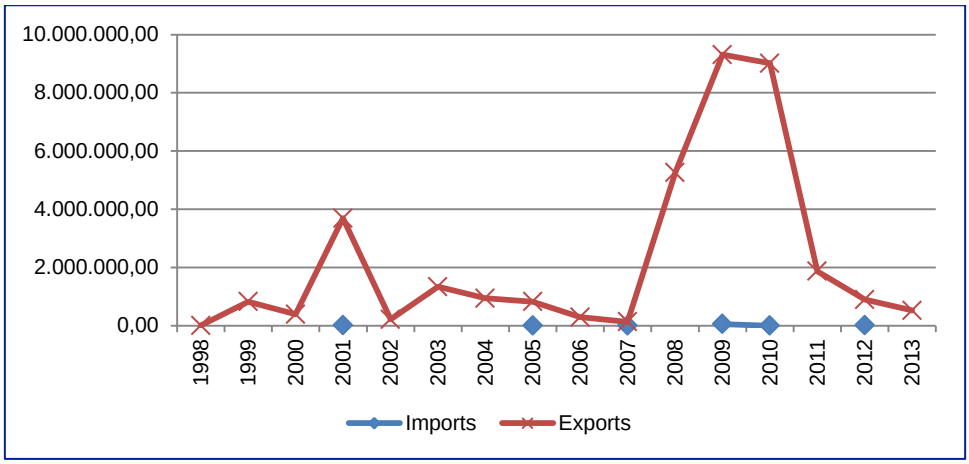
In the case of auxiliary plants for use with boilers (for example soot removers, economisers), trade volumes — or at least export values from the EU — are at a somewhat higher level than for the last two products, but still show large variation. From the mere comparison of 2000 and 2013 figures, it looks as if EU exports in these products increased more than the FTA-induced increase in the metals sector; however, when comparing different years, this increase could be much higher or much lower, and again no clear link to the entry into force of the FTA in 2000 is visible.

Table 5.6 Auxiliary plant for use with boilers*

Overview of observed trade changes at product level and FTA-induced changes at sector level	
Product: Auxiliary plant for use with boilers (e.g. soot removers)	
Change in EU imports 2000-2013	n.a.
Change in EU exports 2000-2013	32.76%
Sector: Metals and metal products	
Change in Mexico exports to EU due to FTA	3.36%
Change in EU exports to Mexico due to FTA	21.83%
Change in Mexico sector output due to FTA	-2.34%
Change in EU sector output due to FTA	-0.002%

* used in industrial air pollution control and efficiency processes.

Figure 5.22 EU trade with Mexico in auxiliary plants for boilers (such as economisers, soot removers, super heaters), in €



Source: Comext/Eurostat. HS code 8404.10. Data for EU-15; for the applicable years they are equivalent to EU-25 or EU-27 data.

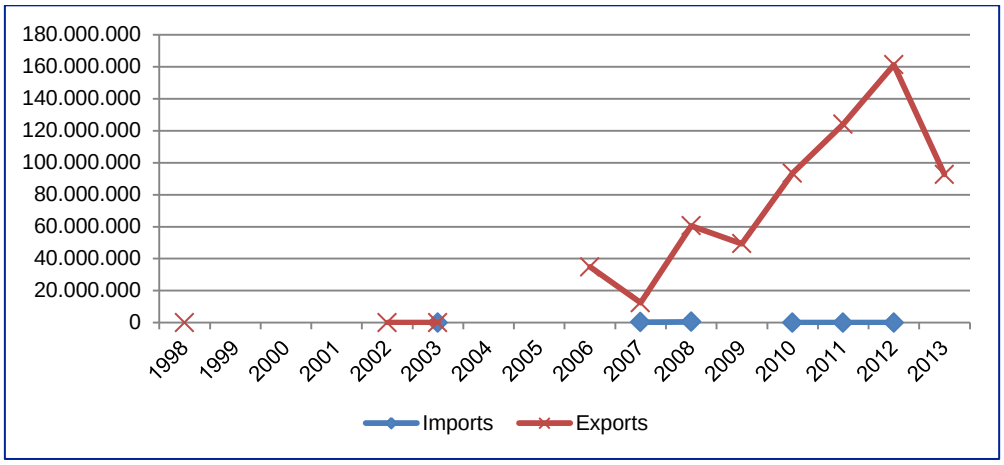
It is unclear whether the peaks are related to investment. Such auxiliary industrial air pollution control plants are usually connected to electricity generation plants, where foreign investment in Mexico has, to date, been limited. Nevertheless, they are also used in other industrial applications and EU exports may be related to investments of EU firms that bring their environmental and efficiency standards with them. However, even if a link through investment exists, there is no direct connection to the FTA. Moreover, this product presumably falls under anti-pollution equipment, for which Mexico has unilaterally reduced all import tariffs to zero, which further lowers the scope of impact of the FTA.

