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International Trade Commission

U.S.-Mexico-Canada Trade Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors

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Table of Contents

Abbreviations and Acronyms	9
Executive Summary	13
Overview of Assessment.....	15
Economy-wide Assessment	15
Broad Sector Assessments	16
Overview of the Agreement	17
Industry-specific Provisions of USMCA.....	18
Manufactured Goods and Energy Products.....	18
Services	21
Agricultural Goods	22
Assessment of Crosscutting Provisions.....	23
International Data Transfers and E-commerce.....	23
Investment	24
Labor	25
Intellectual Property Rights	25
Chapter 1 Introduction	27
Purpose	27
Scope of Analysis	27
USMCA Agreement Overview.....	28
Analytical Approach	29
Organization of the Report	30
USMCA Regional Economic Overview	30
Gross Domestic Product.....	30
Trade in Goods and Services.....	32
Bibliography	35
Chapter 2 Economy-wide and Broad Sectoral Effects of Quantified Provisions	37
Introduction	37
Modeling Coverage	38
Extensions to the Commission’s Modeling.....	41
Estimated Economy-wide Impact of the USMCA	43
Aggregate Effects of USMCA.....	43
Effects of USMCA on Different Types of U.S. Workers	45
Analytical Framework for the Economy-wide Analysis	50
Provisions Altering Current Policies or Standards	50
Provisions That Reduce Policy Uncertainty for International Data Transfer, Cross-border Services, and Investment	52

Economy-wide Model	58
Modeling of Labor	60
Review of Related Literature	62
Bibliography	64
Chapter 3 Automotive, Steel, and Aluminum Products	69
Overview	69
Automotive Industry Overview.....	69
U.S. Automotive Trade with Mexico and Canada.....	72
Summary of Key Automotive, Steel, and Aluminum Provisions.....	74
Labor Value Content (LVC).....	79
Rules of Origin for Steel and Aluminum Purchases	81
Impact of USMCA on U.S. Automotive and Related Sectors	81
Quantifying Industry-level Effects	83
Estimated Effects Based on the Model.....	85
Literature Review.....	88
Bibliography	90
Chapter 4 Other Manufactured Goods and Natural Resources and Energy Products	93
Overview	93
U.S. Manufactured Goods, Natural Resources, and Energy Trade with Canada and Mexico..	94
Summary of Key Provisions	95
Industry-specific Discussion.....	98
Chemical and Pharmaceutical Products	98
Electronic Products	100
Energy Products	105
Textiles and Apparel.....	108
Bibliography	113
Chapter 5 Agricultural Products.....	117
Overview	117
U.S. Trade with Canada and Mexico.....	118
Summary of Key Provisions	118
Impact on Specific Sectors	120
Dairy Products.....	121
Poultry, Egg, and Egg-Containing Products.....	126
Sugar and Sugar-containing Products.....	129
Alcoholic Beverages	130
Wheat.....	131
Sanitary and Phytosanitary (SPS) Provisions.....	132
Biotechnology	134
Literature Review.....	135

Bibliography	137
Chapter 6 Services	141
Overview	141
U.S. Trade with Canada and Mexico	143
Summary of Key Provisions	147
Market Access Provisions.....	148
Annex I and II Nonconforming Measures	150
Other Key Provisions on Cross-border Trade in Services.....	152
Impact on Specific Sectors	153
Audiovisual Services.....	155
Financial Services	158
Professional Services.....	160
Transportation Services (Land/Rail/Maritime).....	162
Bibliography	167
Chapter 7 Digital Trade and E-commerce	171
Overview	171
Description of Selected Digital Industries.....	172
Summary of Key Provisions	172
Impact on U.S. Economic Sectors: Analysis of Data Measures.....	175
Impact of USMCA Provisions for Selected Digital Industry Sectors	179
Computer Services	179
Telecommunications.....	180
Business-to-Consumer E-commerce.....	182
Estimating the Effects of Higher De Minimis Thresholds	184
Electronic Payment Services	185
Express/Postal Services.....	186
Bibliography	188
Chapter 8 Crosscutting Provisions: Investor-State Dispute Settlement, Intellectual Property Rights, and Labor	193
Overview	193
Investor-State Dispute Settlement Mechanism	193
Assessment of Changes in Key ISDS Provisions	194
Modeling of Changes to Key ISDS Provisions.....	199
Intellectual Property Rights	203
Changes to Key IPR Provisions	204
Assessment of Changes to Key IPR Provisions.....	207
Modeling of Changes to Key IPR Provisions.....	213
Labor	214
Assessment of Changes to Key Labor Provisions.....	218
Modeling of Labor Provisions: Collective Bargaining in Mexico.....	221

Bibliography	223
Chapter 9 Other Crosscutting Provisions.....	233
Overview	233
Rules of Origin Provisions (Chapter 4)	233
Origin Procedures Provisions (Chapter 5).....	235
Customs and Trade Facilitations Provisions (Chapter 7)	236
Trade Remedies (Chapter 10)	239
Technical Barriers to Trade Provisions (Chapter 11)	241
Government Procurement Provisions (Chapter 13)	243
Temporary Entry Provisions (Chapter 16)	245
Competition Policy Provisions (Chapter 21)	247
State-owned Enterprises and Designated Monopolies Provisions (Chapter 22)	249
Environmental Provisions (Chapter 24).....	251
Small and Medium-sized Enterprises Provisions (Chapter 25).....	253
Competitiveness (Chapter 26)	254
Anticorruption Provisions (Chapter 27).....	255
Good Regulatory Provisions (Chapter 28)	256
Publication and Administration Provisions (Chapter 29)	258
Administrative and Institutional Provisions (Chapter 30)	259
Dispute Settlement Provisions (Chapter 31)	259
Exceptions and General Provisions (Chapter 32)	262
Macroeconomic Policies and Exchange Rate Matters (Chapter 33)	263
Final Provisions (Chapter 34)	265
Bibliography	267
Appendix A Request Letter	271
Appendix B Federal Register Notices	273
Appendix C Calendar of Hearing Witnesses	279
Appendix D Summary of Views of Interested Parties	287
Appendix E Economy-wide Model.....	307
Appendix F Modeling of Labor Provisions	321
Appendix G Automotive Rules of Origin Model	335
Appendix H Gravity Modeling of International Data Transfer, Cross-border Services, and IPR Provisions.....	343
Appendix I Modeling of E-commerce.....	357
Appendix J Modeling Investment	365

Boxes

Box 3.1 Engine and Transmission Production, Trade, and Consumption.....	73
Box 5.1 Operation of Tariff-Rate Quotas (TRQs)	126
Box 5.2 1997 Sugar and Sugar-containing Products Letter of Agreement.....	129

Box 6.1 Modes of supply for services trade	142
Box 6.2 Ratchet Mechanism	143
Box 8.1 History of ISDS under NAFTA	196

Figures

Figure ES.1 Components of USMCA automotive rules of origin.....	19
Figure 1.1 Shares of world GDP for USMCA signatory countries, 2017	31
Figure 1.2 Shares of USMCA countries' GDP, by sector, 2017	31
Figure 1.3 Share of total trade of goods and services exports and imports, by partner, 2017.....	32
Figure 1.4 Trade shares of the selected countries in U.S. trade in goods, 2017	33
Figure 1.5 Trade shares of selected countries in U.S. trade in services	34
Figure 2.1 The economy-wide analytical framework	39
Figure 2.2 Effects of USMCA on U.S. wages by level of education: percent changes relative to the baseline	46
Figure 2.3 Effects of USMCA on U.S. employment by level of education: changes in values relative to the baseline	48
Figure 2.4 Effects of USMCA on U.S. employment by level of education: percent changes relative to the baseline	49
Figure 3.1 Components of USMCA automotive rules of origin	76
Figure 3.2 U.S. shipments of motor vehicles and parts, by type, 2016 (billion dollars)	85
Figure I.1: Constant elasticity of substitution (CES) demand assumption.....	357

Tables

Table ES.1 Economy-wide impacts of USMCA (changes relative to baseline in 2017).....	16
Table ES.2 Impacts of USMCA on U.S. trade (percent changes relative to baseline in 2017).....	16
Table ES.3 Broad sector-level impacts of USMCA on U.S. employment, real wages, and trade with the world (changes relative to baseline estimates in 2017)	17
Table 1.1 USMCA chapters and their coverage in the Commission report	29
Table 2.1 USMCA provisions included in the economy-wide quantitative assessment.....	41
Table 2.2 Economy-wide effects of USMCA (percent changes relative to the baseline)	44
Table 2.3 Economy-wide effects of USMCA (changes in values relative to the baseline).....	44
Table 2.4 Effects of USMCA on trade in three broad sectors (percent changes relative to the baseline).....	45
Table 2.5 Effects of USMCA on trade in three broad sectors (changes in billions of dollars relative to the baseline)	45
Table 2.6 Impact of modeled provisions that reduce policy uncertainty on the economy-wide effects of USMCA (percent changes relative to the baseline).....	56
Table 2.7 Impact of modeled provisions that reduce policy uncertainty on the economy-wide effects of USMCA (changes in values relative to the baseline)	57
Table 2.8 Impact of modeled provisions that reduce policy uncertainty on the economy-wide effects of USMCA (percent changes relative to the baseline).....	57
Table 2.9 Economy-wide effects of USMCA (percent changes relative to the baseline)	61
Table 2.10 Economy-wide effects of USMCA (changes in values relative to the baseline).....	61

Table 2.11 Effects of USMCA on trade (percent changes relative to the baseline)	62
Table 3.1 U.S. motor vehicle and parts shipments and employment, 2016	70
Table 3.2 U.S. automotive, steel, and aluminum imports for consumption and domestic exports to Canada, Mexico, and the rest of the world, 2017 (billion dollars)	72
Table 3.3 Summary of key USMCA provisions on automotive, steel, and aluminum products.....	76
Table 3.4 Calculation of credit from high-wage material and manufacturing costs	80
Table 3.5 Calculation of credit from high-wage R&D and IT expenditures	80
Table 3.6 Sum of all labor value content (LVC) calculations for a hypothetical passenger vehicle	81
Table 3.7 Estimated changes in prices and consumption in the U.S. market due to the USMCA’s automotive ROOs (percent changes relative to the baseline, unless specified otherwise)	86
Table 3.8 Estimated changes in the production of and trade in U.S. vehicles due to the USMCA’s automotive rules of origin (ROOs) (thousands of vehicles; percent changes relative to the baseline)	86
Table 3.9 Changes in U.S employment in the automotive industry due to the USMCA’s automotive rules of origin (ROOs) (relative to the baseline)	88
Table 4.1 U.S. Other MNRE imports for consumption and domestic exports to Canada, Mexico, and the rest of the world, 2017 (million dollars)	95
Table 4.2 Summary of key USMCA provisions.....	96
Table 4.3 Comparison of tariff preference levels (TPLs) in NAFTA and USMCA.....	111
Table 5.1 U.S. agriculture products imports for consumption and domestic exports to Canada, Mexico, and the rest of the world, 2017 (million dollars)	118
Table 5.2 Summary of key USMCA provisions on agriculture	119
Table 5.3 Additional U.S. dairy market access in Canada	121
Table 5.4 Additional Canadian dairy market access in the United States	122
Table 5.5 Poultry, egg, and egg-containing products: Canada tariff concessions.....	127
Table 6.1 U.S. cross-border exports and imports of services, by industry, 2017 ^a (billion dollars).....	145
Table 6.2 U.S. affiliate sales and affiliate purchases by industry, 2016 ^a (billion dollars)	146
Table 6.3 Summary of key USMCA provisions on services.....	147
Table 6.4 Estimated reduction in trade costs for cross-border services due to the effects of USMCA commitments, by party and services sector, percent	154
Table 6.5 Estimated increase in foreign affiliate sales due to the effects of USMCA commitments, by party and services sector, percent.....	155
Table 7.1 Summary of key USMCA digital trade and e-commerce provisions.....	174
Table 7.2 Estimated reductions in trade costs stemming from the international data transfer provisions in USMCA (percentage points)	178
Table 7.3 Impact of Canada and Mexico increasing de minimis thresholds	185
Table 8.1 USMCA Chapters in this section.....	193
Table 8.2 Summary of key USMCA provisions related to ISDS.....	195
Table 8.3 Summary of key USMCA provisions on intellectual property rights.....	207
Table 8.4 Estimated reductions in trade costs stemming from the IPR provisions in USMCA (percentage points).....	214
Table 8.5 Summary of key USMCA provisions on labor	215
Table 9.1 USMCA chapters described in this chapter	233
Table 9.2 Summary of key USMCA Chapter 4 provisions on Rules of Origin	234
Table 9.3 Summary of key USMCA provisions on origin procedures	235

Table 9.4 Summary of key USMCA provisions on customs and trade facilitations	236
Table 9.5 Summary of USMCA’s key trade remedy provisions	239
Table 9.6 Summary of USMCA’s key technical barriers to trade provisions	242
Table 9.7 Summary of USMCA’s key government procurement provisions	244
Table 9.8 Summary of USMCA’s key temporary entry provisions.....	246
Table 9.9 Summary of USMCA’s key competition policy provisions	247
Table 9.10 Summary of USMCA’s key state-owned enterprises and designated monopolies provisions.....	250
Table 9.11 Summary of USMCA’s key environmental provisions.....	252
Table 9.12 Summary of USMCA’s key small and medium-sized enterprises (SME) provisions	253
Table 9.13 Summary of USMCA’s key competitiveness provisions.....	255
Table 9.14 Summary of USMCA’s key anticorruption provisions.....	255
Table 9.15 Summary of USMCA’s key good regulatory provisions.....	256
Table 9.16 Summary of USMCA’s key publication and administration provisions.....	258
Table 9.17 Summary of USMCA’s key administrative and institutional provisions.....	259
Table 9.18 Summary of USMCA’s key dispute settlement provisions.....	260
Table 9.19 Summary of USMCA’s key exceptions and general provisions.....	262
Table 9.20 Summary of USMCA’s key macroeconomic policies and exchange rate matters provisions.....	264
Table 9.21 Summary of USMCA’s key final provisions	266
Table E.1 Educational attainment by group, as share of total, all industries (percent)	312
Table E.2 U.S. labor supply elasticities	313
Table E.3 Economy-wide effects of USMCA (percent changes relative to the baseline, unless specified otherwise)	314
Table E.4 Effects of USMCA on trade (percent changes relative to the baseline, unless specified otherwise)	315
Table E.5 Effects of USMCA on U.S. labor, by level of education (percent changes relative to the baseline, unless specified otherwise)	316
Table F.1 Union membership status in Mexico (1,000 persons)	324
Table F.2 Gender and education summary of workers in Mexico.....	324
Table F.3 Union premium estimation results of workers in Mexico	325
Table F.4 Unionization rates in Mexico in 2017, by 2-digit NAICS industry classification.....	326
Table F.5 Economy-wide effects of USMCA and effects of USMCA on trade under different assumptions about the union wage premium in Mexico (percent changes relative to the baseline, unless specified otherwise).....	327
Table F.6 Effects of USMCA on U.S. labor by level of education under different assumptions about the union wage premium in Mexico (percent changes relative to the baseline, unless specified otherwise)	329
Table F.7 Economy-wide effects of USMCA and effects of USMCA on trade under different assumptions about the unionization rate in Mexico (percent changes relative to the baseline, unless specified otherwise)	330
Table F.8 Effects of USMCA on U.S. labor by level of education under different assumptions about the unionization rate in Mexico (percent changes relative to the baseline, unless specified otherwise).....	331

Table G.1 Vehicle prices and consumption in the U.S. market assuming less price-elastic demand (percent changes relative to the baseline, unless otherwise specified).....	337
Table G.2 U.S. vehicle production and international trade assuming less price-elastic demand: Changes in 1,000 vehicles relative to the baseline (percent changes relative to the baseline).....	338
Table G.3 U.S employment in the industry (changes in 1,000 full-time equivalent workers relative to the baseline)	338
Table G.4 Vehicle prices and consumption in the U.S. market assuming noncompliance (percent changes relative to the baseline unless specified otherwise)	338
Table G.5 U.S. vehicle production and international trade assuming noncompliance: Changes in 1,000 vehicles relative to the baseline (percent changes relative to the baseline)	339
Table H.1 Estimated reductions in trade costs stemming from the international data transfer provisions in USMCA (percentage points).....	349
Table H.2 Estimated reductions in trade costs for cross-border services due to the effects of USMCA commitments (percentage points)	350
Table H.3 IPR protection scores for Canada, Mexico, and the United States before and after USMCA	353
Table H.4 Estimated reductions in trade costs stemming from the IPR provisions in USMCA (percentage points).....	353
Table I.1 Data Inputs in the partial-equilibrium model	359
Table I.2 Estimated reduction in AVE costs for express shipments to Canada due to higher de minimis thresholds (percentage points relative to the baseline).....	360
Table I.3 Distribution of package values shipped to Canada using express couriers	361
Table I.4 Effect on U.S. e-commerce sales from changes in de minimis thresholds (DMTs)	362
Table J.1 Estimated increases in foreign affiliate sales due to the effects of USMCA commitments (percent)	370
Table J.2 U.S. foreign affiliate sales in Mexico, 2016.....	372

Abbreviations and Acronyms

Acronym	Term
AALA	American Automobile Labeling Act
AAM	Association for Accessible Medications
AAP	Association of American Publishers
AAPC	American Automotive Policy Council
AAR	Association of American Railroads
ACC	American Chemistry Council
ACTPN	Advisory Committee for Trade Policy and Negotiations
AdvaMed	Advanced Medical Technology Association
AFL-CIO	American Federation of Labor and Congress of Industrial Organizations
AISI	American Iron and Steel Institute
API	American Petroleum Institute
ATAC	Agricultural Technical Advisory Committee
AVE	ad valorem equivalent
B2C	business-to-consumer
BC	British Columbia
BEA	Bureau of Economic Analysis
BITs	bilateral investment treaties
BLS	Bureau of Labor Statistics
CAR	Center for Automotive Research
CARD	Center for Agricultural and Rural Development
CARI	Canadian Association of Recycling Industries
CBP	U.S. Customs and Border Protection
CCIA	Computer & Communication Industry Association
CDIC	Canadian Dairy Information Centre
CEMLA	Center for Latin American Monetary Studies
CES	constant elasticity of substitution
CET	constant elasticity of transformation
CGE	computable general equilibrium
CIA	Central Intelligence Agency
COOL	country of origin labeling
CPS	Current Population Survey (U.S. Census/Bureau of Labor Statistics)
CPTPP	Comprehensive and Progressive Trans-Pacific Partnership
CRS	Congressional Research Service
CSI	Coalition of Services Industries
CSIS	Center for Strategic and International Studies
CWRS	Canada Western Red Spring (wheat)
DESA	Department of Economic and Social Affairs (United Nations)
DHS	U.S. Department of Homeland Security
DM	designated monopoly
DMT	de minimis threshold
DRP	Duties Relief Program (Canada)
EAA	Express Association of America
EBOPS	Extended Balance of Payments Services Classification
EDIS	Electronic Docket Information System
EIA	U.S. Energy Information Administration
EIF	entry into force
EIU	Economist Intelligence Unit
ENOE	National Survey of Occupation and Employment (Mexico)

U.S.-Mexico-Canada Trade Agreement

Acronym	Term
EPs	Employment Projections program
ERS	Economic Research Service (USDA)
ESA	Entertainment Software Association
EU	European Union
FAS	foreign affiliate sales
FDI	foreign direct investment
FET	fair and equitable treatment
FFVA	Florida Fruit & Vegetable Association
FTA	free trade agreement
FTC	Free Trade Commission
FTE	full-time equivalent
GAF	Global Affairs Canada
GATS	General Agreement on Trade in Services
GDP	gross domestic product
GEMPACK	General Equilibrium Modeling Package
GI	geographical indication
GIPC	Global Intellectual Property Center
GME	Gravity Modeling Environment
GPA	Agreement on Government Procurement (WTO)
GTAP	Global Trade Analysis Project
GTAP-FDI	Global Trade Analysis Project-Foreign Direct Investment (model)
HS	Harmonized Commodity Description and Coding System (Harmonized System) (WCO)
HTS	Harmonized Tariff Schedule of the United States
IA	Internet Association
IACAC	Inter-American Convention Against Corruption
ICT	information communications technology
IDFA	International Dairy Foods Association
IGPAC	Intergovernmental Policy Advisory Committee
IIPA	International Intellectual Property Alliance
ILO	International Labour Organization
IMF	International Monetary Fund
INARE	National Institute of Recyclers (Mexico)
INEGI	National Institute of Statistics and Geography (Mexico)
IP	intellectual property
IPRs	intellectual property rights
IPTV	Internet Protocol television
IREP	Import for Re-export Program (Canada)
ISDS	investor-state dispute settlement
IT	information technology
ITA	International Trade Administration (USDOC)
ITAC	Industry Trade Advisory Committee
ITAC 1	Industry Trade Advisory Committee on Aerospace Equipment
ITAC 2	Industry Trade Advisory Committee on Automotive Equipment and Capital Goods
ITAC 3	Industry Trade Advisory Committee on Chemicals, Pharmaceuticals, Health/Science Products and Services
ITAC 7	Industry Trade Advisory Committee on Steel
ITAC 8	Industry Trade Advisory Committee on the Digital Economy
ITAC 10	Industry Trade Advisory Committee on Services
ITAC 11	Industry Trade Advisory Committee on Textiles and Clothing
ITAC 12	Industry Trade Advisory Committee on Customs Matters and Trade Facilitation
ITAC 13	Industry Trade Advisory Committee on Intellectual Property Rights

Acronym	Term
ITI	Information Technology Industry Council
ITIF	Information Technology and Innovation Foundation
KEI	Knowledge Ecology International
LAC	Labor Advisory Committee on Trade Negotiations and Trade Policy
LFS	Labour Force Survey
LLP	low-level presence
LT	light truck
LVC	labor value content
MEA	multilateral environmental agreement
MEMA	Motor & Equipment Manufacturers Association
MFA	Multi-Fibre Arrangement
MFN status	most-favored-nation status
MPAA	Motion Picture Association of America
MPC	milk protein concentrate
MPV	multi-purpose vehicle
MRT	multilateral resistance term
MST	minimum standard of treatment
MT	metric tons
NAAEC	North American Agreement on Environmental Cooperation
NAALC	North American Agreement on Labor Cooperation
NAEGA	North American Export Grain Association
NAFTA	North American Free Trade Agreement
NAICS	North American Industry Classification System
NAPS	North American Production Sharing
NC	net cost
NCC	National Chicken Council
NCM	nonconforming measure
NEMA	National Electrical Manufacturers Association
NGFA	National Grain and Feed Association
NHTSA	National Highway Traffic Safety Administration (USDOT)
NMPPF	National Milk Producers Federation
NT	national treatment
NTF	National Turkey Federation
OECD	Organisation for Economic Co-Operation and Development
OLS	ordinary least squares
OTEXA	Office of Textiles and Apparel (USDOC, ITA)
PhRMA	Pharmaceutical Research and Manufacturers of America
PIIE	Peterson Institute for International Economics
PNTR	permanent normal trade relations
PTA	preferential trade agreement
PV	passenger vehicle
R&D	research and development
RDP	regulatory data protection
RIAA	Recording Industry Association of America
RIC	Remanufacturing Industries Council
ROOs	rules of origin
RSI	Railway Supply Institute
RVC	regional value content
SCP	sugar-containing product
SDN	software-defined networks
SIA	Semiconductor Industry Association

U.S.-Mexico-Canada Trade Agreement

Acronym	Term
SIIA	Software and Information Industry Association
SMA	Steel Manufacturers Association
SMEs	small and medium-sized enterprises
SMMEs	small, medium, and micro enterprises
SMP	skim milk powder
SOCMA	Society of Chemical Manufacturers and Affiliates
SOE	state-owned enterprise
SPS	sanitary and phytosanitary
SSDS	state-to-state dispute settlement
STIS	Science, Technology and Industry Scoreboard
STRI	Services Trade Restrictiveness Index
TBT	technical barriers to trade
TEPAC	Trade and Environment Policy Advisory Committee
TFC	Turkey Farmers of Canada
TIPRO	Texas Independent Producers and Royalty Owners Association
TPLs	tariff preference levels
TPP	Trans-Pacific Partnership
TRQ	tariff-rate quota
TSA	Transportation Security Administration (U.S. Department of Homeland Security)
TTD	Transportation Trades Department (AFL-CIO)
TV	transaction value
UN	United Nations
UNCAC	United Nations Convention Against Corruption
UNCTAD	United Nations Conference on Trade and Development
UNSD	United Nations Department of Economic and Social Affairs Statistics Division
USDA	U.S. Department of Agriculture
USDEC	U.S. Dairy Export Council
USDOC	U.S. Department of Commerce
USDOL	U.S. Department of Labor
USDOS	U.S. Department of State
USDOT	U.S. Department of Transportation
USFIA	United States Fashion Industry Association
USITC	U.S. International Trade Commission
USMCA	United States-Mexico-Canada Agreement
USMEF	U.S. Meat Export Federation
USO	universal service obligation
USTR	U.S. Trade Representative
WCO	World Customs Organization
WDI	World Development Indicators (World Bank)
WTO	World Trade Organization

Executive Summary

As required by section 105(c) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015, this report, prepared by the U.S. International Trade Commission (Commission or USITC), assesses the likely impact of the U.S.-Mexico-Canada Agreement (USMCA or the agreement) on the U.S. economy as a whole and on specific industry sectors. As required, this assessment includes the impact of the agreement on the U.S. gross domestic product (GDP), exports and imports, aggregate employment and employment opportunities, the production, employment, and competitive position of U.S. industries likely to be significantly affected by the agreement, and the interests of U.S. consumers. This executive summary presents an overview of the agreement, provides a summary of the Commission's assessment of the likely impact of the agreement, and reviews the empirical literature regarding the agreement, to the extent that such literature exists.

Highlights

The Commission used a combination of detailed quantitative and qualitative industry analyses and an economy-wide computable general equilibrium model to assess the likely impact of USMCA on the U.S. economy and industry sectors. The model estimates that, if fully implemented and enforced, USMCA would have a positive impact on U.S. real GDP and employment.

The elements of the agreement that would have the most significant effects on the U.S. economy are (1) provisions that reduce policy uncertainty about digital trade and (2) certain new rules of origin applicable to the automotive sector. Of interest to stakeholders in many sectors, particularly services industries, are USMCA's new international data transfer provisions, including provisions that largely prohibit forced localization of computing facilities and restrictions on cross-border data flows. Industry representatives consider these provisions to be a crucial aspect of this agreement in terms of changing certain rules of trade across industry sectors, especially given the lack of similar provisions in the North American Free Trade Agreement (NAFTA).

Because NAFTA has already eliminated duties on most qualifying goods and significantly reduced nontariff measures, USMCA's emphasis is on reducing remaining nontariff measures on trade and the U.S. economy; addressing other issues that affect trade, such as workers' rights; harmonizing regulations from country to country; and deterring certain potential future trade and investment barriers.

USMCA would strengthen and add complexity to the rules of origin requirements in the automotive sector by increasing regional value content (RVC) requirements and adding other requirements. USMCA's requirements are estimated to increase U.S. production of automotive parts and employment in the sector, but also to lead to a small increase in the prices and small decrease in the consumption of vehicles in the United States.

The agreement would establish commitments to open flows of data, which would positively impact a wide range of industries that rely on international data transfers. **USMCA would reduce the scope of the investor-state dispute settlement (ISDS) mechanism,** a change that, based on modeling results, would reduce U.S. investment in Mexico and would lead to a small increase in U.S. domestic investment and output in the manufacturing and mining sectors. **The agreement, if enforced, would strengthen labor standards and rights,** including those related to collective bargaining in Mexico, which would promote higher wages and better labor conditions in that country. **New intellectual property rights provisions would increase protections** for U.S. firms that rely on intellectual property. These changes are estimated to increase U.S. trade in certain industries.

The Commission's model estimates that USMCA would raise U.S. real GDP by \$68.2 billion (0.35 percent) and U.S. employment by 176,000 jobs (0.12 percent). The model estimates that USMCA would likely have a positive impact on U.S. trade, both with USMCA partners and with the rest of the world. **U.S. exports to Canada and Mexico would increase by \$19.1 billion (5.9 percent) and \$14.2 billion (6.7 percent), respectively.** U.S. imports from Canada and Mexico would increase by \$19.1 billion (4.8 percent) and \$12.4 billion (3.8 percent), respectively. **The model estimates that the agreement would likely have a positive impact on all broad industry sectors within the U.S. economy.** Manufacturing would experience the largest percentage gains in output, exports, wages, and employment, while in absolute terms, services would experience the largest gains in output and employment.

Overview of Assessment

Economy-wide Assessment

The U.S.-Mexico-Canada Agreement addresses the trade and investment relationship between and among the United States, Canada, and Mexico. The three countries have been parties to the North American Free Trade Agreement (NAFTA) since it entered into force on January 1, 1994. The new agreement would affect barriers to trade in goods and services, revise rules that govern trade and investment, and alter the regulatory environment for exports and imports in the region.

The Commission used an economy-wide simulation via a computable general equilibrium model to assess the likely impact of USMCA on the U.S. economy and industry sectors. In the model, the Commission included analyses specific to eight groups of USMCA provisions: agriculture, automobiles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. Each of these analyses provides estimates of provision-specific economic impacts, as well as modeling inputs for the economy-wide model. This methodology resulted in impact simulations specific to certain individual provisions and an economy-wide simulation that reflected all the modeled USMCA provisions.

The eight industry- or provision-specific components that contributed to the economy-wide model can be divided into two categories. The first category is the set of provisions that would alter current policies or set new standards within the three member countries, and that would therefore be expected to modify current conditions after USMCA enters into effect. This category includes provisions that apply to agriculture, automobiles, IPRs, e-commerce, and labor, as well as investment provisions related to the investor-state dispute settlement (ISDS) mechanism. The second category is the set of provisions representing commitments that would reduce policy uncertainty. These commitments would primarily serve to deter future trade and investment barriers, thus offering firms some assurance that current regulations and standards, which may or may not be expressly governed by current policies, will not become more restrictive.¹ The provisions included in this second category are those addressing international data transfer, cross-border services trade, and investment issues related to market access and nonconforming measures.²

In light of the size of the U.S. economy relative to the size of the Mexican and Canadian economies, as well as the reduction in tariff and nontariff barriers that has already taken place among the three countries under NAFTA, the impact of the agreement on the U.S. economy is likely to be moderate. The Commission estimates that USMCA would increase U.S. real GDP relative to a baseline scenario in which NAFTA remains in place (table ES.1). Of the eight USMCA components included in the economy-wide model, provisions that reduce policy uncertainty regarding cross-border data flows and data localization,

¹ As explained further below (see footnote 55 in chapter 2), Commissioner Kearns notes that this report assesses the economic impact of provisions that would provide greater certainty for market participants. It does not attempt to assess all possible benefits or costs associated with possible changes to existing laws and regulations.

² USMCA, like NAFTA, uses a “negative list” format for the chapters on Cross-border Trade in Services and on Investment. A negative list means that the signatories of an agreement promise to provide full access to their services markets unless they specifically list an exception, or nonconforming measure.

and certain automotive rules of origin (ROOs)³ have the most significant impact on the estimated results.⁴ The model results below are sensitive to the weight given to the impact of reducing policy uncertainty related to cross-border data flows, as discussed in chapter 2.

Table ES.1 Economy-wide impacts of USMCA (changes relative to baseline in 2017)

	Value	Percent
U.S. real GDP (billion \$)	68.2	0.35
Employment (1,000 full-time equivalent workers)	175.7	0.12

Source: USITC estimates.

Note: Dollar value is in 2017 prices.

The Commission also estimates that the agreement would increase U.S. employment, particularly among workers with between 10 and 12 years of education and between 13 and 15 years of education. In addition, workers of all levels of education are estimated to see increases in wages of about 0.27 percent on average, with the most highly educated workers experiencing the largest gains because of the currently tight labor market conditions for such workers.

Moreover, USMCA would increase U.S. trade with both USMCA partners and the world. Under USMCA, U.S. trade with Mexico and Canada would increase by about 5 percent (table ES.2). U.S. trade with the rest of the world would also increase, but by less in percentage terms. As a result, U.S. trade with its NAFTA partners would represent a larger share of total U.S. trade.

Table ES.2 Impacts of USMCA on U.S. trade (percent changes relative to baseline in 2017)

	Exports (%)	Exports (billion \$)	Imports (%)	Imports (billion \$)
U.S. trade with Canada	5.9	19.1	4.8	19.1
U.S. trade with Mexico	6.7	14.2	3.8	12.4

Source: USITC estimates, USITC DataWeb.

Note: Exports and imports include both goods and services.

Broad Sector Assessments

The Commission estimates that USMCA would increase U.S. exports and imports for each of the three broad industry sectors: agriculture, manufacturing, and services (table ES.3). The Commission’s model indicates that U.S. manufacturing exports would experience the largest percentage increase from USMCA, while services would experience the largest impact in terms of imports. Trade in agriculture under USMCA would grow as well, but to a lesser extent than in the other industry segments. USMCA would have a positive impact on employment in each of the sectors, with manufacturing experiencing the greatest increase in percentage terms and services in absolute terms.

³ Rules of origin are the rules that determine whether a particular good qualifies for preferential or duty free treatment under an agreement.

⁴ As explained later, Commissioner Kearns believes that labor obligations could also have a very significant effect if fully implemented and enforced, and taking into account (1) Mexican wages being below Mexican productivity, and (2) the possibility that the U.S. and/or Mexican economies may not be at full capacity utilization when the USMCA is fully implemented.

Table ES.3 Broad sector-level impacts of USMCA on U.S. employment, real wages, and trade with the world (changes relative to baseline estimates in 2017)

Industry	Exports (%)	Imports (%)	Output (%)	Real wages (%)	Employment (%)	Employment (1,000 jobs)
Agriculture	1.1	1.3	0.18	0.23	0.12	1.7
Manufacturing and mining	3.3	2.1	0.57	0.50	0.37	49.7
Services	1.2	3.4	0.17	0.23	0.09	124.3

Source: USITC estimates.

Overview of the Agreement

USMCA is a broad trade and investment agreement. Because NAFTA eliminated tariffs in most sectors, USMCA largely involves rule changes that impact a number of industries. Some rule changes are industry specific, such as the increase in tariff-rate quotas (TRQs) above levels currently established by NAFTA for dairy, poultry, eggs, and egg-containing products.⁵ It is estimated that this rule change would offer the United States additional market access into Canada.

Significant rule changes with broader impacts include those liberalizing certain nontariff barriers to investment and to trade in goods and services, as well as others harmonizing and strengthening regulatory practices. Also significant are rules governing trade, including new or revised provisions on ROOs, digital trade, IPRs, government procurement, customs facilitation, sanitary and phytosanitary measures, technical barriers to trade, and labor and environmental standards, among others. Many of the USMCA provisions reflect commitments to refrain from making current trade and investment regulatory practices more restrictive. These provisions will likely benefit U.S. businesses by reducing business uncertainty, potentially lowering trade costs for businesses.

Another change that USMCA would bring are its complex termination, review, and extension provisions. Witnesses at the Commission's public hearing disagreed on whether and to what extent the review and termination provisions would be viewed as adding uncertainty. Given this lack of clarity and the paucity of economic research on the likely effects of such provisions, these were not included in the Commission's model.

The Commission used a variety of analyses to assess the impact of the agreement. The Commission has quantified the impact of the key provisions on respective industries, and then applied these estimates in an economy-wide model to estimate the impact of USMCA on the U.S. economy and industry sectors, as discussed above. The report also includes assessments based on interviews by Commission staff, testimony and written submissions related to the Commission's hearing and overall investigation, and Commission staff industry expertise; these assessments include a summary of relevant industry views.

The Commission's assessment of USMCA incorporates several modeling extensions relative to previous USITC studies. These extensions are in response to provisions not previously included in free trade agreements and improved modeling and data availability. The Commission's assessment in this report expands modeling of provisions that reduce policy uncertainty. These commitments give assurance to

⁵ A tariff-rate quota typically involves a two-tiered tariff on imports of a certain good, under which a country imposes a lower rate of duty or no duty on imports that enter within the good's quota amount and imposes a higher rate of duty on imports that enter above that amount (i.e., after the quota is filled).

firms that they will continue to face the same regulations going forward and alleviate concerns that any of the member countries could formulate more restrictive policies in the future. The Commission's analysis in this report also expands its modeling of labor by distinguishing workers by their level of education and including restrictions on labor mobility across industries.

Industry-specific Provisions of USMCA

Manufactured Goods and Energy Products

For the industries in the manufactured goods and energy product sectors, the Commission estimates that USMCA would particularly impact the automotive industry. This reflects the presence of several USMCA provisions, including those mandating increased regional value content (RVC) for vehicles and parts, as well as the inclusion of labor value content rules governing the production of vehicles.⁶ The Commission expects that the provisions pertaining to other manufactured goods sectors—including chemicals and pharmaceuticals, electronic products, energy products, and textiles and apparel—would not have a significant economy-wide impact. However, various industry representatives support certain USMCA provisions related to their industry sectors (as discussed in chapter 4), and have indicated that these provisions are generally expected to have a positive impact for certain industries. Several crosscutting provisions, such as those pertaining to international data transfers, the ISDS mechanism, and IPRs, would also impact manufacturing and energy industries. These crosscutting provisions are discussed in a separate section in the Executive Summary.

Automotive Products

USMCA represents a significant increase in regional content required for duty-free treatment, and introduces a more complicated process for qualifying automotive, steel, and aluminum products for such treatment. According to Commission estimates, these changes, excluding the impact of crosscutting provisions (e.g., international data transfers) discussed in a separate section, would lead to an increase in U.S. automotive parts production, partly offset by a small decline in U.S. vehicle production. These developments are estimated to result in a net employment increase of more than 28,000 full-time equivalent (FTE) employees in the automotive sector.⁷ At the same time, to the extent that the new ROOs reduce the utilization of tariff preferences or lead to more costly sourcing of core

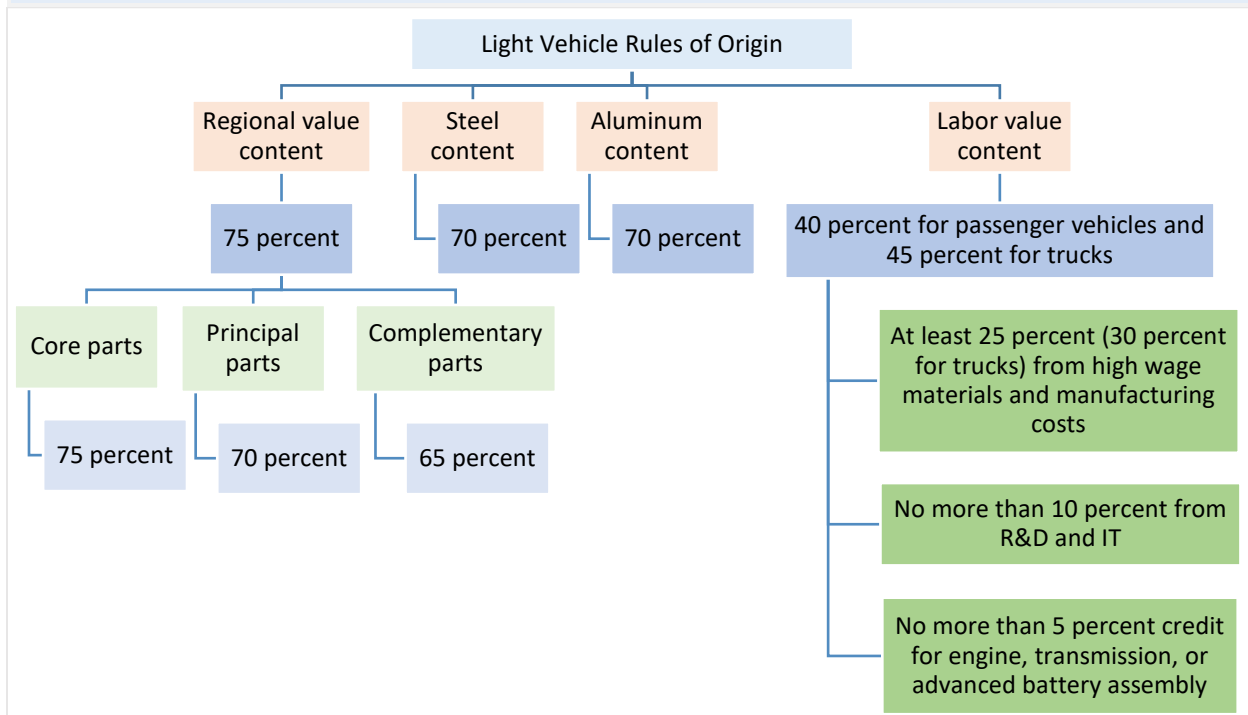
⁶ Regional value content requirements are commonly used in rules of origin. To meet this type of requirement, a good must contain at least a minimum amount of material originating from one or more of the parties of the agreement. The labor value content requirement is a unique formulation for USMCA. To meet this type of requirement, a good must contain a minimum amount of originating material produced by workers paid at a particular wage level or higher (in this case, \$16 per hour).

⁷ Commission estimates of the economic effects of the new ROOs are sensitive to the assumption that certain manufacturers would increase their production costs by shifting sourcing of core parts to the United States, even though the non-preferential tariff rates that they would face (for many vehicle types) if they did not comply with the new automotive ROOs would be small. Vehicles manufactured in Mexico are particularly sensitive to the increased costs of shifting supply chains and/or increased tariffs due to the relatively low profitability of many of the small cars produced there (Peter Valdes-Dapena, "Ford Moving All Small Car Production to Mexico," CNN, September 15, 2016). Also, because several factors are not included in the economic model (see appendix G), the effects shown in the model could be amplified or mitigated. Alternative scenarios are included in appendix G.

parts, prices of passenger vehicles and light trucks would rise slightly in the United States, resulting in a slight decline in consumption of these vehicles in the market.

USMCA's automotive provisions have seven major components: RVC requirements for vehicles, core auto parts, principal auto parts, and complementary auto parts; labor value content rules for vehicles; steel purchase requirements; and aluminum purchase requirements (figure ES.1). In addition to the automotive steel and aluminum requirements, the USMCA ROOs contain a number of new RVCs or content provisions for certain sectors. Those ROOs encourage greater use of North American-produced steel, adding RVC or steel weight requirements to goods that only needed changes in tariff classification to qualify for preferential tariff treatment under NAFTA.

Figure ES.1 Components of USMCA automotive rules of origin



Source: USITC produced based on USMCA text.

Note: "High-wage material" is defined as parts produced in a plant paying its workers an average of \$16/hr or higher.

Research and Development (R&D) and Information Technology (IT) expenditures are similarly high-wage limited.

In preparing this assessment, the Commission developed an industry-specific, partial equilibrium model to estimate changes to U.S. light vehicle and automotive parts production. The data used for this analysis were broken out by different vehicle models. This model estimates that USMCA's automotive ROOs would increase employment in the U.S. automotive industry by more than 28,000 FTE employees, as the gain of nearly 30,000 jobs in parts production would far exceed the approximately 1,500 jobs lost in the vehicle production segment. Further, the model estimates an increase in U.S. investment of \$683 million per year to meet new demand for U.S.-produced engines and transmissions. The Commission's model also estimates that prices for all vehicles would undergo a modest increase (ranging from 0.37 percent for pickup trucks to 1.61 percent for small cars), and that total consumption in the United States would decline by over 140,000 vehicles. Finally, some manufacturers may decide not to offer vehicles

that would be too expensive to bring into compliance, which would ultimately decrease consumer choice.

Textiles and Apparel

The USMCA's modifications to the NAFTA textile and apparel ROOs ease the requirements for duty-free treatment for certain products, but tighten the requirements for other products. Overall, the anticipated shifts in qualifying products are not likely to affect the aggregate volume of trade in textile and apparel. The USMCA modifies some "fiber-forward" and "yarn-forward" tariff shift rules, meaning that finished goods qualify for origination so long as the yarn and fabric are formed and finished in one of the partner countries.⁸ The tariff shift rules for goods classified under chapters 61 and 62 (knit and woven apparel) of the Harmonized Tariff Schedule of the United States (HTS) are also modified. The NAFTA requirement that visible linings be sourced from one of the parties is eliminated, but new requirements specify that sewing thread, narrow elastic fabrics, and pocket bag fabrics must be sourced from one of the parties. The agreement has new rules for certain made-up goods described in HTS chapter 63, which are made from fabric coated with plastic.

Additionally, USMCA maintains tariff preference levels for bilateral imports in all directions, with modifications to scope of coverage and quantitative limits in some cases. USMCA would also add textile-specific enforcement language comparable to that found in other U.S. free trade agreements; the language provides guidance for on-site verification visits to producers in the exporting party.

Chemicals and Pharmaceuticals

USMCA's chemicals and pharmaceuticals provisions are not expected to have a significant impact on chemical and pharmaceutical trade, although that trade is likely to be affected by the USMCA's crosscutting provisions, such as those pertaining to IPRs and international data transfers (discussed in a separate section below). For example, as with other recent trade agreements, the new process-based ROOs add alternative methods of determining origin to the existing tariff shift and RVC provisions. The new ROOs are expected to ease administrative burdens on the industry, since they parallel the ROOs in other recent U.S. agreements, but the size of the impact has not been quantified in this report.

Electronic Products

USMCA addresses electronic products in annexes on information communications technology (ICT) and on medical devices, as well as in its chapter on ROOs. The impact of these provisions, excluding the crosscutting provisions discussed in a separate section below, is expected to be small. Industry submissions highlighted some of the benefits of the provisions of the ICT annex, but did not indicate the value of these benefits. The exceptions agreed to in the ICT annex provisions may limit the impact of these provisions on trade in ICT products and services between the USMCA partners. In addition, Mexico, Canada, and the United States do not appear to have regulations that would be materially impacted by the ICT annex provisions. Likewise, the annex on medical devices—which largely addresses

⁸ Tariff shift rules require that each of the non-originating materials (parts) used in the production of a good must meet the requirements of the rule (i.e., must undergo a specified change in its classification in the tariff schedule) unless the de minimis rule applies to the shipment (i.e., the shipment value is too low for it to be subject to the rule).

regulatory convergence—is expected to have a small impact because there are already substantial points of regulatory consistency among the three trading partners.

In general, the changes to ROOs for electronic products, such as televisions, are likely to support increased trade in these products among the parties. For example, the agreement removes the RVC provision for static converters and reclassifies tariff shifts from the heading level to the subheading level (allowing increased U.S. market access for such products). It also removes tariff shifts for electronic items such as parts used for certain monitors and projectors, while reducing certain RVC rules on other products.

Energy Products

Given the already very low most-favored-nation (MFN) tariffs for the parties, as well as the effects of recent reforms in Mexico’s energy sector, USMCA’s energy-related provisions are likely to have little impact on U.S. trade and production of energy-related products. The agreement does provide much narrower exceptions for Mexico’s energy sector, allowing Mexico only to maintain export license requirements for certain energy products; the original NAFTA exceptions for Mexico allowed state control for activities related to the foreign trade (including import and export licenses) of a longer list of energy products. Under USMCA, a specific broader ROO for headings 2709 and 2710 of the international Harmonized Commodity Description and Coding System (HS) allows up to 40 percent of the volume of goods classified under HS 2709 and up to 25 percent for goods under HS 2710 to be non-originating.⁹ Also, oil and gas investments in Mexico are the subject of exceptions to USMCA’s changes in NAFTA’s ISDS provisions. These exceptions keep the same ISDS provisions for these investments as those that were in NAFTA.

Services

The services-related provisions in USMCA include changes to the parties’ obligations under NAFTA and the WTO General Agreement on Trade in Services (GATS). Most notably, USMCA introduces binding obligations on market access that build on U.S., Canadian, and Mexican GATS commitments, and makes some potentially important changes to provisions affecting certain industries. USMCA also makes changes to nonconforming measures that impact the parties’ national treatment obligations. However, a large number of USMCA provisions on services trade are unlikely to have a substantial impact on trade or output in the U.S. services sector, as many of these provisions capture obligations that are already in place under NAFTA and GATS.

Impact on Specific Services Sectors

The Commission estimates that the USMCA services provisions would impact both cross-border trade and foreign affiliate sales in services industries. The effective changes to market access commitments and nonconforming measures would reduce costs for cross-border services trade. The broadcasting, telecommunications, and courier services sectors in the United States are estimated to gain the most, followed by the commercial banking sector in all three countries. The commitments on market access and nonconforming measures are also estimated to increase foreign affiliate sales of certain services

⁹ HS headings 2709 and 2710 primarily cover crude petroleum and refined petroleum products, respectively.

industries. Foreign affiliate sales of legal services and broadcasting services in Mexico and the United States are estimated to gain the most.

Several USMCA sector-specific provisions are also expected to have notable impacts on specific services industries. The Commission expects that the provisions affecting the audiovisual services industry which ease certain broadcasting limitations would have a small positive effect. However, USMCA retaining Canada's cultural industries exemptions is of concern to U.S. audiovisual services providers. The USMCA provisions on financial data in Canada are estimated to reduce operating costs for U.S. financial services exporters. USMCA's new and revised provisions on the supply of professional services—including those on mutual recognition, market access, and cooperation, among others—are expected to have a positive impact on U.S. suppliers of such services in Canada and Mexico. USMCA's transport-related provisions, however, are not expected to have a substantial impact on U.S. trade and economic growth.

Interactive computer services firms are likely to benefit from intermediary liability protections provided in USMCA's digital trade chapter. U.S. businesses that provide telecommunications (telecom) services to multinational corporations, governments, and other large enterprises are likely to benefit from enhanced regulatory and interoperability provisions in the telecom chapter of the agreement.

Agricultural Goods

USMCA would have a positive impact on the U.S. agriculture sector. The combined effect of all USMCA provisions would increase total annual U.S. agricultural and food exports by \$2.2 billion (1.1 percent) when fully implemented. A Commission simulation that considered only the effects of the agriculture market access provisions in USMCA showed increased U.S. agriculture and food exports to the world of \$435 million. USMCA would lead to small increases in U.S. exports to Canada of dairy products, poultry meat, eggs, and egg-containing products, as well as wheat and alcoholic beverages. At the same time, it would lead to a small increase in U.S. imports of sugar and sugar-containing products and dairy products from Canada.

USMCA agricultural provisions would establish new access, via higher TRQs, for U.S. exports of dairy products, poultry meat, eggs, and egg-containing products to Canada, and for U.S. imports of sugar and sugar-containing products and dairy products from Canada.¹⁰ Canada would be permitted to maintain a supply management system (including TRQs) that protects its domestic producers of dairy products and poultry and egg products. Similarly, the United States would be permitted to maintain TRQs on sugar and sugar-containing products and on dairy products. Restrictions on trade in these products would ease slightly under USMCA. USMCA provisions also make changes in nontariff measures that would be expected to increase U.S. exports of wheat and alcoholic beverages to Canada. Most trade in agricultural products between the United States, Canada, and Mexico is already duty free under NAFTA and would continue to be duty free under USMCA.

Dairy

The Commission estimates small gains in market access for the U.S. dairy sector upon implementation of USMCA, with small export gains contributing to limited positive impacts on dairy production and

¹⁰ A tariff-rate quota (TRQ) allows a country to import up to a set quantity of a good at a reduced duty rate. Imports over the quota volume face a higher rate.

employment. Specifically, modeling results estimate a \$226.8 million (0.1 percent) gain in total dairy product output, including \$314.5 million (7.1 percent) of additional exports (\$227.0 million to Canada and \$50.6 million to Mexico) over the baseline. Increased exports to Canada would be driven largely by higher exports of cheese and other milk and cream products. New country-specific TRQs in Canada would create additional opportunities for U.S. exports of milk and milk powder, cheese, butter, and other products.

U.S. imports of dairy products are also estimated to grow, but by a smaller amount—\$227.9 million (9.0 percent). U.S. imports of Canadian dairy products would increase by \$161.7 million, driven mostly by increases in cheese imports. Canadian commitments would result in changes to Canada’s supply management system. This would include eliminating class 6 and class 7 milk pricing; establishing minimum pricing for nonfat solids used to manufacture milk protein concentrates, skim milk powder, and infant formula; imposing export charges on global Canadian exports of milk protein concentrates, skim milk powder, and infant formula that exceed set limits; and dairy market and price transparency provisions. There are also provisions on geographical indications that would help prevent future losses of U.S. market access for cheeses with common names such as “blue” or “Swiss.”

Poultry Meat

In addition to existing World Trade Organization (WTO) quotas, USMCA would require Canada to establish a duty-free TRQ for live chickens and chicken meat of U.S. origin. The TRQ volume in the first year would be 47,000 metric tons (mt). It would increase by 2,000 mt annually through the sixth year of USMCA, then increase by 1 percent per year to 62,963 mt in year 16, remaining at that level in following years. Model results indicate that U.S. poultry meat exports to Canada would increase by \$183.5 million (or nearly 50 percent) in year 6 of the agreement.

Assessment of Crosscutting Provisions

In addition to providing industry-specific assessments, the Commission estimated the impact of various crosscutting (i.e., economy-wide) provisions. The Commission identified more than 20 chapters of the agreement that included such provisions, including chapters on competitiveness, small and medium-sized enterprises, and trade remedies. The Commission provided quantitative assessments of the crosscutting provisions on international data transfers, e-commerce, investment, labor, and intellectual property rights (IPRs).

International Data Transfers and E-commerce

If enacted, USMCA would be the first U.S. free trade agreement to include a chapter on digital trade, although prior agreements such as the United States-Korea Free Trade Agreement have included e-commerce chapters with narrower scopes. USMCA’s provisions that reduce policy uncertainty regarding international data transfers and data localization are estimated to have a significant, positive impact on industries that rely on cross-border data flows. The provisions related to international data transfers are crosscutting in nature and apply broadly to U.S. firms across the economy. These provisions apply to traditional data-intensive internet firms as well as to broader services, manufacturing, and agricultural industries that rely on data and information flows in their business models, supply chains, and

international trade. Recent economic research as well as industry stakeholders have noted the importance of data transfer for all sectors of the economy because it facilitates the automation and monitoring of industrial production and agriculture, the operation of supply chains, and access to global marketplaces, among other uses.

Many of USMCA's digital trade provisions represent commitments to existing free cross-border flows of information. These provisions deter future barriers to international data transfers. Certain industry representatives have stated that the agreement's digital trade provisions are likely to promote trade, improve protection for source code and algorithms, and foster innovation. The digital trade provisions are expected to become even more valuable in the future as industries become more data-intensive.¹¹

Many U.S. industries are expected to benefit from increases in the de minimis thresholds in Mexico and Canada that would simplify and hasten customs clearance procedures for many moderate-value packages while lowering the costs of expedited deliveries.¹² Quantitative analysis estimates that higher thresholds would increase the value of U.S. e-commerce exports by \$332 million to Canada and by \$91 million to Mexico.¹³ U.S. express delivery firms are likely to benefit from increases in the de minimis thresholds. E-commerce firms are likely to benefit from lower customs processing costs, which would stimulate the growth of U.S. e-commerce exports to Canada and Mexico.

Investment

Compared to NAFTA provisions, the investment chapter of USMCA more clearly defines what constitutes an investment under the agreement, providing a basis for investment protections and enforcement for the United States, Canada, and Mexico. Investment provisions also clarify existing NAFTA language regarding MFN treatment, national treatment, and minimum standards of treatment. One of the more significant provisions in the USMCA investment chapter concerns revisions to the dispute settlement process.

Investor-State Dispute Settlement

For the United States and Canada, the USMCA carries over the ISDS mechanism included in NAFTA—but only temporarily. Under USMCA, ISDS would be phased out between the United States and Canada after three years. Upon expiration, the ISDS process would be handled by local courts in Canada and the United States.

For the United States and Mexico, the USMCA would retain ISDS regulations only under certain well-defined circumstances. For example, firms in five sectors only (oil and natural gas, power generation, telecommunications, transportation services, and some infrastructure) who are a party to a covered government contract would be able to file claims directly using the ISDS mechanism. They would be allowed to raise any claims for breach of obligations in the investment chapter (Chapter 14) of USMCA, including indirect expropriation and minimum standard of treatment. On the other hand, although U.S. investors in areas outside of the five sectors could avail themselves of international arbitration courts,

¹¹ Such an increase is not incorporated into the quantitative analysis of this report.