Turning to trade in wind-powered electric generating sets — one of the main components for windmills — due to a lack of data for 2000, the table below shows a comparison with EU exports in 1998. EU exports in this field increased by a staggering 817,170 percent.

Table 5.7 Wind-powered electricity generating sets (in renewable energy/climate change mitigation)

Overview of observed trade changes at product level and FTA-induced changes at sector level	
Product: Wind-powered electric generating sets	
Change in EU imports 2000-2013	n.a.
Change in EU exports 1998-2013	+817,170%
Sector: Other machinery and equipment nec	
Change in Mexico exports to EU due to FTA	+1.84%
Change in EU exports to Mexico due to FTA	+6.52%
Change in Mexico sector output due to FTA	-1.61%
Change in EU sector output due to FTA	+0.01%

Figure 5.23 EU trade with Mexico in wind-powered electricity generating sets



Source: Comext/Eurostat. HS code 8502.31. Data for EU-15 for 1998, for EU-27 in all other years.

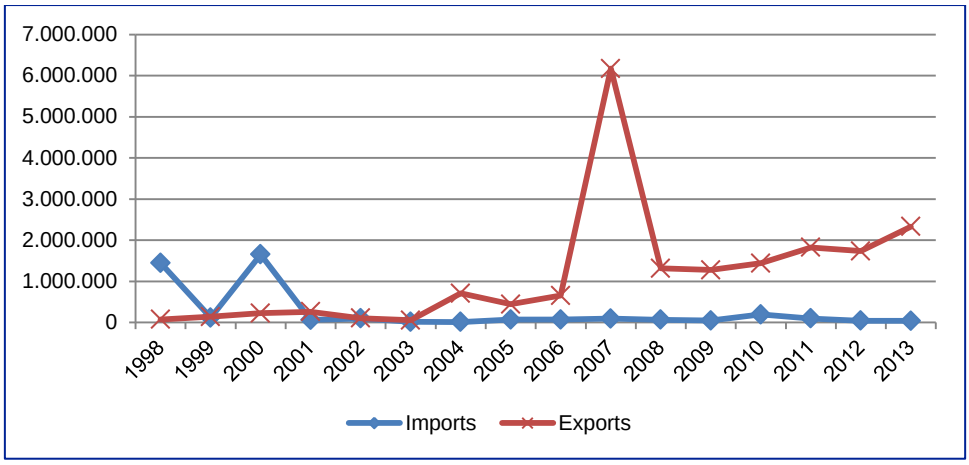
The graph below shows that trade only really picked up after 2006, which roughly coincides with increasing climate change mitigation efforts in Mexico (and elsewhere in the world). It should be noted, however, that the FTA may have had an influence on the source of Mexican imports, because wind energy components are one of the few environmental goods in Mexico where Mexican average tariff lines are above 5 percent. Therefore, the FTA with the EU may have given EU producers an advantage over other exporters to Mexico.

The case of fluorescent lamps is an interesting one. As indicated in the baseline, they are one of Mexico's main exports of environmental goods. However, as the numbers show, Mexican exports to the EU have decreased after entry into force of the FTA. Instead, Mexican imports of fluorescent lamps from the EU increased substantially.

Table 5.8 Fluorescent lamps (used for energy saving)

Overview of observed trade changes at product level and FTA-induced changes at sector level	
Product: Fluorescent lamps	
Change in EU imports 2000-2013	-97.46%
Change in EU exports 2000-2013	919.67%
Sector: Other machinery and equipment nec	
Change in Mexico exports to EU due to FTA	+1.84%
Change in EU exports to Mexico due to FTA	+6.52%
Change in Mexico sector output due to FTA	-1.61%
Change in EU sector output due to FTA	+0.01%

Figure 5.24 EU trade with Mexico in fluorescent lamps



Source: Comext/Eurostat. HS code 8539.31. Data for EU-15 for 1998, for EU-27 in all other years.