¹² De minimis thresholds establish a monetary value for qualified goods beneath which cross-border shipments can be exempted from taxes, duties, and simple customs procedures.

¹³ Here, e-commerce refers to low-value merchandise purchases made through online platforms.

they would be required to first exhaust Mexican domestic remedies to resolve their disputes, or to spend at least 30 months attempting to do so. Moreover, they could raise claims only about direct expropriation, national treatment, and most-favored nation treatment when using ISDS.

According to the Commission's quantitative analysis, U.S. investment in Mexico and the activity of its foreign affiliates there, except for in the five sectors listed above, is expected to be reduced as the result of the changes in ISDS provisions. The Commission's quantitative analysis also shows that the reduction in the scope of ISDS would have a small positive effect on the U.S. economy. In particular, U.S. domestic manufacturing and mining output is estimated to increase due to greater amount of capital available in the United States for investing in such industries because of reduced investment in Mexico.

Labor

The USMCA labor provisions are expected to promote higher wages and improved labor conditions in member markets if these provisions are enforced. The Commission's quantitative analysis of the collective bargaining commitments in Mexico estimates that these provisions would increase Mexican union wages by 17.2 percent, assuming that these provisions are enforced. This estimated wage increase is then applied in the economy-wide model, together with the effects of other provisions, to estimate the effects on the U.S. economy. The Commission estimates that the impact of the collective bargaining provisions related to Mexico would have a moderate effect on the U.S. economy.

The USMCA labor chapter represents a significant departure from NAFTA, which does not include a labor chapter but instead addresses labor rights in a side agreement. USMCA labor provisions are subject to the same dispute settlement mechanism as other provisions in the agreement. The USMCA labor chapter requires the parties to adopt and enforce the labor rights defined by the International Labour Organization. USMCA seeks to protect migrant workers and addresses issues of violence against workers and of imports produced by forced labor. USMCA also includes a nonderogation provision that prohibits the elimination or weakening of existing labor regulations in a way that impacts intra-party trade or investment.

Another key provision of the labor chapter specifically applies obligations to Mexico. An annex to the labor chapter, addressing worker representation in collective bargaining, commits Mexico to recognize the right for workers to use collective bargaining. There are also notable labor provisions in other USMCA chapters, including in the chapter on automotive rules of origin. These automotive-related labor provisions are included in the modeling of the automotive sector.

Intellectual Property Rights

The Commission assesses that full implementation and enforcement of the IPR chapter's provisions would benefit U.S. industries that rely on IPR protections. The agreement would strengthen protections in major IPR categories such as trade secrets, regulatory data protection, patents, trademarks, copyrights, and civil, criminal, and administrative enforcement.

The Commission's quantitative assessment of the effects of the IPR chapter identifies the statistical relationships between trade in certain IPR-intensive sectors and increased IPR protections under the agreement, and incorporates the results into an economy-wide model as ad valorem trade cost

equivalents. Of the IPR-intensive sectors considered for analysis, two—scientific and analytical instruments and medical devices—exhibit a statistically significant positive relationship between trade flows and IPR protections. The lack of significant findings for other sectors is consistent with written submissions and testimony before the Commission to the effect that in some industries, such as biopharmaceuticals, estimated gains to originator (first-to-market) firms from stronger IPR protections are offset by losses to follow-on or generic firms.

Chapter 1

Introduction

Purpose

The U.S. International Trade Commission (Commission or USITC) prepared this report to assess the likely impact of the U.S.-Mexico-Canada Agreement (USMCA or the agreement) on the U.S. economy, specific industry sectors, and the interests of U.S. consumers, pursuant to section 105(c) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015.¹⁴ The statute requires the Commission to assess the likely impact of USMCA on the U.S. economy as a whole and on specific industry sectors, including its impact on the U.S. gross domestic product (GDP); exports and imports; aggregate employment and employment opportunities; the production, employment, and competitive position of industries likely to be significantly affected by the agreement; and the interests of U.S. consumers.

The statute also requires the Commission, in preparing its assessment, to review available economic assessments regarding the agreement, including literature regarding any substantially equivalent proposed agreement, and provide in the assessment a description of the analyses used and conclusions drawn in such literature. The statute further requires the Commission to discuss areas of consensus and divergence between the various analyses and conclusions, including those of the Commission, regarding the agreement.¹⁵

Scope of Analysis

The United States already has a free trade agreement (FTA) with Mexico and Canada, known as the North American Free Trade Agreement (NAFTA). NAFTA entered into force on January 1, 1994, and eliminated tariffs for most goods traded between the three parties. While USMCA does not add any new parties to the agreement, it does modify certain rules of trade between the existing parties. This report assesses the economy-wide impacts of USMCA as well as its sectoral impacts.

Industry sectors were selected for analysis in this report based on multiple factors, including industry and Commission views on the extent of the sector's trade rule changes under USMCA as compared to NAFTA. Other factors include the potential magnitude of the agreement's sectoral impact on production and trade, and the presence of nontariff barriers that may affect trade. The Commission analyzed over 20 sectors for this report. Agricultural sectors include dairy, poultry meat, and grains. Manufacturing sectors include automotive, steel, and aluminum; textiles and apparel; electronics; energy; and other manufacturing. Services sectors include travel and transportation, professional services, financial and

¹⁴ The full text of the USMCA is available here: <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/agreement-between>. On August 31, the Commission received a letter from the U.S. Trade Representative (USTR) requesting that the Commission provide a report assessing the likely impact of the USMCA agreement on the U.S. economy, specific industry sectors, and the interests of U.S. consumers under section 105(c) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (19 U.S.C. 4204(c)). See appendix A for the request letter from the USTR.

¹⁵ Reviews of relevant literature are presented in chapters 2, 3, and 5.

insurance services, and telecommunications services. The report also analyzes USMCA's impacts on e-commerce and digital trade industry sectors.

The selection of trade issues for modeling in this report was based on the potential impact of relevant USMCA provisions and commitments and on the number of industries that they affect. Trade issues include requirements involving rules of origin, national treatment, small and medium-sized enterprise protections, data localization, de minimis thresholds (DMTs), sanitary and phytosanitary standards, intellectual property, and labor, among others.

USMCA Agreement Overview

USMCA is a broad agreement that covers trade in goods and services, rules of origin, customs facilitation, SPS measures, technical barriers to trade, foreign investment, intellectual property, government procurement, competition policy, and labor and environmental standards, among other areas. The agreement consists of 34 chapters, 4 annexes, and 14 side letters that address bilateral trade issues between the United States, Mexico, and Canada. Table 1.1 lists all chapters of the agreement.¹⁶

USMCA includes several chapters on topics that were not addressed separately—or at all—when NAFTA was negotiated, such as digital trade, anticorruption, good regulatory practices, and small and medium-sized enterprises. Other subject areas that were included in NAFTA, and have been included again in USMCA, in many cases appear in significantly revised form. The chapter on market access for goods (including provisions on poultry and dairy tariff-rate quotas) and the chapter on labor (with provisions on labor rights and enforcement mechanisms) are examples of USMCA chapters that include significant changes relative to NAFTA.

¹⁶ USTR, USMCA full text.

Table 1.1 USMCA chapters and their coverage in the Commission report

USMCA chapter	Relevant USITC report chapter
0 Preamble	
1 Initial Provisions and General Definitions	
2 National Treatment and Market Access for Goods	Chapter 9
3 Agriculture	Chapter 5
4 Rules of Origin	Chapter 9
5 Origin Procedures	Chapter 9
6 Textiles and Apparel	Chapter 4
7 Customs Administration and Trade Facilitation	Chapter 9
8 Recognition of Mexican Ownership of Hydrocarbons	Chapter 4
9 Sanitary and Phytosanitary Measures	Chapter 5
10 Trade Remedies	Chapter 9
11 Technical Barriers to Trade	Chapter 9
12 Sectoral Annexes	Chapter 4
13 Government Procurement	Chapter 9
14 Investment	Chapter 8
15 Cross-Border Trade in Services	Chapter 6
16 Temporary Entry	Chapter 9
17 Financial Services	Chapter 6
18 Telecommunications	Chapter 7
19 Digital Trade	Chapter 7
20 Intellectual Property	Chapter 8
21 Competition Policy	Chapter 9
22 State-Owned Enterprises	Chapter 9
23 Labor	Chapter 8
24 Environment	Chapter 9
25 Small and Medium-Sized Enterprises	Chapter 9
26 Competitiveness	Chapter 9
27 Anticorruption	Chapter 9
28 Good Regulatory Practices	Chapter 9
29 Publication and Administration	Chapter 9
30 Administrative and Institutional Provisions	Chapter 9
31 Dispute Settlement	Chapter 9
32 Exceptions and General Provisions	Chapter 9
33 Macroeconomic Policies and Exchange Rate Matters	Chapter 9
34 Final Provisions	Chapter 9

Note: Bolded chapters were not present in NAFTA.

Analytical Approach

The Commission used several approaches to estimate the aggregate and sectoral impacts of the diverse provisions of USMCA, including employing industry- and provision-specific modeling techniques. First, the Commission conducted analyses specific to eight industries or provisions: agriculture, automobiles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. These analyses were then integrated into an economy-wide computable general equilibrium (CGE) model. The model provided estimates on the combined impact of the agreement on the U.S. economy, including key economic indicators such as GDP, trade, employment, and wages

(broken down by the workers' level of education), as well as on broad sectors of the economy.¹⁷ The CGE model is based on the Global Trade Analysis Project (GTAP) model, which the Commission modified for this report to reflect the unique characteristics of the new provisions.

The Commission expanded on the modeling analysis done in previous USITC reports by modeling additional quantitative impacts of USMCA provisions. Approaches include estimating the impact of provisions that reduce policy uncertainty for trade and investment. For example, the model estimates impacts driven by provisions that commit USMCA parties not to restrict cross-border data flows; such commitments tend to reduce regulatory uncertainty and lessen trade costs. Additional modeling extensions include modeling USMCA impacts for different groups of labor as well as for restrictions in the ability of workers to switch between industries.

In addition to the quantitative impacts derived from the economy-wide model and the Commission's industry- or provision-specific assessments, this report provides analysis comparing USMCA provisions and their potential impact with current practices and standards. This analysis relies upon interviews with industry representatives, testimony from Commission's public hearing of November 15–16, 2018, and briefs related to the hearing, as well as written submissions from interested parties. The qualitative analysis further reflects analysis of trade and production data and reviews of media, academic, and consulting reports.

Organization of the Report

The rest of this chapter gives an economic overview of the USMCA region. Chapter 2 describes the Commission's quantitative methodology and reports estimates of the likely impacts of USMCA on the U.S. economy as a whole and on broad sectors of the economy, taking into account trade and investment liberalization under the agreement. The report presents relevant literature and analyses of substantially similar agreements in the chapters for the sectors that it covers (see chapters 2, 3, and 5). Chapters 3, 4, 5, 6, and 7 present industry-specific quantitative and qualitative assessments for the automotive, other manufacturing and natural resources and energy products, agricultural products, services, digital trade and e-commerce respectively. Chapters 8 and 9 present analyses of economy-wide effects of USMCA's crosscutting measures, using quantitative and qualitative means to assess their impact.

USMCA Regional Economic Overview

Gross Domestic Product

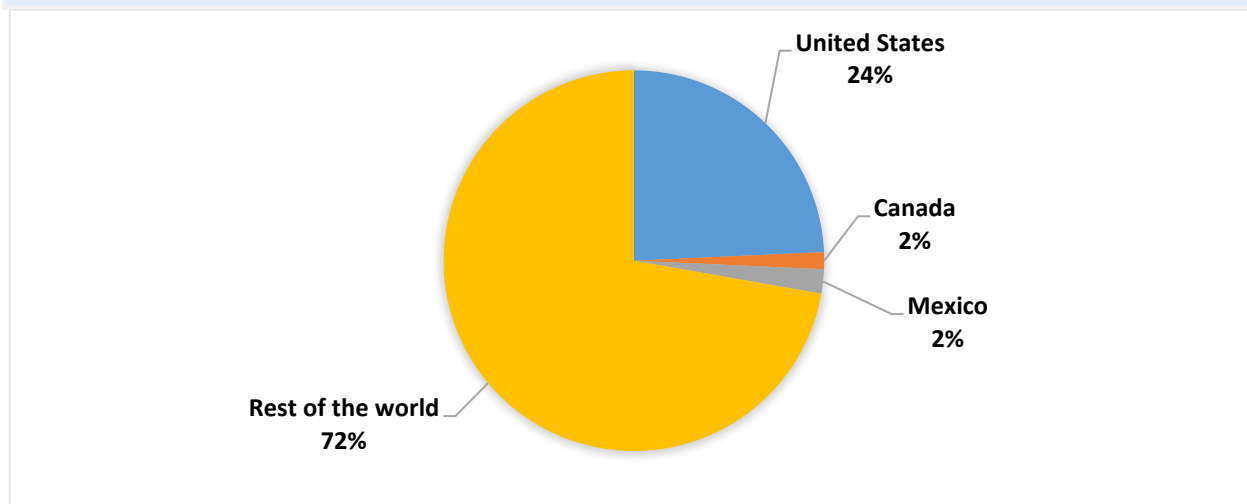
The United States, Canada, and Mexico had a collective GDP totaling \$22 trillion in 2017, or 28 percent of total global GDP; most of the USMCA parties' GDP was accounted for by the United States (figure 1.1).¹⁸ Services contributed the largest portion of GDP for each of the USMCA countries (figure 1.2),

¹⁷ Modeling results for each of these subjects can be found in the following chapters of this report: Agriculture (chapter 5), Automobiles (chapter 3), E-commerce (chapter 7), and Labor (chapter 8). The economy-wide modeling results are presented in chapter 2.

¹⁸ CIA, *World Factbook* (accessed February 21, 2019).

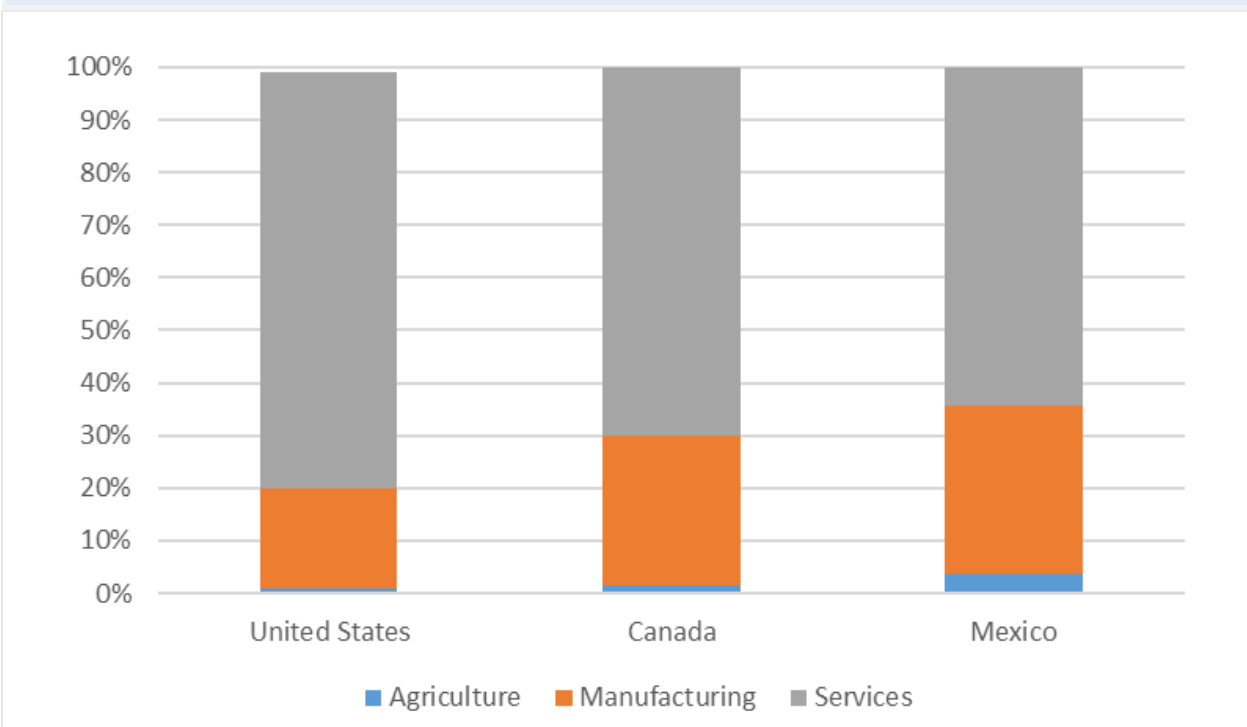
with the United States having the largest portion of its GDP attributable to services. Mexico had the most agriculture- and manufacturing-intensive economy of the three countries in 2017. The sectoral breakdown of Canada’s GDP was similar to that of the United States and Mexico.

Figure 1.1 Shares of world GDP for USMCA signatory countries, 2017



Source: CIA, GDP (Official Exchange Rate), *World Factbook* (accessed February 21, 2019).
 Note: Based on 2017 estimates.

Figure 1.2 Shares of USMCA countries’ GDP, by sector, 2017

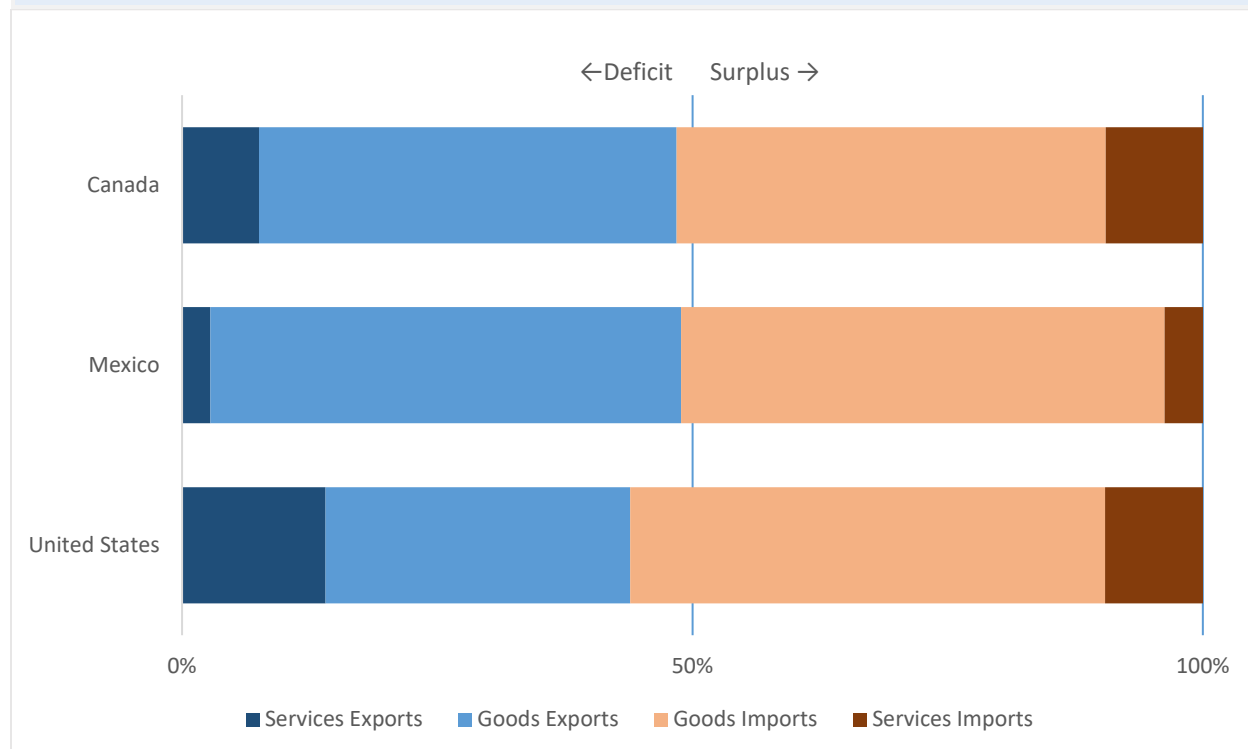


Source: CIA, GDP—Composition, by Sector of Origin, *World Factbook* (accessed February 21, 2019).
 Note: Based on 2017 estimates. Agriculture includes farming, fishing, and forestry. Manufacturing includes mining, energy production, and construction. Services includes government activities, communications, transportation, finance, and other non-manufacturing economic activities.

Trade in Goods and Services

Each of the USMCA countries had an overall trade deficit for goods and services in 2017 (figure 1.3). The United States had a trade surplus in services totaling \$231 billion and a trade deficit in goods of \$862 billion.¹⁹ Both Canada and Mexico experienced trade deficits, but to a lesser extent than the United States. Trade deficits in goods and services for the United States, Canada, and Mexico totaled \$631 billion, \$32 billion, and \$20 billion, respectively.

Figure 1.3 Share of total trade of goods and services exports and imports, by partner, 2017



Source: United Nations (UN), Department of Economic and Social Affairs (DESA), Statistics Division, *2017 International Trade Statistics Yearbook*, vol. I, 92, 226, 358.

Trade in Goods

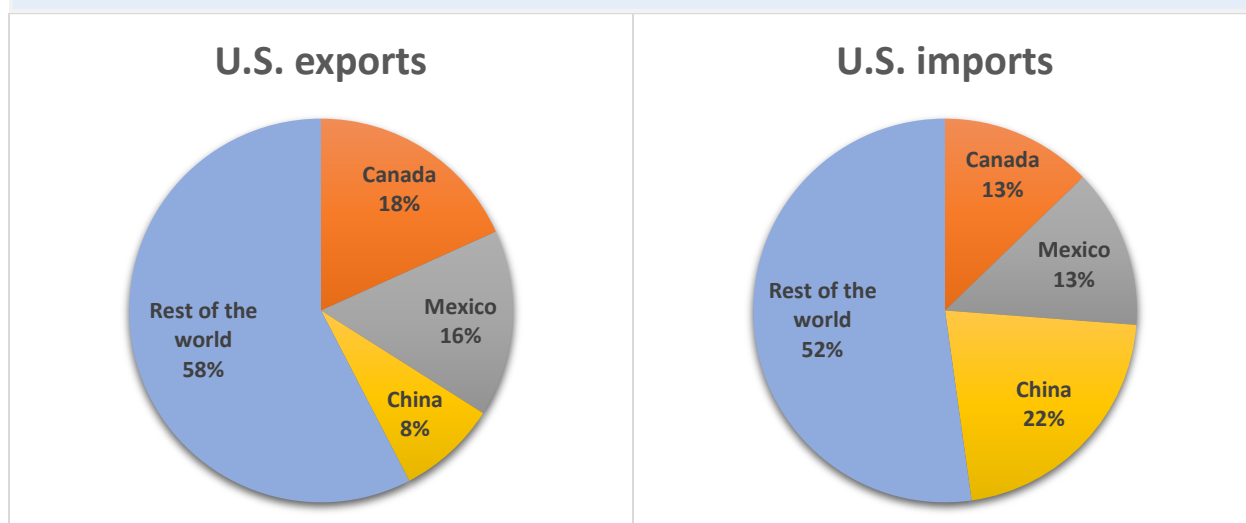
In 2017, the USMCA parties accounted for 14 percent of global exports of goods and 19 percent of global imports of goods. Canada and Mexico were the two largest export markets for the United States that year, receiving 34 percent of total U.S. exports; they were also two of the top three import sources, supplying 26 percent of total U.S. imports (figure 1.4). The United States exported \$282 billion in goods to Canada and \$243 billion to Mexico in 2017. By comparison, the United States exported \$130 billion in goods to China, its third-largest export market. The United States received \$314 billion worth of imported goods from Canada in 2017 and \$299 billion worth from Mexico. These amounts rank second

¹⁹ UN, DESA, Statistics Division, *2017 International Trade Statistics 2017 Yearbook*, vol. I, 92, 226, 358.

and third, respectively, after imports of Chinese goods, which totaled \$505 billion in the same period.²⁰ The automotive sector was the largest source of U.S. exports to Canada, whereas the machinery sector was the largest source of U.S. exports to Mexico.

In terms of U.S. imports, the largest source of goods from Canada was the natural resources sector, and the largest source of goods from Mexico was the automotive sector.²¹ Most U.S. imports from Canada and Mexico were duty free in 2017. The percentage of U.S. imports from Canada subject to duties was 16 percent; from Mexico, only 5 percent. By comparison, the percentage of U.S. imports from the world subject to duties was 30 percent.²²

Figure 1.4 Trade shares of the selected countries in U.S. trade in goods, 2017



Source: USITC DataWeb/USDOC (U.S. total exports and general imports; accessed February 12, 2019).

Trade in Services

In 2017, the USMCA parties accounted for 17 percent of global exports of services and 13 percent of global imports of services, with the United States being responsible for a majority of trade.²³ Canada was the second-largest importer (\$58 billion) of U.S. service exports, and Mexico was the seventh-largest (\$33 billion); the two countries accounted for a combined 11 percent of total U.S. services exports. By comparison, the United States exported \$58 billion in services to China, its third-largest export market. In terms of total U.S. imports of services, in 2017 Canada ranked 4th at \$33 billion, and Mexico ranked 7th at \$25 billion. China ranked 12th that year, highlighting the fact that China supplies far less in

²⁰ USITC DataWeb/USDOC (U.S. total exports and general imports; accessed February 12, 2019).

²¹ USITC DataWeb/USDOC (U.S. total exports and general imports, aggregated at the HTS-2 level; accessed February 12, 2019).

²² Dutiable imports from Canada and Mexico are likely goods for which, under NAFTA, the origin requirement could not be satisfied or for which importers did not complete appropriate customs paperwork. USITC DataWeb/USDOC (U.S. imports for consumption and dutiable values; accessed February 28, 2019).

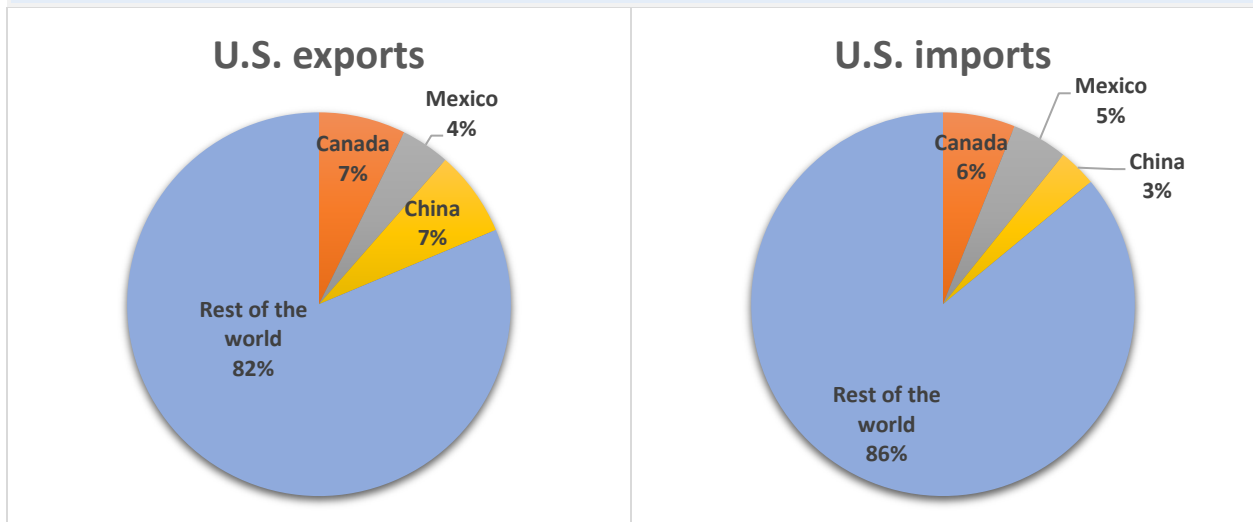
²³ World Bank, WDI, Service Exports, <https://data.worldbank.org/indicator/BX.GSR.NFSV.CD> (accessed February 25, 2019); World Bank, WDI, Service Imports, <https://data.worldbank.org/indicator/BM.GSR.NFSV.CD> (accessed February 25, 2019).

U.S.-Mexico-Canada Trade Agreement

services than in goods to the United States. In total, the USMCA partners accounted for 11 percent of U.S. imports of services.

Travel services dominated services trade among the parties: they made up both the largest share of U.S. services exports to Canada and Mexico, and the largest share of U.S. services imports from those countries.²⁴ In 2017, travel accounted for nearly a third of services exports from the United States to Canada and for over half of all U.S. services exports to Mexico. Similarly, over a quarter of U.S. services imports from Canada involved travel services, as did over two-thirds of those from Mexico.²⁵

Figure 1.5 Trade shares of selected countries in U.S. trade in services



Source: USDOC, Bureau of Economic Analysis (BEA), "Table 2.3: U.S. Trade in Services, by Country or Affiliation and by Type of Service," October 19, 2018.

²⁴ Travel services include travel for educational purposes, personal purposes (other than for health reasons), and business purposes (other than by border, seasonal, or short-term workers). USDOC, BEA, "Table 2.3: U.S. Trade in Services, by Country or Affiliation and by Type of Service."

²⁵ USDOC, BEA, "Table 2.3: U.S. Trade in Services, by Country or Affiliation and by Type of Service."

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<https://comtrade.un.org/pb/downloads/2017/VolI2017.pdf>.

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(accessed February 25, 2019).

Chapter 2

Economy-wide and Broad Sectoral Effects of Quantified Provisions

Introduction

As noted in chapter 1, the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 requires the Commission to assess USMCA's impact on the U.S. economy and on specific industry sectors. The Commission's assessment was required to encompass the agreement's impact on U.S. real gross domestic product (GDP), exports and imports, employment and employment opportunities, and the production and employment of broad industry sectors. In response, the Commission applied a multi-element framework to estimate the impact of the many diverse provisions of USMCA.

USMCA is unlike many previous trade agreements for which the primary impacts were assessed by analyzing the reduction or removal of tariffs and easily quantified nontariff measures like quotas. Because these changes were by and large already accomplished under NAFTA, the analysis of USMCA's effects had to focus more intensively on provisions applicable to nontariff issues, such as those related to international data transfers, rules of origin, labor regulations, tariff-rate quota (TRQ) allocations, investment regulations, and intellectual property rights. The Commission's approach used a combination of industry- and provision-specific modeling techniques, together with an economy-wide computable general equilibrium model, to estimate the impact of USMCA. Provisions were selected for modeling based on the expected magnitude of their economy-wide impact, data availability, and analytical feasibility.

The results of the industry- and provision-specific analyses were then jointly integrated into an economy-wide model that provided estimates on the combined impact of the agreement on the U.S. economy, including key economic indicators such as GDP, trade, and employment. The economy-wide model estimates that USMCA would likely increase GDP by about 0.35 percent (\$68.2 billion), employment by about 0.12 percent (176,000 full-time equivalent jobs), and exports to Canada and Mexico by about 5.9 and 6.7 percent (\$19.1 billion and \$14.2 billion), respectively.²⁶

The next section of this chapter describes the coverage of the quantitative analysis of this report. It lists the provisions included in the modeling, and also explains the limitations of the coverage. The third section of this chapter summarizes the extensions to the Commission's modeling developed for this report. The fourth section describes the estimated effects of USMCA on the U.S. economy overall, broad economic sectors, and workers with different levels of education. The fifth section presents the analytical framework for the economy-wide analysis. It also analyzes the impact of the provisions that reduce certain policy uncertainty in international data transfers, cross-border services, and investment,

²⁶ Employment estimates throughout this chapter reflect full-time equivalent (FTE) jobs. In the model, workers may enter or exit the labor force but are never considered unemployed, they are outside of the labor force.

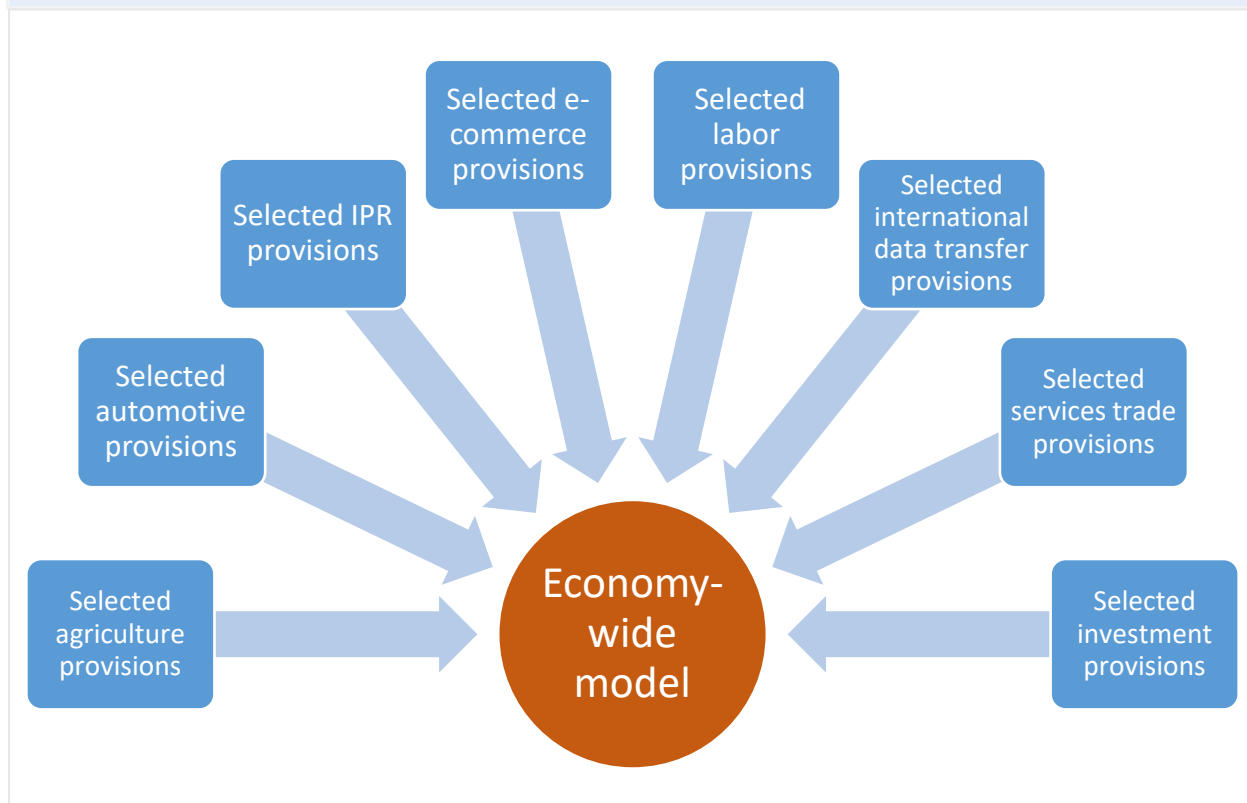
and considers the impact of alternative assumptions about labor mobility. The last section of this chapter reviews the related literature.

Modeling Coverage

The remaining chapters in the report provide further analysis of both the provisions that were modeled as a part of the economy-wide model and those that were not, with the aim of providing a comprehensive analysis of the impact of USMCA on the U.S. economy and industry sectors. Some provisions were not modeled because they were expected to have a small economy-wide impact or because of data or analytical limitations.

In this report, the Commission has included analyses specific to eight groups of USMCA provisions: agriculture, automobiles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. As depicted in figure 2.1, each of these analyses provides estimates of provision-specific economic impacts and modeling inputs for the economy-wide model. This methodology resulted in impact estimations specific to each individual provision and at a more aggregate, economy-wide level that reflected all the modeled USMCA provisions. The economy-wide impact of all of these provisions is presented in this chapter. The provision-specific impacts are presented in other chapters in this report as well as the appendixes.²⁷

²⁷ The provision-specific components are described in the following chapters of this report: agriculture (chapter 5), automobiles (chapter 3 and appendix G), IPRs (chapter 8 and appendix H), e-commerce (chapter 7 and appendix I), labor (chapter 8 and appendix F), international data transfer (chapter 7 and appendix H), cross-border services (chapter 6 and appendix H), and investment (chapter 8 and appendix J).

Figure 2.1 The economy-wide analytical framework

Source: USITC.

Each of the eight provision-specific components addresses a different aspect of USMCA. The agricultural component analyzes the impact of alterations in several U.S. and Canadian TRQs on agriculture products. The automotive component assesses the impact of changes to rules of origin within automotive supply chains. The IPR component analyzes the effects of stronger IPR protections on trade in IPR-intensive manufacturing industries. The e-commerce component estimates the effects of raising de minimis thresholds on e-commerce shipments. The labor component examines the impact of collective bargaining legislation on wages in Mexico. The international data transfer component assesses the impact of commitments to maintain the free flow of data between members. The cross-border services component estimates the impact of commitments to maintaining current market access conditions in many services industries. Finally, the investment component assesses the impact of changes to the investor-state dispute settlement mechanism and the impact of commitments to maintaining current foreign equity requirements for foreign direct investment (FDI) and foreign affiliate sales in several services sectors.

Table 2.1 shows the coverage of USMCA provisions in the economy-wide assessment and its eight provision-specific components. Despite the coverage provided by the modeling, there remain some limitations in the scope of the assessment. Importantly, the modeling of each group of provisions was not exhaustive. As far as possible, the modeling sought to quantify the provisions that were expected to have the most impact, but data and analytical limitations precluded the modeling of many provisions of the agreement, such as those affecting government procurement, regulatory cooperation, many labor standards, and sanitary and phytosanitary (SPS) measures. Similarly, many aspects of regulatory

uncertainty were not modeled. As a result of these limitations and others discussed throughout the report, certain impacts of the agreement may be overestimated or underestimated.

In addition, USMCA provides for several sunset mechanisms by which the agreement can be reviewed every 6 years and terminated after 16 years. As these provisions are new to USMCA, there is little historical evidence suggesting their likely impact. In testimony to the Commission, interested parties have expressed mixed opinions on the provisions. Some have indicated that the provisions provide a beneficial means by which to address issues with the agreement that become apparent over time.²⁸ Others have expressed concerns that these provisions introduce uncertainty that could discourage long-term investment.²⁹ Chapter 9 in this report provides additional information on USMCA's sunset and review provisions.

²⁸ USITC, hearing transcript, November 15, 2018, 13 (testimony of Representative Sander Levin, 9th District, Michigan); USITC, hearing transcript, November 15, 2018, 326–27 (testimony of Jeffrey Bergstrand, University of Notre Dame); USITC, hearing transcript, November 15, 2018, 328–29 (testimony of Ben Beachy, Sierra Club; and USITC, hearing transcript, November 15, 2018, 41–42 (testimony of Celeste Drake, American Federation of Labor.

²⁹ USITC, hearing transcript, November 15, 2018, 62–63 (testimony of William Hanvey, Auto Care Association); USITC, hearing transcript, November 15, 2018, 111 (testimony of John Bozzella, Global Automakers and Here for America); USITC, hearing transcript, November 16, 2018, 409 (testimony of Rick Helfenbein, American Apparel and Footwear Association); and USITC, hearing transcript, November 15, 2018, 87 (testimony of William Hanvey, Auto Care Association).

Table 2.1 USMCA provisions included in the economy-wide quantitative assessment

Model component	USMCA provision	Description	Chapter coverage	Economy-wide model sectors
Agriculture	Annexes 2-B-US-2-1 through 2-B-US-2-10, 2-B-Canada-2-2 through 2-B-Canada 2-18, and 3-A-7 through 3-A-9	Alterations to several Canadian and U.S. TRQs and the introduction of an export tax on Canadian sugar	Chapter 5	Dairy, poultry, and sugar
Automotive	Annex to chapter 4	Alterations to certain motor vehicle rules of origin	Chapter 3 and appendix G	Motor vehicles and parts
IPR	Chapter 20, key provisions ^a	Broad coverage of IPR issues	Chapter 8 and appendix H	Medical devices
E-commerce	Article 7.8	Increases in de minimis thresholds for express shipments ^c	Chapter 7 and appendix I	Retail services
Labor	Annex 23-A	Improvements to collective bargaining legislation in Mexico	Chapter 8 and appendix F	All sectors
International data transfer	Articles 19.11 and 19.12	Prohibition of cross-border data flow restrictions	Chapter 7 and appendix H	All sectors
Cross-border services	Articles 15.5 and 17.5; and annexes 17-A, I, and II	Effective changes to market access commitments and nonconforming measures ^d	Chapter 6, appendix H, and appendix J	Select services sectors
Investment	Article 15.5; annexes 14-C, 14-D, 14-E, I, II, and III.	Effective changes to market access commitments and nonconforming measures, and changes to the investor-state dispute settlement (ISDS) system	Chapter 6, chapter 8, and appendix J	All sectors in Mexico except specific exclusions ^b

Source: USITC estimates.

^a Based on an analysis of the IPR chapter conducted by Pugatch Consilium (*Setting a New Standard*, 2019) for the U.S. Chamber of Commerce.

^b The ISDS changes excluded several specific sectors: oil and natural gas, telecommunications, power generation, transportation services, and certain types of transportation infrastructure.

^c De minimis thresholds establish a monetary value for qualified goods beneath which cross-border shipments can be exempted from taxes, duties, and simple customs procedures.

^d USMCA, like NAFTA, uses a “negative list” format for the chapters on Cross-border Trade in Services and on Investment. A negative list means that the signatories promise to provide full access to their services and investment markets unless they specifically list an exception, known as a nonconforming measure (NCM). These NCMs appear in three separate annexes to the agreement: the first lists existing measures that do not conform to a party's obligations under the agreement, the second specifies activities and sectors that a party could subject to new or more stringent limitations in the future, and the third lists NCMs relating to financial services.

Extensions to the Commission’s Modeling

The Commission’s quantitative analysis of USMCA extends the quantitative analysis done in previous Commission reports in several ways. Some of these extensions are in response to provisions not previously included in free trade agreements, such as the labor unionization provision in Mexico, the changes to the automotive rules of origin, and the changes to de minimis levels. Other extensions

represent improvements to modeling approaches that were already used in previous studies. For example, newly available data permitted new methods to be used for modeling international data transfer, IPRs, and investment provisions.

The Commission's quantitative analysis in this report expands its previous modeling of provisions intended to reduce policy uncertainty for trade and investment. Many of the provisions in USMCA represent commitments to maintaining current regulatory conditions, rather than policies that increase or decrease restrictions. These commitments reassure firms that they will continue to face the same regulations going forward and alleviate concerns that any of the USMCA member countries could formulate more restrictive policies in the future. Past economic literature has consistently found that these types of reductions in trade policy uncertainty are trade facilitating in ways that can be as significant as reductions in actual restrictions.³⁰ In USMCA, the provisions for international data transfer, cross-border services, and some aspects of investment all represent commitments that reduce trade policy uncertainty. The Commission's Trans-Pacific Partnership study previously quantified the impact of provisions that discourage future trade barriers in services trade.³¹ This USMCA study expands upon that work by using econometric analysis to address a broader range of provisions that deter the imposition of future obstacles to trade and investment.

The Commission's quantitative analysis in this report also expands the modeling of labor. These additions include two new types of labor considerations. The first is that the Commission's economy-wide model includes five different groups of U.S. workers, based on their levels of education, which allowed the quantitative analysis to examine the impact that USMCA would have on different types of workers. The second is that the Commission's economy-wide model incorporates a restricted ability of workers to switch between industries.³² In this way the model better reflects the fact that many workers may have industry-specific skills that are not perfectly transferrable to other industries.

³⁰ Handley and Limão, "Trade and Investment under Policy Uncertainty," 2015; Handley and Limão, "Policy Uncertainty, Trade and Welfare," 2017; Ciuriak and Lysenko, "Technical Paper for: Better In than Out?" 2016.

³¹ USITC, *Trans-Pacific Partnership Agreement*, 2016.

³² This assumption reflects the best available evidence from recent economic literature. For example, Herz ("Specific Human Capital and Wait Unemployment," forthcoming), Lee and Wolpin ("Intersectoral Labor Mobility," 2006), Rogerson ("Sectoral Shocks, Human Capital, and Displaced Workers," January 2005), Neal ("Industry-Specific Human Capital," 1995), and many others have shown that there are high costs to labor mobility that can prevent workers from freely moving across industries. Additionally, during the Commission's public hearing on USMCA, automotive industry representatives, trade union representatives, and members of Congress, testified to the importance of taking into account imperfect labor mobility when modeling the effects of the agreement. See, for example, USITC, hearing transcript, November 15, 2018, 28 (Representative Bill Pascrell, Jr.); 76, 120–21 (Ann Wilson, Motor & Equipment Manufacturers Association); 89 (John Bozzella, Association of Global Automakers/Here For America).

Estimated Economy-wide Impact of the USMCA

This section describes the estimated effects of USMCA on the U.S. economy. It first presents the aggregate effects of the agreement on the economy overall as well as on broad economic sectors. It then describes the disaggregated impact of the agreement on workers with different levels of education.

The estimates presented in this section incorporate the impacts of all provisions that were quantified in this report, as explained above. Labor is assumed to have limited ability to move across industries. Later sections in this chapter show the separate impact of the provisions that change current policies, as opposed to provisions that deter future barriers. There is also an analysis of how different assumptions about labor mobility impact the economy-wide results presented later in the chapter.

The economy-wide model estimates the U.S. economy's complete adjustment to the full implementation of USMCA, which is assumed to be year 6 after USMCA enters into force. Therefore, the estimates show the impact of the modeled provisions after the economy has responded to the changes in USMCA. The estimates show the incremental effects of USMCA relative to a baseline that reflects the U.S. economy in 2017 and assumes that no other changes to the economy unfold.³³ The model is long term and does not estimate effects during a transition.

Aggregate Effects of USMCA

The economy-wide model estimates that many aspects of the U.S. economy would likely grow under USMCA. Estimates indicate that U.S. real GDP would grow by 0.35 percent (\$68.2 billion) and employment would grow by 0.12 percent (about 176,000 jobs). Exports to Canada and Mexico would increase by about 5.9 and 6.7 percent (\$19.1 billion and \$14.2 billion), respectively.

Of the eight USMCA components included in the economy-wide model, provisions that reduce policy uncertainty about international data flows, cross-border services, and investment, as well as certain automotive rules of origin, have the most significant impact on the estimated results. The individual effects of these provisions are estimated to be stronger than those of the other components, although the impacts differ depending on the provision. The international data transfer provisions impact all industries in the economy because of the ubiquitous nature of data flows in the modern economy, which amplifies their effect in the model. The automotive rules of origin in USMCA represent a substantial revision of the automotive rules of origin in NAFTA.

Tables 2.2 and 2.3 present the aggregate effects of the agreement on GDP, output, employment, and wages for the U.S. economy as a whole and for its three broad sectors: agriculture, manufacturing and mining, and services. The economic growth shown in the table would primarily be driven by several

³³ The baseline also incorporated recent trade policies that were in place as of the signing of USMCA on November 30, 2018, such as U.S. Section 232 steel and aluminum tariffs, additional Section 301 tariffs on imports from China, and additional tariffs imposed by China, European Union, Canada, and Mexico in response to these U.S. tariffs. The agreement for the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), which went into force for Canada and Mexico on December 30, 2018, was not included in the baseline database; the United States is not a party to this agreement.

factors, including economic efficiency gains, increases in U.S. employment, and growth in investment in the United States, which would expand the productive capacity of the U.S. economy. The growth in employment reflects additional workers entering the labor force because of an estimated 0.27 percent increase in real wages. Real output is estimated to increase in each of the economy's broad sectors: output in agriculture is estimated to grow by 0.18 percent, in manufacturing and mining by 0.57 percent, and in services by 0.17 percent. The higher growth in manufacturing and mining, relative to the other two sectors, would be largely due to the changes in the automotive rules of origin, which would increase U.S. production of auto parts.

Table 2.2 Economy-wide effects of USMCA (percent changes relative to the baseline)

	Economy-wide	Agriculture	Manufacturing and mining	Services
U.S. real GDP	0.35			
U.S. real output		0.18	0.57	0.17
U.S. employment	0.12	0.12	0.37	0.09
U.S. wages	0.27	0.23	0.50	0.23

Source: USITC estimates.

Table 2.3 Economy-wide effects of USMCA (changes in values relative to the baseline)

	Economy-wide	Agriculture	Manufacturing and mining	Services
U.S. real GDP (billions of dollars)	68.2			
U.S. employment (1,000 full-time equivalent jobs)	175.7	1.7	49.7	124.3

Source: USITC estimates.

USMCA is estimated to have similarly positive impacts on U.S. trade within the USMCA region as well as with the rest of the world. Tables 2.4 and 2.5 present the model estimates for U.S. imports and exports. U.S. exports to the world, including Canada and Mexico, would increase by about 2.4 percent (\$58.2 billion). Within the USMCA region, U.S. exports to Canada are estimated to increase by about 5.9 percent (\$19.1 billion), and exports to Mexico by about 6.7 percent (\$14.2 billion). This growth is driven by various USMCA provisions that would stimulate trade as well as economic growth in Mexico and Canada, resulting in higher incomes and greater demand for U.S. goods in those countries. U.S. imports from the world are estimated to increase by about 2.0 percent (\$58.2 billion).³⁴ Within the USMCA region, imports from Canada would increase by about 4.8 percent (\$19.1 billion) and imports from Mexico by 3.8 percent (\$12.4 billion). The estimated growth in U.S. imports is driven by various USMCA provisions that would stimulate trade and an increase in income in the United States, which would spur additional demand for goods and services from abroad. These increases in total imports and

³⁴ As discussed later in this chapter, in the model, the change in the value of total exports to the world is held equal to the change in the value of total imports from the world. Hence, in value terms, the trade balance does not change.

exports are estimated to rise within the region and elsewhere for each of the three broad sectors as well.³⁵

Table 2.4 Effects of USMCA on trade in three broad sectors (percent changes relative to the baseline)

	The world	Canada	Mexico
Total U.S. exports to	2.4	5.9	6.7
Agriculture	1.1	3.7	2.0
Manufacturing and mining	3.3	5.7	7.2
Services	1.2	8.3	4.5
Total U.S. imports from	2.0	4.8	3.8
Agriculture	1.3	3.4	0.8
Manufacturing and mining	2.1	4.9	4.0
Services	3.4	5.5	6.7

Source: USITC estimates.

Table 2.5 Effects of USMCA on trade in three broad sectors (changes in billions of dollars relative to the baseline)

	The world	Canada	Mexico
U.S. exports to	58.2 ^a	19.1	14.2
Agriculture	2.2	0.9	0.4
Manufacturing and mining	47.1	15.1	13.4
Services	8.9	3.0	0.4
U.S. imports from	58.2 ^a	19.1	12.4
Agriculture	2.7	1.0	0.2
Manufacturing and mining	30.1	16.6	11.6
Services	25.3	1.5	0.6

Source: USITC estimates.

^a As discussed later in this chapter, in the model the change in the value of total exports to the world is held equal to the change in the value of total imports from the world. Hence, in value terms, the trade balance does not change.

Effects of USMCA on Different Types of U.S. Workers

The estimated impacts of USMCA on workers are generally positive, but vary in magnitude depending on their level of education. Differences across labor types are based on several factors. The first factor is that the labor composition of each industry is different, meaning that each industry tends to employ a different share of each type of worker. As a result, when demand for a certain industry's output increases, the labor demand for some types of workers grows more than others. The second factor is that each worker type responds differently in terms of a worker's decision to enter or exit the labor market in response to wage changes. In general, more highly educated workers are less responsive to

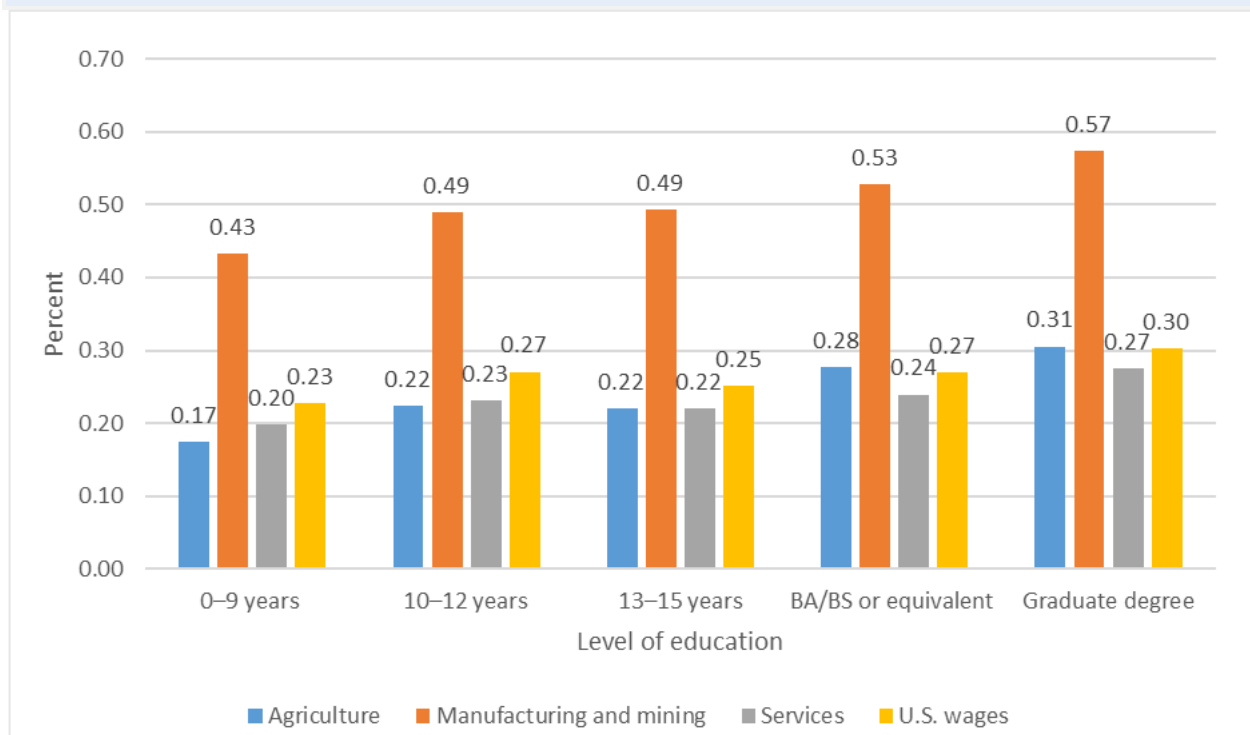
³⁵ Note that these estimates reflect the total impact on broad sectors. It is not necessarily the case that every individual industry within these broad sectors would experience similar gains. For example, the automotive model presented in chapter 3 estimated a positive impact on employment in parts manufacturing but a negative impact on employment in vehicle production manufacturing.

changes in wages because their jobs are more specialized and they are less likely to enter or exit the job market. By comparison, less educated workers respond to wage changes more readily, reflecting the less stable labor market these workers face compared to more-educated workers.³⁶

As shown in table 2.2, the average U.S. wage across workers of all types is estimated to increase 0.27 percent, reflecting about \$150 per worker and year.³⁷ As shown in figure 2.2, workers of all education levels would experience increases in wages. However, wages would increase by a higher percentage for workers with a graduate degree (0.30 percent) than for workers with 0–9 years of education (0.23 percent) or 13–15 years of education (0.25 percent). This is primarily because highly educated workers are less responsive to wage changes and, therefore, require a higher increase in wages to induce them to enter the labor market and satisfy new labor demand.

Across sectors, the largest wage increases are estimated to be in the manufacturing and mining sector, due primarily to the automotive rules of origin changes. The other sectors would see smaller wage changes, with services showing a smaller increase than agriculture.

Figure 2.2 Effects of USMCA on U.S. wages by level of education: percent changes relative to the baseline



Source: USITC estimates.

³⁶ This instability includes variable and nonstandard work hours, involuntary part-time employment, lower benefits, and weaker job protections. The differences in the responsiveness of workers to changes in wages are based on the work of Fiorito and Zanella, “Anatomy of the Aggregate Labor Supply Elasticity,” 2012, and Keane and Wasi, “Labour Supply,” 2016.

³⁷ This rate is calculated using January 2017 data on the total annual U.S. wage bill from the Federal Reserve Bank of St. Louis, <https://fred.stlouisfed.org/series/A576RC1> (accessed February 11, 2019).

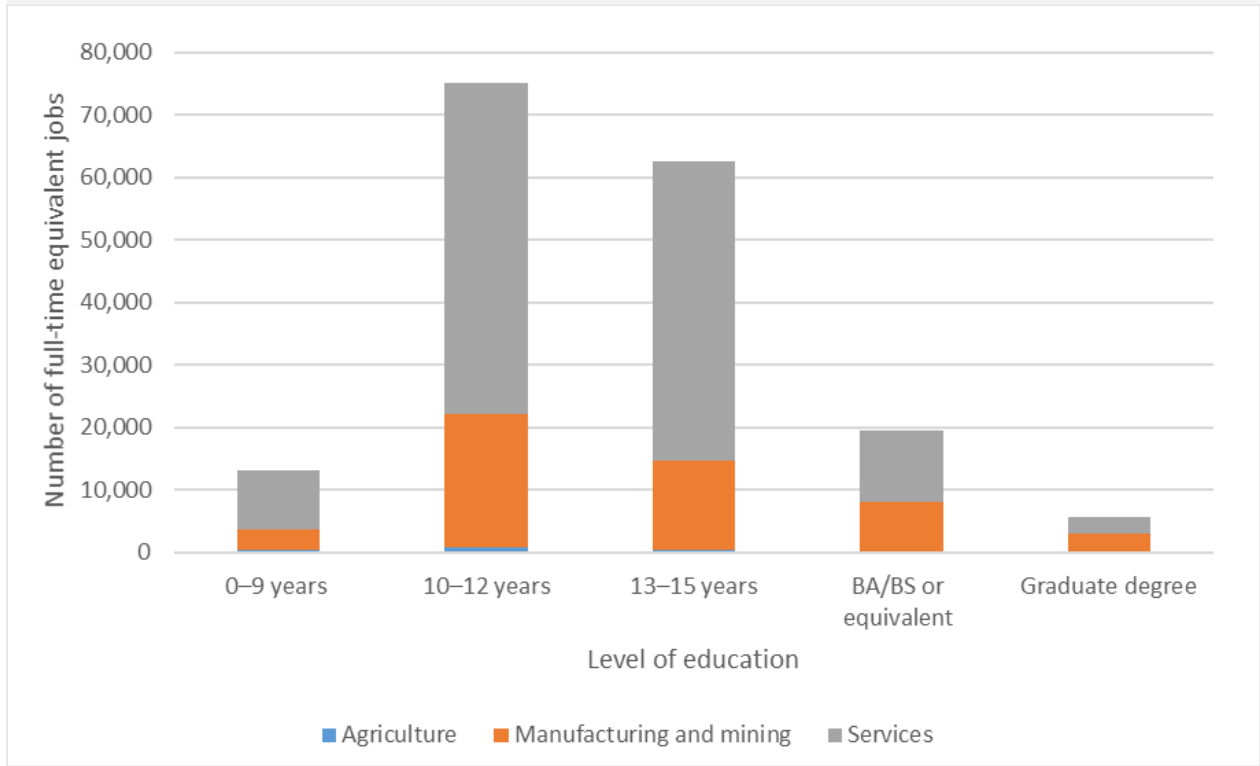
The impact of USMCA on employment across labor types would be consistent with the impact on wages, in that all groups would experience employment growth—but the growth would not be the same across groups. Employment across all worker types would increase by 0.12 percent, representing about 176,000 jobs. Figures 2.3 and 2.4 depict the estimated changes (in terms of numbers of workers and percentages, respectively) in employment by education level and broken down by broad sector.³⁸ Employment would grow the most for workers with 10–12 years of education (0.15 percent or about 75,000 jobs) and 13–15 years of education (0.14 percent or about 63,000 jobs). Together, these two groups of workers represent nearly 78 percent of the estimated total employment gains. The reasons they would capture such a large share of the growth are that (1) they are the two largest groups in the economy, representing about 63 percent of the workforce in the model baseline, and (2) they are relatively well represented in the sectors experiencing the greatest growth.³⁹

Employment would increase less at both ends of the educational spectrum, for somewhat different reasons. Workers with 0–9 years of education would see smaller growth in the number of jobs they hold (about 13,000 jobs) because they make up a small share of the workforce. However, they would experience a higher rate of employment growth (0.20 percent) than the other groups, due to their high responsiveness to wage changes. Workers with bachelor's and graduate degrees would experience the smallest employment growth, in terms of both jobs and percentages, for two reasons: their responsiveness to wage changes is lower than average, and they make up relatively small shares of the labor force. Employment of workers with bachelor's degrees would grow by about 19,000 jobs (0.06 percent), and employment of workers with graduate degrees would grow by about 6,000 jobs (0.04 percent).

³⁸ A full table of estimates can be found in table E.5 in appendix E.

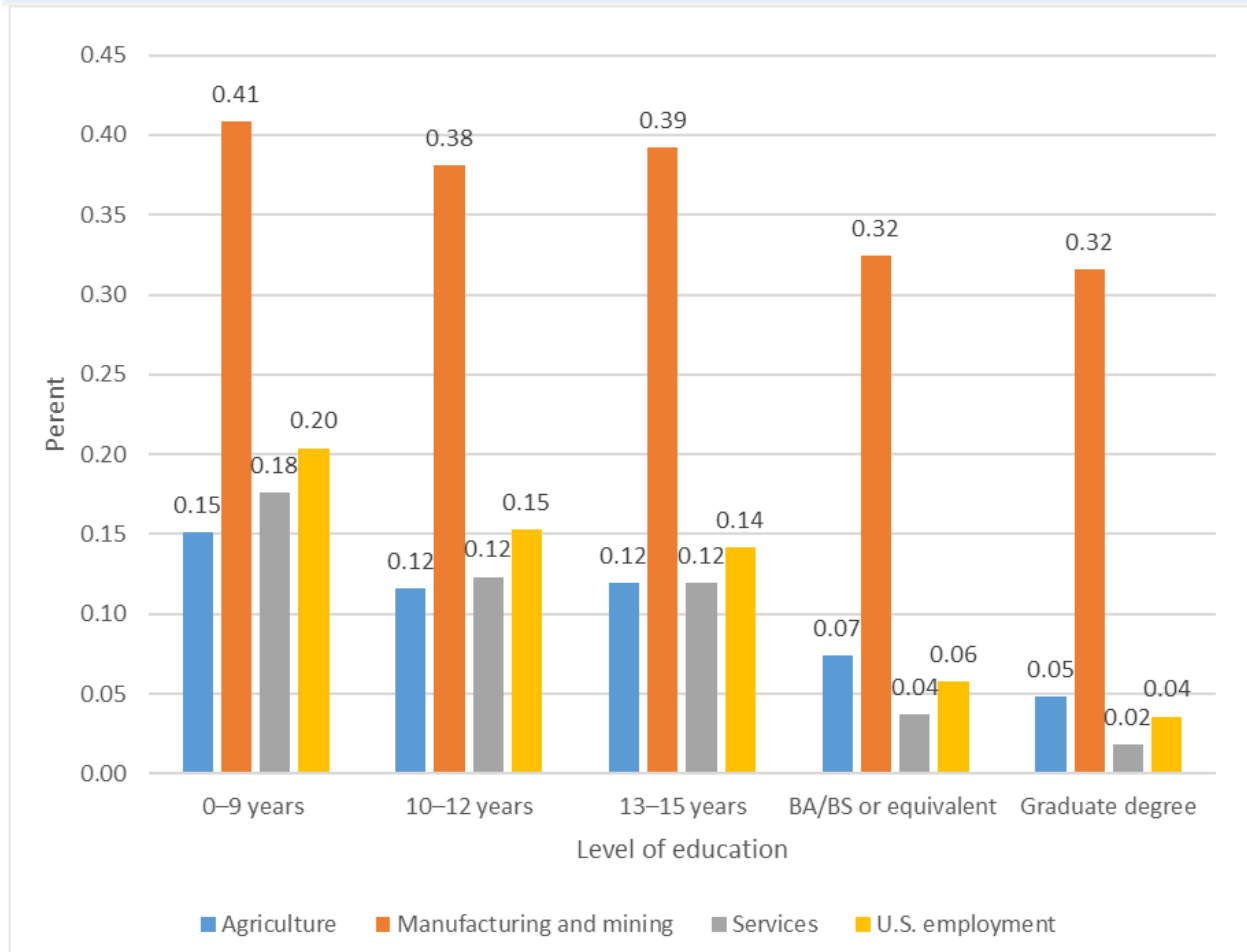
³⁹ A full breakdown of worker shares by type can be found in table E.1 of appendix E.

Figure 2.3 Effects of USMCA on U.S. employment by level of education: changes in values relative to the baseline



Source: USITC estimates.

Figure 2.4 Effects of USMCA on U.S. employment by level of education: percent changes relative to the baseline



Source: USITC estimates.

The changes in employment would differ greatly across sectors as well. Of the 176,000 jobs estimated to be gained in total, about 124,000 jobs would be in services sectors (70.7 percent of all jobs gained), nearly 50,000 in manufacturing (28.2 percent of total gains), and about 2,000 in food and agriculture (1.1 percent of total gains). As discussed before, these differences reflect both differences in baseline employment in each sector and differing effects of the USMCA provisions addressed by the model. The large growth in services employment would be due in part to the effects of USMCA provisions (such as provisions that reduce policy uncertainty regarding international data transfers), but much more to the fact that services is the largest sector in the U.S. economy.⁴⁰ By contrast, the estimated changes in manufacturing employment are primarily due to USMCA’s automotive provisions.⁴¹

⁴⁰ The U.S. Bureau of Labor Statistics reports that as of the end of 2016, 89.8 percent of the U.S. labor force was employed in the services sectors, 8.8 percent in manufacturing, and 1.4 percent in food and agricultural production. U.S. Bureau of Labor Statistics, Employment Projections program, table 2.1 (accessed February 13, 2019).

⁴¹ Auto parts manufacturing is the sector primarily affected by this growth.

Analytical Framework for the Economy-wide Analysis

The analytical framework used to quantify the economy-wide effects of USMCA includes eight industry- or provision-specific “components.” Each component analyzed the effects of a collection of related USMCA provisions within a limited number of industries. These components also translated the nuanced provisions of the agreement into inputs to the economy-wide model. The economy-wide model incorporated the individual provision-specific inputs into an assessment of the economy-wide effects of the agreement. The economy-wide model provided estimates of the likely impact of the combined effects of all modeled provisions of USMCA, listed in table 2.1, on macroeconomic indicators (such as GDP and employment) and on broad sectors of the economy.

The eight industry- or provision-specific components that contributed to the economy-wide model can be divided into two categories, based on their effects. The first category is the set of provisions that alter current policies or set new standards within the three member countries, resulting in expected changes to current conditions after USMCA enters into effect. The provisions included in this first category are those that apply to agriculture, automobiles, IPRs, e-commerce, labor, and the investment provisions related to the investor-state dispute settlement (ISDS) mechanism. The second category is the set of provisions that represent commitments to maintain current conditions. These commitments primarily serve to deter future trade and investment barriers, thus providing firms some assurance that current regulations and standards, which may or may not be expressly governed by current policies, will not become more restrictive. The provisions included in this second category are those addressing international data transfer, cross-border services trade, and investment issues related to market access and nonconforming measures.⁴²

Provisions Altering Current Policies or Standards

The agriculture provisions included in the quantitative assessment are those that alter tariff-rate quotas affecting market access for several products in Canada and the United States (contained in Annexes 2-B-US-2-1 through 2-B-US-2-10, 2-B-Canada-2-2 to 2-B-Canada-2-18, and 3-A-7 through 3-A-9 of the agreement). In Canada, U.S. exporters would be granted additional market access for U.S. dairy, poultry, eggs, and egg-containing products. In the United States, Canadian exporters would be granted additional access for dairy and sugar. Additionally, Canadian exporters of certain dairy products would face an export tax for volumes of products above a specific threshold. These quota alterations and export taxes are incorporated into the economy-wide model in corresponding agriculture sectors. Additional details can be found in chapter 5.

⁴² USMCA, like NAFTA, uses a “negative list” format for the chapters on Cross-border Trade in Services and on Investment. A negative list means that the signatories promise to provide full access to their services and investment markets unless they specifically list an exception, or nonconforming measure (NCM). These NCMs appear in three separate annexes to the agreement: the first lists existing measures that do not conform to a party's obligations under the agreement, the second specifies activities and sectors that a party could subject to new or more stringent limitations in the future, and the third lists NCMs relating to financial services.

The automotive provisions included in the modeling analysis are those addressing rules of origin for certain core vehicle parts (contained in the Annex to Chapter 4 of the agreement).⁴³ The effects of the changes in these rules of origin are estimated using an industry-specific model described in chapter 3 and appendix G of this report. The model simulates changes in vehicle prices and sales, trade in vehicles and parts, and U.S. employment in the automotive industry. Aggregate effects on vehicle trade and vehicle production costs from the automotive rules of origin model are used as targets to calibrate changes to the cost of domestic and imported parts and vehicles in the economy-wide model.

The IPR provisions included in the modeling analysis reflect general increases in IPR protections in each of the three member countries. In the United States, these new provisions would provide only modest increases in IPR protection. However, in Mexico and Canada, the increases are more extensive. The modeling of these changes to IPR protections used a structural gravity model, international trade data on six IPR-intensive manufacturing sectors, and the U.S. Chamber of Commerce's International Intellectual Property Index to estimate the effects of the USMCA IPR provisions on trade in IPR-intensive products.⁴⁴

Unlike other components, which analyzed specific articles in the agreement, the IPR analysis considered key commitments made in the IPR chapter of the agreement (Chapter 20), as measured by the Chamber of Commerce's index and an analysis of USMCA using the index's framework.⁴⁵ The analysis examined the relationship between IPR protections and trade globally, and estimated a trade cost reduction that would have the same effect on trade as the change in IPR protection. These corresponding cost reductions were incorporated into the U.S. economy-wide model for the affected industries. Of the sectors in the economy-wide model, only the medical device sector was estimated to experience significant impacts from the IPR provisions. More details can be found in this report in chapter 8 and appendix H.

The e-commerce provisions included in the modeling analysis are those that would increase the de minimis thresholds (DMTs) for express shipments between USMCA member countries (article 7.8 in the agreement).⁴⁶ Higher de minimis thresholds would reduce the costs of U.S. e-commerce firms' shipping to Canada and Mexico, making U.S. firms more competitive in these two markets.⁴⁷ Hence, U.S. exports of low-value express shipments to Canada and Mexico are expected to increase under USMCA. As described in chapter 7 and appendix I, a partial equilibrium framework was used to analyze these effects

⁴³ The core parts included in the model were engines and transmissions. These were the only two core parts for which the detailed data needed for modeling were available.

⁴⁴ Data limitations precluded the estimation of likely impacts on IPR-intensive services sectors, such as computer software, banking, research and development, or audiovisual services.

⁴⁵ The estimated levels of IPR protection in the United States, Canada, and Mexico, if USMCA were to go into effect, were scored using the Intellectual Property index by Pugatch Consilium, *Setting a New Standard*, 2019, 19.

⁴⁶ Express shipments that cross international borders are subject to DMTs. Items that fall below a country's DMT are exempt from customs duties and taxes and also benefit from simplified clearance procedures at customs checkpoints.

⁴⁷ E-commerce refers to only low-value merchandise purchases under \$2,500 made through online platforms. It does not cover all low-value shipments, which would also be affected by changes in the de minimis threshold but were not included in the modeling analysis.

on express shipments of U.S. e-commerce firms. The increases in cross-border trade estimated by the framework were then incorporated into the economy-wide model.

The labor provisions included in the modeling analysis largely focus on strengthening and expanding the obligations established under the North American Agreement on Labor Cooperation (NAALC), a supplement to NAFTA.⁴⁸ Principal among these are the improvements in collective bargaining legislation in Mexico. The analysis estimated the effect of the increased unionization of Mexican workers expected as a result of this legislation. The estimated wage increase for Mexican workers was then incorporated into the economy-wide model. Additional details can be found in chapter 8 and appendix F.

Some of the investment provisions included in the modeling analysis relate to the reduced scope of the ISDS mechanism (contained in annexes 14-C, 14-D, and 14-E of the agreement). These changes were modeled using a three-step approach. First, an econometric estimate from the economic literature was used to quantify the impact of ISDS on trade.⁴⁹ This estimate suggested that the removal of ISDS could result in a 4.8 percent reduction in FDI stocks within affected industries in Mexico.⁵⁰ However, this estimate (which is discussed in greater detail in chapter 8) is derived from a study of the impact of bilateral investment treaties in general on FDI, which include provisions other than ISDS. Therefore this estimate should be considered an upper bound impact of the reduced scope of the ISDS mechanism under USMCA. Second, this reduction in FDI was modeled using the GTAP-FDI model, which is a tool that is able to translate estimated changes in investment behavior into economic impacts, such as changes in capital expenditure and productivity. Finally, these economic impacts were incorporated into the economy-wide model. Additional details can be found in chapter 8 and appendix J.

Provisions That Reduce Policy Uncertainty for International Data Transfer, Cross-border Services, and Investment

Many of the provisions in USMCA represent commitments to maintaining current regulatory conditions. In many of these cases, firms have operated under regulatory conditions in which there are no specific policies in place ensuring that regulations do not change in the future. For example, the United States, Canada, and Mexico have yet to establish many types of regulations potentially governing international data transfers.⁵¹ Up to now, firms have largely been able to transfer data freely between the countries.

⁴⁸ The labor provisions are contained in annex 23-A of USMCA.

⁴⁹ Egger and Merlo, “The Impact of Bilateral Investment Treaties,” 2007, 2.

⁵⁰ Economic research finds that ISDS mechanisms between developed countries have little impact on foreign investment, implying that the ISDS changes in USMCA would likely have little impact on investment between Canada and the United States. Oldenski, “What Do the Data Say?” 2015; Poulsen, Bonnitcha, and Yackee, “Costs and Benefits,” 2013.

⁵¹ Note that the baseline for the economic models in this report does not take into account the various market liberalization and binding commitments that Mexico and Canada have undertaken as signatories of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which entered into force on December 30, 2018. As a result, the baseline does not factor in the related reduction of trade policy uncertainty resulting from CPTPP, including data localization and data transfer commitments made by Mexico and Canada in that agreement.

However, no current policies protect this free flow of data from future policies that might restrict it. The commitments in USMCA address this regulatory uncertainty by providing assurance to firms that current conditions will be maintained into the future.⁵²

Recent international trade research has consistently found that the reduction of trade policy uncertainty influences trade patterns. This research finds that the reduction in uncertainty has effects comparable to the impacts of the policies themselves. For example, Handley and Limão (“Trade and Investment under Policy Uncertainty,” 2015) found that after Portugal’s accession to the European Community, a substantial portion of the growth in Portuguese exports was due to reductions in trade policy uncertainty rather than reductions in applied tariffs.⁵³ This area of research finds that firms operating under trade policy uncertainty behave as if they are expecting conditions to change with a certain probability. This expectation affects their economic activities because they must act with caution toward that risk. The reduction of trade policy uncertainty alleviates this expectation, allowing firms to act with the assurance that the rules will not change.

USMCA provisions that may reduce trade policy uncertainty are found throughout USMCA. Of these, three groups of provisions were modeled as components in the economy-wide framework: international data transfer, cross-border services, and investment commitments. These USMCA provisions were addressed in the economy-wide modeling in a way that is informed by trade literature. For each of the provisions, an effect was estimated that reflects the potential impact of USMCA members altering current conditions. For example, in the case of the data transfer provisions, a cost associated with the introduction of data flow restrictions was estimated based on Organisation for Economic Cooperation and Development (OECD) services trade data and the OECD Services Trade Restrictiveness Index (STRI).⁵⁴ The STRI reflects nontariff measures that affect services trade—including data transfer regulations. This cost estimate was then weighted to reflect that USMCA does not remove data flow restrictions but rather removes some uncertainty surrounding these restrictions.⁵⁵ The implications of assigning this weight are discussed later in this section.

⁵² During the Commission’s hearing (*United States-Mexico-Canada Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*), Professor Jeffrey Bergstrand of the University of Notre Dame noted the importance of commitments that reduce uncertainty in USMCA. USITC, hearing transcript, November 15, 2018, 272, 326.

⁵³ Other work has made similar findings for different countries and industries. Rodrik (“Policy Uncertainty and Private Investment in Developing Countries,” 1991) discussed the negative relationship between policy uncertainty, imports, and investment—particularly in developing countries. Handley and Limão (“Policy Uncertainty, Trade and Welfare,” 2017) found that reductions in uncertainty surrounding applied U.S. tariffs had a significant impact on trade with China after its WTO accession. Ciuriak and Lysenko (“Technical Paper for: Better In than Out?” 2016) found that these relationships are present for services as well.

⁵⁴ OECD, EBOPS database (accessed September 28, 2018); OECD, STRI Policy Simulator (accessed September 28, 2018).

⁵⁵ Commissioner Kearns notes that regulations and other measures can be socially and economically beneficial. In many respects, the USMCA explicitly recognizes these social and economic benefits and, in some cases, *requires* the parties to adopt and maintain such measures (see, e.g., Article 19.8, Personal Information Protection). As required by the Bipartisan Congressional Trade Priorities and Accountability Act of 2015, this report assesses the *economic* impacts of the USMCA. As noted above, the Commission’s cost estimate focuses on the fact that USMCA “removes some uncertainty” with respect to possible changes to laws and regulations. The report does not attempt to assess all possible benefits or costs associated with possible changes to existing laws and regulations

The international data transfer provisions included in the modeling analysis are those that commit the member parties to maintaining open data flows across borders (Articles 19.11 and 19.12 in the agreement).⁵⁶ The modeling of the data transfer provisions used a structural gravity model, in conjunction with the STRI, to estimate the potential trade costs associated with data flow restrictions.⁵⁷ The STRI provides extensive information on a wide range of measures affecting services trade, including data flow restrictions, and was used to quantify the relationship between trade restrictions and trade costs.⁵⁸

Recent research, the testimony of many witnesses at the Commission’s hearing, and numerous written submissions have highlighted the importance of cross-border data transfers not only for services industries but also for manufacturing and agriculture. Firms of all sizes in all sectors of the economy rely on data transfers to do things like monitor and automate production and agriculture activities, maintain supply chains, and access global markets.⁵⁹ In order to extend the analysis of the impact of data localization provisions to goods sectors, the share of software investment by goods sectors was compared to the software investment by the information technology (IT) services sector (a segment of computer services). This comparative digital intensity was translated into a “relative ad valorem equivalent” (relative AVE) such that a goods sector that invests half as much in software as computer services is assigned an AVE equal to half that of computer services. The corresponding estimated costs for affected sectors were then incorporated into the economy-wide model. Further details can be found in chapter 7 and appendix H.

The cross-border services provisions included in the modeling analysis reflect two types of commitments. First, taking the provisions of the General Agreement on Trade in Services (GATS) as a baseline, certain USMCA provisions represent effective changes to market access commitments. Second, taking NAFTA as a baseline, other USMCA provisions represent effective changes to nonconforming measures.⁶⁰ Again, these alterations typically reflect commitments to the current regulatory conditions

where such changes are not required under USMCA; instead, the report simply attempts to quantify the economic benefits associated with providing greater certainty for market participants.

⁵⁶ In most industries, the free flow of data is permitted. However, data flow restrictions currently found in the banking and insurance industries in Canada would be eliminated under USMCA. In these two sectors, the modeling does not treat the provisions as reducing policy uncertainty. Rather, they are treated as altering policies in place, akin to earlier modeling components such as IPRs or agriculture.

⁵⁷ Structural gravity models are commonly used models in international trade research and analysis. Gravity models take into account determinants of the pattern of international trade, including the level of aggregate expenditures and prices in each of the countries, how close the countries are to each other geographically, whether they share a common language, and whether they belong to a preferential trade agreement (USITC, *Economic Impact of Trade Agreements*, 2016). This work follows modern advances in gravity modeling techniques, which have extensively improved their empirical and theoretical rigor in recent years (Head and Mayer, “Gravity Equation,” 2014). For additional information on gravity modeling, see Piermartini and Yotov, “Estimating Trade Policy Effects with Structural Gravity,” 2016.

⁵⁸ OECD, Services Trade Restrictiveness Index (accessed September 28, 2018).

⁵⁹ USITC, *Global Digital Trade 1*, 2017, 39–41; OECD, *Trade and Cross-border Data Flows*, 2018, 33–38; OECD, *Digital Opportunities for Trade in Agriculture and Food Sectors*, 2019, 10–13; USITC, hearing transcript, November 15, 2018, 585, 599, 602–3, 615, 665.

⁶⁰ The market access commitments correspond to Article 17.5 and Annex 17-A for financial services and Article 15.5 and Appendix II-A for all other services in the agreement. The nonconforming measure commitments correspond to Annexes I, II, or III.

in each industry and reduce uncertainty about future policy changes. These commitments were modeled in the same way as the data transfer provisions described above. More details can be found in chapter 6, appendix H, and appendix J of this report.

Similarly, some investment provisions included in the modeling analysis represent effective changes to market access commitments relative to GATS provisions and to nonconforming measures relative to NAFTA. Both of these changes would impact foreign affiliate sales.⁶¹ The changes reduce uncertainty about future policy changes, with the largest effects stemming from commitments to maintaining current foreign equity requirements in the member countries.

The Commission modeled these commitments using a three-step procedure. The first step was to estimate the likely impact of foreign equity restrictions on foreign affiliate sales.⁶² Using the OECD STRI, estimated changes in foreign affiliate sales were calculated based on the specific commitments contained in USMCA. The second step used the GTAP-FDI model to translate the estimated changes in foreign affiliate sales into estimated changes in output and repatriated earnings in each country.⁶³ Finally, the third step incorporated the output from the GTAP-FDI model into the economy-wide simulation. Additional details can be found in chapter 8 and appendix J.

As explained above, USMCA provisions that reduce policy uncertainty for international data transfer, cross-border services, and investment are addressed in economy-wide modeling by first estimating the potential impact of the trade and investment barriers that are being deterred and then weighting this impact to reflect that USMCA does not remove these barriers but rather would deter their imposition in the future.

Because the estimated economy-wide results are sensitive to this weighting, several possible weights were considered that reflect high, moderate, and nonexistent benefits from provisions that reduce policy uncertainty for international data transfer, cross-border services, and investment. The high-benefit case ascribes a weight of 0.5 to the reduction of uncertainty, a weight that is informed by much of the literature discussed above.⁶⁴ The moderate case assumes a weight of 0.25, which is more conservative than the findings in the literature. The economy-wide model estimates throughout the report reflect this moderate case, unless specified otherwise. Finally, the unweighted case reflects a weight of zero, which provided estimates that assume that reducing trade policy uncertainty has no

⁶¹ The market access commitments correspond Article 15.5 and Appendix II-A, while the nonconforming measures correspond to Annexes I, II, or III.

⁶² Table 6.5 in chapter 6 presents the estimates from this first step.

⁶³ The GTAP-FDI model is a computable general equilibrium (CGE) model that incorporates FDI stocks and foreign affiliate sales data. It is a comparative static, multiregional, and multisector model that differentiates between domestic and foreign firms on both the demand side and the supply side.

⁶⁴ In particular, Handley and Limão (“Policy Uncertainty, Trade and Welfare,” 2017) found that the reduction of uncertainty about tariff preferences has an impact that is about 50 percent of the effect of the tariffs themselves. Ciuriak and Lysenko (“Technical Paper for: Better In than Out?” 2016) found a comparable value and implemented its modeling within a CGE model in similar ways to the USITC assessment of USMCA. For example, these findings suggest that if a data flow restriction is estimated to increase trade costs by 10 percent, commitments not to introduce a data flow measure would have an effect equivalent to a 5 percent (0.5 x 10 percent) reduction in costs.

impact. In other words, this case excludes the impact of USMCA provisions that would reduce policy uncertainty for international data transfer, cross-border services, and investment.

Importantly, while the effects of policy uncertainty are well established in many specific settings, its exact impact with respect to the commitments in USMCA is not certain.⁶⁵ Thus, the economy-wide analysis in this report uses a more conservative weight than the findings in the literature.

To help understand the impact of assigning different weights, the estimated impact of USMCA with different weights is presented in tables 2.6, 2.7, and 2.8. The results show the significant impact of the USMCA provisions that reduce policy uncertainty for international data transfer, cross-border services, and investment. The “Moderate” column in table 2.6 reproduces the economy-wide results from table 2.2, based on the conservative assumptions described above. The “High” column shows those results when the effects of those provisions are given a stronger weighting consistent with findings in much of the literature. The “None” column shows the economy-wide results when the effects of the provisions that reduce policy uncertainty for international data transfer, cross-border services, and investment are excluded.

Table 2.6 Impact of modeled provisions that reduce policy uncertainty on the economy-wide effects of USMCA (percent changes relative to the baseline)

Impact of provisions reducing policy uncertainty	None	Moderate	High
U.S. real GDP	-0.12	0.35	1.21
U.S. real output			
Agriculture	-0.22	0.18	0.88
Manufacturing and mining	0.37	0.57	0.88
Services	-0.13	0.17	0.71
U.S. employment	-0.04	0.12	0.40
Agriculture	-0.15	0.12	0.58
Manufacturing and mining	0.28	0.37	0.51
Services	-0.07	0.09	0.38
U.S. wages	-0.06	0.27	0.86
Agriculture	-0.18	0.23	0.94
Manufacturing and mining	0.25	0.50	0.94
Services	-0.10	0.23	0.84

Source: USITC estimates.

Note: Columns reflect different simulation specifications as follows:

None: Does not incorporate the impact of provisions that reduce policy uncertainty for international data transfer, cross-border services, and market access and nonconforming measures in investment.

Moderate: Reproduces the results of this study as previously shown in table 2.2.

High: Gives additional weight to provisions that reduce policy uncertainty for international data transfer, cross-border services, and market access and nonconforming measures in investment, as suggested by some economic research.

⁶⁵ While much of the literature ascribes a weight of 50 percent to the reduction of uncertainty, the literature does not specifically address the appropriate weights for nontariff measures (including data transfer provisions) related to goods trade. Additionally, some USMCA commitments may concern domestic policies that are considered longstanding or stable.

Table 2.7 Impact of modeled provisions that reduce policy uncertainty on the economy-wide effects of USMCA (changes in values relative to the baseline)

Impact of provisions reducing policy uncertainty	None	Moderate	High
U.S. real GDP (billion \$)	-22.6	68.2	235.0
U.S. employment (1,000 full-time equivalent jobs)	-53.9	175.7	588.9
Agriculture	-2.3	1.7	8.6
Manufacturing and mining	36.9	49.7	68.6
Services	-88.5	124.3	511.7

Source: USITC estimates.

Note: Columns reflect different simulation specifications as follows:

None: Does not incorporate the impact of provisions that reduce policy uncertainty for international data transfer, cross-border services, and market access and nonconforming measures in investment.

Moderate: Reproduces the results of this study as previously shown in table 2.2.

High: Gives additional weight to provisions that reduce policy uncertainty for international data transfer, cross-border services, and market access and nonconforming measures in investment, as suggested by some economic research.

Table 2.8 Impact of modeled provisions that reduce policy uncertainty on the economy-wide effects of USMCA (percent changes relative to the baseline)

Impact of provisions reducing policy uncertainty	None	Moderate	High
Total U.S. exports to the world	-0.5	2.4	7.7
Total U.S. imports from the world	-0.4	2.0	6.4
Total U.S. exports to Canada	1.6	5.9	13.9
Total U.S. imports from Canada	1.0	4.8	11.8
Total U.S. exports to Mexico	1.2	6.7	15.0
Total U.S. imports from Mexico	-0.6	3.8	10.4

Source: USITC estimates.

Note: Columns reflect different simulation specifications as follows:

None: Does not incorporate the impact of provisions that reduce policy uncertainty for international data transfer, cross-border services, and market access and nonconforming measures in investment.

Moderate: Reproduces the results of this study as previously shown in table 2.2.

High: Gives additional weight to provisions that reduce policy uncertainty for international data transfer, cross-border services, and market access and nonconforming measures in investment, as suggested by some economic research.

The remaining provisions—the ones that alter current policies or standards—are those that concern agriculture, automotive rules of origin, IPRs, e-commerce, labor, and the ISDS portion of investment. These provisions collectively are estimated to have a negative impact on many aspects of the U.S. economy when included in the model alone. The automotive rules of origin, which represent greater restrictions on trade, are the primary component influencing these results. While the auto provisions are estimated to increase employment in the automotive sector, they are also estimated to raise the price of foreign auto parts, causing a greater number of parts to be produced in the United States, and to raise the costs of producing motor vehicles overall. The increase in U.S. auto parts production would draw resources away from other manufacturing sectors and the rest of the U.S. economy, driving up production costs for other sectors.⁶⁶ The combined effects of these changes would be to (1) reduce U.S. exports due to higher production costs; (2) to reduce real income, because consumer price increases

⁶⁶ Commissioner Kearns notes that, as described above, the model appears to suggest that the trade restrictiveness of a ROO is inversely related to its positive impact on the U.S. economy. Carried to its logical conclusion, this would appear to suggest that the best ROO is a very weak or nonexistent ROO. In turn, this would result in other countries, which do not incur any obligations to import U.S. products, obtaining unilateral, duty-free access to the U.S. market. If, on the other hand, we were to compute an ROO that optimizes regional content while recognizing that there may be slack in the economy, we may estimate a gain to the overall economy from the automotive ROO.

would exceed changes in capital and labor income; and (3) to reduce wages and employment in the overall economy.

On the other hand, the USMCA provisions that reduce policy uncertainty for international data transfer, cross-border services, and investment are estimated to more than offset many of the negative economy-wide effects of USMCA's changes in the automotive rules of origin. The data transfer provisions represent liberalizations for all sectors, while the cross-border services and investment provisions apply to multiple services sectors. The "High" columns of tables 2.6, 2.7, and 2.8 show the economy-wide impacts of USMCA if the provisions that reduce policy uncertainty for international data transfer, cross-border services, and investment are given the weight that is suggested by the economic literature. In this case, the estimated impact of USMCA is much stronger than in the "Moderate" columns.

In addition to differences in economy-wide results, there are also differences in sector-specific results across the three columns in tables 2.6 and 2.7. In particular, gains in the services sector are closely tied to the provisions that deter future trade barriers, because the services provisions modeled were almost entirely characterized as deterring future barriers. By comparison, the manufacturing estimates were less sensitive to this assumption because the automotive provisions, which had a large impact on manufacturing, represent changes in current policies.⁶⁷

However, as noted above, the Commission's baseline does not take into account the various market liberalizations and binding commitments that Mexico and Canada have undertaken as signatories of the CPTPP, including commitments applying to data localization and data transfer. Since these are key policies that drive Commission model results in estimates that provide higher weights to the value of policy uncertainty, it is unclear whether estimates with higher weights for policy uncertainty would apply to the current (post-CPTPP signing) policy context. Further, goods AVEs for policy uncertainty are extrapolated from services AVEs at the broad sector level, and the model results may be sensitive to the assumptions used in calculating these goods AVEs.

Economy-wide Model

The economy-wide model, as mentioned above, combines the provision-specific analysis completed in each of the eight individual components into a single model. This model provides estimates of the joint impact of the many USMCA provisions on the U.S. economy.

The economy-wide model is based on a computable general equilibrium (CGE) model developed and maintained by the Global Trade Analysis Project (GTAP).⁶⁸ The GTAP model is a global model regularly used by the Commission and other researchers to simulate the effects of trade policy on the U.S. economy and the economies of many other countries. The model is built upon standard economic relationships such as interlinked industries, input-output production processes, and product substitutability between foreign and domestic sources. These relationships are supported by an extensive dataset containing information on international trade, production, and consumption in many sectors, as well as on the economic characteristics of numerous countries. Because of the extensive

⁶⁷ Comparisons of the broad sector estimates under different assumptions can be found in appendix E.

⁶⁸ The GTAP model is documented in Hertel, *Global Trade Analysis: Modeling and Applications*, 1997, and in Corong et al., "The Standard GTAP Model, Version 7," 2017.

interlinkages between countries and industries, the model represents a powerful means by which to analyze the economy-wide impact of multiple compounding policy changes.

The Commission modified the standard GTAP model in several ways to better suit the needs of its economy-wide analysis of USMCA. First, the underlying data were updated to create a baseline for the model that reflected the U.S. economy in 2017.⁶⁹ The baseline also incorporated recent trade policies that were in place as of the signing of USMCA. The current policies that were incorporated in the database are the United States' Section 232 steel and aluminum tariffs; the additional tariffs imposed on U.S. products by China, the European Union, Canada, and Mexico in response to the U.S. Section 232 steel and aluminum tariffs; the United States' additional Section 301 tariffs on imports from China starting on September 24, 2018; and additional tariffs on U.S. products by China in response to the U.S. Section 301 tariffs.⁷⁰ However, the agreement for the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP), which went into force for Canada and Mexico on December 30, 2018, was not incorporated into the baseline database because it went into force after the signing of USMCA.

Second, many of the standard sectors in the GTAP model were subdivided into subsectors to improve the granularity of the model with respect to key industries affected by USMCA. This step increased the total number of sectors in the model from 57 to 103.

The Commission further modified the GTAP model by adopting a structure in which the substitutability between domestic and imported goods for a particular sector is equal to the substitutability between different import sources. This approach is common in recent models of trade, such as the Eaton and Kortum model ("Technology, Geography, and Trade," 2002), and supported by recent work by Feenstra et al. ("In Search of the Armington Elasticity," 2018). The latter study suggests that for between two-thirds and three-quarters of sample goods, there is no significant difference between the estimates of the upper-level elasticity of substitution (substitution between imports and domestic goods) and lower-level elasticities of substitution (substitution between imports from different sources). That is, the substitution between domestic and foreign products is not significantly different than the substitution between alternative foreign products.

The economy-wide model used a version of the GTAP model that fixes countries' total trade balances (i.e., holds them constant in dollar value terms). Economic research has indicated that changes in trade balances are highly dependent on dynamic macroeconomic factors such as savings and investment decisions.⁷¹ CGE models that are typically used to analyze trade policy, including the economy-wide model used in this report, are static and do not feature many of the dynamic macroeconomic features

⁶⁹ The original data are from GTAP 10 (beta version). The earlier (GTAP 9) database is documented in Aguiar, Narayanan, and McDougall, "An Overview," 2016. The baseline used to analyze USMCA also assumed that NAFTA was in place, so that the impacts from USMCA were estimated as changes from conditions under NAFTA.

⁷⁰ The tariff changes, aggregated to GTAP sectors, were obtained from Li, CARD Trade War Tariffs Database, (accessed November 15, 2018). The bilateral tariff increases by the United States and China scheduled for January 1, 2019, were not imposed because of ongoing negotiations and have not been included in the database.

⁷¹ See Kim and Shikher, "Can Protectionism Improve Trade Balance?" 2017, 3–5, and Obstfeld, "Does the Current Account Still Matter?" 2012. The Commission is not precluding the possibility that trade policies can affect trade balances by affecting savings and investment decisions. The factors included in the Commission's economy-wide model account for only a small portion of the determinants of global trade balances, implying that it is not a tool that is well suited for analyzing trade balances.

needed to accurately assess trade balances. Because of this, the economy-wide model holds the dollar value of aggregate trade balances constant, though bilateral balances are free to adjust.⁷²

Modeling of Labor

Some modifications were made to improve the treatment of labor in the United States within the economy-wide model. U.S. workers were split into five types based on their educational attainment.⁷³ The choice to focus on the education of workers rather than their occupation was based on the often large differences in educational attainment and earnings within an occupation in an industry.⁷⁴ Further, industries themselves also differ in terms of the educational composition of their workforce.⁷⁵ Splitting workers by educational attainment made it possible to estimate the impact of USMCA on workers of similar education levels employed in different industries and on industries requiring workers with diverse levels of education to produce output. Drawing on the 2017 Current Population Survey (CPS) dataset collected by the U.S. Census Bureau, the labor portion of production in the economy-wide model was split into five groupings in each industry. The groupings were workers with 0–9 years of education, 10–12 years of education, 13–15 years of education, a bachelor’s or equivalent degree, and a graduate or professional degree.⁷⁶

The economy-wide model allows for changes in the number of workers in the United States. Workers can drop out of the labor force if wages decrease, and nonworking adults can join the labor force if wages increase. Further, each worker type responds differently to wage changes. Workers with lower levels of education are modeled as being relatively responsive to wage changes when deciding whether to switch their labor force participation status. Workers with higher levels of education switch between nonparticipation and participation in the labor force only if wages change by a relatively large percentage.⁷⁷ This change in participation rate is not a change in unemployment; the market is assumed to be at full employment.

Within the model, workers are permitted to move between industries, but face some frictions in doing so. Since the assumption of restricted labor mobility across industries is new to the Commission’s modeling, the impact of this assumption on the results was investigated. Tables 2.9, 2.10 and 2.11 show

⁷² Additional details on the economy-wide model can be found in appendix E.

⁷³ Economic literature has long noted the positive correlation between education and earned income. (See, for example, Willis, “Wage Determinants,” 1986; Mincer, *Schooling, Experience, and Earnings*, 1974.) The economy-wide model estimates the largest percentage gains in terms of wage and employment growth for the groups of workers with relatively little education (10–12 and 13–15 years of education). When combined with the economic literature on education and income, this implies that lower-income workers would likely experience the greatest percentage gains.

⁷⁴ For a discussion of these differences in the United States, see Torpey, “Same Occupation, Different Pay: How Wages Vary,” May 2015.

⁷⁵ Appendix E presents selected summary statistics for intensity of education use across industries in the United States.

⁷⁶ For more details about the Current Population Survey (CPS) and to access data from it, see <https://www.census.gov/programs-surveys/cps.html>.

⁷⁷ The elasticity of labor supply is discussed in appendix E.

the results from the economy-wide model assuming (1) free labor mobility and (2) somewhat restricted labor mobility. The second column of numbers reproduces results from table 2.2.

The results show that the labor mobility assumption has a small effect on the estimated impact of USMCA on the overall economy, although sector-specific impacts are more substantial. Free labor mobility results in a slightly higher estimated GDP change than when labor mobility is somewhat restricted. This is because the U.S. economy would more completely adjust to the changes in USMCA given free labor mobility, as workers could more easily switch between jobs. Because the economy adjusts more extensively when labor mobility is free, this simulation can also be viewed as an estimate of the impact of USMCA that reflects a longer time horizon, in which displaced workers are able to develop new skills that are better suited to different industries.⁷⁸

Table 2.9 Economy-wide effects of USMCA (percent changes relative to the baseline)

Ability of labor to reallocate between industries	Free	Somewhat restricted
U.S. real GDP	0.36	0.35
U.S. real output		
Agriculture	0.19	0.18
Manufacturing and mining	0.65	0.57
Services	0.18	0.17
U.S. employment	0.11	0.12
Agriculture	0.09	0.12
Manufacturing and mining	0.45	0.37
Services	0.08	0.09
U.S. wages	0.27	0.27
Agriculture	0.27	0.23
Manufacturing and mining	0.27	0.50
Services	0.27	0.23

Source: USITC estimates.

Table 2.10 Economy-wide effects of USMCA (changes in values relative to the baseline)

Ability of labor to reallocate between industries	Free	Somewhat restricted
U.S. real GDP (billion \$)	70.6	68.2
U.S. employment (1,000 full-time equivalent jobs)	169.3	175.7
Agriculture	1.3	1.7
Manufacturing and mining	60.1	49.7
Services	107.1	124.3

Source: USITC estimates.

With free labor mobility, workers are able to freely move between industries to pursue higher wages. This movement results in wages that equalize across industries. Sectors that have above-average wage growth when labor mobility is restricted, such as manufacturing and mining in tables 2.9 and 2.10,

⁷⁸ Commissioner Kearns notes that the model assumes that there is no slack in the economy, but allows workers to enter and exit the workforce. This is an advance toward recognizing how trade agreements can have an impact on employment levels. However, the model still assumes that the economy operates at full capacity. But there is reason to believe that the U.S. economy may not be at full capacity utilization, now or when the USMCA is fully implemented. Indeed, Federal Reserve Chairman Jerome Powell recently noted that the United States has one of the lowest labor participation rates among advanced economies. Pelley, "Full 60 Minutes Interview," 2019.

expand further with free labor mobility. This greater mobility is because a greater number of workers move into that sector chasing the higher wages. The expansion in the quantity of labor supplied to manufacturing and mining pushes wages back down until there is no longer a higher wage in that sector than others (i.e. until wages equalize). On the other hand, sectors that have below-average wage growth when labor mobility is restricted would see reduced employment under free mobility. Agriculture and services both experience lower job growth under free mobility because a greater number of those workers are drawn to manufacturing and mining.

Labor mobility had limited effect on the estimated changes in U.S. trade. Table 2.11 shows that under free labor mobility, U.S. exports to the world are slightly higher but trade with Mexico is slightly lower.

Table 2.11 Effects of USMCA on trade (percent changes relative to the baseline)

Ability of labor to reallocate between industries	Free	Somewhat restricted
Total U.S. exports to the world	2.5	2.4
Total U.S. imports from the world	2.0	2.0
Total U.S. exports to Canada	5.9	5.9
Total U.S. imports from Canada	4.8	4.8
Total U.S. exports to Mexico	6.5	6.7
Total U.S. imports from Mexico	3.7	3.8

Source: USITC estimates.

The elements of labor modeling described in this section allow a detailed analysis of USMCA’s impact on U.S. workers. These methods provide insight into the ways in which wages, employment, and labor shares would likely change both within and between industries for U.S. workers with different levels of educational attainment as a result of the provisions in USMCA.

Additional information regarding the economy-wide CGE model can be found in appendix E.

Review of Related Literature

The only economy-wide analysis of the impact of USMCA is made in a 2019 paper by Burfisher, Lambert, and Matheson (hereafter referred to as the BLM study).⁷⁹ The paper analyzes five key aspects of USMCA: vehicle and parts regional value content requirements, labor value content requirements for vehicles, rules that further limit the use of non-USMCA inputs in textile and apparel trade, agricultural provisions, and improved goods market access (increased trade facilitation).

The BLM study estimates that USMCA would have almost no effect on aggregate U.S. real GDP and wages for skilled and unskilled workers (0.0 percent). The study also estimates that USMCA would have almost no effect on U.S. trade, whether regional or global. U.S. exports to Canada and Mexico would decrease by \$0.3 billion (0.0 percent) and \$2.4 billion (0.0 percent), respectively. U.S. imports from Canada and Mexico would decrease by less than \$0.1 billion (0.0 percent) and \$1.7 billion (0.0 percent). Meanwhile, U.S. exports to and imports from the rest of the world would increase by \$1.0 billion (0.0 percent) and \$0.3 billion (0.0 percent), respectively.

⁷⁹ Burfisher, Lambert, and Matheson, “NAFTA to USMCA,” 2019.

The BLM study differs from the Commission's analysis in many ways, which explains the differences in estimated effects. The model used in the BLM study holds the labor force and physical capital constant, while the Commission's economy-wide model allows entry into and exit from the labor force and permits increases in capital stock through investment. The BLM study allows global trade balances to vary while holding savings rates constant, which leads to a greater U.S. global trade deficit after the implementation of USMCA. The Commission's model holds global trade balances constant.

The BLM's and Commission's models also use different baseline data. While both studies use the GTAP database version 10 for the year 2014, the Commission's analysis updates this data to 2017. Both studies incorporate many of the same recent trade policies. However, the BLM study also incorporates the CPTPP agreement.

In addition, the set of provisions analyzed by BLM and the Commission are different. The Commission's analysis includes detailed modeling of USMCA's labor, digital trade, IPR, ISDS, investment, e-commerce, and services provisions; the BLM study does not. The BLM study considers changes to apparel and textile input requirements; the Commission's analysis does not. The BLM study approximates all other forms of trade facilitation in USMCA by reducing trade costs for most goods sectors by 0.1 percent. The Commission modeled many trade policy changes individually, using provision-specific models, and in many cases found trade cost reductions much larger than 0.1 percent.

In many cases, BLM and the Commission use different methodologies when addressing the same provisions. For example, when analyzing the impact of changes in automotive ROOs, the BLM study assumes that automakers will decide not to comply with the new ROOs and will pay non-preferential tariff rates instead. The Commission, on the other hand, assumes, based in part on interviews with industry representatives, that the automakers will largely comply with the new rules by shifting their sourcing of parts. In addition, the Commission's analysis of the automotive ROOs is based on a detailed microeconomic model that is able to analyze regional content rules that apply at the level of individual firms. By comparison, the BLM analysis is conducted at the level of broad sectors.

Reviews of sector-specific studies of the impact of USMCA are presented in chapters 3 and 5.

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Chapter 3

Automotive, Steel, and Aluminum Products

Overview

Compared with NAFTA, USMCA significantly increases the regional content required in automotive products and inputs, adds new requirements intended to support well-paying jobs for workers in the industry, and introduces a more complicated process for qualifying automotive, steel, and aluminum products for duty-free treatment. According to Commission estimates, these changes would lead to an increase in U.S. automotive parts production, partly offset by a small decline in U.S. vehicle production due to consumer price increases that would reduce demand. The result would be a net employment increase of more than 28,000 full-time equivalent employees (FTEs) in the automotive sector.⁸⁰

The following discussion focuses on automotive rules of origin (ROOs) in the agreement text and related side letters, and additional ROOs related to aluminum and steel.⁸¹ It begins with a description of automotive trade; summarizes the automotive, steel, and aluminum provisions in USMCA that represent a change from NAFTA; gives a qualitative analysis of the potential effects of the provisions on the automotive, steel, and aluminum sectors; and introduces a partial equilibrium model to estimate the effect of USMCA's automotive provisions on U.S. automotive production, employment, and trade.

Automotive Industry Overview

This chapter discusses three types of vehicles: passenger vehicles, light trucks, and heavy trucks. Passenger vehicles include cars (e.g., Chevrolet Camaro, Ford Mustang), sport-utility vehicles (Chevrolet Equinox, Jeep Wrangler), and minivans (Dodge Caravan, Honda Odyssey), while the light-truck category includes pickup trucks (Chevrolet Silverado, Ford F-150) and workvans (Ram ProMaster, Ford Transit). Heavy trucks are medium- and heavy-duty trucks of either the tractor-trailer or the cab and chassis varieties.

⁸⁰ The estimates reported in this chapter are a high-end estimate of the economic effects of the new ROOs. They are sensitive to the assumption that certain manufacturers would increase their production costs by shifting sourcing of core parts to the United States, even though the non-preferential tariff rates that they would face (for many vehicle types) if they did not comply with the new automotive rules of origin (ROOs) would be small. Due to the relatively low profitability of many of the small cars manufactured in Mexico, the costs of vehicles produced there are particularly sensitive to the increased costs of shifting supply chains and/or to an increase in tariffs. Valdes-Dapena, "Ford Moving All Small Car Production to Mexico," September 15, 2016. On the other hand, because several factors are not included in the economic model (see appendix G of this report), the effects shown in the model could be amplified or mitigated. Alternative scenarios are included in appendix G.

⁸¹ Side letters are agreements that address matters between two or more parties to a multiparty agreement but do not affect the rights and obligations of the other parties to the agreement.

Passenger vehicles and light trucks are often grouped as “light vehicles” because they tend to be manufactured by the same companies, to be sold in the same dealerships, and to use similar supply chains. Heavy trucks tend to be sold in separate dealerships, are sold more to commercial fleets than to individual consumers, have limited supply chain overlap with light vehicles, and are updated less frequently. Light vehicle manufacturing made up 92 percent of the total value of shipments and services and 85 percent of U.S. employment in motor vehicle manufacturing (table 3.1).⁸² Two-thirds to three-fourths of auto parts production in North America contributes toward original equipment production, with the remaining parts produced for the automotive aftermarket.⁸³ As a result, demand for new vehicles is the largest driver of demand for automotive parts.

Table 3.1 U.S. motor vehicle and parts shipments and employment, 2016

Industry segment	Shipments (billion dollars)	Employment (thousands of FTEs)
Total motor vehicle and parts manufacturing	619.7	785.4
Motor vehicle manufacturing	344.4	197.7
Light vehicle manufacturing	317.5	169.0
Heavy truck manufacturing	26.8	28.7
Motor vehicle bodies manufacturing	14.6	47.9
Motor vehicle parts manufacturing	260.8	539.9

Source: U.S. Census, *Annual Survey of Manufactures: Statistics for Industry Groups and Industries: 2016 and 2015* (accessed February 22, 2019).

Note: NAICS codes 33611 (automobile and light duty), 33612 (heavy-duty trucks), 336211 (motor vehicle body), 3363 (motor vehicle parts). U.S. production and employment data uses the North American Industry Classification System to delineate different types of production. It is standardized across the United States, Canada, and Mexico at the five-digit level.

The automotive industry has a complex integrated supply chain in North America. A single vehicle manufacturer can have hundreds of suppliers providing thousands of parts for a single vehicle.⁸⁴ Inputs can cross borders multiple times before being assembled into the final vehicle.

The automotive industry operates a “just-in-time” delivery system, where parts arrive when needed in the manufacturing or assembly process. For the most part, vehicle manufacturers, which assemble hundreds of vehicles per day at each plant, do not warehouse more than a day’s worth of inventory; for some parts, they hold inventory for only several hours of work.⁸⁵ These plants produce different vehicle models with a variety of options, colors, and trim levels. To expedite delivery, parts suppliers often cluster their facilities near vehicle assembly plants; some key parts suppliers may be located on-site in a

⁸² Motor vehicle manufacturing (NAICS 3361) is made up of automobile and light-duty truck manufacturing (NAICS 33611) and heavy-duty truck manufacturing (NAICS 33612). U.S. Census, “Annual Survey of Manufactures: Statistics for Industry Groups and Industries: 2016 and 2015” (accessed February 22, 2019).

⁸³ The aftermarket sells replacement parts and accessories. USDOC, ITA, “The Current State of the U.S. Automotive Parts Market,” April 2013.

⁸⁴ Industry representative, interview by USITC staff, September 19, 2019; industry representative, interview by USITC staff, September 21, 2019; industry representative, interview by USITC staff, November 5, 2018; industry representative, interview by USITC staff, November 6, 2018; industry representative, interview by USITC staff, November 7, 2018.

⁸⁵ Industry representative, interview by USITC staff, September 19, 2019; industry representative, interview by USITC staff, November 5, 2018; industry representative, interview by USITC staff, November 6, 2018; industry representative, interview by USITC staff, November 7, 2018.

“supplier park.” At least one vehicle manufacturer reported sourcing the majority of its parts from suppliers within a 300-mile radius of the assembly plant.⁸⁶ Nevertheless, auto-parts workers are employed in all 50 states, as well as Canada and Mexico.⁸⁷

In USMCA, automotive parts are grouped into three categories for the ROOs requirements: core parts, principal parts, and complementary parts.⁸⁸ Core parts account for about 40 percent of the cost of the vehicle and include engines, transmissions, body and chassis, axle, suspension systems, steering systems, and advanced batteries. Principal parts include items such as tires, rear view mirrors, fluid pumps, air-conditioning parts, bearings, bodies and bumpers, seats and seatbelts, and radiators and mufflers.⁸⁹ Complementary parts include items such as certain pipes, locks, certain batteries, lighting and signaling equipment, certain valves, and defrosters.⁹⁰

In general, core parts tend to be produced by the vehicle manufacturer or sourced from Tier 1 suppliers (these are direct suppliers to vehicle manufacturers of major components such as engines, transmissions, seats, dash assemblies, etc.). The other two categories, principal and complementary parts, are sourced from lower tiers of the supply chain. Core parts tend to be relatively large and heavy, so many suppliers of these parts prefer to build their plants closer to the vehicle manufacturer they supply to reduce transportation costs.⁹¹

Steel accounted for the largest share (54 percent) of the “curb weight” of the average North American light vehicle in 2018, while aluminum accounted for 12 percent.⁹² Although the automotive market does not consume as much aluminum as it does steel, the use of aluminum in motor vehicles has grown in recent years. Compared to steel, aluminum saves up to 50 percent of the weight in automotive body structures, but tends not to be as strong.⁹³ In its posthearing submission, the American Automotive Policy Council estimates that for a vehicle built in the United States, the average cost of the steel parts was \$1,100, and the average cost of the aluminum parts was \$430.⁹⁴

⁸⁶ Industry representative, interview by USITC staff, November 5, 2019.

⁸⁷ MEMA, “MEMA Economic Impact Study,” January 26, 2017.