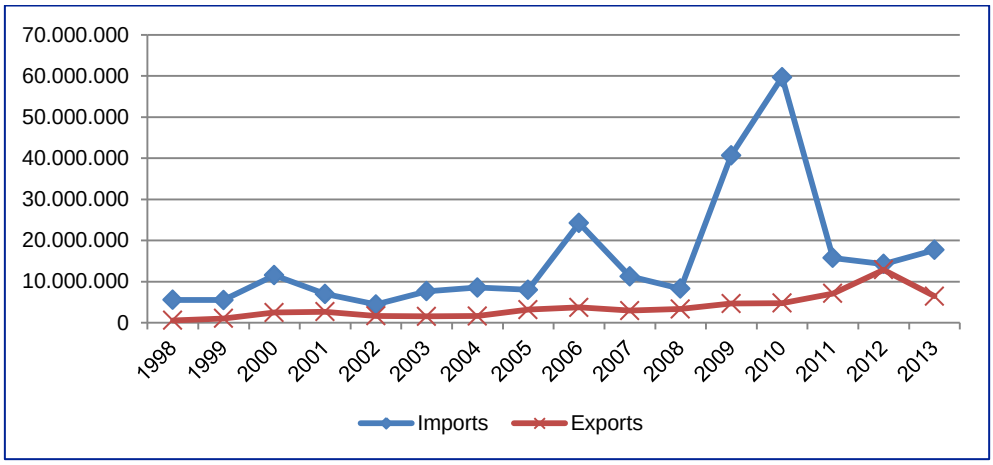
The graph above also shows that, apart from the one spike in 2007, EU exports to Mexico increased quite steadily, at least after 2003. While the increasing use of fluorescent lamps is certainly positive from an energy-saving perspective, the figures also give the impression that the Mexican lighting manufacturers proved less competitive and therefore declined relatively after the FTA came into force. It is unclear what the overall effect on energy consumption in Mexico (or the EU) was and whether the loss of competitiveness of the Mexican environmental goods industry may have a negative environmental impact in the long run.

Finally, we consider the development of trade in photovoltaics equipment, which is captured in trade statistics under "Photosensitive semiconductor devices, including photovoltaic cells, whether assembled in modules or made up into panels; light-emitting diodes". This is an interesting case, as both EU imports from and exports to Mexico went up between 2000 and 2013 — in contrast, especially to the trend for Mexican exports in the wider sector of electronic equipment, where both output and exports went down because of the agreement.

Overview of observed trade changes at product level and FTA-induced changes at sector level	
Product: Photosensitive semiconductor devices, light-emitting diodes	
Change in EU imports 2000-2013	+52.99%
Change in EU exports 2000-2013	+158.28%
Sector: Electrical machinery/electronic equipment	
Change in Mexico exports to EU due to FTA	-7.80%
Change in EU exports to Mexico due to FTA	+9.50%
Change in Mexico sector output due to FTA	-11.45%
Change in EU sector output due to FTA	-0.19%

In the graph comparing exports and imports, another special feature becomes apparent: this is a product where Mexico has, over the years, been a net exporter to the EU. The general trend in Mexican exports to the EU after entry into force of the FTA has been positive, although again with quite some variation. EU exports to Mexico are still below imports, but also show a rising trend.

Figure 5.25 EU trade with Mexico in photosensitive semiconductor devices and light-emitting diodes



Source: Comext/Eurostat. HS code 8541.40. Data for EU-15 for 1998, for EU-27 in all other years.

It is difficult to explain these numbers. Clearly, trade in HS code 8541.40 has increased far above the FTA-induced trend for the larger sector. Whether this was made possible by the FTA is hard to say; as also mentioned above, the FTA may have made the EU and Mexico more "popular" among their respective exporters, but the driving force for increased trade in these products is obviously rising demand, primarily due to policy objectives. A remaining question is which products these numbers refer to. Given Mexico's position in the lighting sector, it is very possible that some of the export value does not refer to PV components, but, rather, to diodes. Both have positive effects for the environment — PV equipment as it produces clean electricity, and diodes because they reduce energy use. However, triangular trade may also play a role, and, therefore, we cannot make a direct link between increased trade and increased domestic use and the corresponding technology improvement (in the sense that production requires less pollution or GHG emissions per unit of output).