⁸⁸ Under the Harmonized Commodity Description and Coding System (HS) classification, core parts are HS: 840731-840734, 840820, 840991, 840999, 850760, 870600, 870710, 870790, 870829, 870840, 870850, 870880, 870894, 870899.

Principal parts are HS: 841330, 841350, 841459, 841480, 841520, 847989, 848210-848280, 848310-848360, 850132, 850133, 850520, 850590, 851140, 851150, 851180, 851190, 853710, 870810, 870829, 870830, 870870, 870891, 870892, 870893, 870895, 870899, 940120.

Complementary parts are HS: 400912, 400922, 400932, 400942, 830120, 842139, 848120, 848130, 848180, 850110, 850120, 850131, 850720, 850730, 850740, 850780, 851130, 851220, 85124, 851981, 853650, 853690, 853910, 853921, 854430, 903180, 903289.

⁸⁹ For full list, see USMCA text, Table B (passenger vehicle and light trucks) and Table D (heavy trucks).

⁹⁰ For full list, see USMCA text, Table C (passenger vehicle and light trucks) and Table E (heavy trucks).

⁹¹ Industry representative, interview by USITC staff, November 5, 2019.

⁹² Curb weight is the full weight of the vehicle with standard equipment and consumables (e.g., fuel, motor oil, coolant), but no passengers or cargo. Ducker Worldwide, “NA Automotive Steel Content Market Study,” June 6, 2018, 3, 5.

⁹³ Aluminum Association, “Automotive,” 2018.

⁹⁴ AAPC, posthearing submission to the USITC, December 21, 2018, 2.

U.S. Automotive Trade with Mexico and Canada

Canada and Mexico are top sources of imports and destinations for U.S. exports of light vehicles. Canada and Mexico were the primary destinations for U.S. exports of passenger vehicles (PVs)⁹⁵ and light trucks (LTs)⁹⁶ in 2017 (table 3.2), receiving 34 percent of PV exports and 91 percent of LT exports. Canada was the largest U.S. PV and LT export market in 2017, accounting for over \$24 billion in combined value. Canada and Mexico combined were the source of 42 percent (\$73.3 billion) of U.S. 2017 PV imports, and Mexico supplied 98 percent of U.S. LT imports.⁹⁷

Table 3.2 U.S. automotive, steel, and aluminum imports for consumption and domestic exports to Canada, Mexico, and the rest of the world, 2017 (billion dollars)

Sector	Imports			Exports		
	Canada	Mexico	Rest of world	Canada	Mexico	Rest of world
Total light vehicles	43.5	47.8	103.5	24.2	3.8	36.1
Passenger vehicles	43.5	29.9	103.1	14.7	3.2	35.1
Light trucks	0	17.9	0.4	9.5	0.6	1.0
Total auto parts	19.6	65.9	121.8	40.6	41.1	50.5
Core parts	5.5	15.2	25.9	11.3	13.3	9.4
Principal parts	12.2	34.0	67.3	22.1	20.0	26.9
Complementary parts	1.9	16.7	28.5	7.2	7.8	14.2

Source: USITC DataWeb/USDOC (accessed October 30 and November 13, 2018).

Nearly two-thirds (62 percent) of U.S. total parts exports went to North America in 2017, supporting the regionally integrated supply chain in which U.S. vehicle manufacturers export parts (core, principal, and complementary) to support assembly in the other USMCA countries. Mexico and Canada were the destination for over two-thirds of U.S. core parts exports, and for slightly more than half of U.S. principal and complementary parts exports. The majority of U.S. core parts exports within North America were engines (51 percent) and transmissions (21 percent).⁹⁸ The largest share of U.S. exports of principal parts within North America fell into the all-other-parts category for body parts and vehicle accessories.

While automotive trade between the United States and Canada includes a relatively balanced mix of parts and finished vehicles flowing in both directions, Mexico serves primarily as a production platform. Mexico exports parts and vehicles (mostly to the region), but imports mostly parts. After Mexico and Canada, China, Germany, and Brazil rounded out the list of the top five destinations for U.S. automotive

⁹⁵ A “vehicle of subheading 8703.21 through 8703.90, except for a vehicle with a compression-ignition engine as the primary motor of propulsion, a three or four-wheeled motorcycle, a motorhome or entertainer coach, or a vehicle that is solely or principally designed for off-road use.” USMCA, Chap. 4, Appendix, art 1.

Note: In previous reports, including the Commission’s report on the Trans-Pacific Partnership Agreement, the term “passenger vehicles” encompassed what this report calls “passenger vehicles and light trucks.”

⁹⁶ Light truck “means a vehicle of subheading 8704.21 or 8704.31, except for a vehicle that is solely or principally designed for off-road use.” USMCA, Chap. 4, Appendix, art 1.

⁹⁷ USITC DataWeb/USDOC (accessed October 30, 2018). See footnote 88 for HTS codes.

⁹⁸ USITC DataWeb/USDOC (accessed October 30, 2018). See footnote 88 for HTS codes.

parts exports in 2017.⁹⁹ Each of these five countries was a significant vehicle manufacturer in 2017, and U.S.-headquartered vehicle manufacturers produced vehicles in each country. The majority of the parts exported to these countries were principal parts, many of which are major components to core parts.¹⁰⁰ As noted earlier, vehicle manufacturers often choose to assemble the core parts closer to vehicle assembly plants because of the increased transportation cost of moving such parts, which are likely to be heavier and bulkier.

Like exports, U.S. imports reflect the importance of the regional supply chain and the decision of transplant manufacturers sometimes to import parts from their home markets.¹⁰¹ Most motor vehicle parts imports (59 percent) came from outside of North America in 2017, particularly China (15 percent of parts imports), Japan (11 percent), Germany (8 percent), and South Korea (5 percent).¹⁰² Imports from China were directed somewhat more toward the aftermarket, while imports from Japan, Germany, and South Korea supported U.S. production of foreign-owned vehicle manufacturers.¹⁰³

Core parts, principal parts, and complementary parts were all represented in U.S. motor vehicle parts imports in 2017. Over half (55 percent) of those imports (\$207.2 billion) were principal parts; \$34 billion of these were from Mexico and over \$12 billion from Canada. The principal parts most commonly imported from Mexico were parts of seats; from Canada, the most common principal parts imports were other parts and accessories for bodies and cabs. Imports of core parts from Mexico and Canada were valued at nearly \$21 billion in 2017, making up 45 percent of global core part imports (box 3.1). Nearly half (48 percent) of core parts from Mexico were engines; from Canada, 56 percent were engines. Of the more than \$47 billion U.S. imports of complementary parts, 36 percent were from Mexico (primarily ignition wiring sets), and 4 percent were from Canada.¹⁰⁴

Box 3.1 Engine and Transmission Production, Trade, and Consumption

The U.S. motor vehicle engine and parts industry makes up 13 percent of the U.S. motor vehicle parts manufacturing industry and is a microcosm of it. The regional motor vehicle parts supply chain is supported by imports from other vehicle manufacturing countries. The industry supplies an estimated 61 percent of engines and parts for U.S. vehicle manufacturing (by value) (see figure in this textbox). Another 24 percent comes from Canada and Mexico. Three countries—Japan, Germany, and South Korea—are home to manufacturers that produce vehicles in the United States.

The sources and destinations of the trade flows for the U.S. motor vehicle transmission and parts manufacturing industry are similar to those of the engine and parts industry. However, since U.S. motor vehicle transmission and parts manufacturers produce 80 percent of the transmissions and parts consumed in the United States, they have lower import and export levels than those of the engine and parts manufacturing industry.

⁹⁹ USITC DataWeb/USDOC (accessed October 30, 2018). See footnote 88 for HTS codes.

¹⁰⁰ USITC DataWeb/USDOC (accessed October 30, 2018). See footnote 88 for HTS codes.

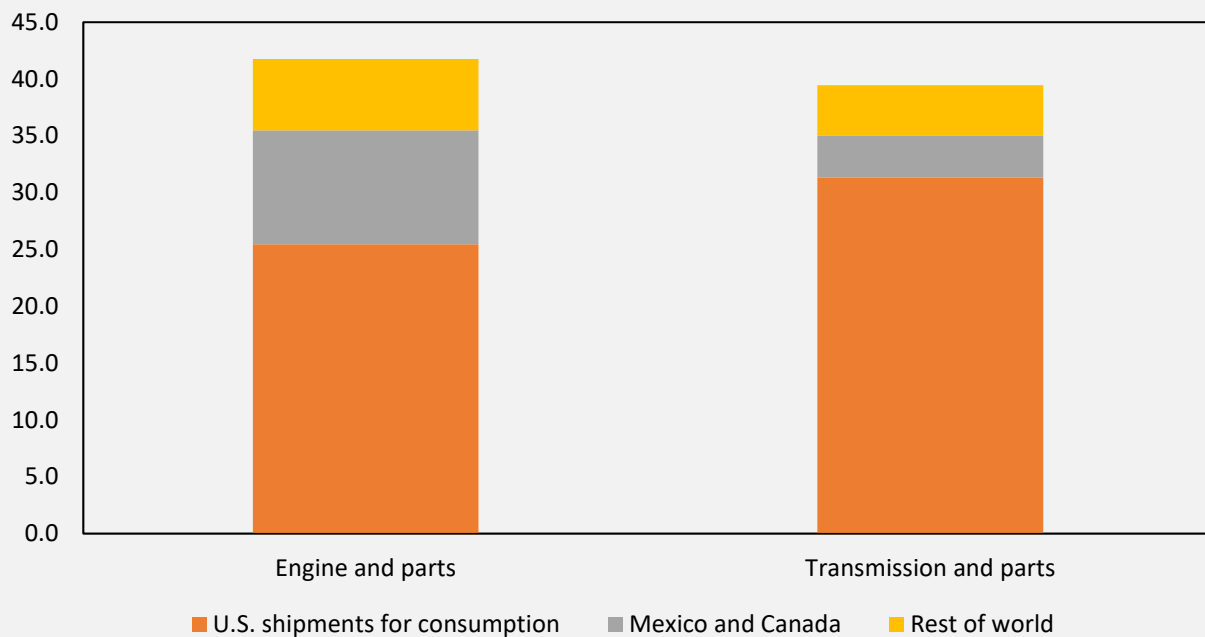
¹⁰¹ A transplant manufacturer refers to a firm operating production facilities in a country other than the one where the firm is headquartered.

¹⁰² USITC DataWeb/USDOC (accessed October 30, 2018). See footnote 88 for HTS codes.

¹⁰³ Schultz, Dziczek, Chen, and Swiecki, *U.S. Consumer and Economic Impacts*, February 2019, 11; Hong and Einhorn, "Trump's Trade War With China," September 3, 2018.

¹⁰⁴ USITC DataWeb/USDOC (accessed October 30, 2018). See footnote 88 for HTS codes.

Estimated U.S. consumption of motor vehicle engine and transmission parts, by source, 2016 (billion dollars)



Sources: USITC, USITC DataWeb/USDOC, February 26, 2019; U.S. Census, *2016 Annual Survey of Manufactures*, December 2017.
 Note: The value of shipments for domestic consumption is calculated by subtracting U.S. exports from reported total U.S. value of shipments. NAICS 33631 (Engine and parts), and NAICS 33635 (Transmission and parts) used for shipment and trade data.

Summary of Key Automotive, Steel, and Aluminum Provisions

USMCA’s automotive provisions have seven major components (figure 3.1). The first four components are regional value content (RVC)¹⁰⁵ requirements for (1) vehicles, (2) core auto parts, (3) principal auto parts, and (4) complementary auto parts. The other three components are (5) labor value content (LVC)¹⁰⁶ requirements for vehicles, (6) steel purchase requirements, and (7) aluminum purchase requirements.¹⁰⁷ For a PV or LT to qualify for duty-free treatment, the vehicle must meet RVC, LVC, and steel and aluminum requirements. For PVs and LTs, the RVC requirement is 75 percent, a 12.5

¹⁰⁵ Regional value content requirements are commonly used in rules of origin. To meet this type of requirement, a good must contain at least a minimum amount of originating material from one or more of the parties of the agreement.

¹⁰⁶ Labor value content requirement is a unique formulation for USMCA. To meet this type of requirement, a good must contain a minimum amount of originating material produced by workers paid at a particular wage level or higher (in this case \$16/hr).

¹⁰⁷ USMCA, Chap. 4, Appendix.

percentage point increase over the amount required under NAFTA (table 3.3).¹⁰⁸ In addition, either the vehicle's core auto parts (listed in Table A.1 of the agreement) must meet the RVC of 75 percent or the RVC of the core auto parts can be averaged together to meet the 75 percent.¹⁰⁹ USMCA provisions are more complicated and require more regional content than those under NAFTA.¹¹⁰ They also require more parts manufacturer input into vehicle manufacturers' RVC and LVC calculations.¹¹¹

For the first five years under USMCA, a manufacturer can continue to meet a 62.5 percent RVC for up to 10 percent of its vehicles produced in North America.¹¹² "Super core" parts¹¹³ for a vehicle must all meet the 75 percent RVC or average 75 percent RVC.¹¹⁴ Unlike NAFTA, USMCA does not permit any parts to be "deemed originating," and it has eliminated "tracing" as well.¹¹⁵ Parties may come up with a new set of rules for autonomous or electric vehicles later.

Automotive RVC requirements are slated to be staged in over three years, and vary for different categories. Core parts have an RVC of 75 percent by net cost,¹¹⁶ principal parts have an RVC of 70 percent by net cost,¹¹⁷ and complementary parts have an RVC of 65 percent by net cost.¹¹⁸ One of the categories of core auto parts, batteries for electric vehicles, also needs a change in tariff classification in order to qualify for duty-free treatment. This is because battery pack assembly alone is not enough to confer origination: the battery cells, too, must be made in North America.¹¹⁹

At least 70 percent of both the steel and the aluminum purchased by manufacturers for use in producing PVs and LTs must originate in North America.¹²⁰ This rule applies to bulk purchases of steel and aluminum that manufacturers make for suppliers, but not to suppliers' direct purchases of steel and aluminum. Stamping of steel or aluminum in a given country no longer confers origination there.

¹⁰⁸ USMCA, Chap. 4, Appendix, Art. 3.1 and 3.2.

¹⁰⁹ USMCA, Chap. 4, Appendix, Art. 3.

¹¹⁰ AAPC, posthearing submission to the USITC, December 21, 2018; USITC, hearing transcript, November 15, 2018, 53, 71–2 (John Bozell, President and CEO, Global Automakers); industry representatives, interviews by USITC staff, October 23–November 14, 2018.

¹¹¹ MEMA, posthearing submission to the USITC, December 20, 2018, 3.

¹¹² USMCA, Chap. 4, Appendix, Art. 8.

¹¹³ These parts are shown in the left column of Table A.1. USMCA, Chap. 4, Appendix, Table A.1.

¹¹⁴ Examples of super-core parts that must meet regional value content (RVC) requirements include gasoline and diesel engines and parts, lithium-ion batteries, vehicle chassis, vehicle bodies, body stampings, transmissions, steering systems, and suspension systems. USMCA, Chap. 4, Appendix, Art. 3.3.

¹¹⁵ In NAFTA 1994, manufacturers could count some parts in the 62.5 percent RVC calculations as originating material, regardless of whether the parts originated in North America. These parts—where origin did not have to be proven—are usually described as "deemed originating." For those parts on the tracing list in NAFTA 1994, manufacturers had to determine the origin of each component, some of which were multiple links away in the supply chain from the manufacturer.

¹¹⁶ 85 percent by transaction value of core parts. USMCA, Chap. 4, Appendix, Art. 3.2.

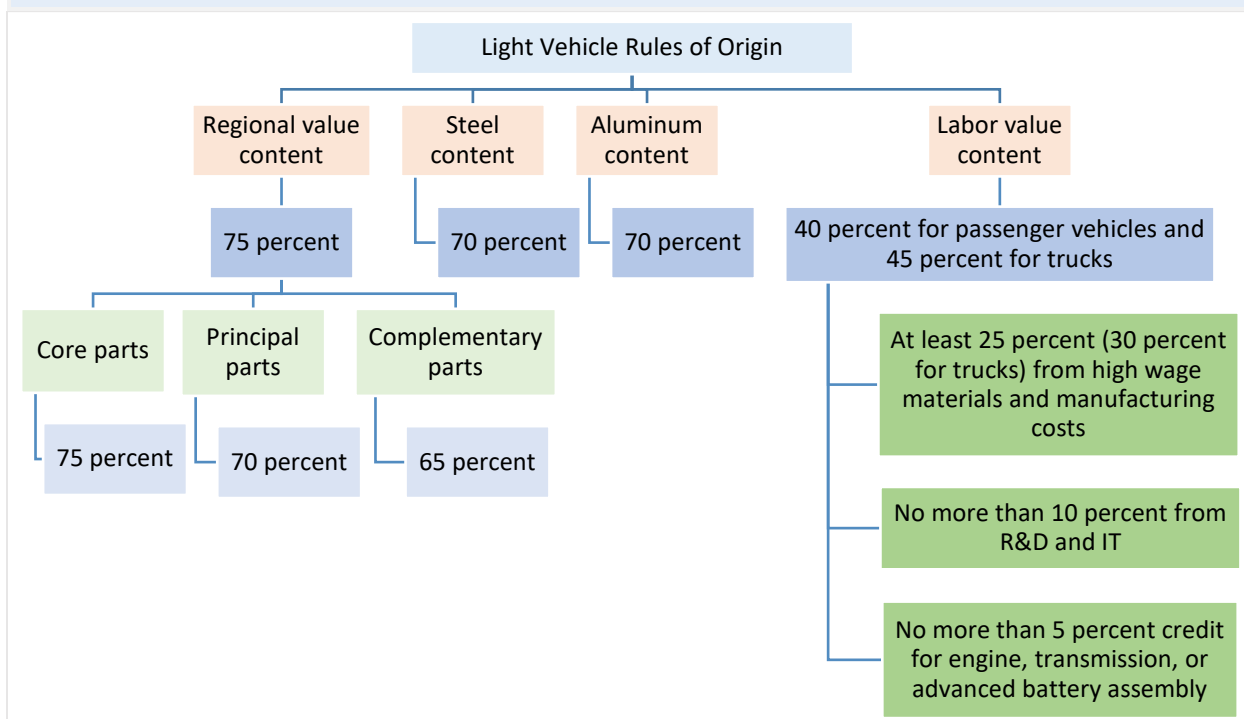
¹¹⁷ 80 percent by transaction value of principal parts. USMCA, Chap. 4, appendix, Art. 3.4.

¹¹⁸ 75 percent by transaction value of complementary parts. USMCA, Chap. 4, appendix, Art. 3.5.

¹¹⁹ Industry representative, interview by USITC staff, October 23, 2018; industry representative, interview by USITC staff, November 14, 2018.

¹²⁰ USMCA, Chap. 4, Appendix, Art. 6.

Figure 3.1 Components of USMCA automotive rules of origin



Source: Produced by USITC based on USMCA text.

Table 3.3 Summary of key USMCA provisions on automotive, steel, and aluminum products

USMCA provision	Comparison to NAFTA provisions
Passenger vehicles and light trucks (Chapter 4, Appendixes):	
Regional value content (RVC) requirement for passenger vehicles (PVs) and light trucks (LTs) transitions to 75 percent under net cost in 2023, with staging beginning in 2020 (Appendix 2-3).	Modified in USMCA: RVC was 62.5 percent.
A PV or LT is originating only if parts in Table A.1 meet RVC rules for core auto parts; can average across core parts (Appendix 3.3, 8–9).	Modified in USMCA. NAFTA listed a set of auto parts that were to be “traced,” and others that were deemed originating. ³ USMCA does not have these provisions.
Parties may decide on a different list of parts and components subject to RVC in the case of advanced-technology vehicles (Appendix 3.10).	New in USMCA
A PV or LT is originating only if at least 70 percent of the vehicle producer’s purchases of steel and aluminum by value originate in the territories of the parties (Appendix 6).	New in USMCA
Labor value content (LVC) consists of a combination of (1) high-wage material or manufacturing costs, (2) high-wage R&D and IT expenditures costs, and (3) qualifying plant credit (Appendix 7).	New in USMCA

USMCA provision	Comparison to NAFTA provisions
A PV needs LVC of 40 percent: at least 25 percent high-wage material and no more than 10 percent from high-wage R&D and IT expenditures, and 5 percent from high-wage engine, transmission, or battery manufacturing. (Appendix 1, 3–5).	New in USMCA
An LT needs LVC of 45 percent: at least 30 percent high-wage material and no more than 10 percent from high-wage R&D and IT expenditures, and 5 percent from high-wage engine, transmission, or battery manufacturing. (Appendix 7.2–5).	New in USMCA
For a period ending no later than January 1, 2025, or five years after entry into force (EIF) (whichever is later), an importer may use 62.5 percent RVC under the net cost method for preferential treatment for 10 percent of its North American passenger vehicle production, if the vehicle manufacturer has an approved plan in place to meet new ROOs (Appendix 8).	Modified in USMCA: NAFTA had lower RVC requirements for a new assembly plant during its first five years of production.
The value of non-originating materials calculations for use in the RVC of a core part must include the value of all non-originating materials or the value of any non-originating components used in the production of the part listed in column 2 of Table A.2. Vehicle producers can calculate RVC for core parts as a single part (Appendix 3.8–9).	Modified in USMCA: Some parts under NAFTA were “deemed originating” regardless of origin and excluded from calculations of the value of non-originating materials.
Up to 2.6 million PVs and LTs and \$108 billion in auto parts imports from Mexico into the United States are excluded from any section 232 measure. (Mexico-U.S. side letter on section 232)	New in USMCA
Up to 2.6 million PVs and LTs and \$32.4 billion in auto parts imports from Canada into the United States are excluded from any section 232 measure (Canada-U.S. side letter on section 232).	New in USMCA
1.6 million non-originating vehicles and \$108 billion in auto parts meeting 62.5 percent RVC for vehicles and 50 percent RVC for parts may be imported from Mexico into the United States at the level of most-favored-nation (MFN) status that was applied in August 2018, regardless of the United States’ MFN applied rate at the time the goods are imported (Chapter 2 Annex 2-C.5).	New in USMCA
Automotive parts (Chapter 4, Appendix):	
RVC for core auto parts (Table A.1) is 75 percent using the net cost method. (Appendix 3.2)	Modified in USMCA: NAFTA listed a set of auto parts that were to be “traced,” and others that were deemed originating. ^a
For batteries to qualify as originating, they also need a change in tariff classification that allows a subheading shift, excluding battery cells if they are in a different subheading (Appendix 3.3).	New in USMCA
RVC for principal auto parts (Table B) is 70 percent in 2023 (Appendix 3.4).	Modified in USMCA: NAFTA listed a set of auto parts that were to be “traced,” and others that were deemed originating. ^a

USMCA provision	Comparison to NAFTA provisions
RVC for complementary auto parts (Table C) is 65 percent in 2023 (Appendix 3.5).	Modified in USMCA: NAFTA listed a set of auto parts that were to be “traced,” and others that were deemed originating. ^a
For all auto parts not listed under Chapter 4, Appendix Tables A.1, B, or C, or otherwise modified in the agreement, ROOs are the same as in NAFTA Annex 401.	Same as NAFTA.
Heavy trucks (Chapter 4 Appendix Article 4):	
RVC for heavy trucks is to be 70 percent by 2027 (Appendix 4.1).	Modified in USMCA: RVC of 50 percent in NAFTA.
RVC for core parts used in heavy trucks is to be 70 percent (net cost) by 2027 (Appendix 4.2)	Modified in USMCA: RVC of 60 percent in NAFTA.
RVC for principal parts used in heavy trucks is to be 60 percent net cost by 2027 (Appendix 4.3).	Modified in USMCA: RVC of 50 percent in NAFTA.
Heavy trucks have the same labor value content (LVC) and steel and aluminum requirements as light trucks (Appendix 7.2 and Appendix 6).	New in USMCA
By 2027, for vehicle producers assembling heavy trucks with LVC greater than 45 percent due to greater than 30 percent high wage material and manufacturing expenditures, the producer may use the points above 30 percentage points as a credit towards the heavy truck RVC (as long as the heavy truck RVC is greater than 60 percent). (Appendix 7.6).	New in USMCA
Steel products (Chapter 4):	
Certain welded tubes and pipes, fittings, and tool joints need to meet either (1) 70 percent by weight of originating steel inputs, or (2) RVC of at least 75 percent by transaction value or 65 percent by net cost. Transition period lasts three years post-EIF.	New in USMCA: No previous steel-input or RVC rules.
Iron and steel structures and parts thereof need to meet either (1) 70 percent by weight of originating steel inputs or (2) RVC of at least 65 percent or 75 percent (depending on the new subheading) by transaction value (55 percent or 65 percent depending on the new subheading by net cost). Transition period lasts until two years after EIF.	Modified in USMCA: tariff classification was previously at the HS heading level. Further processing of structural steel beams does not qualify as a tariff-classification change under USMCA. No previous steel-input or RVC rules.
Stranded wire, barbed wire and wire fencing, and steel cloth need to meet either (1) 70 percent by weight of originating steel inputs or (2) RVC of at least 75 percent by transaction value (65 percent by net cost). Transition period is three years after EIF.	Modified in USMCA: tariff classification was previously at the HS heading level. No previous steel-input or RVC rules.
Chains and parts thereof, other than articulated link chain and parts thereof, and skid chain need to either (1) contain at least 70 percent by weight of originating steel inputs or (2) have an RVC of at least 75 percent by the transaction value method or 65 percent by the net cost method. Transition period is 3 years after EIF.	Modified in USMCA: no previous RVC rules, applicable to HS 7315.20–7315.89, were 60 percent by the transaction value method or 50 percent by the net cost method.

USMCA provision	Comparison to NAFTA provisions
Nails, tacks, drawing pins, corrugated nails, staples, and similar articles of iron or steel now have expanded tariff-classification change rules for steel inputs to confer origin. They must either (1) contain at least 70 percent by weight of the steel inputs that are originating or (2) have an RVC of at least 75 percent by transaction value or 65 percent by net cost. Transition period is three years after EIF.	New in USMCA
Finished steel-containing products (Chapter 4):	
The RVC for electrical transformers and cores is at least 65 percent or 75 percent (depending on the HS subheading) by transaction value or 55 percent or 65 percent (depending on the HS subheading) by net cost. Transition period is five years after EIF.	Modified in USMCA: no previous steel-input rules. Previous RVC rules, applicable to HS 8504.90, were 60 percent by the transaction value method or 50 percent by the net cost method.
Railway or tramway freight-car (and locomotive) components and intermodal shipping containers need to have either (1) at least 70 percent by weight of originating steel inputs or (2) an RVC of at least 70 percent by transaction value (60 percent by net cost). Transition period is three years after EIF.	Modified in USMCA: NAFTA had an RVC requirement for HS 8607.11, 8607.12, 8607.29, and 8607.91: 60 percent by the transaction value method, or 50 percent by net cost.

Source: USMCA text and side letters on section 232.

^a In NAFTA 1994, manufacturers could count some parts in the 62.5 percent regional value content (RVC) calculations as originating material, regardless of whether the parts originated in North America. These parts—whose origin did not have to be proven—are usually described as “deemed originating.” For parts that were on the tracing list in NAFTA 1994, manufacturers had to determine the origin of each component, some of which were multiple links away in the supply chain from the manufacturer.

Labor Value Content (LVC)

LVC is a new formulation, not used in any previous agreements, made up partly of costs for high-wage materials or manufacturing and partly of costs for high-wage technology, research and development, or assembly. To meet USMCA ROO requirements, these costs must make up 40 percent of the total manufacturing cost for PVs and 45 percent for LTs. There are three components to the LVC calculation.¹²¹ First, high-wage technology expenditures, as a share of a vehicle producer’s annual expenditures on production wages, can be used to make up to 10 percent of the LVC. Second, a vehicle producer can receive a 5 percent LVC credit if it can demonstrate that it has an engine assembly, transmission assembly, or advanced battery assembly plant that meets a minimum required capacity in one or more of the NAFTA parties and that it pays an average production wage of at least \$16/hour.

The remaining 25 to 30 percent (or more) of the LVC comes from high-wage material or manufacturing costs. These costs are calculated as the sum total of the annual value of parts or materials purchased from plants that are located in one or more of the party countries and that have a production wage rate of at least \$16/hour (including labor costs in the vehicle assembly plant), divided by the net cost of the vehicle. LVC can be calculated by model line, class, or production plant for LTs or PVs within a party (but not across parties).¹²² Vehicle producers must certify that they meet LVC requirements on an annual basis.

¹²¹ USMCA, Chap. 4, Appendix, Art. 7.

¹²² The USMCA text is unclear about whether a PV and an LT that are produced in the same plant can have their costs averaged together for LVC purposes. USMCA, Appendix 4-B, Art. 7, Paragraph 4.

LVC is the sum of the three different calculations. The first and largest component of the LVC calculation is high-wage material or manufacturing costs as a share of the net cost of the vehicle (table 3.4). High-wage material or manufacturing costs are the cost of all materials that come from a supplier plant paying \$16/hour or more to its production workers, plus the cost of the wage bill from the assembly plant (if the assembly plant pays \$16/hour or more), divided by the net cost of the vehicle. The share of high-wage material or manufacturing costs must be at least 25 percent for PVs and 30 percent for LTs. Table 3.4 is an example of the first calculation for a hypothetical PV that has a net cost of \$20,000.

Table 3.4 Calculation of credit from high-wage material and manufacturing costs

Source	Cost	Labor value content (LVC) calculation
Total	\$6,000/\$20,000	30 percent
High-wage assembly plant wages	\$4,000/\$20,000	20 percent
Parts and materials from plants paying \$16/hour	\$2,000/\$20,000	10 percent

Source: USITC.

The second component of the LVC calculation is high-wage R&D and IT expenditures as a share of annual vehicle producer expenditures on wages in North America. Table 3.5 shows a hypothetical example, where the company producing the vehicle spends \$1 billion on wages at \$16/hour or higher for high-wage technology and R&D in North America, and spends \$10 billion on wages (which may be less than \$16/hour) in North America. Dividing \$1 billion by \$10 billion yields 10 percent, which is the maximum percentage a vehicle producer is allowed to claim from a combination of high-wage technology and R&D expenditures for LVC.

Table 3.5 Calculation of credit from high-wage R&D and IT expenditures

Source	Expenditure	LVC calculation
High-wage technology and R&D expenditures divided by vehicle producer	\$1 billion	10 percent
Vehicle producer expenditures on production wages	\$10 billion	

Source: USITC.

The third component of the LVC calculation is a credit for using a qualifying engine, transmission, or battery plant that pays a wage of \$16/hour in North America. This is a corporate credit, so the engine, transmission, or battery plant does not have to supply each of the vehicles using the credit. If the vehicle manufacturer qualifies, it receives the full 5 percent credit with no additional calculations required.

The sum of all three calculations—(1) high wage material and manufacturing costs, (2) high wage R&D and IT expenditures, and (3) qualifying plant credit—must equal 40 percent for passenger vehicles and 45 percent for light trucks.¹²³ Table 3.6 shows the hypothetical calculation for a passenger vehicle with a net cost of \$20,000 produced in North America.

¹²³ Of the three LVC calculations, only the calculation of high-wage material and manufacturing costs has a minimum threshold requirement. Therefore, this component alone could allow an automotive manufacturer to meet LVC requirements.

Table 3.6 Sum of all labor value content (LVC) calculations for a hypothetical passenger vehicle

Source	Expenditure	LVC calculation
Total	\$9,000/\$20,000	45 percent
High-wage material and manufacturing costs	\$6,000/\$20,000	30 percent
Engine, transmission, or battery assembly	\$2,000/\$20,000	10 percent
R&D and IT costs	\$1,000/\$20,000	5 percent

Source: USITC.

Rules of Origin for Steel and Aluminum Purchases

The ROOs under USMCA contain a number of new RVC or content provisions for certain sectors that appear intended to foster greater use of North American-produced steel and aluminum products. Affected sectors include automotive products, certain fabricated steel products, and steel-intensive products. The requirement that at least 70 percent of a North American vehicle producer’s purchases of steel and aluminum by value originate in the territories of the parties, discussed previously, does not identify the relevant classifications in the international Harmonized Commodity Description and Coding System (HS) of tariff categories. Instead, USMCA leaves the parties to “develop any additional description or other modification of steel and aluminum . . . , if needed, to facilitate implementation” of this new requirement.¹²⁴ The ROOs for aluminum products under the USMCA remain unchanged from those under NAFTA. A number of other steel and steel-intensive products, which previously could receive duty-free treatment based on a tariff shift rule,¹²⁵ now must meet either RVC requirements or originating content requirements by weight.

The new ROOs would also likely have an impact on steel and aluminum markets in the United States, since those two metals account for the majority of the weight of vehicles produced in North America—but steel more so than aluminum.¹²⁶ U.S. steel producers expect the new rules to lead to increased U.S. steel production, employment, and wages, with increased demand for steel from previously nonconforming Mexican vehicle and parts production.¹²⁷ However, North American aluminum producers do not see the new rules leading to major changes in aluminum demand.¹²⁸

Impact of USMCA on U.S. Automotive and Related Sectors

The supply chains for PVs and LTs sold in North America vary across manufacturers, and even across PV and LT models within the same manufacturer. Some vehicle models are assembled in the United States, Mexico, or Canada, while others are imported from Europe or Asia. The manufacturers also vary in the

¹²⁴ USMCA, Chap. 4 appendix, Art. 6.3.

¹²⁵ A tariff shift rule is one that requires the non-originating inputs to be substantially transformed within one of the party countries (thereby “shifting” the tariff heading or subheading under which it is classified) in order to qualify for duty-free treatment.

¹²⁶ Ducker Worldwide, *NA Automotive Steel Content Market Study*, June 6, 2018, 3 and 5.

¹²⁷ AISI, posthearing brief to the USITC, 2–4; SMA, posthearing brief to the USITC, 2–3.

¹²⁸ Aluminum Association, posthearing brief to the USITC, 3–5.

sourcing of their parts. Foreign-owned companies that build vehicles in North America are more likely to import their engines, transmissions, and other core parts from their home countries in Europe or Asia.¹²⁹

Differences in supply chains across PV and LT models would likely result in different responses to the new ROOs.¹³⁰ Some manufacturers would already meet the new ROOs for their PV and LT models without any adjustments in their current North American supply chains, while others would probably not be willing to make the changes necessary to meet the new ROOs and would lose their tariff preferences.¹³¹ A third group would be able to comply with the new ROOs, but only after making adjustments to their sourcing of core parts. According to industry representatives, the longer a manufacturer has been producing vehicles in North America, the better situated it is to meet USMCA RVC and LVC requirements.¹³² Many parts manufacturers do not have the compliance staff necessary to demonstrate to manufacturers that they meet RVC or LVC requirements and will need to hire staff and develop new compliance processes. Toward this end, industry and government have been working to standardize the certification process.¹³³

To the extent that the new ROOs reduce the utilization of tariff preferences or lead to more costly sourcing of core parts, PV and LT cost increases in the United States would be passed on to consumers or subtracted from the profits. The higher cost would lower consumption of these vehicles in the U.S. market. Even manufacturers that do not experience a direct increase in their production costs would probably respond to the rising prices of their foreign and domestic competitors by raising their own prices slightly, thereby marginally increasing their profits. Further, some manufacturers may choose not to offer vehicles that would be too expensive to bring into compliance, which ultimately would lessen consumer choice.¹³⁴

Based on the Commission's model and discussions with industry experts, the new ROOs would likely have a positive effect on U.S. employment in the production of core parts like engines and transmissions through reshoring (returning production to U.S. territory).¹³⁵ The rules would also lead to an increase in the industry's capital expenditures on facilities that produce the core parts in the United States.¹³⁶ Automotive industry representatives also expect the steel and aluminum provisions to increase demand for North American steel and aluminum. Vehicles produced by the largest U.S.-headquartered vehicle

¹²⁹ The sourcing of these core parts by vehicle model is reported in data collected and published under the American Automotive Labeling Act (AALA).

¹³⁰ Industry representatives, interviews by USITC staff, Washington, DC, October 24–November 14, 2018; USITC, hearing transcript, November 15, 2018, 83 (testimony of John Bozzella, Global Automakers); USITC, hearing transcript, November 15, 2018, 66 (testimony of Matthew Blunt, AAPC).

¹³¹ Very few models are likely to fall in this category. Industry representative, interview by USITC staff, Washington, DC, October 31, 2018.

¹³² AAPC, posthearing submission, December 21, 2018, 1.

¹³³ USITC, hearing transcript, November 15, 2018, 62 (testimony of William Hanvey, Auto Care Association); USITC, hearing transcript, November 15, 2018, 101–2 (testimony of Ann Wilson, Motor Equipment and Manufacturers Association); industry representative, telephone interview by USITC staff, February 1, 2019.

¹³⁴ Industry representative, interview by USITC staff, Washington, DC, October 31, 2019.

¹³⁵ USITC, hearing transcript, November 15, 2018, 101–02 (testimony of Ann Wilson, Motor Equipment and Manufacturers Association).

¹³⁶ USITC, hearing transcript, November 15, 2018, 101–02 (testimony of Ann Wilson, Motor Equipment and Manufacturers Association).

manufacturers and transplants already exceed the requirements of the ROOs. However, some transplant manufacturers with a smaller vehicle assembly footprint in North America would have to increase their North American sourcing of steel and aluminum.¹³⁷ Some industry representatives expressed concern about whether there is sufficient existing North American steel and aluminum capacity for the specific steel and aluminum they use in their vehicles.¹³⁸

In theory, the new ROOs could also lead to efficiency gains if the new rules simplified the administrative burden on manufacturers, as they eliminate the complex tracing requirements under NAFTA. However, witnesses at the Commission's hearing were skeptical that the complex new rules could produce these kinds of efficiency gains. Industry representatives have suggested that the new ROOs will probably increase compliance costs for vehicle manufacturers and suppliers.¹³⁹

Some industry representatives have said that they do not believe that the new ROOs would lead to major changes in the North American automotive supply chain. Even these commenters, however, state that the new ROOs would ensure that U.S. content in vehicles produced in North America would stay at or above current levels.¹⁴⁰

The new ROOs for heavy trucks have a lower RVC and a longer staging period because the heavy truck industry does not update its vehicles as often. Also, its supply chain is different from that of the light-vehicle industry; it uses larger diesel engines, heavier parts, and lower quantities of parts. The heavy-truck industry was thus given more time to comply.

Quantifying Industry-level Effects

This section assesses the likely impact of the automotive ROOs using an economic model of the North American markets for new light vehicles. The industry-specific model includes detailed data on the sales, pricing, production, and engine and transmission sourcing in each member country at the level of individual light-vehicle models, such as the Chevrolet Malibu and the Toyota Tundra. The economic model includes 393 individual light vehicles produced by 22 different vehicle manufacturers in North America and sold to consumers in North America.¹⁴¹ Model simulations provide estimates of the effects

¹³⁷ Industry representative, interview by USITC staff, September 19, 2018.

¹³⁸ Industry representative, interview by USITC staff, October 30, 2018; industry representative, interview by USITC staff, September 20, 2018.

¹³⁹ Industry interview by USITC staff, Washington, DC, October 31, 2018; industry interview by USITC staff, November 7, 2018; industry interview by USITC staff, Washington, DC, November 5, 2018; industry interview by USITC staff, Washington, DC, October 24, 2018; industry interview by USITC staff, Washington, DC, November 1, 2018. USITC, hearing transcript, November 15, 2018, 54 (testimony of John Bozzella, Global Automakers); USITC, hearing transcript, November 15, 2018, 62 (testimony of William Hanvey, Auto Care Association); USITC, hearing transcript, November 15, 2018, 65–66 (testimony of Matthew Blunt, AAPC); USITC, hearing transcript, November 15, 2018, 101–02 (testimony of Ann Wilson, Motor Equipment and Manufacturers Association).

¹⁴⁰ Industry representative, interview by USITC staff, September 20, 2018.

¹⁴¹ The 22 vehicle manufacturers are Audi, BMW, Daimler, Fiat Chrysler Automotive, General Motors, Honda, Hyundai, Jaguar, Kia, Mazda, Mitsubishi, Nissan, Peugeot, Renault, Subaru, Suzuki, Tesla, Toyota, Volvo, and Volkswagen.

of the new ROOs on market average prices and total consumption in the United States; on U.S. imports and exports of vehicles; and on U.S. employment in the automotive industry.

The first step in this economic analysis is to determine the manufacturers' cost-minimizing response to the new ROOs, which would vary across light vehicle models depending on their current supply chains and patterns of trade. Vehicle manufacturers are actively reviewing different compliance strategies to adapt their NAFTA-compliant business models and supply chains to a new system. Some believe full compliance for all of their models is achievable with few changes to their supply chain; however, they expressed concern that the provisions would be much more challenging for their suppliers, and could lead to higher prices.¹⁴² Others are concerned that their current models in production—developed at least three years before production—would not be compliant within the three-year staging period, and are seeking an extension.¹⁴³ In addition, some manufacturers have stressed that the provisions have created significant cost burdens on their current North American operations. They have suggested the possibility of shifting production for some models outside of North America instead of making the substantial investments to their operations needed to make USMCA-compliant vehicles.¹⁴⁴

The economic analysis examines cost-minimizing responses at the vehicle-model level. It assumes that manufacturers relatively close to compliance would increase their North American content to meet USMCA requirements, and assumes no change in those that were farther from meeting USMCA requirements because it would be too expensive to adjust their supply chains to comply. Industry representatives from most light-vehicle manufacturers in North America have told the Commission that they plan to bring all the vehicles that they still produce in North America into compliance, consistent with the assumptions of the model.¹⁴⁵

Next, the economic model simulates how vehicle prices would change in response to these changes in costs and tariffs. The magnitude of the price adjustments and accompanying changes in trade and production in each country depends on a variety of factors, including the manufacturers' market shares, their supply chains, and each manufacturer's joint pricing decisions across multiple light vehicles. The economic model includes data on vehicle sales by country, prices, the location of vehicle production, and the sourcing of core parts, all at the level of individual light vehicle models.

Despite the complexity of the economic model, it has some clear limitations. For example, due to data constraints, the modeling focuses on the cost effects on the sourcing of two core parts, engines and transmissions, while the new ROOs are likely to affect the sourcing of many other automotive parts. However, as figure 3.2, below, shows, the share of U.S. motor vehicle and parts manufacturing shipments included in the model total \$389.3 billion, while those outside the model total \$230.4 billion. The model does not attempt to quantify the effect of the new ROOs on U.S. exports to the rest of the

¹⁴² Industry representative, interviews by USITC staff, November 5, 2018.

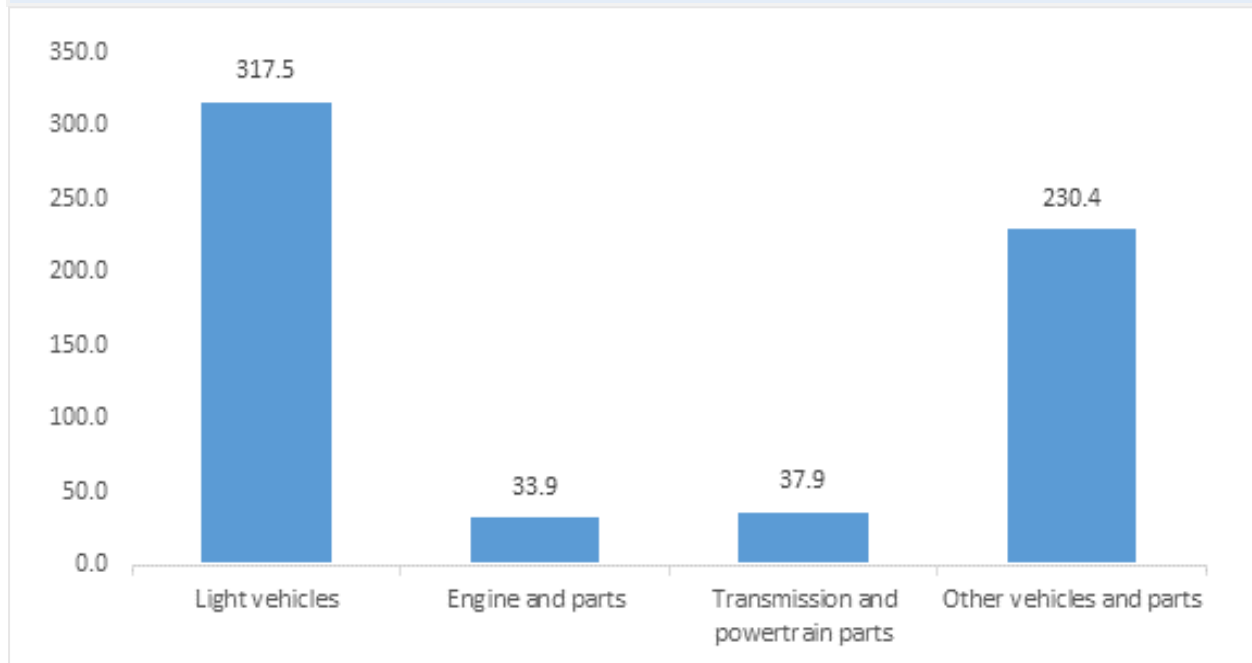
¹⁴³ Industry representative, interviews by USITC staff, November 6, 2018.

¹⁴⁴ Industry representative, interviews by USITC staff, November 7, 2018.

¹⁴⁵ Industry representative, interviews by USITC staff, October 23, 2018; industry representative, interviews by USITC staff, October 24, 2018; industry representative, interviews by USITC staff, October 30, 2018; industry representative, interviews by USITC staff, October 31, 2018; industry representative, interviews by USITC staff, November 1, 2018; industry representative, interviews by USITC staff, November 5, 2018; industry representative, interviews by USITC staff, November 7, 2018; industry representative, interviews by USITC staff, November 8, 2018; industry representative, interviews by USITC staff, November 13, 2018; industry representative, interviews by USITC staff, February 1, 2019.

world. Finally, the estimated employment effects are limited to employment in vehicle, engine, and transmission production, and do not include other indirect effects on dealers or other parts suppliers. These additional supply chain costs are not estimated, because sourcing data were not available at the vehicle-model, or even vehicle-manufacturer level. The methodology, data sources, and limitations of the economic model are described in appendix G of this report.

Figure 3.2 U.S. shipments of motor vehicles and parts, by type, 2016 (billion dollars)



Sources: U.S. Census, *Annual Survey of Manufactures: Statistics for Industry Groups and Industries: 2016 and 2015* (accessed February 22, 2019).

Note: Light vehicles are NAICS 33611, engine parts are NAICS 33631, and transmission and powertrain parts are NAICS 33635. Other vehicles and parts include heavy trucks (33612), motor vehicle body manufacturing (336211), and the rest of motor vehicle parts manufacturing (3363).

Estimated Effects Based on the Model

The model estimates that changes associated with USMCA's new ROOs requirements will have a negative impact on consumers, since light vehicle prices are likely to increase, which would decrease consumption (table 3.7). The market-average price increase would range from 0.37 percent for pickup trucks to 1.61 percent for small cars.¹⁴⁶ The decline in total vehicle consumption in the United States, summed across the four vehicle classes, would be 140,219 vehicles (or 1.25 percent of vehicles sold in the U.S. market in 2017).

¹⁴⁶ The larger price effect for small cars reflects that 88.19 percent of North American production in that vehicle class would experience a direct cost increase due to the new ROOs, compared to 25.51 percent for mid- and full-size cars, 24.65 percent for multi-passenger vehicles, and 26.19 percent for pickup trucks.

Table 3.7 Estimated changes in prices and consumption in the U.S. market due to the USMCA's automotive ROOs (percent changes relative to the baseline, unless specified otherwise)

	Small cars	Mid- to full-size cars	Multi-passenger vehicles	Pickup trucks
Average price in the U.S. market	1.61	0.42	0.53	0.37
Total vehicle consumption in the U.S. market	-2.35	-0.59	-0.40	-0.51
Total vehicle consumption in the U.S. market (thousands of vehicles)	-75.7	-16.9	-32.9	-14.8

Source: USITC estimates.

The small increases in vehicle prices are averages of moderate price increases for vehicle models that would experience direct cost increases and much smaller price increases for all other vehicles. Such increases in direct costs would occur if manufacturers adjusted operations to meet the requirements of the new ROOs. Many vehicle models would not experience a direct cost increase, either because they would meet the new ROOs without any adjustments to sourcing or because almost all of their production is already outside of North America and they would not adjust to try to meet the new ROOs.

For small cars, mid- and full-size cars, and multi-passenger vehicles (MPVs), the absolute increase in U.S. and Mexican production costs for some models (both absolute and relative to production costs outside North America) would lead to three types of reductions. The cost increase would cause a reduction in (1) U.S. production, (2) U.S. exports to Canada and Mexico, and (3) U.S. imports from Mexico (table 3.8).¹⁴⁷ The new ROOs would also lead to an increase in U.S. imports from outside North America. The direction of change in U.S. imports from Canada would be mixed: a reduction in imports of small cars and MPVs and an increase in imports of mid- and full-size cars. Small cars are more heavily affected by the changes in ROOs because these vehicles tend to source more content from outside North America, so it is more expensive for manufacturers to bring those vehicles into compliance.

Table 3.8 Estimated changes in the production of and trade in U.S. vehicles due to the USMCA's automotive rules of origin (ROOs) (thousands of vehicles; percent changes relative to the baseline)

	Small cars	Mid- to full-size cars	Multi-passenger vehicles	Pickup trucks
Change in U.S. vehicle production for North America	-33.2	-24.2	-43.5	-2.0
	-2.96%	-1.23%	-0.94%	-0.07%
Change in U.S. exports of vehicles to Canada	-4.3	-1.1	-5.4	^(a)
	-3.53%	-1.24%	-1.21%	0.02%
Change in U.S. exports of vehicles to Mexico	-2.1	-0.4	-0.4	^(a)
	-5.99%	-2.42%	-0.52%	0.03%
Change in U.S. imports of vehicles from Canada	-7.7	3.0	-8.3	^(a)
	-2.15%	1.00%	-0.72%	0.00%
Change in U.S. imports of vehicles from Mexico	-82.0	-2.1	-19.3	-12.7
	-9.55%	-0.88%	-3.31%	-2.26%
Change in U.S. imports of vehicles from the rest of the world	40.8	4.8	32.5	^(a)
	3.92%	1.04%	1.33%	0.00%

Source: USITC estimates.

^a Less than 0.1.

¹⁴⁷ The economic model does not quantify the impact on U.S. exports to markets outside of North America. This limitation of the economic model is discussed in appendix G. These exports, however, would likely decline with an increase in U.S. production costs due to the new ROOs.

These changes in imports and production are small relative to total sales. Combining the three classes of PVs, U.S. vehicle production would decline by 1.31 percent, U.S. exports to Canada and Mexico would decline by 1.76 percent, and total U.S. imports would decline by 0.52 percent. Imports from outside of North America would increase.

The effects on trade and production of pickup trucks is different, because there are almost no imports of pickup trucks to North American markets from Canada, Europe, or Asia, and few from Mexico. The model results indicate that U.S. pickup truck production would decline by nearly 2,000 vehicles (-0.07 percent), U.S. exports to Canada and Mexico would rise by more than 100 vehicles (0.02 percent), and total U.S. imports would decline by nearly 13,000 vehicles (-2.26 percent), again due to some increases in U.S. production costs and even greater increases in Mexican production costs.

The shares of vehicle production in each country and class that would experience increased costs due to the new ROOs explain in part the differences in the direction of change in imports and exports. The increase in U.S. imports of mid- and full-size cars from Canada reflects the smaller increase in production costs in Canada, because only a small share of the country's production is subject to cost increases. The increase in U.S. exports of pickup trucks to both Canada and Mexico and the large reduction in U.S. imports of pickup trucks from Mexico both reflect the much larger share of production in Mexico that relies on core parts sourced from outside of North America. Finally, the model estimates net additions to U.S. employment and capital expenditures on vehicle, engine, and transmission production due to the new automotive ROOs (table 3.9).¹⁴⁸ The positive net employment is calculated by multiplying the estimated changes in U.S. production of vehicles, engines, and transmissions by their respective labor requirement per vehicle and then summing across the four vehicle classes.¹⁴⁹

The increase in U.S. production of core parts, due to the reshoring effects of the new ROOs, would have a positive effect on industry employment in the United States. The reduction in U.S. vehicle production due to the cost effects of the new ROOs would have a negative effect on industry employment, but these effects would be relatively small, according to the economic model, and they would offset little of the employment increase from reshoring. The increase of over 28,000 U.S. jobs in the industry is equal to 5.50 percent of employment in automotive parts production in 2016, according to the U.S. Census's *Annual Survey of Manufactures* (table 3.9). Model results also show an estimated increase of \$683 million in annual capital expenditures on parts production, and an estimated reduction of \$51 million in annual capital expenditures on vehicle production, relative to the baseline.

¹⁴⁸ Specifically, the calculations include U.S. employment under North American Industry Classification System (NAICS) codes 336111, 336112, 336310, and 336350. The labor requirements per vehicle implicitly account for factors such as automation, capital intensity, and other factors that determine the productivity of the U.S. workers.

¹⁴⁹ Appendix G of this report discusses limitations of these calculations and other aspects of the industry-specific economic model.

Table 3.9 Changes in U.S employment in the automotive industry due to the USMCA’s automotive rules of origin (ROOs) (relative to the baseline)

U.S. employment, by type	FTEs, thousands
U.S. employment in vehicle, engine, and transmission production	28.1
U.S. employment in engine and transmission production	29.7
U.S. employment in vehicle production	-1.6

Source: USITC estimates.

U.S. government officials who are familiar with USMCA negotiations and have access to aggregate data from vehicle manufacturers estimate that the impact of USMCA will be an increase of 76,000 vehicle and parts manufacturing jobs, and investments totaling \$34 billion over five years.¹⁵⁰ This estimate is larger than the Commission’s estimate, which predicts an increase of 28,000 jobs. However, these aggregate data are distinct from the Commission’s model in two ways: one, they include an increase in vehicle manufacturer jobs (the USITC model finds a decline due to decreased volume); second, these numbers use a multiplier of 2.5 to cover all supply chain effects, while the Commission’s model only covers employment in vehicle, engine, and transmission production, and there is no multiplier in the Commission’s model. The effects of the new ROOs on production costs were estimated by the Commission using the industry-specific model and then were incorporated into the economy-wide analysis presented in chapter 2.

Literature Review

There are three publications that analyze the effects of USMCA’s automotive rules of origin, but only one that produces a quantitative estimate. Each has its limitations when compared to the Commission’s estimates.

The Center for Automotive Research (CAR) published a trade briefing in February 2019 analyzing the effects of USMCA, the tariffs imposed on steel and aluminum imports under Section 232 of the Trade Expansion Act of 1962, a potential tariff on the automotive sector under Section 232, and Section 301 tariffs that have been placed on automotive inputs from China (among other goods) on U.S. consumers and the U.S. automotive industry. CAR found that a potential imposition of tariffs on automotive products under Section 232 would have a much larger impact on the U.S. automotive industry than USMCA. CAR’s quantitative modeling does not have a scenario with no automotive 232 tariffs, which means its quantitative results are not directly comparable to those of the partial equilibrium model used in this chapter. For their estimation of the effects of USMCA, CAR similarly analyzes vehicles at the model level, but expects a higher number of vehicle models not to be brought into compliance with USMCA. This means that those vehicle manufacturers would have to pay the 2.5 percent tariff on those they import, for an average tariff cost of \$635 per vehicle. Similar to Commission estimates, CAR expects the average increase in the per-vehicle imported cost to be quite small because the number of models affected represents only a small share of U.S. imports from Canada and Mexico.¹⁵¹ CAR also extends its effects analysis further, including impacts on downstream service employees (e.g., at dealerships), which concludes with a more negative result.

¹⁵⁰ Government official, email interview with USITC staff, February 26, 2019 and April 11, 2019.

¹⁵¹ Schultz, Dziczek, Chen, and Swiecki, *U.S. Consumer and Economic Impacts*, February 2019.

Gary Hufbauer of the Peterson Institute for International Economics and Steven Globerman of the Fraser Institute wrote a qualitative analysis of USMCA, including its automotive ROOs, as did David Gantz of the Baker Institute. Neither Hufbauer and Globerman nor Gantz used quantitative analysis or modeling to estimate the effects of the changes. However, their analyses are generally consistent with the Commission's. Both reports agree that the likely impact of the new ROO provisions in the USMCA would be an increase in the cost of vehicle manufacturing in North America, leading to an increase in the sales price of affected vehicles.¹⁵² Many vehicle manufacturers would need to modify their supply chains to fully comply with the new provisions, which would increase the cost of producing vehicles in North America. Hufbauer and Gloverman claim that these cost increases would most likely be passed to the end consumer. Also like the Commission, they note that vehicle manufacturers that decide the cost associated with complying with the USMCA is too high may decide to shift production outside North America and pay the most-favored-nation (MFN) duty rate of 2.5 percent. This would also result in vehicle manufacturers passing the tariff cost on to consumers.

¹⁵² Hufbauer and Globerman, *The United States-Mexico-Canada Agreement*, November 6, 2018; Gantz, *The United States-Mexico-Canada Agreement*, December 11, 2018; Dzikczek, Schultz, Swiecki, and Chen, "NAFTA Briefing," April 2018; CAR, *Meet the New NAFTA*, October 16, 2018.

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Chapter 4

Other Manufactured Goods and Natural Resources and Energy Products

Overview

This chapter discusses the USMCA provisions covering various manufactured goods, including: chemicals and pharmaceuticals, electronics, energy products, and textiles and apparel. This chapter does not discuss USMCA provisions impacting agricultural products, automotive products, and certain metals products such as steel and aluminum.¹⁵³ The provisions discussed throughout this chapter would likely have a limited direct impact on the chemicals and pharmaceuticals, electronics, energy products, and textiles and apparels sectors. However, other provisions would likely affect manufactured goods and natural resource and energy (MNRE) goods directly by lowering of trade costs; examples include international data transfer commitments for all MNRE industries and improvements in intellectual property rights (IPRs) for the medical devices sector. General economy-wide responses to the agreement would also likely have an indirect effect on these goods.

As discussed in chapter 2, the agreement overall is estimated to increase U.S. employment and trade in MNRE goods with the USMCA members and the rest of the world. The moderate nature of USMCA's impact can be explained by the fact that the United States has already eliminated duties on most qualifying MNRE goods entered under NAFTA. Most often, the provisions in USMCA that affect MNRE sectors reflect wording included in free trade agreements (FTAs) negotiated after NAFTA entered into force in 1994. These include the Trans-Pacific Partnership (TPP)¹⁵⁴ and WTO Agreements that entered into force in 1995.

The new USMCA provisions that affect MNRE products reflect two other developments. First, a number of technological innovations have been introduced since NAFTA, and new manufacturing sectors, such as electronics and telecommunications equipment, have been created to produce goods incorporating such innovations (e.g., goods that incorporate cryptography). Second, changes to rules of origin (ROOs)

¹⁵³ Automotive, steel, and aluminum products are discussed in chapter 3 of this report, while agricultural products are discussed in chapter 5.

¹⁵⁴ On January 30, 2017, the Office of the U.S. Trade Representative (USTR) issued a letter to signatories of the Trans-Pacific Partnership Agreement that the United States has formally withdrawn from the agreement per guidance from the President. USTR press release, Jan. 30, 2017. See also Memorandum for the United States Trade Representative, 82 Fed. Reg. 8497 (January 23, 2017). The TPP was succeeded by the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which entered into force December 30, 2018, among the first six countries to ratify the agreement (Canada, Australia, Japan, Mexico, New Zealand, and Singapore). The CPTPP is currently an FTA between Canada and 10 other countries in the Asia-Pacific region: Australia, Brunei, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam. Government of Canada, "Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)," February 13, 2018.

would affect such MNRE sectors as chemicals and pharmaceuticals, electronics, and textiles and apparel. These changes include new or reduced regional value content (RVC) rules, the conversion of tariff shift requirements to RVC rules, and adjustments to tariffs shifts from the heading level to the subheading level, which will be explained in more detail below.¹⁵⁵

This chapter first provides an overview of U.S. trade for MNRE sectors and a summary of USMCA provisions impacting these sectors. It then focuses on four major MNRE sectors for which USMCA provisions could have a mixed impact, including (1) chemicals and pharmaceuticals; (2) electronics and information and communications technology (ICT); (3) energy; and (4) textiles and apparel. The Commission identified these four sectors based on the degree to which provisions changed between NAFTA and USMCA, the expected impact these provisions may have on U.S. production and sectoral trade, as well as information provided by industry representatives in the form of written submissions and hearing testimony.

U.S. Manufactured Goods, Natural Resources, and Energy Trade with Canada and Mexico

U.S. trade in MNRE products with Canada and Mexico is economically highly significant for all three countries, with a value totaling \$761.7 billion (table 4.1). As previously stated in this chapter, trade in MNRE products was largely liberalized under NAFTA. In 2017, 85 percent of U.S. imports for consumption from Canada and Mexico were imported duty free. North American trade in energy products (primarily crude petroleum and petroleum products) and in electronics is particularly important. U.S. energy imports from Canada in 2017 totaled \$73.7 billion (representing 42 percent of U.S. MNRE imports from Canada), while those from Mexico totaled \$11.4 billion (7 percent of U.S. MNRE imports from Mexico). In the same year, U.S. energy exports to Canada totaled \$20.3 billion (12 percent of U.S. MNRE exports to Canada); to Mexico, \$27.0 billion (17 percent of U.S. MNRE exports to Mexico). The total value of U.S. energy products trade with Canada and Mexico in 2017 came to \$132.5 billion.

Meanwhile, U.S. imports of electronics from Canada in 2017 totaled \$7.7 billion (4 percent of U.S. MNRE imports from Canada); from Mexico, \$69.3 billion (44 percent of U.S. MNRE imports from Mexico). U.S. exports of electronics to Canada totaled \$29.9 billion (18 percent of U.S. MNRE exports to Canada); to Mexico, \$45.5 billion (31 percent of U.S. MNRE exports to Mexico). The total value of U.S. electronics trade with Canada and Mexico in 2017 came to \$155.5 billion. Trade data for other important MNRE sectors, including chemicals, pharmaceuticals, textiles, and apparel, also appear in table 4.1.

¹⁵⁵ Regional value content (RVC) requirements are commonly used in rules of origin. To meet this type of requirement, a good must contain at least a minimum amount of originating material from one or more of the parties of the agreement. A tariff shift rule is one that requires the non-originating inputs be substantially transformed in one of the party countries (thereby “shifting” the tariff heading or subheading under which it is classified) in order to qualify for duty-free treatment.

Table 4.1 U.S. Other MNRE imports for consumption and domestic exports to Canada, Mexico, and the rest of the world, 2017 (million dollars)

Sector	U.S. imports			U.S. exports		
	Canada	Mexico	Rest of world	Canada	Mexico	Rest of world
Crude petroleum and petroleum products	50,746	10,061	73,581	7,489	353	26,076
All other energy	22,943	1,346	38,156	12,850	26,665	70,885
Total energy	73,689	11,407	111,737	20,339	27,018	96,961
Consumer electronics	431	12,947	28,701	3,088	3,758	3,982
Telecommunications equipment	1,211	11,286	103,615	4,852	4,836	28,993
All other electronics	6,090	45,081	252,758	21,979	39,921	140,941
Total electronics	7,741	69,314	385,074	29,920	48,514	173,916
Pharmaceuticals	4,131	453	107,631	4,484	1,358	49,518
All other chemicals	23,767	9,929	109,838	32,327	32,366	103,298
Total chemicals	27,898	10,382	217,469	36,811	33,725	152,817
Apparel	855	3,848	83,837	2,193	930	2,621
Textiles (other than apparel)	1,371	2,129	36,331	3,238	4,465	8,623
Total textiles and apparel	2,226	5,977	120,167	5,431	5,394	11,245
All other ^a	63,971	60,984	447,002	77,575	44,066	346,715
Total	175,524	158,064	834,447	170,076	158,717	761,672

Source: USITC DataWeb/USDOC (accessed November 20, 2018). Table 4.1 presents trade data for all products other than those covered in this report in chapters 3 (automotive products, steel products, and aluminum products) and 5 (agricultural products).

Note: Because of rounding, figures may not add up to figures shown.

^a Includes all other merchandise trade data not previously listed in this table, excluding trade data presented in chapters 3 (autos, steel, and aluminum) and 5 (agriculture).

Summary of Key Provisions

USMCA makes three significant changes that impact the MNRE sectors. First, it revises ROOs applicable to several MNRE sectors, such as tariff-shift changes for certain electronic products. Second, USMCA adds new provisions such as nontariff measures affecting ICT, a national treatment exception for Mexico's energy export license program, and a customs enforcement provision affecting textiles and apparel (table 4.2).¹⁵⁶ Third, it increases the de minimis¹⁵⁷ allowance for non-originating fibers or yarns in textiles from 7 percent to 10 percent and provides new market access rules for remanufactured goods and goods that incorporate cryptography.

¹⁵⁶ National treatment provisions in a trade agreement generally require a party to accord treatment to the products of another party that is no less favorable than that accorded to like domestic products.

¹⁵⁷ This flexibility permits up to 10 percent of non-originating fibers or yarns to be used for the production of upstream goods. (Note that unlike DMTs for digital trade and e-commerce, DMTs for textiles and apparel establish a weight threshold.) The USMCA will newly limit non-originating elastomeric yarns to no more than 7 percent (by weight) (capping non-originating elastomeric yarns at the existing de minimis percentage). USMCA, Chap. 6, Art. 6.1.2, and Art. 6.1.3 (accessed November 30, 2018). All other U.S. FTAs require elastomeric yarns to be originating, so USMCA is still more flexible than the other agreements. Under other FTAs, elastomeric yarns are not eligible for the de minimis allowance in any amount.

Table 4.2 Summary of key USMCA provisions

USMCA provision	Comparison to NAFTA provisions
Chemical and pharmaceutical products:	
ROOs: Adds 8 alternative process-based methods of determining origin (Annex 4-B).	New in USMCA: original NAFTA ROOs for chemicals used tariff shifts, regional value content (RVC) requirements, or both.
ROO: Note 2 ROOs (existing) carry over many of the original ROOs—tariff shifts and regional value content (RVC) changes. Note 1 (new) ROOs can be used instead of Note 2 ROOs if preferred (Annex 4-B).	Modified in USMCA: new RVC values in Chap. 29 are generally lower than the originals. Tariff shifts proposed in some cases to replace combinations of tariff shifts and RVCs.
ROO: Mexico’s biologics definition raises questions about application of proposed ROOs, but the biologics ROO is not intended to supersede other ROOs. ROOs are not presented in hierarchal order and can be chosen as befits an importer’s situation (Annex 4-B).	New in USMCA
Sectoral Annex for Chemical Substances: Parties (to the extent possible) are to harmonize chemical regulatory approaches, on a risk and scientific basis (Annex 12-A).	New in USMCA: approach is consistent with the use in U.S. regulatory policy of a risk-based approach that is science based.
Electronic products (Chapters 4, 12):	
ROO: Tariff shift for static converters (HS 8504.40) at the subheading level (Annex 4-B).	Modified in USMCA: tariff shift reclassified from the heading level to subheading level. USMCA removes the original RVC requirement for static converters.
ROO: Parts used for monitors and projectors (HS 8529.90) are subject to lower RVCs (40 percent for transaction value method and 30 percent for net cost method) (Annex 4-B).	Modified in USMCA: tariff shifts for monitors and projectors are removed. RVCs in original NAFTA were higher (60 percent under transaction value method and 50 percent under net cost method).
ROO: Other electronics are subject to lower RVC requirements, conversion from tariff-shift to RVC requirements, or adjustment of tariff shifts from the heading level to subheading level (Annex 4-B).	Modified in USMCA: tariff ROO changes in USMCA generally reflect language from previous FTAs. The United States and Canada already provide duty-free treatment for many electronic products under the 1996 Information Technology Agreement.
Annex on medical devices includes language on harmonizing regulatory standards to international best practices (Annex 12-E).	New in USMCA
Nontariff measure: Requires a ban on transfer or access of proprietary cryptography to a government or person (with exceptions) (Annex 12-C).	New in USMCA
Nontariff measure: Mandates a ban on required use or integration of a particular cryptographic algorithm or cipher (with exceptions) (Annex 12-C).	New in USMCA
Nontariff measure: Mandates mutually recognized declaration of conformity for information technology (IT) equipment products that meet standard or technical regulation for electromagnetic compatibility (with exceptions) (Annex 12-C).	New in USMCA
Energy products (Chapters 2, 4, and 14):	
National treatment: Market access exception allows Mexico to maintain export license requirements for certain energy products (Article 2.A.3).	New in USMCA: much narrower than exceptions in original NAFTA for Mexico’s activities related to the foreign trade of energy products.

Other Manufactured Goods and Natural Resources and Energy Products

USMCA provision	Comparison to NAFTA provisions
<p>ROO: Allows up to 40 percent of the volume for goods classified under HS 2709 (crude) to be non-originating; allows up to 25 percent for goods under HS 2710 (refined) to be non-originating (Annex 4-B).</p> <p>Investment: Exception to changes in investor-state dispute settlement (ISDS) mechanism for oil and gas investments in Mexico (Annex 14-E).</p>	<p>New in USMCA: the ROO for HS 2709 and HS 2710 is more specific and broader than in the original NAFTA.</p> <p>Same as NAFTA (after Mexico's constitutional reforms opened the sector to investment). Maintains ISDS provisions that were in original NAFTA for these investments.</p>
Textiles and apparel (Chapters 4 and 6):	
<p>ROO: Tariff shift rules and de minimis allowance of 10 percent (Article 6.1.2-3).</p>	<p>Modified in USMCA: modifies NAFTA tariff shift rules for certain inputs and increases the de minimis allowance for non-originating fibers and yarns from 7 to 10 percent.</p>
<p>ROO: Chapter rules for narrow elastic fabrics, sewing thread, and pocket bag fabrics, all with phase-in periods of 12 to 30 months (Annex 4-B, Chapters 61 and 62 Notes)(Pages 4-B-47-48 and 4-B-53-55).</p>	<p>New in USMCA: eliminates NAFTA “chapter rule” for visible linings for tailored garments.</p>
<p>ROO: Chapter rule for certain made-up goods made from fabric coated with plastics of chapter 63 (Annex 4-B, Chapter 63 Notes) (Page 4-B-59).</p>	<p>New in USMCA</p>
<p>Tariff-preference levels (TPLs) (Annex 6-A, Section C, and Appendices 1, 2, and 3).</p>	<p>Modified in USMCA: modifies NAFTA has bilateral TPLs for imports in all directions. USMCA maintains all TPLs with some modifications to scope of coverage and quantitative limits in some cases</p>
<p>Textile-specific customs enforcement language (Article 6.6).</p>	<p>New in USMCA: but comparable to other U.S. FTAs which provide guidance for on-site verification visits to producers in the exporting party.</p>
Other (Chapter 2):	
<p>Market access: Parties cannot adopt or maintain import and export restrictions on remanufactured goods and goods that incorporate cryptography. Prohibitions or restrictions for used goods do not apply to remanufactured goods.^a Parties may require remanufactured goods to be labeled and satisfy technical requirements (Article 2.11-12).</p>	<p>New in USMCA</p>

Source: USTR, USMCA full text (accessed November 30, 2018).

^a Remanufactured goods are not further covered in this chapter. The Remanufacturing Industries Council (RIC) and the National Electrical Manufacturers Association (NEMA) have indicated that they believe the proposed changes for remanufactured goods will have a positive impact on their members. RIC, written submission to the USITC, December 20, 2018, 1; NEMA, written submission to the USITC, December 20, 2018, 3. A similar provision affecting remanufactured goods existed in the Trans-Pacific Partnership (TPP) agreement.

Industry-specific Discussion

Chemical and Pharmaceutical Products

The U.S. chemical industry accounts for about 12 percent of global chemical production and is the second largest in the world after China's.¹⁵⁸ The sector produces a wide variety of commodity and specialty products—e.g., adhesives, dyes and pigments, pesticides, pharmaceuticals, cosmetics, and plastics resins—that are used in all segments of the U.S. economy.¹⁵⁹

The U.S. chemical and pharmaceutical industries consist of multinational firms with worldwide operations and well-established supply chains in Canada and Mexico.¹⁶⁰ Intra-firm transfers (or related-party trade) account for significant shares of annual trade flows between U.S. operations and their parents/foreign affiliates worldwide. In 2016, for example, related-party trade accounted for 61 percent and 41 percent of two-way U.S. trade in chemicals between Canada and Mexico, respectively, and 70 and 61 percent, respectively, of that for pharmaceuticals.¹⁶¹

Total U.S. general imports of chemicals from Canada and Mexico in 2017 were valued at \$38.3 billion, of which Canada accounted for about 73 percent and Mexico for the remaining 27 percent.

Pharmaceuticals made up about 12 percent of total U.S. imports of chemicals from Canada and Mexico that year. Canada was the third-largest source of U.S. imports of all chemicals in 2017, while Mexico ranked seventh.

Total U.S. exports of chemicals to Canada and Mexico in 2017 were valued at \$70.5 billion, with the exports roughly evenly split between Canada and Mexico (about 52 percent and 48 percent, respectively). Pharmaceuticals accounted for about 8 percent of all such exports to Canada and Mexico; other chemicals accounted for the remainder. Canada and Mexico were the top two markets for U.S. exports of chemicals in 2017.

Key USMCA Provisions

Other than the IPR provisions (see cross-cutting chapter on IPR (chapter 8) for more information on the impact of the IPR provisions on this sector), the primary USMCA provisions affecting chemical and pharmaceutical products are the rules of origin, and the provisions in USMCA Chapters 12 and 29 and their related annexes on chemicals and pharmaceuticals. The proposed ROOs for chemicals would add a number of process methods (e.g., a chemical reaction or purification) to the list of criteria that may be used to “confer origin” on a chemical (i.e., to determine that it originated in the country from which it is

¹⁵⁸ ACC, *Elements of the Business of Chemistry 2018, 2018*, “President’s Message” (unnumbered page) and 4, 9. The data presented do not include pharmaceuticals.

¹⁵⁹ Commodity chemicals are usually high-volume, low-price (and low-margin) products whereas specialty chemicals are usually low-volume, high-price products.

¹⁶⁰ ACC, “ACC: United States-Mexico-Canada Agreement,” October 1, 2018. The U.S. chemical and pharmaceutical industries are defined in the Commission’s analysis as companies in that sector that are operating in the United States, regardless of where the company’s headquarters are located.

¹⁶¹ U.S. Census, *NAICS Related Party Database* (accessed November 7, 2018), data for NAICS 325 (chemicals) and NAICS 3254 (pharmaceuticals).

being exported). This change would offer exporters an alternative to the existing tariff shift and RVC rules to confer origin for goods in the individual Harmonized Tariff Schedule (HTS) subheadings. For example, chemicals created through a chemical reaction can be classified in the same HTS subheading as the original input(s). In such cases, the tariff shift criteria would not apply but the chemical reaction rule could be used to confer origin.¹⁶²

The USMCA's Pharmaceutical Annex calls for parties to cooperate and collaborate on the regulations, standards, and processes used to develop and implement national marketing authorizations for pharmaceuticals. These authorizations are to be based on best scientific practices and not on sales, financial, and/or pricing data. The Pharmaceutical Annex also calls for a public identification of each party's regulatory authority; the streamlining and alignment of the parties' regulations and approval processes, using a science-based approach; enhanced transparency in inspecting pharmaceutical manufacturing facilities; the exchange of information and data on pharmaceuticals between parties, taking care to ensure that the information and data are not disclosed; and adoption of mutual recognition procedures.

The USMCA section on Transparency and Procedural Fairness for Pharmaceutical Products and Medical Devices addresses transparency in pharmaceutical approval and reimbursement, aiming to balance four goals: (1) promoting public health; (2) enhancing patient access to pharmaceuticals; (3) continuing emphasis on research and development; and (4) ensuring competitive and appropriate market pricing for pharmaceuticals.¹⁶³ The pharmaceutical transparency annex says that reimbursement decisions should be made in a timely and transparent way by the national healthcare authorities. It further says that stakeholders—e.g., applicants and the public—should have access to information on how these decisions were made (apart from confidential business information) and also have opportunities to comment on the process.¹⁶⁴ This provision also addresses the scope and truthfulness of information about pharmaceuticals that manufacturers publish on their websites, including “a balance of risks and benefits.” Parties also must have the opportunity to consult with each other.

The U.S. pharmaceutical industry's concerns about the agreement largely focuses on IPRs. These concerns are addressed in chapter 8 of the report. Also, industry submissions from the American Chemistry Council (ACC) and Society of Chemical Manufacturers & Affiliates (SOCMA) asserted that the original NAFTA prohibition on duty drawback should have been eliminated.¹⁶⁵

Effects

The USMCA chemicals and pharmaceuticals provisions (excluding the crosscutting provisions such as intellectual property rights and digital trade that are discussed in a separate section below) are likely to have an insignificant impact on U.S. trade in chemical and pharmaceutical goods. This is particularly

¹⁶² ROOs are not ranked in a hierarchal fashion and companies can use whichever ROO best fits their situation. An industry source suggested adding information to make this point more explicit. Industry representative, telephone interview by USITC staff, September 14, 2018.

¹⁶³ This provision covers pharmaceuticals and medical devices, but this analysis addresses only pharmaceuticals.

¹⁶⁴ Note that the parties have differing approaches regarding reimbursement and pricing. For example, the Patented Medicine Prices Review Board regulates pharmaceutical prices in Canada.

¹⁶⁵ ACC and SOCMA, posthearing submissions to the USITC, December 20, 2018.

likely since over 95 percent of U.S. imports of these products from Canada and Mexico already entered duty free in 2017 under NAFTA.¹⁶⁶ Regarding specific provisions, the additional process ROOs in USMCA are the same as those in other recent U.S. free trade agreements (e.g., the U.S.-Korea Free Trade Agreement); the process rules are additional criteria for determining origin. Although the effects cannot be quantified, industry representatives have stated that the primary benefits of the additional criteria are that they would parallel similar provisions in other recent agreements and provide alternative options to RVC rules.¹⁶⁷ Likewise, the transparency annexes generally adhere to existing practices. Industry has not commented on the transparency provisions.¹⁶⁸

Electronic Products

Computer and electronic product manufacturing is ranked as the seventh-largest manufacturing industry (by shipments) in the United States.¹⁶⁹ The largest subsectors of the U.S. electronics market are navigational, measuring, and electromedical instruments (which collectively account for 47 percent of 2015 electronics shipments), semiconductors and related components (30 percent), communications equipment (12 percent), and computer and peripheral equipment (9 percent).¹⁷⁰

In both the product sector and the services sector¹⁷¹ for ICT, the United States maintains a strong trading position with both Mexico and Canada. The two countries represent the largest and the second-largest export destinations, respectively, for U.S. ICT trade; in 2017, the United States exported \$31.5 billion in ICT products to Mexico and \$17.5 billion to Canada (about 22.7 percent and 12.6 percent of total U.S. ICT exports, respectively).¹⁷² Mexico is also the second-largest source of imports of ICT products to the United States (\$45.0 billion in 2017), after China.¹⁷³ Canada represented the 10th-largest U.S. import source for ICT products (\$3.6 billion in 2017).¹⁷⁴

The North American electronics value chain is characterized by substantial integration, with a relatively even balance between U.S. imports and exports to its North American trading partners. In 2016, for example, the United States imported a value of \$64.9 billion in electronics from NAFTA countries, and

¹⁶⁶ USITC DataWeb/USDOC (HS chapters 28–40; accessed March 4, 2019).

¹⁶⁷ USTR, ITAC 3, *A Trade Agreement with Mexico and Potentially Canada*, September 25, 2018, 5-24.

¹⁶⁸ The ACC recommended “that the United States build on the rules of origin outcomes of the USMCA, including creating a menu-based approach” with as few exceptions as possible. USITC, ACC hearing testimony in connection with inv. nos. TA 131-044 and TPA 105-005, *U.S.-EU Trade Agreement*, December 18, 2018, 2. The ACC notes that the USMCA text shows progress in terms of regulatory cooperation and recommends that negotiations of later agreements “build on the outcomes of the USMCA.” USITC, ACC hearing testimony in connection with inv. nos. TA 131-044 and TPA 105-005, *U.S.-EU Trade Agreement*, December 18, 2018, 2.

¹⁶⁹ Statista, “Statista Industry Report: USA: Manufacturing: Computer & Electronics: NAICS 334,” June 2018, 16.

¹⁷⁰ Statista, “Statista Industry Report: USA: Manufacturing: Computer & Electronics: NAICS 334,” June 2018, 17.

¹⁷¹ The United States maintains a surplus in ICT-enabled services with Canada and Mexico. One 2016 analysis estimated that U.S. exports of ICT-enabled services reached \$27.8 billion annually to Canada and \$8.8 billion to Mexico, while a 2015 analysis estimated that the United States had a trade surplus in ICT services of \$635 million with Canada and of \$826 million with Mexico. SIIA, “Fresh Look at Digital Trade in North America,” November 7, 2017; IBM, “IBM Comments on NAFTA Modernization,” June 12, 2017.

¹⁷² USITC DataWeb/USDOC (accessed on February 25, 2019).

¹⁷³ USITC DataWeb/USDOC (accessed on February 25, 2019).

¹⁷⁴ USITC DataWeb/USDOC (accessed on February 25, 2019).

exported \$67.1 billion.¹⁷⁵ Mexico has emerged as a major manufacturing hub for electronic products, and U.S. technology firms have frequently incorporated Mexican production facilities into their manufacturing supply chains both on the upstream side (e.g., through the production of intermediate components) and on the downstream side (e.g., through final packaging for electronic products). For example, the U.S. medical device industry is heavily reliant on imported components from Mexico, which are used to assemble finished goods for either domestic consumption or for export to countries like Canada.¹⁷⁶ This pattern reflects the important linkages in the electronics manufacturing supply chain between the United States, Mexico, and Canada.¹⁷⁷ Mexico is also one of the world's largest manufacturers of flat-screen TVs and computers, the majority of which are exported to the United States for domestic consumption.¹⁷⁸

Key USMCA Provisions

USMCA would alter many of the existing rules of origin (ROOs) for electronic items. The NAFTA-specific ROOs chapter for televisions, parts, and electronics reduces regional value content (RVC) requirements for certain electronic products, converts tariff-shift requirements for other electronics products to RVC requirements, and adjusts tariff shifts on other items from the Harmonized System (HS) heading level to subheading level. For example, under current NAFTA regulations, static converters can enter the United States from Mexico or Canada duty free under either (1) a 4-digit-level HS tariff shift or (2) a 60 percent transaction value (TV) combined with a 50 percent net cost (NC) calculation. Under USMCA, the tariff shift for static converters would instead be at the HS 6-digit subheading level, and the RVC option would be removed, improving trade prospects for converters throughout the North American electronics value chain.

Other goods face simpler rules of origin changes, often with reductions in the RVC required to secure tariff-free access to the U.S. market. For example, parts used for monitors and projectors currently receive duty-free access from Mexico and Canada with a tariff shift at the item level or a 60 percent TV/50 percent NC RVC requirement. Under USMCA, this provision would be replaced with a lower content requirement (40 percent TV and 30 percent NC).

Chapter 12 of the USMCA includes two annexes that address the ICT and medical device subsectors, respectively. The agreement's Information and Communications Technology annex (Annex 12-C) focuses principally on preventing the imposition of nontariff measures that may impact trade in ICT products (particularly in telecommunications and cryptography) and ICT services. The annex thus contains provisions to remove or prevent technical barriers to trade (TBTs) in ICT products, with specific focuses

¹⁷⁵ For comparison, these figures are approximately double those for U.S. electronics imports and exports to the European market in 2016. The volume of U.S. electronics exports to Asia that year was similar to the volume of such exports to Canada and Mexico; however, U.S. electronics imports from Asia far exceeded imports from any other region, totaling about \$270.1 billion in 2016. Statista, "Statista Industry Report: USA: Manufacturing: Computer and Electronics: NAICS 334," June 2017, 20.

¹⁷⁶ Torsekar, "Four Key Takeaways from NAFTA's Impact," January 29, 2018.

¹⁷⁷ Offshore Group, "Top Export Countries for Mexico's Electronics Manufacturing Industry" (accessed December 14, 2018).

¹⁷⁸ Ivemsa, "Electronics Manufacturing in Mexico" (accessed December 14, 2018); NAPS International, "Why Mexico's Electronics Manufacturing Is Growing," February 23, 2016.

on telecommunications equipment and cryptographic goods. Generally, the provisions of the ICT annex would not affect current policies within USMCA member states, but rather would constrain the ability of a USMCA state to impose trade-restricting actions in the future.

One major provision of the USMCA's ICT annex bans a member state from requiring the mandatory transfer or access of proprietary cryptography (which is defined to include private keys, algorithm specifications, or design details) to a government agency or person, with exceptions.¹⁷⁹ This provision also precludes a USMCA party from requiring a firm to partner or cooperate with any particular person or organization in the manufacture, distribution, or use of the product. It also prevents a country from requiring a firm or person to use or integrate a specific type of cryptographic algorithm or cipher into their digital products.

The second major provision of the ICT annex establishes the compatibility of ICT product regulations within the USMCA market, particularly with relation to certain testing and conformity assessments, particularly on electromagnetic compatibility. The USMCA ICT annex would require any country within USMCA to accept a supplier's declaration of conformity from any USMCA party: for example, a USMCA party must recognize the certifications of electromagnetic compatibility in other USMCA parties, subject to certain requirements. Similar language extends this provision to telecommunications equipment testing and mutual recognition of conformity among USMCA member states.

Finally, the ICT annex contains a provision indicating the conditions under which parties can establish regulations, standards, or procedures regarding terminal equipment attached to public telecommunications networks. These conditions encompass any measures designed to prevent damage or degradation to public networks, prevent electromagnetic interference and ensure compatibility with the electromagnetic spectrum, prevent billing malfunction, or ensure safety and access.

With regard to medical devices, Annex 12-E addresses the application of standards, technical regulations, and conformity assessment procedures. As with the ICT annex, the annex on medical devices aims to avoid the adoption of TBTs. For example, the annex includes language that specifically discourages duplicative regulatory procedures, while encouraging the recognition of audits of medical device manufacturers operating in each of the member countries. Further, the annex encourages conforming medical device standards with those of international best practices, including the adoption of a risk-based classification system.

Effects

USMCA provisions related to electronics products would have a small positive impact on production and trade behavior in the electronics sector. While the ICT annex provisions are unlikely to have strong effects, changes to the ROOs on electronic products may be associated with some slight trade increases in electronics. This assessment is based on Commission industry expertise and feedback from industry representatives.

¹⁷⁹ These exceptions include (1) a country's law enforcement authorities requiring a service supplier to provide unencrypted communications; (2) the regulation of financial instruments; (3) measures taken by a country in supervising or investigating financial institutions or markets; or (4) if the cryptographic item is being manufactured for or by the government.

One factor that may reduce the impact of these ROO changes is the significant number of electronic items to which the United States already offers global duty-free access due to its participation in the 1996 Information Technology Agreement, or ITA.¹⁸⁰ Facilitated by the World Trade Organization (WTO), ITA came into effect two years after the signing of the original NAFTA, and its membership now represents over 95 percent of global trade in IT products. While the United States and Canada are signatories to this agreement, Mexico is not.

ITA eliminates duties on covered IT goods. As a result, products and product parts covered by the ITA and in the chapters covered by the USMCA ROO changes already receive duty-free treatment when originating from Mexico or Canada (as well as any other WTO member state). For example, certain flat panel displays addressed by the USMCA's ROO changes for televisions and electronics already face a duty rate of zero under the U.S. implementation of ITA (and ITA's expansion of its list of covered products in 2015). However, since Mexico is not a party to ITA, and given its high tariffs on certain electronic products globally, the ROOs-related changes associated with USMCA may further incentivize Mexican industry to source electronic products from the United States.¹⁸¹

The likely impact of the ICT annex provisions in the trade of ICT products is small, for a number of reasons. First, a majority of its provisions preclude future action rather than remove existing barriers.¹⁸² Also, many of the provisions in the ICT annex of USMCA are similar to provisions in the ICT annex of the Progressive and Comprehensive Trans-Pacific Partnership (previously the Trans-Pacific Partnership¹⁸³), of which Canada and Mexico are already members.¹⁸⁴ Additionally, the exceptions for each of the provisions in the ICT annex may limit the impact of these provisions on ICT product and services trade.¹⁸⁵ Finally, Mexico, Canada, and the United States do not appear to have regulations that would be materially impacted by the ICT annex provisions.¹⁸⁶

Similarly, the impact on regional medical device trade owing to provisions in Annex 12-E would likely be small.¹⁸⁷ Notably, onerous standards and regulatory procedures—which USMCA discourages—have

¹⁸⁰ For further information on the products which receive zero-duty treatment under the Information Technology Agreement (ITA), see USTR, "ITA Expansion Product List," 2015.

¹⁸¹ The Semiconductor Industry Association noted that it was disappointed that the USMCA does not contain a provision that commits all parties to joining the ITA. According to the association, this means that Mexico can still impose tariffs on advanced semiconductors that were not classified as semiconductors when NAFTA was first negotiated. Semiconductor Industry Association, written submission to the USITC, December 14, 2018, 9–10.

¹⁸² See chapter 2 of this report for more information.

¹⁸³ USITC, *Trans-Pacific Partnership Agreement*, 2016, 224.

¹⁸⁴ Government of Canada, "What Is the CPTPP?" December 2018.

¹⁸⁵ In its report on the ICT annex of the Trans-Pacific Partnership, the Industry Trade Advisory Committee for Information and Communications Technologies, Services and Electronic Commerce (ITAC8) opposed the exceptions made for financial instruments and law enforcement in the ICT annex on cryptographic goods. The USMCA ICT annex contains the same exceptions, as well as the others listed above. ITAC-8, *Report of the Industry Trade Advisory Committee*, December 3, 2015, 3.

¹⁸⁶ In the USITC's report on the impact of the TPP and its similar ICT annex, only Vietnam was identified as having regulations which would be impacted by the implementation of cryptographic policy limitations; neither Canada nor Mexico were so identified. USITC, *Trans-Pacific Partnership Agreement*, 2016, 224.

¹⁸⁷ Although the USMCA provisions that were specific to medical devices were not modeled by the Commission, its quantitative assessment of the relationship between trade in certain IPR-intensive sectors and IPR protections under the USMCA found that medical devices exhibited a statistically significant relationship between trade flows

been found to exert a statistically significant, negative impact on medical device trade.¹⁸⁸ Moreover, written submissions to the Commission from industry representatives have estimated that TBTs increase the trade costs of medical devices by up to 20 percent.¹⁸⁹

However, there are already important points of regulatory convergence among the three countries. For example, each employs a risk-based classification system to regulating medical devices, which is consistent with international best practices. Further, both Canada and Mexico already rank favorably in terms of having relatively short estimated approval times for advanced medical technologies—which the United States specializes in producing.¹⁹⁰

On the other hand, a recent ranking of the 167 most import-restrictive countries for high-end medical devices found that Canada (ranking: 104) and Mexico (ranking: 141) fell in the more restrictive half, due partly to somewhat complex regulatory standards.¹⁹¹ For example, Canada does not recognize the United States' Food and Drug Administration's quality systems regulation.¹⁹² This may suggest the potential for improved medical device trade between the United States and these countries if greater regulatory convergence could be achieved.

Changes to ROOs for electronics and parts may support a slight increase in U.S. exports of these electronics items to Mexico and Canada, with a minimal impact on U.S. imports. The impact of the alterations to these ROOs on U.S. imports from Mexico and Canada would likely be negligible, as all items potentially affected by the television ROO changes already receive a zero U.S. tariff rate if originating from Mexico or Canada. (U.S. tariff rates for televisions and electronics are also generally low for non-USMCA countries.) In 2017, the value of U.S. imports of products potentially affected by the ROO changes for televisions and parts was about \$1.5 billion from Canada and \$13.9 billion from Mexico.¹⁹³

The expansion of the ROO requirements for televisions and electronics may, however, lead to an increase in U.S. exports to Mexico. While Mexico also maintains few tariffs on televisions and parts from the United States, in some instances Mexico imposes relatively high tariffs on goods from non-USMCA countries. In particular, several items potentially affected by the ROO changes currently face 15 percent tariffs in Mexico when imported from non-USMCA countries. The liberalization of ROOs for USMCA regional production may subsequently incentivize production of electronics and electronics parts for export to Mexico from the United States. In 2017 the United States exported approximately \$4.3 billion of such products to Mexico and \$2.9 billion to Canada.¹⁹⁴ In sum, while there is some uncertainty regarding the specific impact of some ROO changes (particularly those that change RVC requirements to

and an external IPR index that measures the level of IPR protections in different countries. These estimates are discussed in greater detail in chapter 8 of this report.

¹⁸⁸ Herman, "Competitive Conditions Affecting U.S. Exports," August 2018, 21.

¹⁸⁹ AdvaMed, written submission to the USITC, December 17, 2018.

¹⁹⁰ Emergo, "Compare the Time, Cost," December 2017.

¹⁹¹ Herman, "Competitive Conditions Affecting U.S. Exports,"

¹⁹² Emergo, "Introduction to Canada's Medical Device Registration," 2019.

¹⁹³ USITC DataWeb/USDOC (accessed on February 25, 2019).

¹⁹⁴ USITC DataWeb/USDOC (accessed on February 25, 2019).

tariff shifts, or vice versa), overall the ROO changes to electronics and televisions are likely to support increased trade in these products among the USMCA member states.

Various trade associations have indicated that their members expect to be positively affected by certain provisions in USMCA. The National Electronics Manufacturers Association (NEMA) noted that its members will be positively impacted by certain provisions in the sectoral annexes on medical devices and information technology, particularly those provisions that improve alignment of regulations and regulatory activities (for medical devices) as well as the ban on requiring the mandatory transfer or access of proprietary cryptography to a government agency or person.¹⁹⁵ Similarly, the Semiconductor Industry Association expressed its support for the provision on commercial cryptographic goods and noted that it is an important step for establishing global trade norms related to encryption.¹⁹⁶ The Telecommunications Industry Association indicated that the provisions regarding technical barriers to trade previously addressed in this section establish “fairer trade conditions that will help make U.S. telecom equipment suppliers more globally competitive.”¹⁹⁷

Energy Products

Since the entry into force of the NAFTA agreement in 1994, the North American energy industry has experienced substantial change. For example, between 1994 and 2017, the volume of petroleum and other liquids¹⁹⁸ produced increased by 66 percent for the United States and by 112 percent for Canada, while it declined by 28 percent for Mexico.¹⁹⁹ In 2017, the United States produced 15.6 million barrels per day of petroleum and other liquids; Canada, 5.0 million barrels per day; and Mexico, 2.3 million barrels per day, placing the three countries 1st, 4th, and 11th in the world, respectively.²⁰⁰

Increased unconventional production of crude petroleum supported the growth in the U.S. and Canadian industries, while limited investment and declining output from mature fields constrained the Mexican industry. The large increase in U.S. production of petroleum and other liquids is attributable to improved technology such as horizontal drilling and hydraulic fracturing, which enabled increased production from shale formations.²⁰¹ The rise in crude petroleum production in Canada is largely due to growth in oil sands output. At the same time, Mexico’s national petroleum company, Pemex, which has exclusive control over the country’s industry, was prohibited until fairly recently from sharing ownership

¹⁹⁵ NEMA, written submission to the USITC, December 20, 2018, 5–6.

¹⁹⁶ Semiconductor Industry Association, written submission to the USITC, December 14, 2018, 2–3.

¹⁹⁷ USITC, hearing transcript, November 16, 2018, 453 (testimony of Kathlene C. Swanson, Telecommunications Industry Association).

¹⁹⁸ EIA defines “petroleum and other liquids” as all petroleum, including crude oil and products of petroleum refining, natural gas liquids, biofuels, and liquids derived from other hydrocarbon sources (including coal to liquids and gas to liquids). Not included are liquefied natural gas (LNG) and liquid hydrogen.

¹⁹⁹ In just five years (2013–17), this production increased 27 percent for the United States and 19 percent for Canada, and declined 22 percent for Mexico.

²⁰⁰ EIA, “Total Petroleum and Other Liquids Production 2017,” n.d. (accessed November 19, 2018).

²⁰¹ These shale formations include Texas’ Permian basin (a major source of crude petroleum) and the Marcellus formation in Appalachia (a major source of natural gas and natural gas liquids), among others.

of crude production with foreign companies, limiting its ability to invest in exploration and production.²⁰²

The North American energy industries are tightly integrated.²⁰³ In 2017, Canada and Mexico accounted for 43 percent of all U.S. imports of energy-related products and 31 percent of all U.S. exports of those products.²⁰⁴ Canada's heavily discounted crude petroleum and extensive network of cross-border pipelines and rail make it the largest foreign supplier to refineries in the United States.²⁰⁵ Canada's share of U.S. crude oil imports has risen significantly in the past five years, replacing declining exports from Venezuela and Mexico. Mexico's declining production has severely affected its ability to export crude to the United States. Mexico's constitutional reforms opened its energy sector to private investment several years ago, but the resulting influx of new investment is not expected to reverse production declines in the near term.²⁰⁶ Between 2013 and 2017, the value of U.S. energy-related product imports declined from Canada by 33 percent and from Mexico by 68 percent as prices fell and U.S. output rose. In the same period, the value of U.S. exports to Canada declined 24 percent, while the value of exports to Mexico increased 13 percent.²⁰⁷

Key USMCA Provisions

In NAFTA, the energy chapter contained most of the energy-related provisions. In USMCA, provisions related to energy appear in various chapters.²⁰⁸ The most important provisions in USMCA affecting the energy sector are those that would update the scope of Mexico's trade commitments to reflect the

²⁰² USITC, "Energy-related Products," October 2018.

²⁰³ One reason for the integration of North American energy industries is that many U.S. petroleum refineries were optimized to process dense or "heavy" grades of crude petroleum with relatively high sulfur content. Meanwhile, U.S. crude production from shale formations consists of crude with different properties requiring less complex refining capabilities, but is not appropriate for all end uses. Consequently, U.S. refineries have continued to import significant volumes of heavy crude from Canada and Mexico. Some of the resulting refined petroleum products are then exported back to Mexico and, to a lesser extent, Canada. USITC, "Energy-related Products," October 2018.

²⁰⁴ USITC, "Energy-related Products," October 2018.

²⁰⁵ Canadian oil sands crude is more difficult to refine than common U.S. crude grades like West Texas Intermediate, and therefore usually sells at a significant "discount" compared to most other grades. Natural Resources Canada, "Crude Oil Facts" (accessed November 19, 2018).

²⁰⁶ Mexico started to phase in constitutional reforms in 2013, including opening its energy sector to private investment. Mexico's current president, Andrés Manuel López Obrador, opposes these reforms, but has agreed to honor the 110 private oil contracts signed under the Peña Nieto administration. Natural declines of major fields, prolonged Pemex budget cuts, and the long time horizon for new projects are expected to lead to continued output declines in 2019 and 2020. Reuters, "Crude Oil Output, Exports Drop," November 26, 2018; Reuters, "Mexico Targets 50 Percent Jump," December 15, 2018.

²⁰⁷ These trends partly reflect significant declines in oil and gas prices over the time period. By volume, U.S. imports of petroleum and other liquids between 2013 and 2017 rose by 22 percent from Canada and declined by 35 percent from Mexico; U.S. exports of petroleum and other liquids rose by 37 percent to Canada and 51 percent to Mexico. EIA, "Total Petroleum and Other Liquids Production 2017" (accessed February 26, 2019).

²⁰⁸ Chapter 8 of the USMCA is dedicated to hydrocarbons, but only contains provisions related to Mexico's ownership of hydrocarbons contained within its territory and sovereign right to reform its constitution.

significant reforms that Mexico has made to its energy sector, facilitate companies' ability to meet ROOs, and retain the investment provisions currently in effect.²⁰⁹

Chapter 2 of USMCA includes updated market access exceptions for Mexico's exports of crude petroleum, certain refined petroleum products, natural gas, propane, and butane, allowing Mexico to maintain export license requirements for these products, as specified under its Hydrocarbon Law. In the original NAFTA text, Mexico reserved state control of activities related to the foreign trade of these products and reserved the right to not grant import or export licenses for a broader list of energy products.

Chapter 4 of USMCA updates the ROOs for crude petroleum (HS 2709) and refined petroleum products (HS 2710). Specifically, it adds three special provisions to make it easier for blended and refined products to be considered originating, as long as the refining/processing activity takes place in a USMCA country or the base product is originating. (In the latter case, the base product must constitute at least 60 percent of the blended/refined product's volume for HS 2709, and 75 percent for HS 2710.)

Investment provisions in Chapter 14 and Annex 14-E of USMCA allow U.S. investors in Mexican oil and gas activities to be subject to the investor-state dispute settlement (ISDS) system that is currently in place, rather than switching to the new ISDS provisions affecting most other sectors. See chapter 8 of this report for more information.

Effects

Due to the very low most-favored-nation (MFN) tariffs among the USMCA countries and recent reforms in Mexico's energy sector, the proposed changes to energy-related provisions in USMCA are likely to have very little impact on U.S. trade and production.²¹⁰ Since Canada and Mexico each already give MFN duty-free treatment to imports of crude petroleum and most petroleum products, few U.S. exports would qualify for a lower tariff rate by demonstrating origin. The updates to the ROOs for crude petroleum would predominantly affect U.S. imports. In particular, "heavy" crudes such as those produced from the Canadian oils sands, which are often blended with diluent before export, would face a much lower burden to prove origin.²¹¹ Until a few years ago, more than half of U.S. imports of heavy crude petroleum from Canada met ROO requirements. Since 2014, this has declined significantly; only 12 percent of these imports met the requirements in 2017.²¹² Even so, U.S. imports of heavy crudes that do not provide proof of origin face a very low tariff: 5.25 cents per barrel (often corresponding to less

²⁰⁹ The American Petroleum Institute's written submission highlights USMCA's retention of most of the critical provisions found in NAFTA. It also pinpoints USMCA's updated ROOs for energy products and its investment provisions for Mexico as two provisions that should enhance energy benefits in the future. API, written submission to the USITC, December 20, 2018.

²¹⁰ This assessment does not consider potential impacts of steel-related provisions in USMCA on the energy sector. In their submissions to the USITC, various Texas associations and the Texas Independent Producers and Royalty Owners Association (TIPRO) focused on the impacts of the U.S. section 232 steel tariffs on the industry. A discussion on the 232 steel tariffs is presented in chapter 3 of this report. Texas Associations, written submission to the USITC, November 16, 2018; TIPRO, written submission to the USITC, November 16, 2018.

²¹¹ Types of crude petroleum that are very dense (as indicated by a low API gravity) are often referred to as "heavy," while types of crude that are less dense (with a higher API gravity) are described as "medium" or "light."

²¹² USITC DataWeb/USDOC (HTS statistical annotation 2709.00.1000; accessed February 26, 2019).

than a 0.1 percent ad valorem equivalent rate). Lighter crudes face a marginally higher tariff of 10.5 cents per barrel.

Textiles and Apparel

Canada and Mexico remain the top markets for U.S. exports of textile and apparel goods. In 2017, Mexico was the destination for more than 40 percent of U.S. exports of fabric, and Canada was the destination for more than 45 percent of U.S. exports of finished textile or made-up products.²¹³ The U.S. textile industry today is highly sophisticated and primarily makes fiber; spins or extrudes yarn; and knits, weaves, dyes, and finishes fabrics.²¹⁴ As one industry expert noted, “much of the textile manufacturing in the United States is tied directly to NAFTA through U.S. exports to NAFTA partners.”²¹⁵ With nearly all cut-and-sew operations—the customers for U.S. yarns and fabrics—located offshore, U.S. suppliers need access to those markets, and NAFTA’s rules of origin have helped to secure that access to Canada and Mexico.²¹⁶

NAFTA’s entry into force in 1994 coincided with the phaseout of the global multilateral quota system that had regulated imports of apparel, fabric, and fiber from developing countries.²¹⁷ The latter development shifted U.S. apparel imports away from Mexico—once the United States’ top supplier—to China and other Asian suppliers such as Vietnam.²¹⁸ However, the demand from U.S. retailers and brands for speed to market and on-time delivery continued to offer some benefits to Western Hemisphere suppliers, such as Canada and Mexico, whose proximity to the U.S. market allows rapid delivery.²¹⁹ Combined with the duty savings available through utilization of the free trade agreement, U.S. importers of textiles and apparel state that NAFTA is very important to their business operations.²²⁰

²¹³ Made-up textile articles are primarily classified in chapter 63 and subheading 9404 of the HTS, and include articles such as blankets, towels, bed linens (sheets, pillowcases), kitchen linens (tablecloths, napkins), curtains, bedspreads, awnings, tents, pillows, quilts and comforters. USDOC, OTEXA, *The Export Market Report* (accessed November 19, 2018).

²¹⁴ USITC, hearing transcript, November 16, 2018, 453 (testimony of Augustine Tantillo, National Council of Textile Organizations).

²¹⁵ USITC, hearing transcript, November 16, 2018, 405 (testimony of Rick Helfenbein, American Apparel and Footwear Association).

²¹⁶ USITC, hearing transcript, November 16, 2018, 452 (testimony of Augustine Tantillo, National Council of Textile Organizations).

²¹⁷ The Multi-Fibre Arrangement (MFA) was replaced by the World Trade Organization (WTO) Agreement on Textiles and Clothing (ATC) in 1994, which eliminated all quotas on textile and apparel products over 10 years. All textile and apparel products from WTO member countries were quota free beginning January 1, 2005. NAFTA duties on textile and apparel products were phased out over the same 10 years, to become duty free on January 1, 2005.

²¹⁸ USITC, hearing transcript, November 16, 2018, 450 (Julia Hughes, U.S. Fashion Industry Association).

²¹⁹ USITC, hearing transcript, November 16, 2018, 451 (Julia Hughes, U.S. Fashion Industry Association).

²²⁰ USITC, hearing transcript, November 16, 2018, 385 (Julia Hughes, U.S. Fashion Industry Association); USDOC, OTEXA, *Free Trade Agreements* (accessed November 19, 2018). Overall, by value, duty-free imports from NAFTA account for 37.6 percent of total U.S. duty-free imports of textiles and apparel, nearly matching the 38.1 percent of total U.S. duty-free textile and apparel goods imported from the six countries of the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR). United States Fashion Industry Association’s 2018 Fashion Industry Benchmarking Study shows these two agreements are the most utilized by U.S. brands and retailers. Lu, *USFIA 2018 Fashion Industry Benchmarking Study*, 2018, 26.

This is despite the fact that, in 2017, only 81 percent of U.S. imports from Canada and Mexico took advantage of the duty savings offered by NAFTA.²²¹

Key USMCA Provisions

USMCA modifies the provisions of NAFTA by altering certain ROOs and modifying the relevant tariff preference levels (TPLs). USMCA also adds a textile chapter, including textile-specific customs enforcement language. These provisions give guidelines outlining how officials from the importing party may conduct on-site production verification visits to manufacturers in an exporting party.²²²

USMCA's ROOs for textiles and apparel are less restrictive in some ways, but somewhat more restrictive in others. The USMCA tariff shift rules for textile and apparel products maintain the basic concepts established for textile and apparel products under NAFTA with a few modifications. Those rules follow a "fiber-forward" concept for yarns and knit fabrics²²³ and a "yarn-forward" concept for woven fabric, apparel, and made-up textile articles.²²⁴ However, under USMCA, the rules would no longer require certain rayon fibers²²⁵ or non-cotton vegetable fiber yarns²²⁶ to be sourced from the United States, Canada, or Mexico when used to produce textile or apparel goods. On the other hand, USMCA tariff-shift rules for apparel and made-ups would newly require all knit fabrics to be sourced from one of the parties, whereas the original NAFTA rules restricted only certain knit fabrics.²²⁷ In addition, USMCA increases the NAFTA textile de minimis allowance from 7 to 10 percent.²²⁸

USMCA would also modify the "chapter rules" for goods classified in HTS chapters 61 and 62 (knit and woven apparel) by eliminating the NAFTA requirement that visible linings must be sourced from one of

²²¹ USFIA states that some companies do not claim the duty savings because the compliance requirements are too onerous and expensive. USITC, hearing transcript, November 16, 2018, 387 (Julia Hughes, U.S. Fashion Industry Association).

²²² This provision uses language common in other U.S. FTAs that include textile-specific verification provisions. The purpose of such site visits to manufacturers in the exporting party is to verify production and confirm compliance with the FTA ROOs for preferential treatment. USTR, USMCA, Chap. 6, Art. 6.6 (accessed November 30, 2018).

²²³ This means that most fibers must originate in one of the parties, and the yarn and fabric must subsequently be formed in one of the parties.

²²⁴ This means that the fiber may be of any origin so long as the yarn and fabric are formed and finished in one of the parties, and subsequent cut-and-sew operations are done in one of the parties.

²²⁵ Rayon filament, other than lyocell or acetate, of HS heading 54.03 or 54.05, and rayon fiber, other than lyocell or acetate, of heading 55.02, 55.04, or 55.07 may be of any origin when used in the production of a good classified in chapters 50 through 63. USTR, USMCA, Chap. 4, Annex 4.B Section XI Notes (accessed November 30, 2018). This update grandfathered in a handful of approved "short supply" requests under NAFTA and expands the allowance to all textile and apparel goods.

²²⁶ Yarns classified under headings HS 53.07 and 53.08.

²²⁷ USMCA requires knit fabrics classified under HS headings 60.01 through 60.06 to be sourced from one of the parties, whereas NAFTA covered only those classified under headings 60.01 and 60.02.

²²⁸ This flexibility permits up to 10 percent (by weight) of non-originating fibers or yarns to be used for the production of upstream goods. The USMCA will newly limit non-originating elastomeric yarns to no more than 7 percent (by weight) (capping non-originating elastomeric yarns at the existing de minimis percentage). USTR, USMCA, Chap. 6, Art. 6.1.2, and Art. 6.1.3 (accessed November 30, 2018). All other U.S. free trade agreements require elastomeric yarns to be originating, so USMCA is still more flexible than the other agreements. Under other FTAs, elastomeric yarns are not eligible for the de minimis allowance in any amount.

the parties. At the same time, however, it would add new requirements for narrow elastic fabrics, sewing thread, and pocket bag fabric.²²⁹ The three new chapter rules would require these inputs to be formed and finished in one of the party countries to allow the garments containing these materials to qualify for preferential treatment.²³⁰ USMCA builds in transition periods for each of the new chapter rules.²³¹ In addition, for certain made-up articles (HTS chapter 63), USMCA add a new chapter rule requiring fabrics coated with plastics (of HTS chapter 59) to be formed and finished in one of the parties to allow finished goods of those fabrics to qualify for preferential treatment.²³²

USMCA keeps all of the NAFTA TPLs, which allow preferential duty treatment for a limited quantity of non-originating goods, with some changes to the quantities and scope of the coverage (see table 4.3). In general, these changes would maintain or lessen the duty-free amount that Canada and Mexico can export to the United States, and maintain or increase the amount that the United States can export to Canada and Mexico.²³³ In addition, USMCA includes new trilateral administrative guidance intended to make the management and utilization of the TPLs more transparent and predictable.²³⁴

²²⁹ If a garment fails to meet either the tariff shift rule or any of the applicable chapter rules, then it is ineligible for preferential duty treatment. For some non-originating garments, the USMCA Tariff Preference Levels (TPLs) afford a second chance for duty-free treatment.

²³⁰ USTR, USMCA, rules of origin for Chap. 61 and Chap. 62 (accessed November 30, 2018). All rules are comparable to those in CAFTA-DR.

²³¹ USTR, USMCA, Chap. 4, Annex 4.B Chap. 61 notes, and Chap. 62 notes (accessed November 30, 2018). The rule for narrow elastic fabrics takes effect 18 months from the date of entry into force of the agreement; the rule for sewing thread takes effect 12 months from entry into force; and the rule for pocket bag fabric takes effect 18 months from the entry into force for apparel other than woven garments of blue denim, for which the rule will take effect in 30 months.

²³² USTR, USMCA, Chap. 4, Annex 4.B Chap. 63 notes (accessed November 30, 2018). This is a new chapter rule that does not exist in any other U.S. FTA.

²³³ The exceptions are an increase in the TPLs for U.S. imports of cotton and manmade-fiber fabrics and made-ups from Canada, and a decline in the amount of wool apparel that the United States can export to Mexico under TPLs.