To finish with, it should also be mentioned that environmentally preferable products — such as products produced sustainably — can affect the sustainability aspects of trade.[445] Unfortunately, these products are difficult to classify and report on, and it is, therefore, not surprising that there are neither provisions in the agreement to reduce trade barriers for such products, nor are there data on trade flows in these products, which would allow investigation of the issue. It is indeed likely that, by increasing their exports to the EU, Mexican producers faced increasing demand for products with environmental labels, for example. The impact of obligatory labelling in the case of honey containing GMO shows how such an influence can work. However, voluntary labels are, of course, weaker incentives for producers to change their way of production, or to influence policymaking, and the EU market is the most relevant for only a few Mexican products. To our knowledge, there have not been any accompanying measures to the agreement to support Mexican producers in conforming to voluntary standards or labels that are prevalent in the EU.

[445] See for examples of such products specifically in the Mexican case: Enrique Lendo 2005, *Defining environmental goods and services: a case study of Mexico*.

6. Conclusions

This report has analysed the EU-Mexico FTA in terms of contents, its functioning and its effects. In this concluding chapter, we assess the FTA based on three evaluation criteria: coherence, effectiveness and impact. [446]

6.1. Coherence

According to the EC's better regulation guidelines on evaluation, the evaluation of coherence involves "looking at how well, or not, different actions work together." There are different levels at which coherence can be assessed. First, there is the *internal coherence*, which, in the context of the study, assesses the coherence between different parts of the FTA. In addition, there is *external coherence*, which looks at the coherence of the FTA with other EC policies and actions. Regarding external coherence, we will assess the coherence of the FTA with EU trade policy and with other policies affecting trade and investment between the EU and Mexico.

Internal coherence

Based on the analysis in Chapter 2, we have not found any elements of the FTA that would contradict other parts of the agreement. One could argue that those parts of the FTA that prevent trade between the two partner countries from being fully liberalised (e.g. rules of origin, tariff rate quotas) could be considered as incoherent, but these could also be viewed as elements necessary to create support for other parts of the agreement.

Also, in respect of the GA, of which the FTA is an integral part, we have not found examples of the FTA not being coherent. Rather, the GA would reinforce the FTA in the sense that it fosters co-operation at different levels (e.g. on industrial co-operation, SMEs, investment promotion, etc.), which can help to promote trade between the two partners.

It should be noted that implementation of the FTA in terms of the build-in agreements for further liberalisation, as well as the co-operation foreseen in the GA, could have been more extensive or ambitious. In both areas, progress has been limited, and, therefore, in terms of implementation, there could have been scope for greater coherence.

External coherence: coherence with EU trade policy

Article 206 of the Treaty on the Functioning of the European Union presents the objectives of the EU's Common Commercial Policy: "[..] the Union shall contribute, in the common interest, to the harmonious development of world trade, the progressive abolition of restrictions on international trade and on foreign direct investment, and the lowering of customs and other barriers." The EU has pursued both multilateral and regional/bilateral initiatives to liberalisation of trade. Given that tariffs had already been considerably decreased in recent decades (due, among other things, to the GATT/WTO), non-tariff barriers have increasingly received attention in the EU's trade policy. As the granting of unilateral preference had become more difficult under the WTO, the EU also focused more on reciprocal market access commitments.

At the time the EU-Mexico FTA was concluded, it was fully coherent with this EU trade policy. It paid more attention to non-tariff barriers than many tariff-only FTAs concluded before, and it clearly also included reciprocal liberalisation.

Since the establishment of the FTA, EU trade policy has also developed. The EC's 2006 Communication, "Global Europe: competing in the world" calls for "a sharper focus on market opening and stronger rules in new trade areas of economic importance to us, notably intellectual property (IPR), services, investment, public procurement and competition." In respect of FTAs, the Communication finds that "FTAs must be comprehensive in scope, provide for liberalisation of substantially all trade and go beyond WTO disciplines." These new generation of FTAs are referred to as competitiveness-driven FTAs. The subsequent Communication Trade, Growth and World Affairs of 2010 reinforces these ideas, and brings in a

[446] These are the evaluation criteria most relevant for assessing the FTA as agreed with the EC in the inception phase.

more explicit focus on the need for sustainable development (i.e. decent work, labour, standards and environmental protection). In addition, specific attention is paid to strategic trade partners, including the US and China.

More comprehensive agreements have been concluded since, first with South Korea, and later with Colombia, Peru and Central America. In addition, negotiations for FTAs have been launched with the Mexico's NAFTA partners: Canada and the US.

The more recent trade policy did not strongly deviate from the previous policy, and there are no contradictions with the EU-Mexico FTA. Therefore, the agreement is still considered coherent with the EU's trade policy. However, the new and potential agreements are more comprehensive and ambitious, which reduces preference margins for Mexico. While it was one of the first countries to sign an FTA with the EU in the region, in relative terms its access to the EU market has decreased, or will decrease in comparison to other countries in the region. In addition, sustainable development has in the meantime become an integral part of the new generation of FTAs, while this is not integrated in the EU-Mexico FTA. In that sense, the level of coherence with EU Trade policy can be considered as having gradually declined since the agreement was concluded.

External coherence: coherence with other EU policies and actions

In terms of coherence of the FTA with other EU policies and actions, the number of policy areas that can potentially affect trade and investment between the EU and Mexico (directly or indirectly) is vast. Here, we will focus on policies or actions promoting trade and investment between the EU and Mexico.

In terms of promoting trade and investment on the Mexican side, there have been EU development co-operation projects that aimed to facilitate the implementation of the Free Trade Area and to foster trade and investment between the two regions. The three main ones are the following:

- PROTLCEUM (Facilitation of the EU-Mexico Free Trade Agreement): this project focused on institutional strengthening of the governmental agencies in charge of the implementation of the trade agreement, notably in the areas of customs, technical norms, SPS, investment, consumer protection, competition and intellectual property rights.
- PIAPYME (Integrated Support Programme for Small and Medium Sized Enterprises): the aim of this programme was to increase the competitiveness and export capacity of Mexican SMEs, especially by providing business development services to firms targeting the EU market.
- PROCEI (Competitiveness and Innovation Programme EU-Mexico): This project focuses on a programme for supporting Mexican SMEs, which aims at improving their competitiveness through specialised European technical advice and assistance directed at new technologies and innovation in production processes, allowing them access to European markets.

In addition to these programmes, Mexico was also a beneficiary country under AL-Invest, a programme that existed already before the FTA, which aims at creating opportunities through facilitating the internationalisation of Latin American SMEs, in collaboration with their European partners.

These programmes all helped to facilitate trade between the EU and Mexico and are coherent with respect to the FTA. We have not identified any project or programmes in development co-operation policy that are not considered coherent with the FTA.

Looking at the EU side, export promotion is usually done at Member State level. The EU, therefore, only played a limited role in promoting EU exports to Mexico. It supported business primarily by making available information on market conditions, such as through its Market Access Database (MADB), which gives information to EU companies about import conditions in third country markets. In addition, the EU provides some internationalisation support services for SMEs (e.g. Trade Defence SME Help desk).

Other EU policies may also have had a more indirect effect on bilateral trade. Examples include the Common Agricultural Policy, which can be argued to limit the possibilities for trade, but also the introduction/adjustment of (new) standards and technical regulations (e.g. food safety standards) that may have either facilitated or hampered trade between the EU and Mexico.

6.2. Effectiveness

According to the EC's Better Regulation guidelines, effectiveness analysis considers how successful EU action has been in achieving or progressing towards its objectives.

To assess the effectiveness of the FTA, it is therefore first important to establish the objectives of the FTA. The GA establishes the objective of the FTA, in article 4, which states:

The objective of this Title is to establish a framework to encourage the development of trade in goods and services, including a bilateral and preferential, progressive and reciprocal liberalisation of trade in goods and services, taking into account the sensitive nature of certain products and service sectors and in accordance with the relevant WTO rules.

More specifically, for trade in goods the objectives were (Article 1 of the FTA in goods)[447]:

(a) the progressive and reciprocal liberalisation of trade in goods, in conformity with Article XXIV of GATT 1994;
(b) opening the agreed government procurement markets of the Parties;
(c) establishing a cooperation mechanism in the field of competition;
(d) setting up a consultation mechanism in respect of intellectual property matters; and
(e) establishing a dispute settlement mechanism.

These objectives have all been reached, in the sense that FTA text specifies the liberalisation schedules and establishes the required mechanisms. More specifically:

a) is covered under Title II, articles 2-24
b) is covered under Title III, articles 25-38
c) is covered under Title IV, article 39
d) is covered under Title V, article 40
e) is covered under Title VI, articles 41-47.

For Trade in services, the objectives are listed in the scope of the Decision (Article 1 of the FTA in services)[448]:

(a) the progressive and reciprocal liberalisation of trade in services, in conformity with Article V of GATS;
(b) the progressive liberalisation of investment and related payments;
(c) ensuring an adequate and effective protection of the intellectual property rights, in accordance with the highest international standards; and
(d) establishing a dispute settlement mechanism.