²³⁴ USTR, USMCA, Chap. 6, Annex 6-A, Art. 8-16 (accessed November 30, 2018).

Table 4.3 Comparison of tariff preference levels (TPLs) in NAFTA and USMCA

Source	Destination					
	Canada		Mexico		U.S.	
	NAFTA	USMCA	NAFTA	USMCA	NAFTA	USMCA
Cotton and manmade fiber apparel (million square meter equivalents) ^a						
Canada:			6.00	6.00	80.00	40.00
Mexico:	6.00	6.00			45.00	45.00
United States:	9.00	20.00	12.00	12.00		
Wool apparel (million square meter equivalents)						
Canada:			0.25	0.25	5.07	4.00 ^b
Mexico:	0.25	0.25			1.50	1.50
United States:	0.92	0.70	1.00	1.00		
Cotton and manmade fiber fabrics and made-ups (million square meter equivalents)						
Canada:			7.00	7.00	65.00	71.77 ^c
Mexico:	7.00	7.00			24.00	22.80 ^d
United States:	2.00	15.00 ^e	2.00	1.40		
Cotton and manmade fiber spun yarn (million kg)						
Canada:			1.00	1.00	10.70	6.00 ^f
Mexico:	1.00	1.00			1.00	0.70
United States:	1.00	1.00 ^g	1.00	0.95		

^a As with NAFTA, certain of these garments must always meet the NAFTA or USMCA tariff-shift rule of origin to qualify for duty-free treatment, including garments of blue denim fabric, oxford cloth, certain circular knit fabrics, or certain knit sweaters.

^b NAFTA set a sublimit for men's or boys' wool suits of U.S. category 443 at 5,016,780 of the 5,066,948 square meter equivalents, while the USMCA sets the sublimit quantity at 3,800,000 of the 4,000,000 square meter equivalents for the wool apparel TPL.

^c NAFTA established two sublimits under this TPL for knit fabric (HTS chapter 60) and certain goods of HTS chap. 63; and other fabrics and made-ups of HTS chapters 52 through 55, 58 and the rest of 63, each set at 35,000,000 square meter equivalents. Under USMCA, these are each set at 38,642,828 square meter equivalents

^d NAFTA established two sublimits for knit fabric (HTS chap. 60) and certain goods of HTS chap. 63 set at 18,000,000 square meter equivalents; and other fabrics and made-ups of HTS chap. 52–55, 58 and the rest of 63 at 6,000,000 square meter equivalents. The USMCA maintains HTS chapter 60 and 63 set at 18,000,000 square meter equivalents, while reducing other fabrics and made-ups to 4,800,000 square meter equivalents.

^e NAFTA limits U.S. exports to Canada under this TPL to goods of HTS chap. 60 only. The USMCA expands the scope of coverage for this TPL from the United States into Canada to goods of HTS chap. 60 or heading 6303.

^f USMCA adds two new sublimits of 3,000,000 kg each for acrylic yarns of HTS headings 55.09 or 55.11, and other yarns of HTS headings 52.05 through 52.07, or 55.09 through 55.11. The USMCA also expands the scope of coverage for the yarn TPL for trade between the United States and Canada by also including yarn of HTS heading 56.05 formed in the United States or Canada from fibers obtained outside of the parties.

^g USMCA expands the scope of coverage for the yarn TPL for trade between the United States and Canada by also including yarn of HTS heading 56.05 formed in the U.S. or Canada from fibers obtained outside of the parties.

Unit of measurement is square meter equivalents for all TPLs except for yarn, which is measured in kilograms (kg).

Source: USTR, USMCA full text (6-A-1-3) and NAFTA texts; USTR, USMCA, Chap. 6, Annex 6.A, App. 1–3 and NAFTA texts.

Effects

The technical modifications in USMCA are important to both manufacturers and importers of textiles and apparel potentially affected by the agreement, and would affect the sourcing patterns for certain inputs and finished goods.²³⁵ However, the updates are not likely to greatly increase or decrease the

²³⁵ Industry representatives differ on their views of the of tariff preference levels (TPLs). NCTO made elimination of the TPLs the top priority for the USMCA negotiations and are disappointed that they remain; USFIA asserts they are an integral part of why members use NAFTA; AAFA states that the TPLs help to build capacity for cut-and-sew operations which, in turn, create greater demand for originating yarns and fabrics. USITC, hearing transcript,

overall utilization of USMCA's duty-free provisions. While some changes to the preference rules of origin would make it easier for some textile and apparel products to qualify for duty-free treatment, other changes will simultaneously make it more challenging for other products that satisfy the current NAFTA rules to do the same. In aggregate, these changes can be expected to more or less balance each other out.²³⁶ The effects of USMCA's changes to customs enforcement appear more clearcut: domestic manufacturers and importers alike would welcome effective enforcement of the agreement's ROOs.²³⁷

Overall, the changes to the TPLs for non-originating goods appear unlikely to have much effect on trade in these goods between the parties. In each instance where USMCA would cut the quantitative limit on a particular U.S. import from Canada or Mexico, the limit was not fully utilized in the past, and even the new, reduced limit exceeds actual imports in 2017.²³⁸ The limits on U.S. imports from Canada and Mexico that are typically fully used would remain unchanged under USMCA.²³⁹ One area of potential growth for the U.S. industry is exports of cotton and manmade fiber apparel, and cotton and manmade-fiber fabric and made-ups where the limits would be increased. In 2017, under NAFTA, the Canadian limit on imports of cotton/manmade fiber apparel from the United States was fully utilized.²⁴⁰

November 16, 2018, 386–87 (Julia Hughes, USFIA), 397–98 (Augustine Tantillo, NCTO), and 408 (Rick Helfenbein, AAFA).

²³⁶ On the changes to the chapter rules, NCTO applauds the inclusion of rules for narrow elastic fabrics, sewing thread, and pocket bag fabrics stating that these materials are readily available from U.S. and Mexican producers whose facilities are not currently running at full capacity; USFIA notes it is not possible to track the current source origin for these materials, so it is uncertain what the impact will be, but the change represents a further complication of the rules which are already onerous in terms of record keeping and audit preparation. USITC, hearing transcript, November 16, 2018, 413 (Julia Hughes, USFIA), 414 (Augustine Tantillo, NCTO).

²³⁷USITC, hearing transcript, November 16, 2018, 476–77 (Augustine Tantillo, NCTO; Rick Helfenbein, AAFA; Julia Hughes, USFIA).

²³⁸ In 2017, under NAFTA, the U.S. limit on imports from Canada of cotton/manmade-fiber apparel was 88.3 million square meters equivalent, with quota charges of 3.9 million square meters equivalent (4.46 percent); of wool apparel was 5.3 million square meters equivalent, with quota charges of 1.8 million square meters equivalent (32.91 percent); and of yarn was 11.8 kg, with quota charges of 3.5 kg (29.84 percent). In 2017, under NAFTA, the U.S. limit on imports from Mexico of cotton/manmade-fiber fabric and made-ups was 24 million square meters equivalent, with quota charges of 20.8 million square meters equivalent (86.76 percent), and of yarn was 1 million kg with no quota charges. USCBP, *Commodity Status Report*, <https://www.cbp.gov/sites/default/files/assets/documents/2018-Mar/Final%20Quota%20Status%20Report%20DEC%2031%202017.pdf> (accessed December 7, 2018).

²³⁹ In 2017, under NAFTA, the U.S. limits on cotton/manmade-fiber fabric and made-ups from Canada, and cotton/manmade-fiber apparel and wool apparel from Mexico, were fully utilized. USCBP, *Commodity Status Report*, <https://www.cbp.gov/sites/default/files/assets/documents/2018-Mar/Final%20Quota%20Status%20Report%20DEC%2031%202017.pdf> (accessed December 7, 2018).

²⁴⁰ Government of Canada, "Free Trade Agreement Tariff Preference Level Utilization 2017 Imports" (accessed December 7, 2018).

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Chapter 5

Agricultural Products

Overview

Most trade in agricultural products between the United States, Canada, and Mexico is duty free under NAFTA and would continue to be duty free under USMCA. However, some restrictions on agricultural trade remain. Canada maintains a supply management system including tariff-rate quotas (TRQs) that protect its domestic producers of dairy products and poultry and egg-containing products from imports. At the same time, the United States maintains TRQs on sugar and sugar-containing products (SCPs) and dairy products. Restrictions on trade in these products would be slightly eased under USMCA. According to the Commission's economy-wide modeling results, USMCA is likely to lead to slight increases in U.S. exports of dairy products, poultry meat, eggs, and egg-containing products to Canada, and to a slight increase in Canada's exports of dairy products to the United States and a minimal increase in Canada's exports of sugar and SCPs to the United States. Additionally, USMCA provisions address nontariff measures that will likely increase exports of U.S. wheat and alcoholic beverages to Canada. Overall, USMCA will likely increase annual U.S. agricultural and food exports to the world by \$2.2 billion (1.1 percent) when fully implemented, including all other USMCA provisions described in chapter 2 of this report.²⁴¹ A Commission simulation that considered only the effects of the agriculture market access provisions in USMCA showed increased U.S. agriculture and food exports to the world of \$435 million.²⁴²

This chapter focuses on USMCA provisions affecting trade in agricultural goods with Canada and Mexico. These include provisions that provide additional market access for the dairy, poultry, and sugar sectors; provisions that reduce nontariff measures affecting alcoholic beverages and wheat trade; and crosscutting provisions affecting sanitary and phytosanitary (SPS) measures, TRQ administration, and biotechnology. The chapter begins with a snapshot of agricultural trade with Canada and Mexico in 2017, followed by a summary of key USMCA provisions. Several sectoral and crosscutting sections follow which highlight specific provisions and their likely effect on trade.

Estimates of increased trade in dairy, in poultry and eggs, and in sugar resulting from the market access provisions for those products were generated from sectoral results of the Commission's economy-wide model. Effects of the other USMCA provisions for agriculture presented in this chapter are based on qualitative analysis.

²⁴¹ Quantitative effects of USMCA presented in this chapter were generated by the Commission's economy-wide model, which includes the effects of USMCA agriculture market access provisions as well as other USMCA provisions affecting motor vehicles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. For a full discussion, see chapter 2. In addition, although the baseline for the Commission's model incorporated certain additional tariffs related to U.S. section 232 and 301 actions, the Commission's model did not measure the effects of these policy changes. Therefore, the results presented here reflect the effects of USMCA only. A similar simulation that excluded the additional tariffs related to U.S. section 232 and 301 actions from the baseline had similar results for effects of USMCA.

²⁴² In the simulation that considered only the agriculture market access provisions, total U.S. agriculture and food imports were estimated to increase by \$80 million.

U.S. Trade with Canada and Mexico

Canada and Mexico are both significant trading partners for U.S. agricultural products (table 5.1). In 2017, Canada and Mexico each accounted for 18 percent of U.S. agricultural imports, and for 17 percent and 13 percent, respectively, of U.S. agricultural exports. There are no market access provisions in USMCA that address food and agricultural products trade between the United States and Mexico, so most of the change will likely be in trade between the United States and Canada.

Table 5.1 U.S. agriculture products imports for consumption and domestic exports to Canada, Mexico, and the rest of the world, 2017 (million dollars)

Sector	Imports			Exports		
	Canada	Mexico	Rest of world	Canada	Mexico	Rest of world
Wheat	684	3	5	19	860	5,217
Sugar	1,219	1,351	2,283	893	826	778
Dairy	125	93	2,058	442	1,257	2,940
Alcoholic beverages	571	4,644	19,118	859	233	3,266
Poultry meat	295	14	154	451	575	2,779
All other	23,114	20,547	69,811	23,411	15,367	90,851
Sum	26,008	26,651	93,428	26,075	19,119	105,831

Source: USITC DataWeb (accessed November 19, 2018).

Summary of Key Provisions

A number of key USMCA provisions for agriculture create new market access in the region, mainly in the United States and Canada. USMCA provides for U.S. country-specific TRQ volumes for chicken, for eggs and egg-containing products, and for many dairy products in Canada. USMCA also increases within-quota global TRQ volumes for turkey meat and for hatching eggs and chicks imported into Canada. Canadian producers gain some additional access to the U.S. market for sugar and SCPs and some dairy products through a higher TRQ volume. The agreement will also require Canada to eliminate its class 6 and class 7 milk classes,²⁴³ and will establish export thresholds above which global Canadian exports of certain skim solid milk products would be subject to export charges.

The agreement also addresses some technical barriers to trade that have limited U.S. exports to Canada of alcoholic beverages, grains and oilseeds, and cheese. The agreement increases the transparency of applications, approvals, and cancellations for geographical indications (GIs) and provides guidelines for determining whether a term is customary in common use. A side letter between the United States and Mexico protects against the use of some GIs as a restraint on trade. Additionally, the agreement exempts the parties from each other's special safeguards on agricultural products that receive preferential tariff treatment; establishes best practices in TRQ administration, SPS regulations, and

²⁴³ Class 6 and class 7 are Canadian milk price classes created to reduce Canada's continuing surplus of nonfat solids by encouraging the substitution of Canadian-produced dairy ingredients for imported ingredients through discounted prices and increased Canadian exports of skim milk powder. USTR, *2018 National Trade Estimate Report on Foreign Trade Barriers*, 2018, 81.

regulation of agricultural biotechnology; and provides protection for proprietary food formulations. Specific provisions are shown in table 5.2.

Table 5.2 Summary of key USMCA provisions on agriculture

USMCA provision	Compare to NAFTA provision
Dairy products	
Greater tariff-rate quota (TRQ) volumes for U.S. dairy products in Canada, and matching access for Canadian exports to the United States. (Chap. 2, Appendix 2 Canada, § B)	Modified in USMCA: language updated from NAFTA
Parties may not restrict market access for cheeses using a list of common names (many of these cheeses are subject to geographical indications (GIs) in Europe). (Chap. 20, Article 20.30–20.33) Mexico side letter specifies list of protected common names. (Mexico-U.S. Side Letter on Cheeses)	New in USMCA
Dairy market and pricing transparency requirements were added. (Chap. 3, Art. 3.A.3)	New in USMCA
Requires elimination of Canadian class 6 and class 7 milk pricing within six months of implementation. (Chap. 3, Art. 3.A.3)	New in USMCA
Requires Canadian minimum pricing for nonfat solids used to manufacture milk protein concentrates, skim milk powder (SMP), and infant formula. (Chap. 3, Art. 3.A.3)	New in USMCA
Global Canadian exports of milk protein concentrates (MPCs), SMP, and infant formula above specified quantities will be subject to export taxes. (Chap. 3, Art. 3.A.3)	New in USMCA
Poultry, sugar, and egg products	
Improves market access for U.S. poultry and egg products to the Canadian market by increases in (1) the global TRQ or (2) specific TRQs for USMCA-originating goods in addition to the global TRQs. (Chap. 2, Appendix 2 Canada, § B)	Modified in USMCA: updated from NAFTA provisions for these products.
Improves access for Canadian refined sugar and sugar-containing products (SCPs) to the U.S. market through Canada-specific TRQs for refined sugar and SCPs; includes post-NAFTA agreements affecting the United States' sugar and SCP trade with Canada. (Chap. 2, Appendix 2 US, § B)	Modified in USMCA: language updated from NAFTA.
Alcoholic beverages (Chapter 3, Annex 3-C)	
Improves market access for U.S. alcoholic beverages to the Canadian and Mexican markets by expanding on NAFTA commitments, preserving distinctive product recognition for certain U.S. and Mexican distilled spirits, and making new commitments on best practices such as labeling and certification requirements, among others. Prohibits measures that allow only British Columbia (BC) wines to be sold in BC grocery stores, and addresses discrimination in price markups. (Canada-U.S. Side Letter on Wine)	Modified in USMCA: some updates from NAFTA and some new changes. Change in BC grocery store sales of wine dependent on fulfillment of terms by November 1, 2019 deadline in U.S.-Canada side letter.
Guidelines for the operation of TRQs, particularly those that do not operate under a “first come, first served” system. Most relate to transparency, notification periods, and allocation procedures. Parties may not condition TRQ access on purchase of domestic production. NAFTA TRQ provisions do not affect World Trade Organization (WTO) TRQs. (Chap. 3, Art. 3.A.2)	Modified in USMCA: the TRQ provisions in NAFTA were much less extensive.
Grain products (Chapter 3, Art. 3.A.4)	
Commits parties to national treatment in agricultural grading and registration of grain varieties, guarantees that U.S. wheat will be treated like Canadian wheat at Canadian grain elevators, and eliminates country of origin requirements for wheat.	Modified in USMCA: similar provisions were included in NAFTA, but the new text is more specific.

USMCA provision	Compare to NAFTA provision
Allows parties to request discussions regarding grain grading or grain class systems, including for seed issues.	New in USMCA
Biotechnology and sanitary and phytosanitary (SPS) standards	
Requires parties to provide transparency on biotech approvals and encourages timely review of product approvals. Sets guidelines for handling an instance of low-level presence (LLP) of a genetically modified crop not yet approved for use. (Chap. 3, § B, Art. 3.12-3.16)	New in USMCA
Requires that SPS provisions focus on risk management over risk assessment. (Chap. 9, Art. 9.6 and 9.8)	Modified in USMCA: in NAFTA, the focus was on risk assessment.
Improves transparency of SPS provisions, encourages similar best practices in SPS measures, requires technical consultations, and encourages harmonization or equivalence. (Chap. 9, Art. 9.13, 9.16-9.19)	Modified in USCMA: language updated from NAFTA.

Source: USMCA text.

Impact on Specific Sectors

USMCA includes market access provisions that will likely increase U.S. access to the Canadian markets for dairy products, poultry meat, eggs, and egg-containing products, as well as Canadian access to U.S. markets for dairy products and sugar. Concessions are largely through new country-specific TRQs or through increases to existing TRQs. Owing to the nature of the specific market access provisions for these three sectors, the effects of USMCA on these sectors were estimated using the Commission's economy-wide model. The model incorporates general equilibrium effects in simulating the effects of this additional market access on total U.S. exports, imports, and output in these sectors.

Results from the Commission's economy-wide model are presented below for dairy, poultry, and sugar. Trade volumes differ from the gains that would be expected from the increased TRQ access alone, for two reasons. First, the model accounts for general equilibrium effects, e.g., price effects, demand effects from growth in other parts of the economy, and changes to input prices. Second, the model incorporates other crosscutting USMCA provisions, particularly provisions altering current policies or standards in non-agricultural sectors and other provisions that reduce policy uncertainty regarding international data transfers and data localization. For a full discussion of these specific USMCA provisions and their effects on the Commission's economy-wide model, see chapter 2 (figure 2.1 and table 2.1).

The effects of other, non-market-access provisions of USMCA related to alcoholic beverages, wheat, SPS measures, and biotechnology are also presented below. These provisions were not directly incorporated into the Commission's economy-wide model. However, evidence from the economic literature supports the Commission's estimation of positive effects of the provisions. This literature finds that the increase in regulatory cooperation among North American countries would be expected to lead to lower trade costs and, therefore, to increases in trade in the relevant sectors.²⁴⁴

²⁴⁴ See, for example, Disdier, Stone, and van Tongeren, *Trade and Economic Effects of IRC*, 2019.

Dairy Products

USMCA provides additional market access for U.S. dairy products through new Canadian TRQs exclusively for the United States for products including fluid milk, cream, butter, skim milk powder, cheese, and other dairy products (table 5.3). In-quota imports enter duty-free and out-of-quota imports face duties ranging from 201.5 percent to 313.5 percent.²⁴⁵ The quota volumes increase rapidly in the first six years of the agreement, and then increase at a rate of 1 percent annually through year 19, except for whey, which becomes duty free in year 10. For the fluid milk, cream, and butter and cream powder TRQs, up to 85 percent of the TRQ volumes are dedicated to bulk products for processing into dairy products used for secondary manufacturing, with the remainder of the quotas available for products for any use. For the butter and cream powder TRQ, the portion dedicated to bulk products drops to 50 percent over five years. Previously, Canada considered fluid milk TRQs filled by consumer cross-border purchases and did not issue import permits. U.S. access through WTO TRQs and Canada's Import for Re-Export Program (IREP) and Duties Relief Program (DRP), or similar programs would continue as long as such programs are in place.²⁴⁶

Table 5.3 Additional U.S. dairy market access in Canada

Dairy product	2017 Canadian Imports		
	from United States (mt) ^a	TRQ level, year 6 ^b (mt)	Final access ^c (mt)
Milk	40,904	50,000	56,905
Cream	3,193	10,500	11,950
Skim milk powder	3,490	7,500	8,536
Butter and cream powder ^d	11,008	4,500	5,121
Cheeses ^e	8,789	12,500	14,226
Whole milk powders	1,336	690	785
Concentrated or condensed milk	1,153	1,380	1,571
Yogurt and buttermilk	771	4,135	4,706
Powdered buttermilk	100	520	592
Whey powder	1,470	4,135	Unlimited
Products of natural milk constituents	1,877	2,760	3,141
Ice cream and ice cream mixes	588	690	785
Other dairy	2,314	690	785

Source: IHS Markit, World Trade Atlas database (accessed March 7, 2019); Government of Canada, CDIC, Imports of Dairy Products by Country (accessed March 21, 2019); USTR, USMCA, Appendix C, Tariff Schedule of Canada (Tariff Rate Quotas), § A—General Provisions.

^a Trade volumes includes both within-quota and out-of-quota imports.

^b Quota volumes increase rapidly for the first six years of the agreement.

^c Full implementation is in year 19 for all TRQs except for whey, which is fully implemented in year 10.

^d The amount reserved for further processing for butter and cream powder is reduced to 50 percent in year 5.

^e Half of the new TRQ access is for industrial cheeses and half for cheeses of all types.

²⁴⁵ WTO, Tariff Download Facility: WTO Tariff database (accessed March 21, 2019).

²⁴⁶ Under the Government of Canada's Import for Re-Export Program (IREP) and Duties Relief Program (DRP), Canadian food manufacturers can import certain dairy products duty free to be used as inputs for processed food products when the resulting food product is exported.

On the import side, the United States agreed to grant additional access to Canada through new, country-specific dairy TRQs (table 5.4). Quota volumes will increase quickly in the first 6 years of the agreement and then grow 1 percent annually through year 19.

Table 5.4 Additional Canadian dairy market access in the United States

Dairy product	2017 U.S. imports from Canada (mt) ^a	TRQ level, year 6 ^b	Final access ^c
Fluid cream, sour cream, ice cream, and milk beverages ^b (1,000 liters)	28	10,500	11,950
Skim milk powder (mt)	228	7,500	8,536
Butter, cream, and cream powder (mt)	815	4,500	5,121
Cheese (mt)	2,952	12,500	14,226
Whole milk powder (mt)	6	690	785
Dried yogurt, sour cream, whey, products of milk constituents (mt)	29	11,030	12,553
Concentrated milk (mt)	350	1,380	1,571
Other dairy (mt)	8,296	1,900	2,162

Source: USITC DataWeb (accessed April 8, 2019); USTR, USMCA, Appendix C, Tariff Schedule of the United States (Tariff Rate Quotas), § A—General Provisions.

^a Trade volumes includes both within-quota and out-of-quota imports.

^b Quota volumes increase rapidly for the first six years of the agreement.

^c Full implementation is in year 19.

USMCA includes provisions for the administration of TRQs established in the agreement to increase transparency of the TRQ administration process and ensure quota administration provisions sufficient to allow TRQ volumes to be filled (see text box 5.1 for additional information). For example, the quota cannot be allocated to producer groups, be limited to processors, or be conditioned on purchase of domestic production or re-export of a good, and it must be made in commercially viable volumes. The provisions also require a timely and transparent mechanism for the return and reallocation of unused quota allocations.

USMCA also places export charges on total Canadian exports to all countries over a certain volume for skim milk powder, milk protein concentrates, and infant formula. Canadian exports of skim milk powder plus milk protein concentrates in excess of 55,000 metric tons (mt) in the first year after the agreement enters into force and in excess of 35,000 mt in the second year will face an export surcharge of C\$0.54 per kilogram. Canadian exports of infant formula exceeding 13,333 mt in the first year and 40,000 mt in the second year will face a surcharge of C\$4.25 per kilogram.²⁴⁷ After the second year, both export volume thresholds will increase by 1.2 percent per year.²⁴⁸ Additionally, Canada committed to eliminate class 6 and class 7 milk goods, including their associated milk class prices, within six months

²⁴⁷ Although Canada does not currently export large quantities of infant formula, Chinese dairy processor Feihe International is scheduled to open a 60,000-mt capacity plant in Kingston, Ontario, in September 2019. Feihe has stated that about 85 percent of production (51,000 mt) will be exported to China. McGregor, “New Chinese Baby Formula Plant,” August 3, 2017; Lynds, “Graham to Build Canada’s Only,” January 15, 2018.

²⁴⁸ USTR, USMCA Chap. 3, Art. 3.A.3.

after the agreement enters into force.²⁴⁹ USMCA requires that products formerly classified under these classes be reclassified and priced according to their end use. Canada also agreed to price nonfat milk solids used for manufacturing milk protein concentrates, skim milk powder, and infant formula (1) no lower than the USDA nonfat dry milk price minus (2) Canada’s processor margin multiplied by (3) Canada’s yield factor.

In addition to provisions affecting market access, and pricing and exports, several other provisions are important for the U.S. dairy industry. The United States-Mexico portion of the agreement includes language to prevent Mexico’s undermining U.S. market access via a system for protecting GIs, but stops short of fully preserving U.S. market access in this area.²⁵⁰ Provisions in the intellectual property chapter increase the transparency of GI applications, approvals, and cancellations; provide guidelines for determining whether a term is customary in the common language and thus, not eligible for a GI; and establish procedures and grounds for GIs established through international agreements (see USMCA Chapter 8, section on Trademark and Geographical Indication Provisions). A side letter between the United States and Mexico lists specific common names for which U.S. market access will be preserved in Mexico.²⁵¹ Market transparency provisions are expected to aid in the enforcement of TRQ administration and pricing and export provisions.

Effects

USMCA will likely have little if any impact on U.S. trade in agricultural products with Mexico because it will not change U.S. market access to the Mexican market for dairy products, or Mexico’s access to the U.S. dairy products market. USMCA TRQs will likely result in slightly greater U.S. dairy exports to Canada—a major market for U.S. dairy products, with exports of \$442.4 million in 2017 (table 5.1)—consisting mostly of infant formula (\$170.3 million), cheese (\$103.2 million), and whey products (\$98.6 million).²⁵² Currently, most U.S. dairy exports to Canada enter duty free in three ways: under WTO TRQs; under Canada’s Import for Re-Export Program and Duties Relief Program; and as supplementary imports authorized by Canada’s Minister of Foreign Affairs, Trade and Development to meet Canadian market demand.²⁵³ U.S. imports from Canada will likely also be greater, although still small relative to domestic U.S. consumption. The United States imported \$125.3 million of dairy products from Canada in 2017 (table 5.1), primarily cheese (\$64.4 million) and yogurt (\$63.1million).²⁵⁴

²⁴⁹ Class 6 and class 7 are Canadian milk price classes created to reduce Canada’s continuing surplus of nonfat solids by encouraging the substitution of Canadian-produced dairy ingredients for imported ingredients through discounted prices and increased Canadian exports of skim milk powder. USTR, *2018 National Trade Estimate Report on Foreign Trade Barriers*, 2018, 81.

²⁵⁰ ATAC, *Report of the Animal and Animal Products ATAC*, September 27, 2018, 5.

²⁵¹ Not all common cheese names of concern to the U.S. industry were included (e.g., asiago). USITC, hearing transcript, November 15, 2018, 170 (testimony of Michael Dykes, IDFA).

²⁵² USITC DataWeb, infant formula: HS1901.10, cheese: HS 0404, whey products: HS0404.10 (accessed November 8, 2018).

²⁵³ Government of Canada, “Notice to Importers, Dairy Products,” November 8, 2013.

²⁵⁴ USITC DataWeb, yogurt: HS 0403.10, cheese: HS 0406 (accessed March 25, 2019).

U.S. dairy imports are mostly through TRQs, although in recent years some U.S. dairy import TRQs have gone unfilled because U.S. prices for some dairy products are lower than global prices.²⁵⁵

A simple estimate of the direct increases to U.S. exports to Canada from new TRQ market access can be calculated based on in-quota volumes²⁵⁶ and 2017 import prices, and is estimated at approximately \$230 million.²⁵⁷ U.S. imports can be similarly calculated, although quota fill rates are less certain.²⁵⁸ Based on 2017 prices, additional U.S. imports would be approximately \$150 million, assuming that all TRQs fill with the exception of the TRQs for butter, cream, and cream powder; skim milk powder; and whole milk powder.²⁵⁹

The Commission's economy-wide model was used to simulate the effects of the additional U.S. TRQ access and Canadian TRQ access simultaneously, in order to provide a more comprehensive analysis that estimates changes to U.S. dairy product imports, exports, and output.²⁶⁰ The simulation also incorporates general equilibrium effects and the effects of certain crosscutting USMCA provisions.²⁶¹ The economy-wide modeling results estimate a \$226.8 million (0.1 percent) gain in total U.S. dairy product output from USMCA when compared to the baseline. U.S. dairy exports would be \$314.5 million (7.1 percent) above the baseline, with an increase of \$227.0 million (43.8 percent) in U.S. exports to Canada.²⁶² Total U.S. imports would be \$227.9 million (9.0 percent) higher, with an additional

²⁵⁵ CBP, "2016 Year-End Commodity Status Report" (accessed February 8, 2019); CBP, "2017 Year-End Commodity Status Report" (accessed February 8, 2019).

²⁵⁶ U.S. industry representatives stated that the Canadian import TRQs should fill. USITC, hearing transcript, November 15, 2018, 174 (testimony of Michael Dykes, IDFA).

²⁵⁷ This assumes that year 6 in-quota volumes would fill. The 2017 unit value for each TRQ was trade weighted based on within-quota imports of products in the TRQ. IHS Markit, World Trade Atlas database (accessed March 7, 2019); Government of Canada, CDIC, Imports of Dairy Products by Country (accessed March 21, 2019); USMCA, Appendix C, Tariff Schedule of Canada (Tariff Rate Quotas), Section A—General Provisions.

²⁵⁸ Based on historical U.S. TRQ fill rates and industry and expert comments, U.S. import TRQs for butter, cream, and cream powder; skim milk powder; and whole milk powder are unlikely to fill. The remaining TRQs would likely have fill rates ranging from 50 to 100 percent. U.S. government official, email to USITC staff, February 4, 2019; U.S. industry representative, email to USITC staff, February 7, 2019.

²⁵⁹ This assumes that year 6 in-quota volumes would fill, except for those TRQs noted above. The 2017 unit value for each TRQ was trade weighted based on products in the TRQ. If all quotas were to fill, the value of U.S. dairy imports would be approximately \$200 million. IHS Markit, World Trade Atlas database (accessed March 7, 2019); USTR, USMCA Appendix C, Tariff Schedule of the United States (Tariff Rate Quotas), Section A—General Provisions.

²⁶⁰ Dairy products include HS 0401 (milk and cream), 0402.10 (nonfat dry milk/skim milk powder), 0402.21 and 0402.29 (dry whole milk/whole milk powder), 0402.91 (evaporated milk), 0402.99 (sweetened condensed milk), 0403.10 (yogurt), 0403.90 (buttermilk), 0404.10 (whey and modified whey), 0404.90 (milk protein concentrates), 0405 (butter, dairy spreads, and butter fats and oils), 0406 (cheese), 1702.11 and 1702.19 (lactose), 1901.10 (infant formula), 2105.00 (ice cream), 3501.10 (casein), 3501.90 (caseinates), and 3502.20 (milk albumin).

²⁶¹ Quantitative effects of USMCA presented in this chapter were generated by the Commission's economy-wide model, which includes the effects of USMCA agriculture market access provisions as well as other USMCA provisions affecting automobiles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. For a full discussion, see chapter 2.

²⁶² Results from the Commission's economy-wide model presented here are consistent with other estimates. For example, Chepeliev, Tyner, and van der Mensbrugghe, "How U.S. Agriculture Will Fare," found that U.S. dairy sector exports to Canada would increase by about \$280 million. In their joint written submission to the Commission, U.S. Dairy Export Council (USDEC) and National Milk Producers Federation (NMPF) estimated that at full implementation of USMCA, net U.S. dairy product exports to Canada could see net growth of \$70 million

\$161.7 million (139.5 percent) of imports from Canada, through its new country-specific TRQ access in the United States. Growth in U.S. exports to Canada would consist largely of cheese and milk and cream products, while the majority of imports from Canada would be in cheese and soft dairy products. The level of U.S. access under the new Canadian TRQs is likely an upper bound, and assumes that the TRQs are filled and that previous U.S. access under WTO TRQs, the Import for Re-Export Program (IREP) and the Duties Relief Program (DRP), and supplementary market access continues as before. U.S. import levels are also likely an upper bound and assume that all TRQs fill except for the TRQs for butter, cream, and cream powder; skim milk powder (SMP); and whole milk powder.²⁶³ Global Canadian exports of milk protein concentrate (MPC), SMP, and infant formula are assumed to be limited by the export and pricing provisions.

Export charges on global Canadian exports of SMP, MPC, and infant formula above specified quantities are likely to be prohibitive and would limit Canada's exports of these products. Exports of SMP and MPC combined would be capped at 36,710 mt, approximately half of Canadian exports in 2017.²⁶⁴ Because of this, the United States would likely face less competition from Canadian SMP in third-country markets. Some Canadian exports of skim milk solids are expected to shift to infant formula, although total exports are not expected to exceed the 41,955 mt threshold.²⁶⁵

The U.S. dairy industry has expressed support for the USMCA dairy sector provisions, but it has also expressed concern that the way Canada implements the agreement could influence the effectiveness of the provisions and limit gains for the U.S. dairy industry.²⁶⁶ For example, industry representatives expressed concern at the Commission's hearing and in written submissions that the TRQ administration provisions may not be sufficient to prevent Canadians from administering their TRQs in a way that limits U.S. exporters' abilities to fill the TRQs (box 5.1).²⁶⁷ Likewise, industry representatives also expressed concern that Canada could change its export product mix in order to export surplus skim milk solids in the form of dairy products not covered by the export thresholds.²⁶⁸ Industry also indicated the importance of pricing milk formerly classified under class 6 or class 7 based on end use.²⁶⁹

(23,000 tons) annually, compared to the Commission's net export growth estimate of \$86.6 million. USDEC and NMPF, written submission to the USITC, December 20, 2018.

²⁶³ Sensitivity analysis was done on fill rates for U.S. imports of cheese and soft dairy products from Canada. Using a 50 percent fill rate, USMCA would result in increases in U.S. dairy product output of \$379.1 million (0.2 percent), in U.S. dairy product exports of \$311.2 million (7.0 percent), and in U.S. dairy product imports of \$149.3 million (5.9 percent).

²⁶⁴ IHS Global Market, Global Trade Atlas database, HS 0402.10 and 0402.90 (accessed February 5, 2019).

²⁶⁵ As noted earlier, Chinese company Feihe International is investing in an infant formula plant in Ontario, Canada, with 60,000 mt capacity (10,000 of which is said to be goat's milk and not affected by USMCA provisions). The plant is expected to begin production in late 2019, and Feihe has stated that about 85 percent of production is intended for export to China. McGregor, "Trade Deal Concessions Threaten Jobs," October 12, 2018.

²⁶⁶ USITC, hearing transcript, November 15, 2018, 169–71 (Michael Dykes, IDFA). See also USDEC and NMPF, written submission to the USITC, December 20, 2018.

²⁶⁷ USITC, hearing transcript, November 15, 2018, 174 (Michael Dykes, IDFA); USDEC and NMPF, written submission to the USITC, December 20, 2018, 2.

²⁶⁸ USITC, hearing transcript, November 15, 2018, 173 (Michael Dykes, IDFA); USDEC and NMPF, written submission to the USITC, December 20, 2018, 7.

²⁶⁹ USITC, hearing transcript, November 15, 2018, 171 and 174 (Michael Dykes, IDFA); USDEC and NMPF, written submission to the USITC, December 20, 2018, 4. There are different classes and associated prices for milk

Box 5.1 Operation of Tariff-Rate Quotas (TRQs)

USMCA's U.S.-Canada Annex contains provisions relating to the administration of TRQs.^a These provisions are contained in the U.S.-Canada Bilateral Annex because all of Mexico's TRQs on imports from the United States were phased out under NAFTA. The section of the bilateral annex on TRQ administration establishes that the process must be fair, timely, transparent, no more burdensome than necessary, and responsive to market conditions. Specifically, it establishes timelines for different types of notifications related to TRQ administration and sets parameters for the types of limits, conditions, or eligibility requirements that may be placed on a TRQ. For TRQs that are administered under an allocation mechanism other than "first come, first served," the provisions establish notice and comment procedures and provide guidelines to ensure that new importers may receive allocations and to prevent other forms of discrimination.

The TRQ administration provisions in the bilateral annex apply to USMCA TRQ's. However, because Canadian TRQs most heavily affect the U.S. dairy sector, and there have reportedly been some problems with the administration of Canadian dairy TRQs in particular, the impact on U.S. exports from these provisions is likely to be strongest in the dairy sector. At the USITC hearing and in written submissions, industry representatives stated that transparency has been lacking in Canada's dairy TRQ administration process, and that this makes it difficult for them to monitor the operation of these TRQs and address enforcement challenges. As a result, U.S. dairy exporters said they are discouraged from fully utilizing their TRQ allocations.^b If the TRQ administration provisions prove sufficient to improve U.S. dairy exporters' ability to fill their TRQ allocations, the impact of the TRQ administration provisions on U.S. agricultural exports will likely be small and positive.

^a USMCA, Chap. 3, Art. 3.A.2.

^b USITC, hearing transcript, November 15, 2018, 173 (Michael Dykes, IDFA); USDEC and NMPF, written submission to the USITC, December 20, 2018, 7.

Poultry, Egg, and Egg-Containing Products

The USMCA agreement would increase and clarify the United States' market access for chicken, turkey, eggs, egg-containing products, and hatching eggs and chicks primarily based on the new USMCA concessions from Canada on these products (table 5.5). Under the USMCA provisions, chicken, eggs, and egg-containing products have USMCA-specific TRQs for Canadian imports from the United States that grow over time. This means the United States will gain exclusive access to within-quota quantities for chicken, eggs, and egg products in addition to competitive access to the respective global WTO TRQ quantities.²⁷⁰ The USMCA provisions also clarify the global TRQs for turkey, hatching eggs, and chicks.²⁷¹

depending on what it will be used for (end use); e.g., for direct fluid milk consumption, to make cheese, or to make butter.

²⁷⁰ Under NAFTA, for example, additional chicken meat access above the basic WTO TRQ access was calculated as a percentage of the previous year's Canadian production and was available to all country suppliers. Under USMCA, U.S. suppliers would gain additional access to a specific quantity exclusively available to U.S. suppliers. Government of Canada, Global Affairs Canada, Controlled Products, Chicken and Chicken Products (October 29, 2018).

²⁷¹ In the case of turkey, for example, under the NAFTA agreement Canada calculated its global TRQ as 3.5 percent of the Canadian production quota (149,876 mt for marketing year 2017/18) rather than using the previous year's actual Canadian production (183,324 mt during 2016). Thus, during 2013–17, Canada was able to export over

Meat from spent fowl, ducks, geese, and other poultry would continue to enter duty-free and quota-free once the agreement enters into force.²⁷²

Table 5.5 Poultry, egg, and egg-containing products: Canada tariff concessions

Product	Canadian concessions
Chicken	U.S.-originating goods tariff-rate quota (TRQ) of 47,000 metric tons (mt), increasing to 62,963 mt over 16 years, zero duty on within-quota items, no reduction in over-quota tariffs.
Turkey	Global import quota of no less than 3.5 percent of previous year's Canadian turkey production, zero duty on within-quota items, no reduction in over quota tariffs. ^a
Eggs and egg-containing products	U.S.-originating goods TRQ of 1.7 to 11 million dozen eggs equivalent over 16 years, zero duty on within-quota items, no reduction in over-quota tariffs. TRQ quantities prioritized for secondary food manufacturing, and 30 percent of import licenses made available for new importers.
Hatching eggs and chicks ^b	Global import quota of no less than 21.1 percent of estimated Canadian production of broiler hatching eggs for that year (TRQ finalized on August 1 each calendar year). Hatching eggs' access equivalent to 17.4 percent and egg-equivalent chicks' access equivalent to 3.7 percent of Canadian production of broiler hatching eggs. Conversion rate for eggs to chicks is 1.27 to 1. Zero duty on within-quota items, no reduction in over-quota tariffs. ^c

Source: USMCA text.

^a Canada may restrict the TRQ to no more than 3.5 percent of current year's production quota plus 1,000 mt for 10 years after implementation. "Year" refers to the Canadian marketing year, May 1–April 30.

^b Hatching eggs are fertile eggs sold for incubation and hatching. Broiler hatching eggs produce chicks intended for meat production rather than chicks for egg production.

^c While USMCA does not add more access for hatching eggs and chicks, the text clarifies the TRQ subdivision between hatching eggs and egg-equivalent chicks and provides the egg-to-chick conversion rate. It takes on average 1.27 eggs to produce one live chick. The NAFTA agreement did not provide this conversion ratio, while USMCA did.

Source: USTR, USMCA, Appendix C, Tariff Schedule of Canada (Tariff Rate Quotas), § A—General Provisions (accessed October 10, 2018).

Effects

USMCA would not change U.S. market access to or its competitive position with Mexico for poultry (turkey and chicken), eggs, egg products, and hatching chicks and eggs.²⁷³ Mexico is the most important market for U.S. poultry meat products, followed by Hong Kong and Canada.²⁷⁴ The agreement would provide additional access or clarify the level of access to the Canadian import markets for U.S. poultry, eggs, egg products, and hatching chicks and eggs. U.S. products already claim the majority share of

20,000 mt of turkey meat without allowing reciprocal access. Under USMCA, Canada's global TRQ for turkey is calculated using the previous year's actual Canadian production rather than the Canadian production quota. However, for the first 10 years of USMCA implementation, if 3.5 percent of the previous year's actual Canadian production level exceeds 3.5 percent of the current Canadian production quota by 1,000 mt or more, then Canada may restrict the global TRQ to no more than 3.5 percent of the current year's Canadian turkey production plus 1,000 mt. Turkey Farmers of Canada, *Canadian Turkey Stats: 1974–2017*, 7, 15; Government of Canada, Global Affairs Canada, Controlled Products, Turkey and Turkey Products (accessed October 29, 2018).

²⁷² Live poultry for breeding purposes also continues to enter Canada duty-free and quota free upon entry into force of the agreement. USMCA, CA Tariff Schedule.

²⁷³ These product groups are defined in the USMCA text.

²⁷⁴ IHS Markit, World Trade Atlas database (accessed October 30, 2018).

Canadian imports of most of these products.²⁷⁵ Beyond this level of market access, substantial over-quota duties would continue to constrain direct access to the Canadian consumers of these products. According to the Commission's economy-wide model, USMCA would result in an increase in U.S. poultry meat products exports and a decrease in U.S. poultry meat products imports.²⁷⁶

Canadian poultry meat products imports from the United States would likely increase up to the within-quota quantities over which imports would continue to face substantial, likely prohibitive, over-quota rates of duty. USMCA provisions for increased market access would have a small impact on the U.S. output of poultry meat products because the Canadian TRQ is relatively small compared to total U.S. poultry meat exports to the world. For example, the increased access for U.S. chicken meat (HS 020711, 020712, 020713, 020714, 160232) under USMCA provisions by year 6 are 57,000 mt, valued at \$158.1 million at 2017 import unit values, or 8 percent of total U.S. chicken meat exports to the world in 2017 (725,840 mt).²⁷⁷

The Commission's economy-wide model estimates that annual U.S. poultry meat exports to Canada will likely be \$183.5 million (49.3 percent) greater than the baseline six years after implementation of the agreement.²⁷⁸ U.S. poultry meat producers' output would be \$149.3 million, or 0.6 percent, greater six years after implementation.²⁷⁹ The Commission's model estimates that U.S. exports to Canada of live birds and eggs for incubation would be \$11.9 million (11.2 percent) greater, while exports of eggs for consumption would be \$10.8 million (27.9 percent) greater than the baseline. The effect on U.S. output of live chicks and eggs for incubation and eggs for consumption would be small (less than 1 percent).

The National Chicken Council and the USA Poultry and Egg Export Council expressed approval of the market access provisions for poultry and egg products.²⁸⁰ The National Turkey Federation reported that USMCA is "an opportunity for a 29% increase in U.S. exports to Canada."²⁸¹

²⁷⁵ IHS Markit, World Trade Atlas database (accessed October 30, 2018).

²⁷⁶ Poultry meat products refers to the sector that includes the following 6-digit HS codes: 020711, 020712, 020713, 020714, 020724, 020725, 020726, 020727, 020732, 020733, 020734, 020735, 020736, 020741, 020742, 020743, 020744, 020745, 020752, 020754, 020755, 020760, 160231, 160232, and 160239. Chepeliev, Tyner, and van der Mensbrugge, "How U.S. Agriculture Will Fare," October 2018, found that U.S. poultry meat exports would increase by about \$210 million.

²⁷⁷ These chicken meat export values are based on Canadian import data that directly correspond to products covered by the Canadian TRQ. IHS Markit, World Trade Atlas database (accessed November 5, 2018).

²⁷⁸ Quantitative effects of USMCA presented in this chapter were generated by the Commission's economy-wide model which includes the effects of USMCA agriculture market access provisions as well as other USMCA provisions affecting automobiles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. For a full discussion, see chapter 2.

²⁷⁹ Under USMCA, poultry trade concessions would be phased in over a total of 15 years. The TRQ quantities grow rapidly through year 6 and then growth slows through year 15. Therefore, model results are presented for production and trade effects for six years after implementation.

²⁸⁰ NCC, "NAFTA Deal to Boost U.S. Poultry Access to Canada," October 5, 2018.

²⁸¹ NTF, "NTF Statement on U.S.-Mexico-Canada Agreement," October 2, 2018.

Sugar and Sugar-containing Products

USMCA would not change Mexico's access to the U.S. market for sugar and SCPs.²⁸² However, Canada would receive at least 9,600 mt of additional duty-free refined sugar access.²⁸³ This access is limited to refined sugar from Canadian-grown sugar beets. In years when the U.S. Secretary of Agriculture permits additional imports of refined sugar (other than specialty sugar), Canada will be allocated 20 percent of any additional in-quota quantities.²⁸⁴ Canada would also receive 9,600 mt of additional duty-free access for SCPs.²⁸⁵

During the most recent marketing year for which data is available (MY 2016/17), the United States imported more than 1.2 million mt of refined sugar products from all sources.²⁸⁶ The U.S. currently imports less than 100 mt from Canada under the refined sugar tariff lines subject to this new TRQ. Canada's new duty-free access for refined sugar represents less than 0.01 percent of current U.S. imports classified under these tariff lines (box 5.2). Under those tariff lines for which Canada would receive additional access of 9,600 mt for SCPs, the United States imported 8,729 mt from Canada during MY 2016/17, relative to total imports from the world of more than 107,000 mt.

Box 5.2 1997 Sugar and Sugar-containing Products Letter of Agreement

Canada did not receive country-specific tariff-rate quota (TRQ) allocations for sugar or sugar-containing products (SCPs) in the original NAFTA text implemented in January 1994. In September 1997, the United States and Canada finalized an agreement that allocated 10,300 metric tons (mt), raw value, of the United States' World Trade Organization (WTO) refined sugar TRQ to Canada based on historic trade. In addition, Canada claimed that certain SCPs shipped from the United States to Canada under the U.S.

²⁸² Since 2014, sugar imports from Mexico have been subject to antidumping and countervailing duty suspension agreements; these agreements were amended in 2017. While these suspension agreements set limits on the quantity and nature of Mexican sugar exports to the United States and made those sugar exports subject to minimum price requirements, they are not affected by USMCA. 79 Fed. Reg. 78039 (December 29, 2014); 79 Fed. Reg. 78044 (December 29, 2014); 82 Fed. Reg. 31942 (July 11, 2017); 82 Fed. Reg. 31945 (July 11, 2017).

²⁸³ Canada did not receive country-specific access under the Uruguay Round Agreement nor under the original NAFTA. However, Canada was awarded country-specific allocations of the WTO refined sugar and sugar-containing products TRQs after NAFTA was implemented (see text box under sugar and SCPs provisions). These post-NAFTA provisions have been incorporated directly into the USMCA language. USMCA, Art. 3.A.5: Sugar and Sugar-Containing Products.

²⁸⁴ These provisions apply to sugar classified in HTSUS subheadings 1701.12.50, 1701.13.50, 1701.14.50, 1701.91.30, 1701.99.50, 1702.90.20 and 2106.94.60. USMCA Text.

²⁸⁵ Sugar-containing products classified under HTSUS subheadings 1701.91.48, 1701.91.58, 1702.20.28, 1702.30.28, 1702.40.28, 1702.60.28, 1702.90.58, 1702.90.68, 1806.10.15, 1806.10.28, 1806.10.38, 1806.10.55, and 1806.10.75 may include sugar that is refined in Canada. The provisions also apply to SCPs classified under HTSUS subheadings 1701.91.48, 1701.91.58, 1702.20.28, 1702.30.28, 1702.40.28, 1702.60.28, 1702.90.58, 1702.90.68, 1704.90.68, 1704.90.78, 1806.10.15, 1806.10.28, 1806.10.38, 1806.10.55, 1806.10.75, 1806.20.73, 1806.20.77, 1806.20.94, 1806.20.98, 1806.90.39, 1806.90.49, 1806.90.59, 1901.10.76, 1901.20.25, 1901.20.35, 1901.20.60, 1901.20.70, 1901.90.68, 1901.90.71, 2101.12.38, 2101.12.48, 2101.12.58, 2101.20.38, 2101.20.48, 2101.20.58, 2103.90.78, 2106.90.72, 2106.90.76, 2106.90.80, 2106.90.91, 2106.90.94, and 2106.90.97. USMCA Text

²⁸⁶ DataWeb.

SCPs re-export program were in violation of NAFTA, specifically Article 303. In exchange for dropping this challenge, Canada was allocated 59,250 mt of the WTO's SCP TRQ of 64,709 mt. The inclusion of these provisions in USMCA only maintains the status quo; thus, these provisions would not affect U.S. trade, production, or employment.

Source: USDA, *Sugar and Sweetener Yearbook*, January 1998, SSS-222 5.

Effects

USMCA would not substantially affect domestic market balance of trade in the U.S. sugar and SCPs sectors because USMCA does not change market access with respect to sugar or SCPs from Mexico, the largest supplier of raw and refined sugar to the U.S. market.²⁸⁷ Thus, the agreement is not likely to impact the competitive position of sugar and SCPs imports from Mexico. The additional TRQ access for refined sugar produced from sugar beets grown in Canada—as well as increased TRQ access for various SCPs—is small relative to total U.S. imports and the size of the U.S. market. Thus, the effects of increased sugar and SCPs from Canada would likely be negligible and have little or no impact on total U.S. imports.

The Commission's economy-wide model estimated that imports of sugar from Canada will likely increase by \$16.0 million (1.4 percent)²⁸⁸ from the baseline six years after implementation of the agreement.²⁸⁹ U.S. exports of sugar to Canada will likely be \$21.1 million (2.3 percent) greater, while U.S. output will likely be \$34.0 million (less than 0.1 percent) greater than the baseline six years after implementation. SCPs are a small part of a much larger sector in the model, so the model did not directly estimate the effect on U.S. imports and output of SCPs.

Alcoholic Beverages

USMCA incorporates existing market access provisions for alcoholic beverages from NAFTA and will maintain or slightly improve U.S. access to its USMCA partners' markets for alcoholic beverages, particularly for U.S. wine exports to Canada. USMCA clarifies and expands on previous NAFTA commitments relating to the sale and distribution of wine and distilled spirits, and it extends the commitments to include beer.²⁹⁰ Annex 3.C of USMCA also preserves distinctive product recognition for certain distilled spirits and establishes new commitments on best practices such as labeling and

²⁸⁷ IHS Markit, World Trade Atlas database (accessed various dates).

²⁸⁸ Quantitative effects of USMCA presented in this chapter were generated by the Commission's economy-wide model which includes the effects of USMCA agriculture market access provisions as well as other USMCA provisions affecting automobiles, intellectual property rights (IPRs), e-commerce, labor, international data transfer, cross-border services, and investment. For a full discussion, see chapter 2.

²⁸⁹ While the USMCA sugar provisions take effect upon implementation, dairy and poultry provisions are phased in, thus the model was estimated at six years after implementation.

²⁹⁰ USMCA, Chap. 3, Annex 3.C, Art. 3.C.1, "Distilled Spirits, Wine, Beer, and Other Alcohol Beverages" contains parties' commitments related to the internal sale and distribution of alcoholic beverages. Under NAFTA and the U.S.-Canada Free Trade Agreement, these provisions had previously been more narrowly applied to only wine and distilled spirits.

certification requirements for wine and distilled spirits. In addition, USMCA would allow greater access to certain retail channels in Canada for U.S. wine sales.²⁹¹

After the European Union, Canada is the leading export market for U.S. alcoholic beverages. U.S. exports of alcoholic beverages to Canada were \$894.6 million in 2017.²⁹² Wine accounts for almost half of all U.S. alcoholic beverage exports to Canada, which is the single largest country market for U.S. wine.²⁹³ U.S. wine exports to Canada were \$420 million in 2017.²⁹⁴

USMCA incorporates prior commitments concerning the domestic sale and distribution of alcoholic beverages and tariff-free trade. In addition to preserving a cost-of-service-differential provision, the agreement includes a new provision preventing liquor retailers and distributors exercising government authority in a province (e.g., Canadian provincial liquor control boards or commissions) from assessing discriminatory price markups for wine, beer, distilled spirits, or other alcohol beverages produced outside the province. USMCA also codifies a number of industry best practices, including labeling and certification rules, which will facilitate trade in wine and distilled spirits.

USMCA preserves distinctive product recognition for “Bourbon Whiskey” and “Tennessee Whiskey” in Canada and Mexico, and for “Canadian Whisky,” “Tequila,” and “Mezcal” in the United States. In a Side Letter with Mexico, Mexico agreed to initiate the process of considering the granting of new distinctive product recognition for “American Rye Whiskey.”²⁹⁵

Both the Wine Institute and the Distilled Spirits Council expressed support for the provisions in USMCA.²⁹⁶ The Wine Institute also noted that the inclusion of the alcohol annex was a significant accomplishment.²⁹⁷ Both trade associations pointed out, however, that barriers remain to U.S. alcoholic beverage exports, in North America and elsewhere. The Beer Institute also agreed and noted that NAFTA was overdue for update; they remain concerned about the effects of section 232 duties on aluminum.²⁹⁸

Wheat

Under USMCA, U.S. wheat producers will likely gain a small increase in market access to the Canadian market. USMCA requires that U.S. wheat be treated like Canadian wheat—when inspected in Canada for

²⁹¹ USMCA, Chap. 3, Annex 3.C, “Distilled Spirits, Wine, Beer and Other Alcoholic Beverages,” Canada-United States, Side Letter on Wine.

²⁹² USITC DataWeb/USDOC, FAS Value, Total Exports reported for Schedule B numbers 2203, 2204, 2205, 2206, 2208.

²⁹³ USITC DataWeb/USDOC, FAS Value, Total Exports reported for Schedule B numbers 2203, 2204, 2205, 2206, 2208.

²⁹⁴ USITC DataWeb/USDOC, FAS Value, Total Exports reported for Schedule B numbers 2203, 2204, 2205, 2206, 2208.

²⁹⁵ USMCA, Mexico-United States Side Letter on Distilled Spirits.

²⁹⁶ Distilled Spirits Council, “Distilled Spirits Council Applauds Three Country Trade Deal,” October 1, 2018.

²⁹⁷ Wine Institute, “Wine Institute Applauds Market Access Gains Made in USMCA” October 1, 2018.