Also, these objectives have been reached in the sense that FTA text specifies the liberalisation schedules and establishes the required mechanisms. More specifically:

a) is covered under Title II, articles 2-27;
b) is covered under Title III, articles 28-35;
c) is covered under Title IV, article 36;
d) is covered under Title V, articles 37-43.

[447] DECISION No 2/2000 OF THE EC-MEXICO JOINT COUNCIL.
[448] DECISION No 2/2001 OF THE EU-MEXICO JOINT COUNCIL.

As concluded in Chapter 2, trade barriers have been largely dismantled as programmed. There are only a few exceptions, which mainly concern non-tariff barriers or trade issues in which negotiation progress has not been achieved as expected, such as the review clauses.

Based on the above, we consider the objectives as being met and, therefore, the FTA as effective. At the same time, the impression is that more could have been achieved through the established co-operation mechanisms or through the review clauses. In addition, it should be noted that the objectives of the FTA have all been set at the output level, and not at the outcome level, i.e. what should be achieved because of the FTA (e.g. increased market share, diversification of exports, etc.).

Several sources point to the motivation behind the FTA, which can be considered as an implicit objective of the agreement. On the website of the EU Delegation to Mexico, this motivation is summarised as follows:[449]

"Market access is by far the greatest reason why the FTA was negotiated; when NAFTA entered into force, the EU's market share dropped 50%. As for Mexico, it sought to attract further FDI and reduce its economic dependence on the US."

'Market access for EU exports has been achieved as indicated above. Regarding the EU's market share, the EU's market share in Mexico's trade has slightly increased, as shown in section 3.1.2 (although it should be noted that the increase is relatively small and this trend already started before the entering into force of the FTA). Also, the CGE results show that, in the absence of the agreement, the EU's market share would have been lower than it currently is, given that the change in bilateral growth is much larger than in total Mexican trade.

In respect of Mexico, EU FDI in the country has clearly increased. The economic dependence on the US has decreased to some extent: while, before the agreement, the importance of the US market grew from 83% in 1993 to 88% in 1999, since 2005, this market share has declined to 80% on average in the past six years. [450]

One problem in respect of meeting these more implicit objectives is that there is no benchmark against which these developments can be assessed: is the change bigger or smaller than could be expected? In addition, the role of the FTA in the developments is difficult to isolate, e.g. the effect on FDI flows cannot be assessed with the help of the CGE model. However, based on the data available, the observed trends correspond with the initial motivations behind the FTA.

6.3. Impact

In assessing the impact of the FTA, both the intended and unintended effects are taken into account. We distinguish the impacts along the three sustainability dimensions: economic, social and environmental. In general, the focus is on impacts in Mexico, as in this country, the effects are larger than in the EU, given the relative size of the economies.

6.3.1. Economic impact

Bilateral goods trade between the EU and Mexico has expanded significantly after the entry into force of the FTA, with exports and imports having more than doubled. Bilateral imports and exports developed in a similar pattern, although the exports from the EU to Mexico have grown slightly faster than exports from Mexico to the EU. It is more interesting to look at the market share of the two partners in each other's trade, as an expansion of bilateral trade is in line with the expansion of world trade and, therefore, not necessarily associated with the FTA. We observe a small increase in the importance of both partners in each other's trade flows over time: the share of the EU in Mexican exports was 3.8 percent in 1999 and 4.9 percent in 2013, whereas the share of Mexico in EU exports increased from 0.5 to 0.7 percent. Bilateral trade is concentrated in a limited number of sectors, and, while we observe an increase in diversification

[449] http://eeas.europa.eu/delegations/mexico/eu_mexico/trade_relation/index_en.htm.
[450] Calculations based on data from Banxico, http://www.economia.gob.mx/comunidad-negocios/comercio-exterior/informacion-estadistica-y-arancelaria.

of EU exports to Mexico, for Mexican exports to the EU we observed more concentration, although, again, the changes are small. In services trade, we also observe a significant increase in bilateral trade flows, but these changes are in line with developments in overall services trade. FDI flows between the two partners show a fluctuating pattern, not deviating much from the general trends in FDI flows.

To better understand the role of the FTA in the observed developments above, we have applied a Computable General Equilibrium (CGE) model to assess the current economic situation compared to a counterfactual scenario of what would be the situation without the FTA. To determine this counterfactual scenario, we used an econometric framework known as a *gravity model*, which can identify the impact of the current agreement on EU-Mexico trade beyond tariffs. Based on this analysis, we find that the current agreement does not generate additional trade beyond what is expected based on tariff elimination alone. Therefore, for the counterfactual scenario, we assumed that both trading partners would face MFN tariffs. Comparing the two scenarios gives an indication of the FTA-induced economic effects.

The results of the modelling show that the gains for Mexico from the bilateral tariff liberalisation under the Agreement amounts to €2,876 million in real income per year, while, for the EU, these gains amount to €1,559 million annually. In percentage terms, Mexico's GDP would have been 0.34 percent lower if the Agreement had not been implemented and the EU's GDP would be 0.01 percent lower. This asymmetrical effect is due to the difference in importance of the two countries to each other as trading partners. The increase in income is also reflected in real wages. Compared to the counterfactual scenario without an FTA, real wages are 0.02%higher, while, in Mexico, wages are between 0.24% and 0.45% higher, depending on the skill group. Low-skilled workers in Mexico seem to have gained a bit less compared to other skilled groups, because of the FTA, due to the estimated contraction of the electrical machinery sector, which employed more low-skilled workers, hence decreasing the demand for low-skilled workers relatively more than for other skill categories.

According to the simulations, the FTA triggered increases in trade, amounting to a 1.5-1.7 percent increase in Mexico's aggregate exports and imports, and a 0.05 percent increase in the EU's aggregate trade flows. Looking at bilateral trade flows, EU exports to Mexico show a slightly bigger increase, by 19 percent, than Mexican exports to the EU, with an estimated increase of 15 percent.

Reduction in tariffs between the trade partners are estimated to have led to minor losses in tariff revenues. For the EU, the change compared to the counterfactual is €235.9 million which in terms of percentage change in tariff revenues is insignificant at 0.01 percent. For Mexico, the loss is estimated at about €625.3 million but also small in percentage terms, at 0.14 percent.

At sector level, the model suggests that, in the EU, the changes in output have been small, varying between 0 and 0.2 percent. In Mexico, output effects seem to have been more pronounced, with the largest changes according to the model taking place in two sectors: motor vehicles (+16.5 percent) and electrical machinery (-11.5 percent). The motor vehicle sector witnessed a large reduction in import tariffs in the EU, thereby increasing export opportunities and related output increases. The expansion of this sector led to a contraction of the electrical machinery sector. Although tariffs for textiles and clothing on Mexican exports to the EU were also high, these sectors did not expand in Mexico compared to the counterfactual, as there were significantly larger tariff reductions for EU exporters, who gained competitiveness against Mexican producers and pushed some of them out of production. The large reduction in tariffs on motor vehicles, textiles and clothing is also visible in the model results for bilateral trade, as these are the sectors that show the largest changes in bilateral trade flows.

Based on the above results, we can conclude that the economic impacts have clearly been positive, but, at the same time, they are modest. Stakeholder consultations and the literature review suggest that the limited awareness of business is one of the key explanatory factors for this. Companies (especially SMEs) tend to focus much more on countries in the region for their exports. More active awareness promotion of the agreement itself and of the opportunities it creates would be needed to have more companies involved in the bilateral trade. In addition, EU standards (e.g. related to SPS and TBT, but also IPR) are considered high and/or complicated. Differences in rules and regulations, and, for example, in language across EU Member States, further add to the difficulty to export to the EU. Finally, some sectors (especially some agricultural sectors) are not competitive enough to take advantage of the opportunities created

by the FTA. Based on the stakeholder consultations, these more general explanations for the modest effect appear to be more important than specific provisions of the FTA itself.

6.3.2. Social Impact

Under social impact, we focused on three elements: the decent work agenda, poverty and inequality, and human rights. The FTA texts for trade in goods and trade in services do not explicitly deal with social issues, except for human rights (see below). Therefore, the impact is mainly indirect, stemming from changes in production and trade patterns. Given that the economic effects of the FTA are found to be limited, the social effects are also found to be small.

The Decent Work Agenda

To assess the impact of the FTA on employment, we can make use of the CGE results. The CGE model provides a direction of the impact, albeit indirect, as it only assesses the FTA effects on wages, but not on overall employment. Nevertheless, the wage changes are an indication of the demand for labour. In Mexico, changes in real wages are between 0.24 and 0.45 percent. Given the still small size of the increase, employment is not likely to have been significantly affected by the agreement, but, if there has been any effect, it has been positive.