²⁹⁸ McGreevy, The Beer Institute. Written testimony submitted to the U.S. International Trade Commission in connection with inv. no. TPA-105-003, United States-Mexico-Canada Agreement: Likely Impact on U.S. Economy and on Specific Industry Sectors, October 29, 2018.

sale at Canadian bulk grain handlers—rather than automatically classified at the lowest grade. Current Canadian law contains no provision for grading imported wheat. The Canadian Grain Commission requires that varieties not assigned to a class or not registered under the Seeds Act are only eligible for the lowest grade for that kind of grain.²⁹⁹ Hence, U.S. wheat is currently unable to receive a grade and thus is only eligible for classification at the lowest grade—feed grade. USMCA eliminates the country of origin requirements in the inspection certificate, making U.S. wheat eligible for a higher classification.

USMCA would guarantee equal treatment for U.S. wheat sold at Canadian bulk grain handlers. Currently, about 17 percent and 11 percent of the total hard red spring wheat grown in North Dakota and Minnesota, respectively, are of registered varieties under one of the Canadian wheat classes and could qualify to receive a grade under the Canadian system. Similarly, about 12 percent and 7 percent of the total hard red winter wheat grown in North Dakota and Montana, respectively, are registered varieties under one of the Canadian wheat classes.³⁰⁰ USMCA grants U.S. farmers planting these varieties the option of selling their products to a Canadian bulk grain handler in a higher grade and at a better price than feed grade.

Altogether, about 28 percent of the total North Dakota wheat production, 11 percent of the total Montana wheat production, and 8 percent of the total Minnesota wheat production, representing around 3.2 million mt, is within 50 miles of a Canadian bulk grain handler.³⁰¹ Additionally, some farmers might opt to plant more of the registered varieties to take advantage of this arbitrage opportunity.

USMCA also requires that agricultural goods from Canada shipped via west coast ports be excluded from the Canadian Maximum Grain Revenue Entitlement program under the current Canada Transportation Act or any law modifying, replacing, or amending it.³⁰²

Sanitary and Phytosanitary (SPS) Provisions

Sanitary and phytosanitary (SPS) provisions of USMCA will likely lead to increased trade between North American countries. USMCA incorporates many of the SPS provisions of NAFTA and goes further in

²⁹⁹ The Seeds Act authorizes the Canadian Food Inspection Agency to make regulations establishing seed grades; prescribe terms and conditions for seed inspection, grading, and testing; and prescribe the minimum standards for seed purity, germination, quality and disease, among others. Under the Seeds Act and Seed Regulations, the CFIA established Canada's Variety Registration system "to ensure that health and safety requirements are met," as well as facilitate "seed certification, international trade of seed, and tracking and tracing varieties in commercial channels." Government of Canada, Seeds Act R.S.C., 1985, c. S-8, <https://laws-lois.justice.gc.ca/eng/acts/S-8/page-1.html> (accessed March 20, 2019); Government of Canada, Canadian Food Inspection Agency, "Variety Registration," <http://www.inspection.gc.ca/plants/variety-registration/eng/1299175847046/1299175906353> (accessed March 20, 2019).

³⁰⁰ U.S. Industry representative, email to USITC staff, November 6, 2018.

³⁰¹ U.S. Industry representative, email to USITC staff, November 6, 2018.

³⁰² The Canadian Maximum Revenue program sets the maximum revenue the Canadian National Railway Company and the Canadian Pacific Railway Company can earn from shipping grains originating from Western Canadian provinces or other countries to specific export ports. Currently, Canadian grain shipped to the United States via west coast ports for consumption in the United States are excluded from the Maximum Grain Revenue Entitlement program. The USMCA does not change the current situation, but prohibits changes to it. <https://www.otc.cta.gc.ca/eng/qa-maximum-revenue-entitlement-transportation-western-grain>.

requiring transparency and encouraging harmonization or equivalence of SPS measures. As noted, such regulatory coherence has been associated with increased levels of trade between parties.³⁰³

The SPS chapter of USMCA incorporates the definitions and many of the core principles of the WTO SPS Agreement and NAFTA, including equivalence and regionalization. It also incorporates all of the proposed enhanced disciplines from the Trans-Pacific Partnership agreement (TPP) in the areas of equivalence, science and risk analysis, transparency, and cooperative technical consultations. In addition, industry representatives have noted that USMCA even goes beyond TPP in establishing deadlines for “import checks,” by requiring importing parties to inform exporters or importers within five days of shipments being denied entry.³⁰⁴ USMCA recognizes the right of a party to establish SPS measures that provide the level of protection to human, animal, and plant populations that it determines to be appropriate and requires that SPS measures be based on scientific principles.³⁰⁵ While NAFTA requires that SPS measures be applied in a nondiscriminatory manner and only to the extent necessary to achieve the appropriate level of protection, USMCA goes further in specifying that measures be not more trade restrictive than required.³⁰⁶

NAFTA and USMCA both require that—if SPS regulations are not based on international standards, guidelines, or recommendations—regulations be based on a risk assessment.³⁰⁷ USMCA goes further in requiring that provisions be based on risk management—weighing alternatives in light of a risk assessment in order to select appropriate measures that are not more trade restrictive than required.³⁰⁸

Many of the SPS provisions of USMCA affect the practices of establishing, notifying, and monitoring SPS regulations rather than the core basis for the regulations. The agreement improves transparency of SPS provisions and encourages harmonization or equivalence of SPS regulations between parties. Parties are to document their risk assessment and risk management decisions and offer other parties and individuals the opportunity to comment.

USMCA increases requirements for cooperation between parties in establishing or maintaining SPS regulations. Parties are encouraged to cooperate in areas of regionalization, zoning, and compartmentalization.³⁰⁹ Parties are to recognize the equivalence of a group of SPS measures on a systems-wide basis.³¹⁰ Each country is encouraged to consider relevant proposed or existing measures

³⁰³ Disdier, Stone, and van Tongeren, “Trade and Economic Effects of IRC,” 2019.

³⁰⁴ USITC, hearing transcript, November 15, 2018, 5 (testimony of Jim Stitzlein, U.S. Grains Council).

³⁰⁵ NAFTA, Art. 712.3: Basic Rights and Obligations, Scientific Principles; USMCA, Art. 9.6: Science and Risk Analysis.

³⁰⁶ NAFTA, Art. 712, paragraphs 712.4 and 712.5; USMCA, Art. 9.3: Objectives; USMCA, Art. 9.6: Science and Risk Analysis. Paragraph 9.6.10 notes that a measure is more restrictive than required if there is an alternative measure that “achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade.”

³⁰⁷ NAFTA, Art. 712; USMCA Art. 9.6: Science and Risk Analysis.

³⁰⁸ USMCA, Art. 9.6.10. For instance, according to U.S. grain producers, Mexico has zero tolerance for soil contamination in grain shipments, but does not have a standard to distinguish soil contamination from dust in grain shipments. Under USMCA, any restriction of imports would be based on an assessment of the risk. National Grain and Feed Association and North American Export Grain Association (NGFA and NAEGA). Prehearing submission in connection with inv. no. TPA-105-003, United States-Mexico-Canada Agreement.

³⁰⁹ USMCA, Art. 9.8.

³¹⁰ USMCA, Art. 9.9.

of other countries in developing, modifying, or adopting SPS measures, with the goal of making them equivalent or identical to those of the other countries where appropriate.

As under NAFTA, SPS disputes between USMCA parties would be subject to WTO dispute settlement procedures or dispute settlement procedures that are specific to the agreement. Parties may select one venue or the other, but not both.³¹¹ Disputes concerning those USMCA provisions that go beyond the WTO SPS agreement would have to be resolved through the USMCA dispute settlement process.³¹² USMCA dispute settlement procedures offer parties multiple options for resolving disputes, including consultations, mediation, or other resolution procedures by the USMCA Trade Commission.

If consulting parties are unable to resolve a dispute, an arbitration panel must be established to resolve the dispute. The panel determines whether a measure is consistent with the agreement and if parties have fulfilled their obligations under the agreement. The panel may also be asked to determine the extent of the adverse trade effects of a nonconforming measure. Each party is to establish a roster of objective, independent individuals to serve as panelists, and is to select panelists from the roster of the other disputing party. However, like NAFTA, USMCA does not completely address circumstances in which a party does not select dispute settlement panelists. If a party fails to select panelists, Article 31.9 (d) provides that panelists are to be selected by lot from among roster members who are members of the other disputing party. However, USMCA does not specify who is to select the panelists or what to do if a party fails to maintain a roster of potential panelists.

Transparency, harmonization, and cooperation in SPS measures have been shown to facilitate trade in the long run by lowering cost and risk. Multiple forms of regulatory coherence, including through trade agreements, can boost both trade and investment by supporting global value chains. In particular, trade agreements that include SPS cooperation and transparency have been shown to reduce trade costs.³¹³ A 2019 paper by Disdier, Stone, and van Tongeren found that modern trade agreements with greater regulatory coherence, including in SPS measures, are associated with lower trade costs, particularly for agricultural goods.³¹⁴

Biotechnology

USMCA's provisions on agricultural biotechnology mostly relate to transparency, timely review of products that require regulatory approval, and cooperation between the parties. For example, parties would be required to make available to the public a summary of the risk or safety assessments that led to product approval, to accept and review applications on an ongoing basis, and to allow initiation of the domestic regulatory authorization process of a product not yet authorized in another country.

³¹¹ NAFTA dispute settlement procedures are included in Chap. 20. USMCA dispute settlement procedures are included in Chap. 31.

³¹² The USMCA dispute settlement provisions would apply to more than just SPS measures. They would also apply to benefits a party would expect to receive under Chap. 2 (National Treatment and Market Access for Goods), Chap. 3 (Agriculture), Chap. 4 (Rules of Origin), Chap. 5 (Origin Procedures), Chap. 6 (Textile and Apparel Goods), Chap. 7 (Customs Administration and Trade Facilitation), Chap. 11 (Technical Barriers to Trade), Chap. 13 (Government Procurement), Chap. 15 (Cross-Border Trade in Services), or Chap. 20 (Intellectual Property). See chapter 8 of this report for a description of the USMCA dispute settlement process.

³¹³ Stone and Lejarraga, "Regulatory Coherence," September 2018, 6.

³¹⁴ Disdier, Stone, and van Tongeren, "Trade and Economic Effects of IRC," 2019.

An additional section specifies how parties will address occurrences of low-level presence (LLP). LLP occurs when an importing country detects low levels of plant materials that are the product of agricultural biotechnology and have passed safety assessments in another country, but not in the importing country. If this happens, exporting parties are required under USMCA to provide a summary of any risk or safety assessment conducted in that country, provide a contact who can contribute more details about the product, and encourage the contact to share that information with the importing country. The importing party is required under USMCA to inform the importer of the LLP occurrence and advise them of any additional information required, provide the exporting country with information about any safety assessments conducted in connection with the occurrence, avoid delay, and take into account product authorizations granted by other countries when deciding how to manage the occurrence.

Industry representatives from grain and oilseeds industries have expressed support for the agricultural biotechnology provisions, particularly the section on managing LLP occurrence. For example, in a joint prehearing submission, the National Grain and Feed Association and the North American Export Grain Association said that the LLP provisions would “significantly reduce the potential for cross-border trade disruptions.”³¹⁵ However, when asked at the Commission hearing whether there had been examples of such trade disruptions in the USMCA region in the past, an industry representative stated that there had not been, and that the benefit of the provision is mostly in providing a “template” for future agreements rather than addressing specific obstacles in North American trade.³¹⁶

Based on the greater transparency provided by these provisions and the expectation on the part of industry trade associations that the provisions will reduce the potential for cross-border trade disruptions, these provisions will likely have a small but positive impact on U.S. agricultural trade.

Literature Review

A recent paper by Chepeliev, Tyner, and van der Mensbrugge (hereafter CTM) estimates the impacts of USMCA on U.S. agriculture.³¹⁷ Their analysis uses the Global Trade Analysis Project (GTAP) model and the 2014 GTAP Database. The authors simulate three scenarios. The first scenario uses the NAFTA agreement as the baseline and estimates the impacts of the USMCA provisions related to the agricultural sector. The second scenario expands the first scenario by estimating the combined impact of the USMCA agricultural provisions, U.S. aluminum and steel import tariffs, and retaliatory agricultural tariffs by Canada and Mexico. The third scenario expands the second scenario by estimating the combined impact of all policy changes included in the second scenario as well as the retaliatory trade

³¹⁵ National Grain and Feed Association and North American Export Grain Association (NGFA and NAEGA). Prehearing submission in connection with inv. no. TPA-105-003, October 31, 2018., 3.

³¹⁶ USITC, hearing transcript, November 15, 2018, 194 (testimony of Jim Stitzlein, U.S. Grains Council).

³¹⁷ Chepeliev, Tyner, and van der Mensbrugge, “How U.S. Agriculture Will Fare,” 2018. The authors extended their analysis in Chepeliev, Tyner, and van der Mensbrugge, “How Differing Trade Policies May Impact U.S. Agriculture,” 2019, to estimate the impacts on U.S. agriculture of recently agreed and potential trade policies. The 2019 paper provides a review of CTM 2018 and then estimates the potential impacts of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) on U.S. agriculture. The 2019 paper concludes by estimating the potential economic impacts on the U.S. agricultural sector of the United States withdrawing from NAFTA and of the United States joining the original TPP.

measures imposed by other U.S. trading partners, including China and the European Union. All three scenarios use a comparative static closure, which assumes that the economy-wide supplies of production factors, such as labor and physical capital, are unaffected by the policy changes. Of the three scenarios, the first is the most comparable to the Commission's analysis because the latter two simulate the introduction of the additional policies rather than integrate them into the baseline, as was done by the Commission.

CTM's first scenario includes policy changes in the market access of U.S. agricultural exports to Canada under USMCA, focusing on four sectors: dairy products, food products not elsewhere specified (n.e.s), animal products n.e.s., and meat products n.e.s.³¹⁸ The authors conclude that the first scenario has moderate impacts on the U.S. exports of dairy and poultry to Canada, with modest impacts on farm income and employment. As is discussed in this chapter, results from the Commission's economy-wide model for U.S. dairy and poultry exports to Canada are consistent with the CTM's findings.

³¹⁸ The corresponding GTAP data sectors are MIL, OFD, OAP, and OMT.

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Chapter 6

Services

Overview

The services-related provisions included in USMCA include changes to the parties' obligations as compared to their obligations under both NAFTA and the WTO's General Agreement on Trade in Services (GATS). Most notably, USMCA introduces binding obligations on market access that build on U.S., Canadian, and Mexican GATS commitments. In addition, it makes some potentially important changes to provisions affecting certain industries. Specifically, provisions on international data transfers in financial services and other sectors, as well as provisions on long-haul trucking, may affect services providers in these industries.

However, even with these exceptions, USMCA provisions on services trade are unlikely to have a substantial impact on output in the U.S. services sector, though services trade in North America is expected to rise. Many of these provisions simply afford greater transparency, as they capture obligations that are already in place in NAFTA and GATS and practices that are currently allowed under the parties' domestic regulation. There are a few instances where these provisions reflect effective liberalization of the parties' current international obligations—specifically, to market access commitments and nonconforming measures. Such effective changes are included in the quantitative analyses, which appear in tables 6.4 and 6.5 and are inputs into the economy-wide model reported in chapter 2. These changes typically reflect commitments to the current regulatory conditions in each industry and reduce uncertainty about future policy changes, with the largest effects stemming from commitments to maintaining current foreign equity requirements in the member countries.

Services trade between the United States, Canada, and Mexico is currently subject to commitments in both NAFTA and GATS. Among those commitments, NAFTA requires parties to grant national treatment to other parties' services providers, except as indicated in the countries' lists of nonconforming measures (NCMs). Under GATS, NAFTA members made commitments to grant market access and national treatment to foreign individuals and firms that provide specified services through certain modes or methods (box 6.1).³¹⁹ USMCA's services provisions build on the services trade obligations in both of these agreements by deepening, clarifying, and increasing the transparency of the national treatment commitments included in NAFTA, as well as adding to the parties' market access commitments under GATS.

³¹⁹ Under "positive list" agreements, members are bound only by those commitments that are specifically identified in their schedules. Under "negative list" agreements, member countries commit to fully open their services sectors to other members' suppliers, except as they have indicated in their specific exemptions.

Box 6.1 Modes of supply for services trade

The GATS identifies four “modes of supply” for services trade, or four ways that services can be traded:

Mode 1 (or cross-border supply), in which a service is supplied by an individual or firm in one country to an individual or firm in another.

Mode 2 (or consumption abroad), in which an individual from one country travels to another country and consumes a service in that country.

Mode 3 (or commercial presence), in which a firm based in one country establishes a local affiliate in another country and supplies services through that affiliate.^a

Mode 4 (or the temporary presence of natural persons), in which an individual service supplier from one country travels to another country on a short-term basis to supply a service.^b

In USMCA, as in other U.S. free trade agreements, provisions affecting trade in services through these modes of supply are found throughout the agreement. USMCA chapters on cross-border trade in services, financial services, and telecommunications—together with the country-specific measures found in Annexes I, II, and III—include measures affecting the provision of services through all four modes of supply. The agreement’s investment chapter includes additional measures that apply to services through mode 3, while the chapter on temporary entry for businesspersons includes provisions that apply to a party’s ability to conduct services trade through mode 4. Further, USMCA chapter on digital trade includes measures that cover the electronic provision of services, one type of mode 1 services trade.

^a Under GATS, an entity is considered to be “affiliated” with a second entity “when it controls, or is controlled by, that other person; or when it and the other person are both controlled by the same person.” WTO, *General Agreement on Trade in Services*, Article XXVIII (n)(3).

^b For more information on these “modes of supply” for services trade, see USITC, *Recent Trends in U.S. Services Trade*, 2018, 22; WTO, *The General Agreement On Trade In Services: An Introduction*, January 31, 2013, https://www.wto.org/english/tratop_e/serv_e/gsintr_e.pdf, 3.

National-level market access commitments made by a party that differ from the party’s GATS commitments, excluding definitional changes, were identified as effective changes and included in the quantitative analyses that appear in tables 6.4 and 6.5 below. Similarly, USMCA nonconforming measures that differ from those in NAFTA, excluding reservations that were captured by the NAFTA ratchet mechanism, were identified as effective changes and included in quantitative analyses that appear in tables 6.4 and 6.5 below. See appendix J (on quantification of USMCA services commitments) for more information on the methodology used to determine the extent of effective changes to NAFTA and GATS services commitments made by the United States, Canada, and Mexico in USMCA. Box 6.2 offers more information on the ratchet mechanism.

Box 6.2 Ratchet Mechanism

Negative-list international trade agreements generally contain a ratchet mechanism that applies to Annex I reservations.³ A ratchet mechanism incorporates any additional “autonomous liberalizations” by a party into the agreement.³ If any USMCA party, acting on its own, liberalizes regulations or policies which then allow foreign providers to supply services, that liberalization would become part of USMCA and cannot be revoked. NAFTA also included a ratchet mechanism for items included in Annex I.

³ Mamdouh, “Overview of Services in RTAs,” October 2014; Houde, Kolse-Patil, and Miroudot, “The Interaction between Investment and Services Chapters,” 2008.

The following discussion focuses on two chapters of USMCA: Chapter 15, on cross-border trade in services, and Chapter 17, on financial services. It begins with an overview of trends in U.S. cross-border trade and affiliate transactions in services with Canada and Mexico. It then summarizes USMCA provisions on cross-border trade in services and financial services (including related measures in Annexes I, II, and III). It concludes with the Commission’s assessment of the likely impact of USMCA on selected services industries, including broadcasting and audiovisual services, financial services, professional services, and transportation services. Provisions affecting services related to digital trade—including those found in the agreement’s digital trade and telecommunications chapters—are described in chapter 7 of this report. USMCA investment provisions are described in chapter 8, while the agreement’s provisions on temporary entry for businesspersons are described in chapter 9.

U.S. Trade with Canada and Mexico

The services sector is a vital component of the United States’ trade relationships with Canada and Mexico. Broadly speaking, retail services, wholesale services, travel services, and professional services have been the predominant forms of services trade between the United States and its USMCA partners in recent years.

Services trade data are available for two types of transactions: cross-border trade and transactions which occur through a firm’s foreign affiliates.³²⁰ The value of services supplied through U.S. foreign affiliates in both Canada and Mexico has exceeded the value of U.S. cross-border services exports to these countries since at least 2009.³²¹

U.S. cross-border services exports to Canada consistently exceed U.S. cross-border services imports, resulting in a trade surplus of \$25.4 billion in 2017. Such exports to Canada totaled \$58.4 billion in 2017 (table 6.1). Travel services accounted for the largest share of such exports (29.8 percent), followed by professional services (19.0 percent) and charges for the use of intellectual property (IP), including

³²⁰ USITC, *Recent Trends in U.S. Services Trade*, 2018, 22. Note that BEA statistics on cross-border services trade are collected and published by type of service, while statistics on services supplied through affiliates are collected and published based on the affiliate’s primary industry.

³²¹ Comparable data on U.S. foreign affiliate transactions are only available beginning in 2009. USDOC, BEA, table 2.2, “U.S. Trade in Services, by Type of Service and by Country or Affiliation,” October 19, 2018; USDOC, BEA, table 4.4, “Services Supplied to Foreign Persons by U.S. MNEs through Their MOFAs, by Country of Affiliate and by Industry of Affiliate,” October 19, 2018.

U.S.-Mexico-Canada Trade Agreement

audiovisual and broadcasting services (14.4 percent).³²² In the same year, U.S. imports of cross-border services from Canada totaled \$33.0 billion. Much like exports, travel services accounted for the largest share of U.S. services imports from Canada (26.1 percent), followed by professional services (25.6 percent) and transportation services (16.4 percent).³²³

Likewise, the United States maintains a services trade surplus with Mexico, which totaled \$7.4 billion in 2017. U.S. cross-border services exports to Mexico were \$32.9 billion in 2017, over a third lower than U.S. services exports to Canada in that year. As in the case of Canada, travel services accounted for the largest share of U.S. services exports to Mexico (54.4 percent), but were followed by transportation services (12.2 percent) and charges for the use of IP (10.9 percent). U.S. imports of cross-border services from Mexico totaled \$25.5 billion in 2017, with travel services accounting for over two-thirds (67.1 percent) of such imports.³²⁴

³²² Cross-border services trade data are classified by the type of service, while services supplied through foreign affiliate transactions are classified by industry, using the North American Industry Classification System (NAICS). This can affect the comparability of services data in certain sectors.

³²³ USDOC, BEA, table 2.2, "U.S. Trade in Services, by Type of Service and by Country or Affiliation," October 19, 2018.

³²⁴ USDOC, BEA, table 2.2, "U.S. Trade in Services, by Type of Service and by Country or Affiliation," October 19, 2018.

Table 6.1 U.S. cross-border exports and imports of services, by industry, 2017^a (billion dollars)

	Imports			Exports		
	Canada	Mexico	Rest of world	Canada	Mexico	Rest of world
Travel services	8.6	17.1	109.3	17.4	17.9	175.4
Professional services ^b	8.5	2.9	93.0	11.1	3.1	140.1
Professional and management consulting services	3.1	0.7	39.6	7.8	1.5	69.6
Legal services	0.2	0.0	3.0	0.8	0.2	9.0
Accounting services	0.3	0.1	2.4	0.2	0.2	1.4
Technical, trade-related, and other business services	3.1	1.6	21.0	3.0	1.4	28.9
Architectural and engineering services	(c)	(c)	(c)	1.0	0.4	8.9
Research and development services	2.3	0.5	32.5	0.4	0.2	41.6
Charges for the use of IP ^d	1.7	0.7	48.9	8.4	3.6	116.4
Audiovisual and broadcasting services	0.7	0.6	11.9	1.9	0.7	19.0
Other charges for IP	1.0	0.1	37.0	6.5	2.9	97.4
Transportation services	5.4	3.1	93.2	7.0	4.0	77.6
Financial services ^e	2.2	0.4	26.3	7.0	1.4	101.2
Computer services	3.9	0.6	27.5	2.8	0.9	19.2
Insurance services	0.6	0.0	50.1	1.8	0.4	15.8
Telecommunication services	0.3	0.4	4.8	0.6	0.3	10.0
All other services ^f	1.8	0.3	30.9	2.3	1.3	50.6
Total	33.0	25.5	484.0	58.4	32.9	706.4

Source: USDOC, BEA, table 2.2, "U.S. Trade in Services, by Type of Service and by Country or Affiliation," October 19, 2018.

^a The latest year for which detailed data on cross-border services exports and imports are available is 2017.

^b "Professional services" as used in this table corresponds to the BEA category "Other Business Services" and includes professional and management consulting; technical, trade-related, and other business services; and research and development services.

^c Data are suppressed. The Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce suppresses certain statistics to avoid disclosing proprietary information of individual companies.

^d BEA data on "Charges for the use of IP" included industrial processes, computer software, trademarks, franchise fees, audio-visual and related products, and other intellectual property.

^e "Financial services" includes brokerage services, underwriting and private placement services, credit card and other credit-related services, financial management services, financial advisory and custody services, and securities lending, electronic funds transfer, and other services.

^f The category "all other services" includes suppressed data.

Notes: Data reflecting trade in the services sector as a whole—including in industries not covered in this chapter—are included in this table. For a description of services related to digital trade (such as telecommunication and computer services), see chapter 7 of this report.

Sales of services by U.S.-owned affiliates in Canada were almost twice the value of U.S. cross-border services exports, totaling \$111.1 billion in 2016 (the latest year available). Retail services accounted for the largest share of such sales (20.9 percent), followed by wholesale services (16.3 percent) and professional, technical, and scientific services (14.2 percent) (table 6.2). In the same year, purchases of services from Canadian-owned U.S. affiliates (i.e., foreign affiliates of Canadian parent firms located in the United States) were \$100.0 billion.³²⁵

However, sales of services by U.S.-owned affiliates in Mexico were only slightly higher than U.S. cross-border exports, totaling \$39.6 billion in 2016. Unlike Canada, finance and insurance accounted for the

³²⁵ USDOC, BEA, table 2.2, "U.S. Trade in Services, by Type of Service and by Country or Affiliation," October 19, 2018; USDOC, BEA, table 5.1, "Services Supplied to U.S. Persons by Foreign MNEs through Their MOUSAs, by Industry of Affiliate and by Country of UBO," October 19, 2018.

U.S.-Mexico-Canada Trade Agreement

largest share of sales to Mexico (26.8 percent), followed by retail services (23.0 percent). Purchases of services from Mexican-owned affiliates in the United States were \$9.1 billion in 2016.³²⁶

Table 6.2 U.S. affiliate sales and affiliate purchases by industry, 2016^a (billion dollars)

	Canada		Mexico	
	Sales of services abroad by U.S.-owned foreign affiliates	Purchases of services from foreign-owned U.S. affiliates	Sales of services abroad by U.S.-owned foreign affiliates	Purchases of services from foreign-owned U.S. affiliates
Retail services	23.2	12.0	9.1	(b)
Wholesale services	18.1	11.3	4.4	0.8
Professional, technical, and scientific services ^d	15.8	9.4	3.8	
Legal	0.0 ^c	(b)	0.0 ^c	0.0 ^c
Accounting	0.6	0.0 ^c	0.1	(b)
Other professional	15.2	9.4	3.7	
Finance and insurance services ^e	10.6	34.5	10.6	0.1
Information services	9.3	8.7	2.8	(b)
Data processing services ^f	3.1	(b)	(b)	
Telecommunication services	1.2	(b)	(b)	(b)
Audiovisual and broadcasting services ^g	1.2	0.4	0.3	0.0 ^c
Other information services	3.8	8.3	2.5	(b)
All other services ^h	43.4	24.1	8.9	8.2
Total	111.1	100.0	39.6	9.1

Source: USDOC, BEA, table 4.1, "Services Supplied to Foreign Persons by U.S. MNEs through Their MOFAs, by Industry of Affiliate and by Country of Affiliate," October 19, 2018; USDOC, BEA, table 5.1, "Services Supplied to U.S. Persons by Foreign MNEs through Their MOUSAs, by Industry of Affiliate and by Country of UBO," October 19, 2018.

^a The latest year for which data on foreign affiliate transactions are available is 2016.

^b Data are suppressed. The Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce suppresses certain statistics to avoid disclosing proprietary information of individual companies.

^c Exports and imports of zero indicate that the total was less than \$50 million.

^d "Professional, technical, and scientific services" (NAICS 541) includes architectural, engineering, and related services; computer systems design and related services; management, scientific, and technical consulting; legal services; accounting, tax preparation, bookkeeping, and payroll services; specialized design services; scientific research and development services; advertising and related services; and other professional, scientific, and technical services

^e BEA data on "Finance and insurance services" includes depository credit intermediation (banking); finance, except depository institutions; and insurance carriers and related activities.

^f "Data processing services" corresponds to NAICS 518 and includes firms that provide the infrastructure for hosting and/or data processing services.

^g "Audiovisual and broadcasting services," as used in this table, corresponds to the BEA category of motion picture and sound recording services (NAICS 512).

^h The category "all other services" includes suppressed data.

³²⁶ USDOC, BEA, table 2.2, "U.S. Trade in Services, by Type of Service and by Country or Affiliation," October 19, 2018; USDOC, BEA, table 5.1, "Services Supplied to U.S. Persons by Foreign MNEs through Their MOUSAs, by Industry of Affiliate and by Country of UBO," October 19, 2018.

Summary of Key Provisions

USMCA includes a number of provisions on services trade that were not included in the text of NAFTA.³²⁷ USMCA also clarifies, updates, or increases the number of measures and obligations found in NAFTA or GATS. Key provisions included in USMCA's chapters on cross-border trade in services (Chapter 15) and financial services (Chapter 17), as well as related provisions found in their associated annexes and in Chapter 32, are listed and briefly described in table 6.3.

Table 6.3 Summary of key USMCA provisions on services

USMCA provisions	Comparison to NAFTA provisions
Cross-Border Services Provisions (Chapter 15):	
Market access: USMCA includes binding market access obligations for trade in services.	New in USMCA
National treatment: USMCA national treatment provisions provide for non-discriminatory treatment of foreign services suppliers.	Same as NAFTA
Transparency disciplines: USMCA requires that information on applications and licensing criteria for services supply be transparent and readily available to all applicants, including foreign providers.	Modified in USMCA: expands on a similar NAFTA provision. A narrower version of this provision is included under NAFTA Article 12.10 (<i>Licensing and Certification</i>).
Small and medium-sized enterprises: USMCA contains provisions to facilitate services trade by SMEs. These provisions apply particularly, but not exclusively, to direct sellers of goods.	New in USMCA
Payments and transfers: USMCA includes provisions that prevent discrimination against foreign services suppliers on the basis of payment method.	New in USMCA
Delivery services: USMCA includes an annex that establishes competition criteria between commercial delivery services firms and postal authorities for services that are not covered by a country's postal monopoly.	New in USMCA
Professional services: The USMCA includes an annex that encourages dialogue between signatories to facilitate recognition of qualifications, licensing, or registration of professional services suppliers. It also establishes a Professional Services Working Group.	Modified in USMCA: expands on the provisions in a similar NAFTA annex.
Mutual recognition agreements: The USMCA includes an appendix that provides voluntary guidelines for negotiating MRAs.	New in USMCA
Simultaneous substitution: Under USMCA Annex 15-D, Canada has agreed to remove its policy, which went into effect in 2017, of banning Canadian networks from the practice of "simultaneous substitution" and has increased access for teleshopping broadcasters.	New in USMCA

³²⁷ NAFTA Secretariat, "North American Free Trade Agreement," last updated in 2014, <https://www.nafta-sec-alena.org/Home/Texts-of-the-Agreement/North-American-Free-Trade-Agreement>.

USMCA provisions	Comparison to NAFTA provisions
Screen quotas and foreign ownership limitations: The USMCA includes clarifying language on screen quotas for films, and relaxes certain limitations within the broadcasting and cable television sectors.	New in USMCA
Retransmission of programming: The annex on Broadcasting Retransmission requires cable and satellite TV providers to gain regulatory permission from television broadcast networks for the retransmission of their programming.	New in USMCA
Financial Services Provisions (Chapter 17):	
Data localization: USMCA Article 17.20 says that data localization cannot be a condition for doing business, so long as regulatory authorities have access to financial information.	Modified in USMCA: financial data was covered in NAFTA 1407, but USMCA updates/clarifies the language.
Definition of financial services: The USMCA includes a specific list of cross-border financial services.	Modified in USMCA: NAFTA 1401 only says “cross-border trade in financial services;” USMCA clarifies the provision.
Market access: USMCA includes binding market access obligations for certain cross-border financial services.	New in USMCA
Cross-border information transfer: USMCA permits cross-border information transfer if it is licensed and authorized by the covered person. Parties can protect data privacy and confidentiality.	Modified in USMCA: financial data was covered in NAFTA 1407, but USMCA updates/clarifies the language.
Other Provisions (Chapter 32 and Annexes I and II):	
Cultural industries: Language on Canada’s cultural exemption is preserved from the previous agreement, protecting Canadian television, music, and books (“cultural industries”) (USMCA Article 32.6).	Modified in USMCA: adds a retaliatory mechanism.
Nonconforming measures: Exceptions to the parties’ obligations—which are listed in Annexes I and II—represent additional commitments in certain sectors. For Mexico: broadcasting, rail freight, inland water transport, telecommunications, and legal services. For Canada: telecommunications and specialty air services; United States: telecommunications, radio communications, legal services, and newspaper publishing.	Modified in USMCA: certain additional commitments relative to NAFTA.
Market access commitments: Annex II includes expanded market access commitments for certain sectors/modes for all three parties relative to GATS.	Modified in USMCA: additional commitments relative to GATS.

Source: USTR, USMCA full text (accessed November 30, 2018).

Market Access Provisions

One of the most significant differences between USMCA and NAFTA provisions on cross-border trade in services is that, unlike NAFTA, USMCA contains provisions on market access. In general, USMCA’s market access provisions are aimed at removing quotas and other barriers that impede the entry of services suppliers into foreign markets. These provisions comprise general obligations (found in the text

of Chapter 15) and country-specific commitments (included in Annex II).³²⁸ All three countries are signatories to GATS and made market access commitments as part of that agreement, and each country's USMCA market access commitments build upon those established through its GATS obligations. Therefore, each of the USMCA trading partners' industry- and mode-specific measures can be compared to their GATS commitments as a baseline.³²⁹ Most, if not all, of these new USMCA commitments appear to bind the parties' respective on-the-ground policies, thereby reducing policy uncertainty.

The United States scheduled commitments on a relatively large number of sectors under GATS, and its USMCA commitments deepen and broaden these obligations to some extent by adding a few new commitments and by revising a small number of existing commitments. Services for which the United States scheduled new commitments under USMCA include express delivery, research and development, technical testing and analysis, higher education services, cargo-handling services, and physical well-being services, among others. U.S. USMCA commitments that would give Canadian and Mexican services providers more access than they currently have under GATS include the elimination of certain state-level reservations on foreign legal consulting services and on accounting, auditing, and bookkeeping services. U.S. revisions also include the introduction of a new classification system for services segments already subject to full U.S. market access commitments under GATS.³³⁰

Like the United States, Canada made relatively broad commitments in GATS, and its USMCA commitments include a few additional market access obligations. Most of these changes involve increased obligations in certain sectors at the provincial level, where restrictions have been removed entirely. For example, Canada's mode 1 commitments on auditing services reflect one province's removal of its requirement for commercial presence, another province's removal of its citizenship requirement for accreditation, and a third province's removal of its permanent residence requirement for accreditation. Similarly, Canada's full commitment on the provision of urban planning and landscaping services through mode 1 reflects the removal of Quebec's restriction limiting the use of a title to Canadian citizens.³³¹ Canada also scheduled a full commitment on the provision by other USMCA parties of railway passenger services through mode 1, which reflects the removal of a national-level cabotage restriction in this sector.³³²

Mexico made less comprehensive GATS commitments than either Canada or the United States, and accordingly, its additional USMCA commitments are more extensive than those of its NAFTA partners. Mexico's USMCA market access commitments include full or partial obligations in several sectors in which it had not scheduled any GATS commitments. For example, Mexico made new commitments in

³²⁸ USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services (accessed November 5, 2018). Although market access commitments were not included under NAFTA, the agreement contained limitations on the number of foreign services suppliers and other quantitative restrictions across sectors. USTR official, interview by USITC staff, Washington, DC, October 4, 2018.

³²⁹ Market access commitments in USMCA are made by sector and mode of supply on a positive-list basis. Each trading partner's schedule of market access commitments is listed in Annex II.

³³⁰ A "full commitment" is an assurance that a party maintains no restrictions on market access by foreign suppliers that provide a certain service through a certain mode of supply.

³³¹ These examples are illustrative and not exhaustive.

³³² Cabotage refers to point-to-point domestic transport service.

some segments of professional services (e.g., legal services and some subsectors of architecture and engineering); computer and related services (e.g., database services); other business services (e.g., technical testing and analysis); environmental services (e.g., sewage and sanitation services); and transport services (e.g., some subsectors of maritime, road, and rail transport services).³³³ Many of Mexico's additional commitments in USMCA are in sectors in which Mexico had not scheduled any commitments under GATS.

Annex I and II Nonconforming Measures

Annexes I and II in Part B of the agreement set out country-specific nonconforming measures relating to each of the parties' obligations on investment (chapter 14), cross-border trade in services (chapter 15), financial services (chapter 17), and telecommunications (chapter 18).³³⁴ More specifically, Annex I lists existing measures that do not conform to the agreement's obligations; parties are automatically bound under USMCA by any future liberalization of these measures via the ratchet mechanism (box 6.2). Annex II lists cases in which the parties reserve the right to take an action and impose more restrictive or new measures in the future. The following discussion highlights key differences between the nonconforming measures (NCMs) listed in NAFTA and those in USMCA, which largely reduce uncertainty about future policy changes.

Canada

Changes which appear in USMCA Annexes I and II represent additional Canadian commitments in certain sectors relative to NAFTA. For example, in Annex II of NAFTA, Canada included reservations on cross-border trade in services and investment in certain telecommunications services, as well as on investment in specialty air services. While Canada also maintains reservations in USMCA, these reservations appear in Annex I rather than Annex II. The move from NAFTA Annex II to USMCA Annex I indicates that any future liberalization would be captured by the USMCA ratchet mechanism and that the policy would not be made more restrictive in the future.

Additional changes to Canadian NCMs include NAFTA Annex I NCMs that do not appear in USMCA or that are modified by USMCA to reflect changes in Canadian regulation. These changes, including a change in Canada's horizontal investment screening threshold, are already captured by NAFTA's ratchet mechanism and are not considered to represent an additional commitment. Canada also included a small number of new reservations in Annex II of USMCA, including an NCM related to fishing and services incidental to fishing (a similar NCM was previously in NAFTA Annex I) and an exemption to MFN obligations affecting investment and cross-border trade in services across all sectors.

³³³ This list is illustrative and non-exhaustive.

³³⁴ Country-specific exemptions to parties' obligations on financial services (Chapter 17) are found in Annex III. At the same time, Annex I and II exemptions that apply to the agreements' investment and cross-border trade in services obligations also apply to the parties' Chapter 17 obligations, "to the extent that the measure, sector, subsector or activity set out in the Party's schedule to Annex I or II is covered by this Chapter." USTR, USMCA full text, Chapter 17: Financial Services, Article 17-10.

Mexico

Changes which appear in USMCA Annexes I and II represent additional commitments for Mexico (relative to NAFTA) in several sectors, including telecommunications, certain transportation services, broadcasting, and legal services. For example, under NAFTA Annex II, Mexico reserved the right to adopt or maintain any measures relating to non-value-added telecommunications, and under NAFTA Annex I foreign investment in parts of this sector was restricted to 49 percent. By contrast, Annex I of USMCA places no restrictions on the amount of foreign investment in non-value-added telecom services. In addition, while Mexico prohibited foreign investment in the rail transport sector under Annex II of NAFTA, Annex I of USMCA allows foreign investment of up to 49 percent in all cases, and up to 100 percent with permission from the National Commission on Foreign Investments. Similarly, Mexico maintained a blanket reservation on foreign investment in the broadcasting sector in Annex II of NAFTA, but Annex I of USMCA allows foreign investment up to 49 percent (applied reciprocally). Finally, Mexico included a broad legal services reservation in Annex II, as well as additional reservations in Annex I of NAFTA, but has retained only Annex I reservations in USMCA. As with Canada, the movement of reservations from Annex II to Annex I is important, as it ensures that any future liberalization will be captured by USMCA via the ratchet mechanism and that the policy will not be de-liberalized.

There are additional areas in which USMCA contains more limited reservations than in NAFTA, but these changes are simply earlier liberalizations that have been captured by the NAFTA ratchet; that USMCA spells them out is a gain in transparency rather than effective liberalization. Such changes can be observed in some parts of the provisions affecting air transport, maritime transport, telecommunications, broadcasting, and audiovisual services. Also, relative to NAFTA, Mexico maintains less restrictive horizontal (economy-wide) provisions in Annex I of USMCA for land use and investment screening. However, Mexico has included more restrictive Annex I provisions for road transport.

United States

There are a few U.S. reservations that appeared in NAFTA Annex II but not in any USMCA annexes, and therefore represent additional commitments. These include residency requirements for the ownership of oceanfront land and reservations affecting the telecommunications sector, legal services sector, and newspaper publishing. Additionally, the United States maintained a broad reservation in Annex II of NAFTA that covered the radio communications sector; in its place, the United States includes an Annex I reservation in USMCA related to radio and broadcast licenses and a more limited Annex II reservation on certain communications services (which applies only to Canada).

USMCA also reflects U.S. market openings that were captured by NAFTA's ratchet mechanism and are not effective liberalizations.³³⁵ These include reservations on enhanced or value-added telecommunication services providers, agricultural chemicals, and aircraft repair, among others.

U.S. reservations under NAFTA on long-haul trucking, which were due to be phased out in 2000, were never fully removed, and the United States retains a reservation in USMCA on the supply of long-haul

³³⁵ Many USMCA provisions identify changes that have taken place since NAFTA and that are captured by the NAFTA ratchet mechanism, and these provisions have been updated with new language that reflects these changes. This provides additional transparency, but these are not interpreted as new commitments in USMCA.

trucking services by Mexico-domiciled firms. For more information on this reservation, see the discussion on transportation services, below.

Other Key Provisions on Cross-border Trade in Services

Chapter 15 includes several other potentially important provisions. Article 15.10, which focuses on SMEs, addresses the challenges faced by SMEs when entering foreign markets, such as inadequate access to information on technical standards, licensing and registration requirements, and customs procedures.³³⁶ In addition, footnote 7 of Article 15.10.1 includes language on direct sellers, a form of retail distribution that was previously not recognized in U.S. trade agreements. Overall, provisions on SMEs in USMCA acknowledge these firms' increasingly important contribution to employment and GDP growth.³³⁷

Annex 15-A on Delivery Services—which is also referenced in chapter 7 of this report, “Digital Trade and E-commerce”—seeks to set up a level playing field between private firms and state-owned postal authorities.³³⁸ It (1) requires that postal authorities in USMCA countries clearly define the scope of services that fall within their universal service obligation (USO); (2) prohibits postal authorities from cross-subsidizing their competitive services with revenues from services covered by their postal monopoly;³³⁹ (3) prohibits parties from requiring that private delivery firms provide universal service as a condition for receiving a license to operate; and (4) requires the authority responsible for regulating competitive delivery services to be independent from the postal authority.³⁴⁰ Moreover, Article 15-A (8) recognizes the right of foreign private delivery firms to contract with local providers to assume a portion of the firm's delivery service. This provision states that private delivery services firms do not have to pay a fee to postal entities to provide services and that express firms are not required to fulfill USOs.³⁴¹

³³⁶ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 11. USMCA also includes a separate chapter on small and medium-sized enterprises, or SMEs (Chapter 25). Among other things, Chapter 25 states that USMCA countries must establish public websites to facilitate access by SMEs to timely information on the requirements for cross-border services supply. USTR, USMCA full text, Chapter 25: Small and Medium-Sized Enterprises (accessed November 9, 2018).

³³⁷ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 11.

³³⁸ Provisions under Annex 15-A apply to slower types of package delivery services in addition to express delivery. Express Association of America, interview by USITC staff, Washington, DC, October 29, 2018.

³³⁹ Footnote 8 under Annex 15-A (4) states that the postal authorities of parties to the agreement must submit to an independent audit to determine the existence or absence of cross-subsidization. By comparison, in the Transpacific Partnership Agreement (TPP), the United States had a side letter with Japan that required an audit, but this provision was not part of the main text of the TPP. Express Association of America, interview by USITC staff, Washington, DC, October 29, 2018.

³⁴⁰ USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex 15-A: Delivery Services (accessed November 5, 2018); ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, addendum, October 9, 2018, 3 (accessed November 6, 2018). Industry representatives suggest that the language in this provision would be stronger if it stated that parties should establish an independent regulator to oversee competition in commercial delivery services rather than that the regulator should be independent from the postal authority. Express Association of America, interview by USITC staff, Washington, DC, October 29, 2018.

³⁴¹ Express Association of America, interview by USITC staff, Washington, DC, October 29, 2018.

Industry representatives suggest that provisions in the delivery services annex will strengthen U.S. firms' ability to provide end-to-end delivery services and expand their presence in Canada and Mexico.³⁴²

USMCA also includes several provisions related to audiovisual services that add to, update, or preserve key measures included in NAFTA. These provisions—which can be found in both Chapter 15 and Chapter 32 of USMCA—are discussed in the section on audiovisual services, below.

Impact on Specific Sectors

The Commission's quantitative analysis of the potential economic impacts in services industries focuses on key cross-border and investment provisions contained in Chapters 15 and 17, as well as Annexes I, II, and III, of USMCA.³⁴³ The specific provisions included in the analysis are effective changes to national-level market access commitments (excluding definitional changes) and nonconforming measures (excluding items bound by NAFTA's ratchet mechanism) relative to GATS and NAFTA, respectively.³⁴⁴ These additional services commitments in USMCA typically bind countries' existing domestic policies, the likely impact of which is a reduction in uncertainty (i.e., an assurance that a party will not introduce new barriers or expand existing restrictions).

The industry-specific effects of these key provisions are reported below in tables 6.4 (estimated reduction in trade costs for cross-border services) and 6.5 (estimated change in foreign affiliate sales).³⁴⁵ These estimates reflect only the direct impact of the provisions covered in this section and may not reflect the full impact of USMCA, as they may also be affected by other crosscutting provisions or economy-wide effects, as discussed in chapter 2. Additionally, these estimates are inputs and contribute to the economy-wide gains in the services industry and the economy overall as reported in tables 2.2, 2.3, and 2.4.

Table 6.4 shows the estimated trade cost reductions for each of the sectors for which additional commitments have been made in USMCA by Mexico, Canada, and the United States. Mexico made additional commitments in more sectors than Canada or the United States, in part because, as noted earlier, Mexico made fewer market access commitments in GATS than the other two countries did (particularly for cross-border services). The largest estimated ad valorem equivalent (AVE) reductions for Mexico are in broadcasting, legal services, logistics warehousing, and maritime transport sectors.³⁴⁶ For

³⁴² ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, addendum, October 9, 2018, 3 (accessed November 6, 2018).

³⁴³ Annex I and II contain non-conforming measures and market access commitments for all services sectors except financial services. Non-conforming measures for financial services are in Annex III.

³⁴⁴ NAFTA did not contain market access commitments. However, the United States, Mexico, and Canada all made some level of market access commitments in certain industries in GATS. These GATS commitments serve as the baseline for analyzing the market access commitments made in USMCA, while NAFTA serves as the baseline for analyzing all other commitments made in USMCA. See appendix J of this report, "Quantification of USMCA Commitments," for more information.

³⁴⁵ See appendix H for more detail on the modeling methodology used to estimate changes to services trade costs using a structural gravity model, and appendix J for more detail on the modeling methodology used to estimate changes to foreign affiliate sales using a gravity-inspired framework.

³⁴⁶ Ad valorem equivalents are a measure of trade costs, expressed as a rate equal to a percentage of a traded service's value, and are sometimes also referred to as "tariff equivalents."

Canada, the largest AVE reductions are in commercial banking and telecom services, while for the United States, the largest AVE reductions are in broadcasting, telecom, and courier services. Most of these changes represent additional market access commitments affecting mode 1, with the largest effects typically reflecting that the quantified commitment applied to the entire industry, while the smaller effects reflecting the commitments only applied to part of the industry.³⁴⁷

Table 6.4 Estimated reduction in trade costs for cross-border services due to the effects of USMCA commitments, by party and services sector, percent

Sector	Mexico	Canada	United States
Architecture services	0.1	(a)	(a)
Audiovisual	0.5	(a)	(a)
Broadcasting	0.9	(a)	1.8
Commercial banking	1.1	1.1	1.1
Computer services	0.6	(a)	(a)
Courier services	(a)	(a)	1.4
Distribution	0.2	(a)	(a)
Engineering services	0.1	(a)	(a)
Insurance	0.7	0.7	0.7
Legal services	0.9	(a)	0.9
Logistics cargo handling	0.6	(a)	0.6
logistics freight forwarding	0.2	(a)	(a)
Logistics warehousing	0.9	(a)	0.7
Maritime transport	0.9	(a)	(a)
Rail transport	0.2	0.3	(a)
Telecom services	0.1	0.8	1.8

Source: USITC estimates.

Note: Industries with effective changes in USMCA relative to NAFTA or the GATS are included in the table; for example, there were no effective changes in provisions for accounting that affected cross-border trade and, as such, it was not included in this analysis.

^a No additional sectoral commitment by the party.

As with cross-border services trade, Mexico has made additional commitments affecting foreign investment and foreign affiliate sales in more sectors than Canada or the United States. The largest estimated increases in U.S. foreign affiliate sales to Mexico were by legal services, broadcasting, and rail freight transport affiliates. Foreign affiliate sales to Canada were estimated to increase by telecom services affiliates. The largest estimated increases in Mexican foreign affiliate sales to the United States were by broadcasting, legal services, and telecom affiliates (table 6.5). These largest effects are discussed in the sections that follow and stem from commitments to maintaining current foreign equity requirements in the member countries, while smaller effects stem from additional market access commitments that are not related to foreign equity.

³⁴⁷ Weights were applied in cases when provisions affected specific portions of a sector. See appendix J for an example in Canada's rail freight transport sector.

Table 6.5 Estimated increase in foreign affiliate sales due to the effects of USMCA commitments, by party and services sector, percent

Sector	Mexico	Canada	United States
Architecture services	0.3	(a)	(a)
Audiovisual	1.1	(a)	(a)
Broadcasting	27.5	(a)	27.5
Commercial banking	7.1	(a)	(a)
Computer services	1.6	(a)	(a)
Courier services	(a)	(a)	1.7
Distribution	0.5	(a)	(a)
Engineering services	0.3	(a)	(a)
Freight forwarding	0.6	(a)	(a)
Legal services	38.9	(a)	38.9
Logistics cargo handling	(a)	(a)	0.9
Logistics warehousing	2.0	(a)	1.0
Maritime transport	6.0	(a)	(a)
Rail freight transport	19.9	(a)	(a)
Telecom services	9.2	11.9	22.9

Source: USITC estimates.

Note: Industries with effective changes in USMCA relative to NAFTA or the GATS are included in the table; for example, there were no effective changes in provisions for insurance that affected foreign affiliate sales and, as such, it was not included in this analysis.

^a No additional sectoral commitment by the party.

Despite a few large estimated percentage changes in foreign affiliates sales reported above in table 6.5, the estimated dollar values of the changes are relatively small. For example, the estimated 38.9 percent change in sales by foreign legal services affiliates in Mexico would translate to an estimated change from \$32 million (the value of U.S. sales by foreign legal services affiliates in Mexico in 2016) to \$44.4 million.³⁴⁸ Additionally, the Commission's qualitative assessment of the provisions affecting the audiovisual, financial, professional, and transportation services industries suggest that USMCA would likely have a small but positive effect on services trade between USMCA parties (see below). In a written submission to the Commission, the Coalition of Services Industries (CSI) identified several USMCA provisions that raise concerns for services suppliers, including Canada's cultural exception, among others. However, CSI said that USMCA reflects the evolution of the services economy over the past two decades, and indicated that USMCA would have a positive impact on U.S. services providers overall.³⁴⁹

Audiovisual Services

USMCA's audiovisual services provisions generally cover the publication, production, distribution, sale, or exhibition of books, magazines, periodicals, or newspapers through various media. These include print, film or video recordings, audio or video music recordings, and radio, television, and cable broadcasting intended for direct reception by the general public. The United States runs relatively large trade surpluses in audiovisual services with both Canada and Mexico. In 2017, U.S. exports of

³⁴⁸ USDOC, BEA, table 4.1, "Services Supplied to Foreign Persons by U.S. MNEs Through Their MOFAs, by Industry of Affiliate and by Country of Affiliate," October 19, 2018. U.S. sales by foreign legal services affiliates in Mexico accounted for 0.1 percent of all U.S. foreign affiliate sales of services (across all industries) in Mexico in 2016.

³⁴⁹ Coalition of Services Industries (CSI), written submission to the USITC, December 20, 2018, 2–4.

audiovisual services³⁵⁰ to Canada were about \$1.9 billion, compared to U.S. imports from Canada of \$701 million. Similarly, U.S. exports of audiovisual services to Mexico reached nearly \$714 million in 2017, whereas U.S. imports of audiovisual services from Mexico totaled \$574 million.³⁵¹

Overall, audiovisual services-related provisions in USMCA would not likely have a significant impact on U.S. trade and economic growth in the near term, since many of these provisions are either carried over from NAFTA or clarify regulations currently in place. According to the Commission estimates reported above, effective changes in nonconforming measures are estimated to increase broadcasting foreign affiliate sales in Mexico by 27.5 percent and to reduce trade costs for cross-border broadcasting services in Mexico by 0.9 percent. Additionally, effective changes to market access commitments are estimated to increase sales by foreign audiovisual services affiliates in Mexico by 1.1 percent and to reduce trade costs for cross-border audiovisual services in Mexico by 0.5 percent (tables 6.4 and 6.5). However, the estimated dollar value of this increase would likely be small, as such sales would increase from a relatively small base.³⁵²

In USMCA, Canada introduces some new provisions liberalizing market access with regard to simultaneous substitution (Annex 15-D)³⁵³ (see table 6.3) and U.S. home shopping broadcasters' access to Canadian cable, satellite, and IPTV (internet protocol television) distributors.³⁵⁴ However, the primary concern of U.S. audiovisual services providers is the carryover of Canada's cultural industries carveout in Chapter 32, Article 32.6 of USMCA. This provision, which is also in NAFTA, allows Canada to provide broad protection to its "cultural industry," which includes production and distribution in Canada of written materials, film, music, and radio communication.³⁵⁵ USMCA includes a provision that would also permit the United States and Mexico to take measures of "equivalent commercial effect" in response to any action taken by Canada to protect a cultural industry introduced in Article 32.6. U.S. industry

³⁵⁰ BEA's audiovisual-related services trade data include charges for the use of intellectual property for movies and television programs; books and sound recordings; and broadcasting and recording of live events. USDOC, BEA, "Table 2.2: U.S. Trade in Services by Type of Service and by Country or Affiliation," October 19, 2018.

³⁵¹ USDOC, BEA, "Table 2.2: U.S. Trade in Services by Type of Service and by Country or Affiliation," October 19, 2018.

³⁵² In 2014 (latest year available), U.S. affiliate sales of broadcasting services to Mexico totaled \$46 million.

³⁵³ Annex 15-D rescinds previous Canadian regulations (Broadcasting Regulatory Policy CRTC 2016-334 and Broadcasting Order CRTC 2016-335) that banned Canadian networks from replacing U.S. advertisements with Canadian ones. Essentially, Canadian regulators did not allow Canadian broadcasters (starting 2017) to switch out U.S. ads from the Super Bowl because they deemed it as an essential part of the broadcast experience (since so many new, expensive U.S. ads are introduced during the NFL game). But USMCA Annex 15-D's simultaneous substitution provision states that Canadian broadcasters can play Canadian ads going forward (the NFL backed this because the Canadian networks weren't able to negotiate their own ad pricing/revenue packages). In this case, Canada is actually required to adopt a new trade restriction. USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex 15-D: Simultaneous Substitution and Home Shopping Programming Services (accessed December 5, 2018); Thiessen, "What the New USMCA Deal Means for Broadcasting," October 1, 2018; Prescott, Kerr-Wilson, and Dunbar, "USMCA Impact on Communications Industries," October 24, 2018.

³⁵⁴ USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex 15-D: Simultaneous Substitution and Home Shopping Programming Services (accessed December 5, 2018).