In respect of rights at work, the FTA itself does not have explicit provisions on this matter. During the period of evaluation, ILO complaints related to the implementation of ILO core labour standards in Mexico seem to have largely remained the same. In theory, one could expect that increased interaction between EU and Mexican firms may have had an impact on labour rights, but we did not find clear evidence on this.

For the other pillars of the Decent Work agenda (social protection and social dialogue), no clear link with the FTA was found.

The informal sector in Mexico is large, but effects of trade agreements depend on many factors. Based on the CGE results, most of the Mexican sectors, which host a large part of informal employment (especially non-tradable goods, in sectors such as services, hotels and restaurants and construction) have experienced a small positive effect on output because of the FTA and it is, therefore, not likely that informality in these sectors has increased.

Poverty and inequality

By combining CGE results related to income (wages) and expenditures (prices) with household survey data on expenditure patterns, we can also assess the impact on poverty and inequality. In line with modest impacts reported so far, changes in poverty and inequality because of the FTA are very small, but show a positive trend. The number of people below the absolute poverty line is estimated to have decreased from 58.3 million to 58.1 million, and the number of people below the extreme poverty line from 18.87 to 18.82 million people. Also, the number of people just above or below the poverty line decreased. The analysis of poverty effects for different groups of the population (by sex, age, education level, region, and place of residence (urban/rural)) show similar patterns, which suggests that no group of the population has been affected more than others (either positively or negatively).

Human rights

In respect of human rights, the GA includes human rights, as it refers to the determination to conduct a trade relationship based on respect for democracy and human rights and contains a clause to provide for suspension of trade relations in case of human rights violations. This was an innovative feature at the time, and marked the initiation of a greater focus on human rights in the EU's trade agreements. In practice, this clause has not been used. Based on the relatively small, but largely positive changes identified in the economic and social analysis, the effects of the FTA on human rights are not found to be large, and, where there are effects, these are mostly positive.

6.3.3. Environmental impact

In respect of the environmental impact, the FTA texts for trade in goods and trade in services do not explicitly deal with environmental issues. Therefore, the impact is only indirect, mainly stemming from changes in production and trade patterns. Given that the economic effects of the FTA are found to be limited, the environmental effects are also very small.

With quantitative analysis, using the results in estimated changes in output levels, we can assess the impact of the FTA on air pollution. Based on the modelling results, the FTA contributed to a reduction of some air pollutants, most notably in the emissions of sulphur oxides (-0.28 percent), and an increase in others, but the effects are estimated to be quite small (except for sulphur oxides, the changes are below 0.1 percent). The reduction in SOx emissions in Mexico stem from the estimated reduction of the agricultural, electricity and petrochemicals sectors. Due to sectoral output changes brought about by the FTA, greenhouse gas emissions are also estimated to be lower than without the FTA.

In respect of resources, land use is estimated to have increased in Mexico because of the FTA, by 0.13 percent. For other environmental elements (e.g. water, waste, biodiversity) the effects of the FTA are ambiguous, but, based on the overall economic and environmental results, are expected to be small.

The EU-Mexico agreement does not contain any specific provisions on Environmental Goods and Services (EGS). We analysed bilateral trade for six environmental goods in more detail. Although, for most of these products, trade flows have increased significantly (the direction of trade depending on the specific product), a clear link with the FTA is difficult to establish.

For the EU, all environmental impacts are even smaller in relative terms and very close to zero.

6.4. Concluding remarks

The results of our study show that the impact of the EU-Mexico FTA has been positive, although the impacts are considered to be modest. Based on an analysis of text and implementation of the agreement itself, as well as on a gravity analysis, we can conclude that the Agreement has mainly reduced tariff barriers, and did not significantly change non-tariff barriers between the two trade partners. Although the FTA contained review clauses to achieve further deepening of the FTA, this has, in practice, not been realised.

The main causes behind the relatively modest results do not seem to relate to the specific provisions of the FTA, but, rather, to more general factors, like the lack of awareness, equal or better market access conditions in countries in the region, and differences in standards.

Given that the FTA does not include specific environmental or social provisions, with the exception of human rights, the social and environmental effects are mainly indirect, stemming from the economic effects. Also, for the social and environmental impacts, results are therefore small, but largely positive. In respect of the Democratic clause in the GA that refers to human rights, critics note that it lacks a legal basis and specific instruments to ensure respect for human rights.

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