³⁵⁵ USTR, USMCA full text, Chapter 32: Exceptions and General Provisions, Article 32.6 (accessed December 5, 2018).

officials appreciate USTR’s effort to improve the retaliation mechanism associated with this carveout.³⁵⁶ Overall, however, representatives of the U.S. audiovisual services industry insist that Canada’s cultural exemption carveout “is antiquated, highly prejudicial, and inappropriate for a modern trade agreement,”³⁵⁷ and some argue that this provision may negatively impact the industry.³⁵⁸

USMCA would provide U.S. audiovisual services firms with greater market access and transparency in Mexico through measures that liberalize foreign investment, bind content quotas to current practice, and relax certain cultural identity requirements included in NAFTA. USMCA’s Annex 15-E on Mexico’s Cultural Exceptions provides a summary of the Annex I and II reservations that Mexico has scheduled in support of its cultural industries.³⁵⁹ Under Annex 15-E, Mexico would maintain a 49 percent foreign equity ownership cap on radio and free-to-air television broadcasting that was previously established under NAFTA. However, Mexico would eliminate its foreign equity cap for cable television services and relax some of its national identity restrictions, including its Spanish-language requirements for broadcasting.³⁶⁰ Mexico would also set the total annual screen time dedicated to the projection of national films to 10 percent (as compared to 30 percent in NAFTA), effectively binding the liberalization captured by the ratchet.³⁶¹ Overall, these provisions would strengthen Mexico’s audiovisual services obligations—which, according to U.S. industry officials, were already strong under NAFTA.³⁶² The Motion Picture Association of America (MPAA) further indicates that USMCA would improve access to the Mexican market.³⁶³

Under USMCA, Mexico and Canada would generally offer U.S. audiovisual services firms increased levels of market access and national treatment by reducing or freezing most local content quotas and liberalizing foreign ownership restrictions. Moreover, the Intellectual Property chapter strengthens copyright protection for U.S. audiovisual services providers by criminalizing unauthorized camcording in theaters and cable and satellite signal theft (see chapter 8).³⁶⁴ The overall effect of USMCA provisions on

³⁵⁶ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, Addendum, October 9, 2018, 2. See also Motion Picture Association of America (MPAA), written submission to the USITC, December 20, 2018, 5; CreativeFuture, written submission to the USITC, December 20, 2018, 4; Recording Industry Association of America (RIAA), written submission to the USITC, December 20, 2018, 10; and Coalition of Services Industries (CSI), written submission to the USITC, December 20, 2018, 3.

³⁵⁷ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, Addendum, October 9, 2018, 2.

³⁵⁸ CreativeFuture, written submission to the USITC, December 20, 2018, 4; Recording Industry Association of America (RIAA), written submission to the USITC, December 20, 2018, 10; USAlliance for Music, written submission to the USITC, December 20, 2018, 4. MPAA and CSI also contend that U.S. trade agreements should not include such carve-outs. Coalition of Services Industries (CSI), written submission to the USITC, December 20, 2018, 3; Motion Picture Association of America (MPAA), written submission to the USITC, December 20, 2018, 5.

³⁵⁹ These include reservations on broadcasting (radio and free-to-air television), newspaper publishing, cinema services, and audiovisual services as a whole. USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex 15-E: Mexico’s Cultural Exceptions (accessed December 5, 2018).

³⁶⁰ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 12–13.

³⁶¹ USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex 15-E: Mexico’s Cultural Exceptions (accessed December 5, 2018).

³⁶² USTR, ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 12–13; Motion Picture Association of America (MPAA), written submission to the USITC, December 20, 2018, 4.

³⁶³ Motion Picture Association of America (MPAA), written submission to the USITC, December 20, 2018, 3.

³⁶⁴ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 12–13.

U.S. cross-border exports of audiovisual services, however, is likely to be moderate in the short term due to the continuing presence of Canada's broad cultural industries exemptions. Further, many of Mexico's new USMCA commitments essentially reflect the status quo. As a result, they would not likely impact U.S. firms' operations in Mexico greatly, although they would introduce greater transparency.

While a number of organizations submitted comments on USMCA provisions affecting audiovisual services, most of these groups did not provide an overall assessment of the agreement's likely effect on the audiovisual services industry. MPAA stated that USMCA does not address all of its concerns; however, it expects that on the whole, the agreement will foster growth and sustain jobs in the United States.³⁶⁵ The Association of American Publishers (AAP) also identified positive aspects of USMCA, but said that the agreement should not be a negotiating template, as it includes "flawed provisions."³⁶⁶ Other audiovisual industry associations identified specific USMCA provisions that they view as positive or negative, but did not provide an overall assessment of the agreement's likely impact.³⁶⁷

Financial Services

The USMCA chapter on financial services covers banking, insurance and related services, other financial services, and services that are incidental to these activities.³⁶⁸ The sector accounts for a substantial share of overall U.S. exports and affiliate sales of services to USMCA parties. In 2017, U.S. cross-border exports of financial and insurance services to Canada were \$8.8 billion (or 15.1 percent of total U.S. services exports to Canada),³⁶⁹ while U.S. cross-border exports of such services to Mexico were \$1.8 billion (or 5.5 percent of total U.S. services exports to Mexico). In 2016, sales by Canadian affiliates of U.S. financial and insurance firms totaled \$10.6 billion (or 9.0 percent of sales by Canadian affiliates of all U.S. firms). In that same year, sales by Mexican affiliates of U.S. financial and insurance firms totaled \$10.6 billion (or 25.9 percent of sales by Mexican affiliates of all U.S. firms).

According to the Commission's estimates reported above, effective changes in nonconforming measures are estimated to increase sales by foreign commercial banking affiliates in Mexico by 7.1 percent, while effective changes to market access commitments are estimated to reduce trade costs for cross-border

³⁶⁵ Motion Picture Association of America (MPAA), written submission to the USITC, December 20, 2018, 2–3.

³⁶⁶ Association of American Publishers (AAP), written submission to the USITC, December 20, 2018, 2. AAP identifies a number of USMCA provisions on online copyright protection and digital trade that it views as problematic.

³⁶⁷ USAlliance for Music, written submission to the USITC, December 20, 2018; CreativeFuture, written submission to the USITC, December 20, 2018; Recording Industry Association of America (RIAA), written submission to the USITC, December 20, 2018.

³⁶⁸ USTR, USMCA full text, Chapter 17: Financial Services, Article 17.1: Definitions (accessed December 5, 2019).

³⁶⁹ For the purposes of BEA cross-border trade data, financial services include brokerage, underwriting and private placement, credit card and other credit related, financial advisory and custody, and securities lending and electronic funds transfer services. Insurance includes direct insurance, auxiliary insurance services, and reinsurance. USDOC, BEA, *Survey of Current Business*, table 2.2: "U.S. Trade in Services, by Type of Service and by Country or Affiliation" (accessed October 19, 2018).

commercial banking (by 1.1 percent) and insurance services (by 0.7 percent) in Mexico and Canada (tables 5.4 and 5.5).³⁷⁰

A key provision in USMCA is the prevention of parties from restricting cross-border flows of financial data, which would require data to be stored or processed locally.³⁷¹ It is expensive for financial services providers to invest in data facilities and personnel abroad when they are operationally unnecessary, and to maintain overseas data facilities that may be redundant.³⁷² USMCA's financial services chapter includes two key provisions that address this issue. Article 17.19 permits the cross-border transfer of financial information if the transfer is licensed and authorized by the covered person. Article 17.20 states that data localization cannot be a condition of doing business for financial firms, so long as regulatory authorities have access to financial information.

While these provisions restrict financial data localization, the parties would retain the ability to protect privacy and the confidentiality of individual financial accounts under USMCA. This may, for example, allow regulators to require financial institutions to keep encryption keys locally.³⁷³ Additionally, footnotes to USMCA's Article 17.20 enable parties to require financial services providers to secure authorization from regulators before they designate particular enterprises as recipients of information. This may include requiring preapproval before transferring financial data to foreign cloud computing facilities.³⁷⁴ USMCA would also preserve the parties' ability to regulate the use of computing facilities as they relate to business continuity planning practices.

Currently, federally regulated financial entities in Canada must store copies of some types of data locally.³⁷⁵ This applies to financial institutions operating in Canada that transfer data across borders: such data has to be mirrored locally so the Office of the Superintendent of Financial Institutions can access records as necessary. USMCA may require changes to this Canadian legislation in order to give U.S. and Mexican financial institutions more flexibility to store data in their home jurisdictions.³⁷⁶

³⁷⁰The USITC estimates that the USMCA may affect sales by foreign commercial banking affiliates in Mexico. However, there were no effective changes found in USMCA that may affect sales by foreign insurance affiliates in Mexico and, as such, the analysis of USMCA's impact on foreign affiliate sales does not include impacts on insurance services. NAFTA's Annex VII restricted certain foreign investments in Mexico's commercial banking sector: foreign investments in unaffiliated commercial banks were limited to 30 percent, and the aggregate capital of foreign commercial bank affiliates was limited to 15 percent of all commercial banking capital in Mexico. In USMCA's Annex III, Mexico outlines conditions under which financial institutions from the United States and Canada can invest in commercial banks, but does not include caps. Currently Mexico does not restrict foreign equity in commercial banks, but the USMCA is expected to reduce uncertainty. OECD, "Services Trade Restrictiveness Index" (accessed December 20, 2018).

³⁷¹ USTR, "Summary of Objectives for the NAFTA Renegotiation," November 2017.

³⁷² USITC, *Global Digital Trade 1*, 2017, 277.

³⁷³ Banks, "How Did Canada Fare on Privacy in the USMCA?" October 12, 2018.

³⁷⁴ Banks, "How Did Canada Fare on Privacy in the USMCA?" October 12, 2018.

³⁷⁵ Bank Act 239.1 and 597.2, as interpreted by Canada's Office of the Superintendent of Financial Institutions. Blake, Cassels and Graydon LLP, "USMCA to Remove 'In Canada' Record-Keeping Requirements for Financial Institution Sectors," October 8, 2018.

³⁷⁶ Blake, Cassels and Graydon LLP, "USMCA to Remove 'In Canada' Record-Keeping Requirements for Financial Institution Sectors," October 8, 2018.

While USMCA's language on data localization is new, its provision on cross-border data transfer updates and clarifies a measure included in the original NAFTA agreement. NAFTA's Article 1407 gave financial services providers the right to transfer information electronically across borders if those transfers are part of the ordinary course of business. At the time of signing, this was recognized as a way to let financial institutions use their existing home-country data processing centers rather than building and staffing new processing centers abroad.³⁷⁷ Some commentators note that the treatment of financial data in USMCA may set a precedent for prohibiting financial data localization in future trade agreements.³⁷⁸ In contrast, the Trans-Pacific Partnership introduced a prohibition on data localization, but excluded the financial services sector. USMCA's provisions on financial data may reduce operating costs for U.S. financial services exporters, though the effect may be small, as maintaining local copies of data is less burdensome than having to process data locally.

USMCA also includes an annex on nonconforming measures in financial services. Annex III explains the parties' existing financial services measures that are not subject to USMCA's provisions, and lists the financial subsectors and activities that are exempt from USMCA. For example, foreign bank branches cannot become members of the Canada Deposit Insurance Corporation, and Canada reserves the right to adopt or maintain measures relating to cross-border trade in securities and derivatives services. In Mexico, directors and managers of savings and loans cooperative companies must be Mexican citizens, and cross-border suppliers of electronic payment services must provide the same services in their home territory. These exceptions are different from the financial services exceptions listed in NAFTA's Annex VII, but resemble the exceptions included in TPP's Annex III.

Professional Services

Professional services—a category that includes legal services, accounting, architecture, engineering, business and management consulting, and advertising, among many other services—comprise a notable portion of U.S. services exports and foreign affiliate sales to both Canada and Mexico.³⁷⁹ Specifically, in 2017, professional services exports accounted for 19.1 and 9.4 percent of total U.S. services cross-border exports to Canada and Mexico, respectively, while in 2016, professional services accounted for 14.2 percent and 9.4 percent of sales of services by U.S.-owned affiliates in Canada and Mexico, respectively.³⁸⁰

USMCA is likely to have a small positive impact on U.S. providers of professional services in Canada and Mexico. According to the Commission estimates reported above, effective changes in nonconforming measures are estimated to increase foreign affiliate sales of legal services in Mexico by 38.9 percent. At the same time, effective changes to market access commitments are estimated to reduce trade costs by 0.1 percent in cross-border services exports of architecture and engineering services and by 0.9 percent

³⁷⁷ Bachman, Benedict, and Anzaldúa, "Financial Services Under the North American Free Trade Agreement," 1994.

³⁷⁸ Monga and Demos, "U.S. Banks Want Freer Flow of Data in NAFTA Pact," November 2, 2017.

³⁷⁹ See table 1 and table 2 above for a list of industries included in professional services.

³⁸⁰ USDOC, BEA, table 2.3, "U.S. Trade in Services, by Country or Affiliation and by Type of Service," October 19, 2018; USDOC, BEA, table 4.4, "U.S. Services Supplied to Foreign Persons by U.S. MNEs through Their MOFAs, by Country of Affiliate and by Industry of Affiliate," October 19, 2018.

in cross-border exports of legal services to Mexico. However, the dollar value of this change would likely be small.³⁸¹

Professional services are defined in U.S. trade agreements, including USMCA, as services “for which the right to practice is granted or restricted” by parties to the agreement. Authorizations to practice typically involve licensing and related processes. These processes are addressed in USMCA Articles 15.8 (Development and Administration of Measures) and 15.9 (Recognition), which state that licensing requirements and procedures must be based on objective and transparent criteria and that parties may recognize qualifications (such as education or experience) gained in the territory of parties or non-parties to the agreement. Both of these articles expand on obligations under NAFTA Article 1210, Licensing and Certification. The U.S. Industry Trade Advisory Committee on Services notes the importance of transparency and consistency in applying regulations on the provision of engineering services. The committee also specifically views Article 15.9 as an improvement for the provision of medical services, as it “clearly encourages the establishment of mutual recognition agreements for the licensing of professional services.”³⁸²

Unlike NAFTA, USMCA’s chapter on cross-border trade in services also includes binding market access obligations (Article 15.5), which are made across industries on a positive-list basis.³⁸³ Each trading partner has undertaken professional services commitments that go beyond their GATS commitments. For example:

1. Mexico has undertaken full market access obligations across modes 1–3 in several professional services subsectors for which it maintains no GATS commitment. These include legal services; integrated engineering services; urban planning and landscape architectural services; related scientific and technical consulting services; and certain research and development services.
2. Canada has removed certain provincial restrictions under modes 1 and 2 in auditing services, engineering services, integrated engineering services, and management consulting services. Additionally, Canada has removed certain provincial mode 1 restrictions in architecture services and in urban planning and landscaping architectural services.³⁸⁴

³⁸¹ The estimated 38.9 percent change in foreign affiliate sales of legal services in Mexico would translate to an estimated change from \$32 million (the value of U.S. foreign affiliate sales of legal services in Mexico in 2016) to \$44.4 million.

³⁸² ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 16, 23. The ITAC report indicates that along with the chapter on cross-border trade in services, the following chapters of USMCA “may open markets in areas of technical strength of American firms”: energy, environment, government procurement, labor, and anticorruption.

³⁸³ Note that professional and management consulting services is a subcategory of the BEA category “Other Business Services,” of which research and development services and technical, trade-related, and other business services are also subcategories. The trade data on “Other Business Services,” as reported by BEA and presented in this chapter as “Professional Services,” do not necessarily correspond to “Business Services” in the W-120 Services Sectoral Classification, which is the basis for market access obligations under USMCA.

³⁸⁴ In some instances under USMCA commitments, sectors have a full commitment in specified mode(s), while in others, certain provincial-level restrictions remain.

3. The United States has added state-level market access commitments in foreign legal consulting services across modes 1–3, as well as new commitments in research and development services across modes 1–3.

Both NAFTA and USMCA contain separate annexes on professional services, which encourage cooperation and trade in professional services between parties (NAFTA Annex 1210.5 and USMCA Annex 15-C).³⁸⁵ While the two annexes share much in common, the USMCA annex includes a few new provisions. For example, USMCA would establish a Professional Services Working Group to support activities covered in the Annex, as well as voluntary guidelines for negotiating mutual recognition agreements. In a discussion on improvements to the provisions impacting medical services, the Services Industry Trade Advisory Committee report indicated that the Guidelines for Mutual Recognition Agreements are “much more detailed and developed than former language in the previous NAFTA agreement, or other free trade agreements.”³⁸⁶

Additionally, the parties’ Annex I and II NCMs reflect important changes affecting the provision of legal services. For example, the United States had a broad legal services reservation on the provision of legal services by Mexican nationals in NAFTA Annex II that is not included in USMCA annexes. As such, this represents an additional commitment in this industry. Similarly, Mexico had a broad legal services reservation applying to the provision of legal services by U.S. nationals in NAFTA Annex II. It also had an Annex I measure which, among other items, excluded non-Mexican-licensed lawyers from owning an interest in law firms established in Mexico. In USMCA, Mexico eliminates its Annex II reservation and modifies its Annex I reservation to allow limited foreign ownership in law firms (up to 49 percent without permission from Mexico’s National Foreign Investment Commission). Again, this represents an added commitment.³⁸⁷ The U.S. Industry Trade Advisory Committee on Services views these changes, as well as relevant provisions and appendixes in the Cross-Border Services Trade chapter, as “generally positive and largely maintaining the status quo with regard to provision of legal services in the United States and Mexico.”³⁸⁸

Transportation Services (Land/Rail/Maritime)

For the purposes of this section, transportation services primarily include the transport of freight via air, maritime, road, or rail modes, as well as air passenger transport services and air and maritime port-related services. Transportation services are an important contributor to overall U.S. cross-border services trade with NAFTA partners, accounting for 10 percent of such trade in 2017.³⁸⁹ Overall, USMCA’s transport-related provisions would not likely have a substantial impact on U.S. trade and economic growth. However, industry sources note one exception, which are U.S. NCMs that would

³⁸⁵ There are other differences between the Annexes; for example, NAFTA included a separate section on Foreign Legal Consultants and Temporary Licensing of Engineers.

³⁸⁶ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 23.

³⁸⁷ Additionally, all three NAFTA parties maintained a reservation related to foreign legal consultants in Annex VI of the agreement.

³⁸⁸ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 23.

³⁸⁹ USDOC, BEA, “Table 2.2: U.S. Trade in Services by Type of Service and by Country or Affiliation,” October 19, 2018. <https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1#reqid=62&step=9&isuri=1&6210=4> (accessed November 26, 2018).

permit the U.S. government to restrict the supply of long-haul trucking services in the United States by Mexican trucking firms. While some U.S. industry representatives suggest that U.S. NCMs on Mexican long-haul trucking services would benefit the competitiveness of the U.S. trucking industry,³⁹⁰ others caution that such measures may invite retaliation by Mexico and thus undermine future U.S. negotiations to further liberalize cross-border services trade with Mexico.³⁹¹

According to USITC estimates reported above, effective changes in NCMs are estimated to increase foreign affiliate sales of maritime transport in Mexico by 6.0 percent; those of rail freight transport, by 19.9 percent. At the same time, effective changes to market access commitments are estimated to reduce trade costs for cross-border maritime transport (by 0.9 percent) and rail transport (by 0.2 percent) in Mexico and for cross-border rail transport (by 0.3 percent) in Canada (tables 6.4 and 6.5). However, the dollar value of this change would likely be small, as these increases would occur from a small base.³⁹²

Under USMCA, Canada's NCMs are more liberal than those under NAFTA for foreign investment in air, maritime, and rail transport services. These measures would likely stimulate U.S. investment and participation in Canada's transportation sector. First, Canada's NCMs under Annex I would permit airlines in which a maximum of 49 percent of the voting interests are owned and controlled by foreigners to provide both scheduled and nonscheduled (i.e., charter) commercial airline service within Canada (i.e., cabotage service) or between Canada and foreign countries.³⁹³ Previously, this limit was 25 percent.³⁹⁴ By comparison, Canada scheduled no commitments on air transportation services in either NAFTA or GATS.³⁹⁵ Second, for maritime transport, Canada would permit U.S.-government-owned vessels transporting U.S. goods between Canada and Distant Early Warning Sites to provide cabotage services. This provision was not included under NAFTA or in Canada's GATS schedule.³⁹⁶ Third, under Annex II, Appendix I, Canada has removed cabotage limitations on railway passenger and freight transport services that are included in its GATS schedule.³⁹⁷

³⁹⁰ USITC, hearing transcript, November 15, 2018, 308–9 (testimony of Michael Dolan, International Brotherhood of Teamsters).

³⁹¹ USTR, ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 24.

³⁹² While the values of affiliate sales of maritime and rail transportation services to Canada and Mexico are suppressed for 2012–16, the overall value of U.S. affiliate sales of such services in 2016 accounts for less than 1 percent of all U.S. affiliate sales of services in that year.

³⁹³ USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Canada," 28, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Annex%20I%20Investment%20and%20Services%20Non-Conforming%20Measures%20--%20Canada.pdf>.

(accessed November 13, 2018). Canada's Annex I under USMCA further specifies that a single non-Canadian individual or entity is not permitted to own, directly or indirectly, 25 percent of the voting interest in a Canadian airline.

³⁹⁴ CAPA, "Canada's Airlines: Status Quo Persists despite Changes," May 31, 2018.

³⁹⁵ The GATS' Annex on Air Transport Services excludes commitments related to the exercise of air traffic rights, except for a few ancillary services such as aircraft maintenance and repair. WTO and World Bank, "I-TIP Services: Canada" (accessed November 13, 2018); WTO, "Main Building Blocks: Agreement, Annexes, and Schedules" (accessed November 13, 2018).

³⁹⁶ WTO. General Agreement on Trade in Services. Canada: Schedule of Specific Commitments. April 15, 1994.

³⁹⁷ WTO. General Agreement on Trade in Services. Canada: Schedule of Specific Commitments. April 15, 1994.

Although some of Mexico's NCMs on transportation services in USMCA keep or expand current restrictions on foreign participation in the sector, others represent a liberalization of national treatment measures relative to NAFTA. Most significantly, Mexico's Annex I permits foreigners to supply certain types of cabotage services using Mexican or foreign vessels, as well as to own up to a 49 percent share of Mexican firms that provide certain cabotage services.³⁹⁸ Under NAFTA, maritime cabotage services are reserved for Mexican-flagged vessels.³⁹⁹ Annex I would permit foreign firms to own up to a 49 percent equity stake in Mexican firms that provide port services to ships for inland navigation or that are authorized to serve as port administrators.⁴⁰⁰ The annex also specifies that foreigners may own a 49 percent share in firms that provide commercial or specialty air services in Mexico and that use Mexican-registered aircraft, up from a previous 25 percent cap under NAFTA.⁴⁰¹ Further, Annex I specifies that operators of aircraft repair facilities must be domiciled in Mexico to obtain necessary permits. Under NAFTA, such permits are reserved for Mexican enterprises and Mexican nationals.⁴⁰²

Among the more restrictive transport-related measures introduced by Mexico under USMCA relative to NAFTA are those concerning road and rail transport services. In particular, Annex I states that approval from Mexico's National Foreign Investments Commission is required for foreigners to own more than 49 percent of a Mexican company that constructs or operates a public railroad or that supplies railway services in Mexico.⁴⁰³ No such restriction is included in NAFTA.⁴⁰⁴ For road transport, USMCA Annex I

³⁹⁸ USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, 39, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Annex%20I%20Investment%20and%20Services%20Non-Conforming%20Measures%20%E2%80%93%20Mexico.pdf> (accessed November 9, 2018). Cabotage refers to point-to-point domestic transport service. Mexico's Annex I specifies the type of maritime services that foreigners are allowed to provide on a reciprocal basis, such as inland navigation and cabotage services related to tourist cruises. However, the specification of a 49-percent foreign equity cap in certain cabotage services in Mexico does not apply to domestic cruises.

³⁹⁹ NAFTA Secretariat, "North American Free Trade Agreement," Annex I: Reservations for Existing Measures and Liberalization Commitments, Schedule of Mexico, last updated in 2014, 55, <https://www.nafta-sec-alena.org/Portals/0/Documents/en/Schedule%20of%20Mexico.pdf>.

⁴⁰⁰ USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, 33, 35, 37.

⁴⁰¹ USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, 31–32.

⁴⁰² USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, 33; NAFTA Secretariat, "North American Free Trade Agreement," Annex I: Reservations for Existing Measures and Liberalization Commitments, Schedule of Mexico, last updated in 2014, 55.

⁴⁰³ USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, last updated in 2014, 41. Mexico also restricts U.S. rail crews from providing services in Mexico, but a reciprocal reservation was not introduced in USMCA by the United States, thus allowing Mexican rail crews to provide services to U.S. freight rail companies. USITC, hearing transcript, November 15, 2018, 242–43 (testimony of Michael Dolan, International Brotherhood of Teamsters).

⁴⁰⁴ NAFTA Secretariat, "North American Free Trade Agreement," Annex I: Reservations for Existing Measures and Liberalization Commitments, Schedule of Mexico, last updated in 2014, 63. Under NAFTA, Mexico listed only one restriction on the foreign supply of railway services, which was that railway crew members in Mexico must be Mexican nationals. This restriction is maintained under USMCA. However, according to a written submission from the Transportation Trades Department (TTD) of the AFL-CIO, the U.S. does not maintain a similar restriction on the employment of Mexican-domiciled crew members on U.S. railways (either under NAFTA or USMCA). Mexican-based engineers and conductors are therefore permitted to operate U.S. trains that cross the U.S.-Mexico border. TDD states that the failure of the USMCA to restrict the employment of Mexican-based crews on U.S. trains will have an adverse impact on the safety of U.S. rail services and the employment of U.S. rail workers. AFL-CIO, written submission to the USITC, December 20, 2018.

restricts foreigners from investing in Mexican firms that supply domestic freight or passenger transport services, and from providing such services themselves.⁴⁰⁵ Under NAFTA, Mexico committed to phasing out restrictions on the foreign supply of, and investment in, domestic land transportation services, but these phaseouts were not enacted. Importantly, the phaseouts would have enabled U.S. and Canadian firms to provide cross-border bus services to and from Mexico three years after NAFTA's entry into force, and cross-border trucking services seven years thereafter.⁴⁰⁶

Under USMCA, the United States would maintain a potentially important NCM on the supply of trucking services by Mexican firms within the United States. Specifically, Annex I would enable the United States to restrict domestic long-haul services by Mexican trucks in the event of "material harm" to U.S. trucking suppliers, operators, and drivers.⁴⁰⁷ Currently, only 35 Mexico-based trucking companies are permitted to provide long-haul service within the United States.⁴⁰⁸

Some industry representatives question the usefulness of including a provision to increase limits on the relatively small number of Mexican trucking firms in the United States. They indicate that doing so may, in fact, discourage further negotiations to open U.S. cross-border services trade with Mexico.⁴⁰⁹ In addition, some industry representatives indicate that NAFTA trade currently generates significant revenue and employment for the U.S. trucking industry, and that these benefits may be enhanced by achieving greater border efficiencies through cooperation among USMCA partners.⁴¹⁰ By contrast, other industry representatives suggest that U.S. NCMs on long-haul trucking will enhance the competitiveness

⁴⁰⁵ USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, last updated 2014, 68–69. However, under USMCA, an investor of another Party may own up to 100 percent of the ownership interest in an enterprise established in Mexico to supply road transportation of international cargo between points in the territory of Mexico." USTR, USMCA full text, Annex I: Investment and Services Non-Conforming Measures--Mexico, n.d., 45.

⁴⁰⁶ NAFTA Secretariat, "North American Free Trade Agreement," Annex I: Reservations for Existing Measures and Liberalization Commitments, Schedule of Mexico, last updated in 2014, 63.

⁴⁰⁷ USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex II: Schedule of the United States, 8, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Annex%20II%20Investment%20and%20Services%20Non-Conforming%20Measures%20%E2%80%93%20United%20States.pdf> (accessed November 7, 2018)

⁴⁰⁸ According to the American Trucking Associations (ATA), in 2017, trucks carried nearly \$385 billion worth of goods across the U.S.-Mexico border, accounting for 6 million truck movements across this border. The value of goods transported by truck across the U.S.-Canada border in 2017 was \$336 billion, requiring 5.8 million truck movements. Post-hearing brief, submitted by Robert Costello, American Trucking Associations, in connection with inv. no. 332-568, *United States-Mexico-Canada Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*, December 20, 2018. The ATA represents in excess of 30,000 motor carriers in the United States through its affiliation with state-based trucking associations and national trucking conferences.

⁴⁰⁹ ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 24. In 2017, the transport of goods across the U.S.-Canada border generated \$2.8 billion in annual revenue for the trucking industry and 20,049 full-time trucking jobs, 13,000 of which were held by truck drivers. In the same year, trade between the United States and Canada accounted for \$3.8 billion in annual trucking revenue and 27,000 full-time trucking jobs, of which 18,000 were held by truck drivers. ATA, written submission to the USITC, December 20, 2018.

⁴¹⁰ According to ATA, in 2017, the transport of goods across the U.S.-Canada border generated \$2.8 billion in annual revenue for the trucking industry and 20,049 full-time trucking jobs, 13,000 of which were accounted for by truck drivers. In the same year, trade between the United States and Canada accounted for \$3.8 billion in annual trucking revenue, and 27,000 full time trucking jobs, of which 18,000 were truck drivers. ATA, written submission to the USITC, December 20, 2018.

U.S.-Mexico-Canada Trade Agreement

of the U.S. trucking industry, as well as address safety concerns about Mexican-domiciled trucks and drivers.⁴¹¹

⁴¹¹ USITC, hearing transcript, November 15, 2018, 338 (testimony of Michael Dolan, International Brotherhood of Teamsters). According to industry representatives, Mexican truck drivers, for example, are not required to obtain a commercial driver's license. Industry representatives have also expressed concerns about the safety of the Mexico-domiciled trucking fleet.

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Chapter 7

Digital Trade and E-commerce

Overview

The Commission estimates that USMCA is likely to have a significant, positive impact on the many U.S. industries that rely on cross-border data flows and digitally enabled trade, including e-commerce.⁴¹² Key provisions in USMCA's digital trade chapter require the parties to ensure free movement of data cross-border, and also forbid them to adopt restrictive data measures in the future. As was shown in chapter 2, these international data transfer measures contribute significantly to the estimated gains in the economy-wide model in many sectors, as the movement of data is an issue for most industries at least to some degree. In particular, the USMCA would benefit U.S. computer services and digital platform services firms by ensuring that data flows remain unencumbered, proprietary source codes and algorithms are protected, and intermediary liability protection is provided. The U.S. telecommunications (telecom) industry would gain increased access to telecom networks and interconnection provisions. U.S. exporters of low-value shipments (including e-commerce exports) and express delivery services would likely experience faster shipping and lower-cost customs processing.⁴¹³ U.S. payments services would likely benefit from fuller market access and national treatment.

This chapter discusses the effect of the USMCA provisions related to digital trade and e-commerce across U.S. economic sectors, focusing on the provisions' likely impacts on selected data-intensive industries (industries that gather, store, and process data in the course of conducting their operations) and electronic services.⁴¹⁴ The relevant USMCA provisions are found primarily in the following chapters of the agreement (listed in order of significance): 19 (Digital Trade), 18 (Telecommunications), 17 (Financial Services), and 7 (Customs Administration and Trade Facilitation), and in Annexes II and III.⁴¹⁵ The chapter begins with a summary of key digital provisions covering computer services and online platforms, telecommunications, e-commerce, express delivery, and payment services. Next, it examines the impact of USMCA on these industries,⁴¹⁶ including quantitative assessments of the benefits of USMCA provisions that ensure unimpeded data flows, prohibit data localization measures, and establish higher de minimis thresholds on U.S. exports. The impacts of USMCA's data transfer provisions are analyzed for the whole economy and these results are detailed below.

⁴¹² These industries include internet platforms, e-commerce firms, online financial and payment, services, computer services, and logistics firms, among many others.

⁴¹³ Low-value shipments are defined as a value of \$2,500 or less. Census, "Trade Definitions," <https://www.census.gov/foreign-trade/reference/definitions/index.html#L> (accessed March 22, 2019).

⁴¹⁴ For a description of electronic services, see USITC, *Recent Trends in U.S. Services Trade*, 2018.

⁴¹⁵ Customs provisions are listed and described in USMCA, Chapter 9, Other Cross-cutting Provisions.

⁴¹⁶ Certain provisions affecting the telecommunications and express delivery sectors are listed and described in the text of the USMCA services chapter (Chapter 13) as noted, but their impact is covered in this chapter.

Description of Selected Digital Industries

Computer services cover a broad range of services, including IT services, cloud computing services, and software delivered via the internet.⁴¹⁷ In 2017, U.S. exports of computer services to Canada and Mexico were \$2.8 billion and \$921 million, and accounted for 12 percent and 4 percent, respectively, of all U.S. computer services exports.⁴¹⁸ The telecom services industry operates and provides access to wireline and wireless networks for transmitting voice, data, text, and video services. Business-to-consumer (B2C) e-commerce services facilitate commercial transactions from businesses to consumers via digital channels, where ordering and payments are transacted online.⁴¹⁹ At the same time, express delivery firms provide door-to-door delivery services for a range of items, such as letters, documents, and small parcels, including e-commerce shipments.⁴²⁰ Express firms compete, to some extent, with postal operators, where such services fall outside their postal monopolies.⁴²¹ Online payment services let users make purchases and transfer funds electronically.

Summary of Key Provisions

If enacted, USMCA would be the first U.S. free trade agreement to include a chapter on digital trade. As a result, nearly all of the digital trade and e-commerce-related provisions in the agreement are new relative to NAFTA (table 7.1). These provisions are also crosscutting, applying broadly to U.S. firms across the economy. Businesses likely to be affected include traditional data-intensive, internet-based firms, but also firms in the services, manufacturing, and agricultural industries that rely on data and information flows in their business models and have strong competitive advantages globally. Building on the Trans-Pacific Partnership (TPP) framework, the USMCA Digital Trade chapter would ensure that data restrictions are not enacted in the future, and would establish trade commitments on other digital trade matters that have emerged since NAFTA was enacted. Moreover, the Digital Trade chapter contains trade-facilitating measures that would be particularly beneficial to small and medium-sized enterprises (SMEs) that rely on the internet to reach foreign customers.

Perhaps the most important provisions in the Digital Trade chapter—those that have the broadest implications for all U.S. digitally intensive industries—are the international data transfer provisions. These provisions largely prohibit (1) discriminatory treatment of cross-border data transfers (19.11), and

⁴¹⁷ Some examples of activities and companies that are captured in computer services trade include data hosting and processing offered by cloud companies like Amazon Web Services (AWS), mobile application software like WhatsApp, IT consulting offered by companies like Accenture, and online platforms. Physical copies of software, such as those on CDs, are classified as part of goods trade. USITC, *Recent Trends in U.S. Services Trade*, 2018, 72.

⁴²⁶ For a more complete overview of cross-border services trade, see chapter 5 of this report. USDOC, BEA, “Table 2.3. U.S. Trade in Services, by Country or Affiliation” (accessed November 20, 2018).

⁴¹⁹ For example, businesses can market and sell their products through their own websites (e.g., Apple), or sellers can use a third-party platform (e.g., eBay and Etsy) to reach online consumers. E-commerce represents the fastest-growing segment of global retail industry. USITC, *Global Digital Trade 1*, 2017, 147.

⁴²⁰ Express firms may also supply value-added services such as freight forwarding, logistics management, and customs brokerage.

⁴²¹ Express firms do not deliver non-expedited items (typically letters and documents) that are covered by a postal authority’s universal service obligation.

(2) forced localization of computing facilities (19.12). Both measures were strongly advocated by U.S. industry representatives and are regarded as essential for the continued development of the global digital economy.⁴²²

Other key Digital Trade chapter provisions include a ban on import duties or other discriminatory customs measures on digital products (e.g., e-books, videos, music, software, and games) (19.3), and prohibition of legal discrimination against digital products produced or created in other signatory countries (19.4). The chapter also addresses issues encountered by online consumers and businesses, including fraud protection (19.7), and adds protections for consumers' personal information and data as well (19.8). USMCA member governments have agreed to cooperate on cybersecurity threats, including building capacity to identify and respond quickly to intrusions, and to strengthen existing collaboration on threats and cybersecurity best practices (19.15). Further, the member governments have agreed to counter cybersecurity threats using risk-based approaches that rely on consensus-based standards, and to encourage enterprises to do the same.

In addition, USMCA's Digital Trade chapter contains important provisions aimed at facilitating cross-border trade, such as rules for electronic authentication and signatures (19.6) that would particularly benefit e-commerce firms and electronic payment services. The chapter would also protect U.S. firms from forced transfer of the proprietary source code and algorithms (19.16) that underpin U.S. IT firms' competitive advantage. Moreover, it would give interactive computer services firms protection from liability for third-party content, a stance that is viewed as consistent with U.S. law under § 230 of the Communications Decency Act.⁴²³ In USMCA's telecommunications chapter (Chapter 18), key provisions would give U.S. telecommunications service providers access to Canadian and Mexican telecom networks and improve the terms by which such access is granted by domestic telecom carriers.

⁴²² USITC, hearing transcript, November 15, 2018, 590–92 (Whitlock), 599 (Sternberg), 620 (Ezell), 625 (Swanson), November 16, 2018.

⁴²³ See § 230(c)(1) of the Communications Decency Act. "Communications Decency Act of 1996" is the name given to title V of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, <https://www.congress.gov/104/plaws/publ104/PLAW-104publ104.htm>. See also Timmons and Kozlowska, "Facebook, Google and Amazon Are Big Winners," October 2, 2018.

Table 7.1 Summary of key USMCA digital trade and e-commerce provisions

USMCA provision	Comparison to NAFTA provisions
Digital Trade (Chapter 19):	
No customs duties or fees will be imposed on digital products. (19.3)	New in USMCA
No signatory country will discriminate against digital products created or produced in other signatory countries. (19.4)	New in USMCA
Each country will maintain a legal framework for electronic payments, consistent with the UN's model e-commerce law. (19.6)	New in USMCA
Each country will encourage/allow electronic authentication and electronic signatures. (19.6)	New in USMCA
Each country will protect personal information. (19.8)	New in USMCA
No restrictions will be placed on cross-border information flows, including personal information, except as required by "legitimate public policy objective[s]." (19.11)	New in USMCA
No localization of computing facilities (data localization) will be required. (19.12)	New in USMCA
A firm need not transfer its software or source code in order to gain permission to import, distribute, sell, or use software or related products. (Both fall under computer services.) (19.16)	New in USMCA
Suppliers of interactive computer services will not be held liable for harm related to information stored on their website, except to protect intellectual property or enforce criminal law. (19.17)	New in USMCA
Telecommunications (Chapter 18):	
Telecommunication (telecom) services operators must provide access to and use of domestic telecom networks and services to operators from another party country. (18.3)	Modified in USMCA: provisions are much more extensive than in NAFTA.
Telecom operators must provide network interconnection, number portability, dialing parity, and access to numbers to operators from another party country and must not prohibit resale or roaming services. (18.4)	New in USMCA
Major suppliers of telecom services must allow operators from a party country to interconnect with their networks (18.9), allow access to network elements on an unbundled basis (18.8), and accord those operators the same treatment that they accord themselves in terms of network availability, provisioning, pricing, and quality. (18.5)	New in USMCA
Major suppliers of telecom services must ensure that operators from a party country have access to leased circuits (18.10), co-location (18.11) and submarine cable system (18.3) facilities, and poles, ducts, conduits, and rights-of-way. (18.12)	New in USMCA
Financial Services (Chapter 17):	
The parties agree that national treatment and market access apply to certain electronic payment services for payment card transactions. (Annex 14-A)	New in USMCA
Annexes:	
Computer services in Mexico: Software implementation services, data processing services, database services, consultancy services related to the installation of computer hardware, and other computer services have no limitations on market access for modes 1, 2, and 3, and no additional restrictions in mode 4 aside from those indicated in temporary entry for businesspersons. (Annex II)	Modified in USMCA: expands the scope of computer services from current GATS commitments (which only cover data processing services).
Electronic payments in Mexico: Cross-border electronic payment suppliers must provide the same services in their home country, and must have an authorized affiliate in Mexico. (Annex III – B-5)	New in USMCA

Source: USTR, USMCA full text (accessed February 17, 2019).

Note: Financial services provisions in USMCA's Chapter 17 explicitly refer to electronic payments. Other financial services chapter provisions are listed and discussed in this report's chapter 5 (on services).

The USMCA provision on de minimis thresholds (DMTs), Article 7.8(f), is listed in table 9.4 in this report's chapter on other crosscutting provisions (chapter 9). However, the provision's impact on low-value exports and express delivery services is discussed in this chapter, below. Article 7.8(f) lists the DMTs that would be imposed by Canada, Mexico, and the United States on low-value express shipments. According to the provision, express shipments that meet the DMT would not be subject to customs duties or taxes and would not undergo formal entry procedures at customs checkpoints.

However, the DMTs to which each party has committed under Article 7.8(f) differ from each other. Canada has committed to providing DMT treatment for imports valued below \$114 (150 Canadian dollars) for customs duties and below \$30 for taxes (40 Canadian dollars, up from C\$20). Mexico has specified a DMT of \$117 for customs duties and \$50 for taxes.⁴²⁴ By contrast, the United States would maintain its substantially higher DMT of \$800 for both customs duties and taxes.⁴²⁵ In addition to DMT provisions, Article 7.8.2 states that USMCA parties should adopt "informal" (i.e., expedited) entry procedures for shipments valued at less than \$2,500, potentially expanding the number of express and e-commerce shipments that qualify for expedited release in signatory countries.⁴²⁶

Impact on U.S. Economic Sectors: Analysis of Data Measures

Maintaining free international data transfers is important for firms in all parts of the economy because industries increasingly rely on data to efficiently produce and supply their products and services. Measures that restrict the international transfer of data affect foreign firms for many reasons, and typically increase their costs. For example, restrictive data measures may require that firms craft new data policies, establish foreign data storage or analysis infrastructure, or discontinue certain data backup or security procedures.⁴²⁷

Importantly, data transfer regulations impact more than just the computer services industry. The agriculture and food industry have digitized extensively in recent years, particularly because of increased digital monitoring of agricultural activities and information transmission throughout global supply chains.⁴²⁸ Data transfers facilitate this type of monitoring and communication, which helps producers grow more, maintain higher safety standards, and sell their products more quickly and efficiently.⁴²⁹

⁴²⁴ The de minimis levels specified by USMCA countries in Article 7.8(f) do not apply to non-express items. USTR, USMCA full text, Chap. 7: Customs Administration and Trade Facilitation, Art. 7.8 (accessed November 5, 2018).

⁴²⁵ The U.S. Trade Facilitation and Trade Enforcement Act of 2015 (H.R. 644) amended the Tariff Act of 1930 (19 U.S.C. 1321 (a)(2)(C)) to raise the U.S. de minimis value from \$200 to \$800. Trade Facilitation and Trade Enforcement Act of 2015, Pub. L. No. 114-125, 130 Stat. 122 (2015), <https://www.finance.senate.gov/imo/media/doc/CRPT-114hrpt376.pdf>.

⁴²⁶ Article 7.8.2 of USMCA raises the monetary threshold for informal entry in Canada and Mexico to the same level as the United States, which U.S. industry representatives view as a desirable outcome of the agreement.

⁴²⁷ USITC, *Global Digital Trade 1*, 2017, 277–79.

⁴²⁸ OECD, *Digital Opportunities for Trade in Agriculture and Food Sectors*, 2019, 10–13.

⁴²⁹ For additional information on the use and transfer of data in agriculture, see Wolfert et al., "Big Data in Smart Farming," 2017; Noel, "Data Becomes Cash Crop," 2019; Sykuta, "Big Data in Agriculture," 2016; Fitch Solutions, *Mexico Agribusiness Report*, 2018, 60.

Manufacturers have also experienced extensive growth in their use of data, including the rapid growth of internet-enabled products and sensors (i.e., the Internet of Things), robotics and other automated processes, and data analytics.⁴³⁰ As with agriculture, open data transfer between countries is crucial for maintaining efficient global supply chains, facilitating transactions, and providing post-sales services for manufactured goods.⁴³¹ Not only is data transfer important for many industries, it is also important for many different types of firms. For example, small and medium-sized enterprises are particularly sensitive to data transfer regulations, as they rely extensively on digital services to reach the global marketplace.^{432,433}

Witnesses at the Commission's public hearing as well as written submissions emphasized the importance of the data flow and digital trade provisions in USMCA for a wide range of industries and firms of all sizes.⁴³⁴ The Corn Refiners Association highlighted the importance of information exchange in high-technology agriculture.⁴³⁵ Many witnesses at the hearing as well as many of the written submissions noted the importance of data transfers in manufacturing.⁴³⁶

The Commission's analysis (as described below) examined changes to USMCA's digital trade provisions across the agriculture, manufacturing, and service sectors. The analysis estimates that these changes would likely result in ad valorem equivalent (AVE) tariff reductions ranging from 0.6 to 3.4 percentage points for U.S. firms exporting to Mexico and from 0.6 to 4.5 percentage points for U.S. firms exporting to Canada. As discussed throughout this report, the baselines for the economic models used in the report do not take into account the various market liberalization and binding commitments that Mexico and Canada have undertaken as signatories of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which entered into force on December 30, 2018. As a result, the baseline does not factor in the related reduction of trade policy uncertainty resulting from CPTPP, including data localization and data transfer commitments made by Mexico and Canada in that agreement. If CPTPP data transfer provisions are taken into account, estimates to the gains to the U.S. economy from new commitments under USMCA could be reduced. However, a large portion of the estimated gains from these commitments stem from those being made by the United States, which do not occur under CPTPP.

⁴³⁰ USITC, *Global Digital Trade 1*, 2017, 39–41; OECD, *Trade and Cross-border Data Flows*, 2018, 33–38.

⁴³¹ Kommerskollegium, "No Transfer, No Trade," 2014; and Kommerskollegium, "No Transfer, No Production," 2015.

⁴³² McKinsey Global Institute, "Digital Globalization," 2016, 7–8; USITC, hearing transcript, November 15, 2018, 608–9 (testimony of Ashley Friedman, Information Technology Industry Council).

⁴³³ Commissioner Kearns notes that nonetheless, data transfer raises issues, including questions of privacy and national security, that policymakers are considering.

⁴³⁴ USITC, hearing transcript, November 15, 2018, 599 (Ali Sternburg, Communications Industry Association); USITC, hearing transcript, November 15, 2018, 602–3 (Jordan Haas, Internet Association); USITC, hearing transcript, November 15, 2018, 585 (Joshua Meltzer, Brookings); Simpson, Association of American Publishers, written submission to the USITC, December 20, 2018.

⁴³⁵ Bode, Corn Refiners Association, written submission to the USITC, November 9, 2018, 2.

⁴³⁶ USITC, hearing transcript, November 15, 2018, 615 (Carl Schonander, Software and Information Industry Association); USITC, hearing transcript, November 15, 2018, 665 (Joseph Whitlock, BSA | The Software Alliance); Squair, National Electronic Manufacturers Association, written submission to the USITC, December 20, 2018, 7; and American Chemistry Council, written submission to the USITC, December 20, 2018, 2.

The Commission modeling of the potential economic impacts of the key digital trade chapter provisions focused on USMCA’s international data transfer measures, which seek to ensure the free flow of data and prevent forced localization of computing facilities.⁴³⁷ These provisions were selected because of their potentially wide-reaching impact across all industries where data are gathered, stored, and processed over the course of a firm’s operations.⁴³⁸ The Commission’s approach first calculated the costs of data localization and data transfer measures on trade, and used those calculations to estimate the impact of these measures. The Commission also calculated the digital intensity of various economic sectors; this calculation reflects the importance to a firm of data gathering, processing, storage, and transfer. Since the level of digital intensity is likely to vary across sectors, this approach also adjusts costs to reflect differences in digital intensity across the economy.

This approach used two methods to quantify the impact of data localization and data transfer measures on trade.⁴³⁹ For service sectors that are covered in the Services Trade Restrictiveness Index (STRI) developed by the Organisation for Economic Cooperation and Development (OECD), the Commission used the weight that the OECD assigns to these measures in the STRI to directly calculate AVEs. However, since the STRI only covers services, the impact of data localization and data transfer measures on trade in manufacturing and agricultural sectors cannot be measured directly. Instead, for nonservice sectors, the Commission used software investment intensity, a measure of digital intensity compiled by the OECD, to assign AVE reduction values to agriculture and manufacturing sectors based on their digital intensity relative to the computer services sector.⁴⁴⁰ The reduction in AVE costs associated with Articles 19.11 and 19.12 is 1.1 percentage points on average for Mexico, and 1.4 percentage points on average for Canada. For a full discussion of the Commission’s approach, see this report’s technical appendix H.

Table 7.2 shows the estimated AVE reductions for each of the sectors covered in the economy-wide model for Canada and Mexico. In most cases the two AVEs are identical, because the protections in Articles 19.11 and 19.12 reduce uncertainty rather than change policy. However, in the case of Canadian banking and insurance sectors, there is an actual change in policy, and therefore the calculated AVE reductions are higher for Canada than for Mexico.⁴⁴¹ This means that the highest sector-level AVE reduction in the model that is due to USMCA’s data measures is in the Canadian banking sector, with an AVE reduction of 4.5 percentage points.

Two factors influence the size of the AVE reductions presented in table 7.2: (1) the digital intensity of the sector and (2) the importance of data localization measures relative to other measures that impact

⁴³⁷ This modeling exercise also takes into account the provisions on the location of financial sector data centers and on cross-border data flows in Chapter 17 of USMCA. For more information on provisions in the financial sector, see chapter 5 of this report.

⁴³⁸ According to testimony before the Commission, the digital trade chapter would benefit U.S. digital industries, but also would benefit international trade across the economy. USITC, hearing transcript, November 16, 2018, 585 (testimony of Joshua Meltzer, Brookings Institution).

⁴³⁹ Additional details about the quantification of the measures can be found in appendix H.

⁴⁴⁰ For example, if a sector invests half as much as computer services in software, that sector’s AVE would be 50 percent of the computer services sector’s AVE. See technical appendix H for a table of the relative software intensity of each industry modeled.

⁴⁴¹ In banking and insurance, Canada currently maintains some data localization measures under articles 239.1 and 597.2 of the Canada Bank Act (s.c. 1991, c.46) and articles 262.1 and 647.3 of the Canada Insurance Companies Act (s.c. 1991, c.47).

the sector. As regards the first factor, data localization and data protection measures have a larger impact in sectors that are relatively more involved in the digital economy, such as banking, telecommunications, and other business services (engineering, architecture, computer services, and accounting services), or those that transfer large volumes of data cross-border, like transportation services. The second factor is more applicable to a sector like insurance. Insurance is relatively digitally intensive, but other barriers, such as requirements for local presence and restrictions on foreign direct investment, tend to restrict trade more than data localization and data transfer measures.

Table 7.2 Estimated reductions in trade costs stemming from the international data transfer provisions in USMCA (percentage points)

Sector	Canada	Mexico	United States
Agriculture (all)	0.56	0.56	0.56
Other food	0.94	0.94	0.94
Beverages and tobacco products	0.94	0.94	0.94
Textiles	1.31	1.31	1.31
Wearing apparel	1.31	1.31	1.31
Leather	1.31	1.31	1.31
Lumber	1.13	1.13	1.13
Paper and paper products	1.13	1.13	1.13
Petroleum and coke	0.94	0.94	0.94
Chemical rubber products	0.94	0.94	0.94
Non-metallic minerals	1.13	1.13	1.13
Iron and steel	1.13	1.13	1.13
Non-ferrous metals	1.13	1.13	1.13
Fabricated metal products	1.13	1.13	1.13
Motor vehicles and parts	1.13	1.13	1.13
Other transport equipment	1.13	1.13	1.13
Electronic equipment	1.31	1.31	1.31
Other machinery and equipment	1.31	1.31	1.31
Other manufacturing	1.31	1.31	1.31
Electricity	0.94	0.94	0.94
Gas distribution	0.94	0.94	0.94
Water	0.94	0.94	0.94
Construction	2.82	2.82	2.82
Trade	1.50	1.50	1.50
Other transport	3.38	3.38	3.38
Water transport	3.19	3.19	3.19
Air transport	1.31	1.31	1.31
Communications	1.69	1.69	1.69
Other financial intermediation	4.50	2.25	2.25
Insurance	2.63	1.31	1.31
Other business services	2.21	2.21	2.21
Recreation and other services	0.94	0.94	0.94

Source: USITC estimates.

The economy-wide model results do not provide estimates isolating the impact of digital trade measures on specific sectors.⁴⁴² However, as described in detail in this report's chapter 2, the aggregated AVE

⁴⁴² The economy-wide model applied in chapter 2 takes into account *all* AVE reductions that apply to each sector, rather than assessing the impact of each policy individually. For example, the AVE reductions on many services sectors take into account changes in both digital trade measures and changes to market access commitments.

reductions associated with USMCA’s Digital Trade chapter, along with provisions related to investment and e-commerce, contribute significantly to the model’s estimated 0.17 percent increase in U.S. services sector output and 1.2 percent increase in services exports to the world.

Impact of USMCA Provisions for Selected Digital Industry Sectors

Computer Services

A prohibition on the forced transfer of source code and algorithms (Article 19.16), and protection from intermediary liability for interactive computer services firms (Article 19.17), are two provisions that apply specifically to firms in the computer services sector. The prohibition on forced transfers of source code and algorithms is seen as a positive step promoting innovation for all computer services companies, while the intermediary liability provision is likely to benefit large interactive computer service providers (also known as online platforms) such as Google and Facebook.

In Article 19.16, source code refers to the version of software that is originally written by humans in plain text.⁴⁴³ A computer algorithm is source code that automates a decision-making process. For example, Google’s PageRank algorithm is the subset of Google’s source code that is responsible for determining the order of pages listed in a Google search.⁴⁴⁴ Provisions protecting source codes and algorithms are critical to computer services firms, which regard them as proprietary information that can confer a key competitive advantage.⁴⁴⁵ While none of the parties to the USMCA currently have source code and algorithm disclosure requirements, industry representatives have noted the importance of this provision for promoting trade in computer services, protecting intellectual property, and fostering innovation.⁴⁴⁶

USMCA’s Article 19.17 applies to interactive computer services, which are services that provide or enable computer access of multiple users to a computer server; this category includes web hosts, search engines, and other websites.⁴⁴⁷ Article 19.17 would protect suppliers of interactive computer services from liability for harm related to information stored, processed, transmitted, or made available by the interactive computer services providers, as long as the provider is not responsible for creating the information.⁴⁴⁸ Major U.S. online platforms such as Google, Facebook, and Amazon are likely to benefit

⁴⁴³ The Linux Information Project, “Source Code Definition” <http://www.linfo.org/sourcecode.html> (accessed November 15, 2018).

⁴⁴⁴ Rosella, “Introducing Algorithms,” <https://www.bbc.com/bitesize/guides/z22wwmn/revision/1> (accessed November, 15, 2018).

⁴⁴⁵ USITC, *Global Digital Trade 1*, 2017, 287.

⁴⁴⁶ Whitlock, written testimony to the USITC, November 15–16, 2018, 3; Scarpelli, written testimony to the USITC, October 30, 2018, 2; Sternburg and Stelly, written testimony to the USITC, November 15–16, 2018, 4; Friedman, written testimony to the USITC, 2; Cory and Ezell, written testimony to the USITC, October 30, 2018, 4.

⁴⁴⁷ Blake, Cassels & Graydon, “Demystified: USMCA’s Digital Trade Provisions on ISP,” November 15, 2018.

⁴⁴⁸ Liability for copyrighted content is not covered in this article; it is discussed in chapter 20 of the agreement. USTR, USMCA full text, chap. 19, art. 19.17. There are also some caveats associated with this article: Mexico has

from this provision, and industry groups in the computer services sector expressed support for the provision.⁴⁴⁹ Other groups, however, raised concerns that the potentially broad immunity of this provision is not consistent with current challenges posed by illegal material on the internet.⁴⁵⁰

Telecommunications

Overall, the USMCA Telecommunications chapter would probably most strongly affect the business segment of the telecom services markets of Canada and Mexico. The consumer segment, on the other hand, will likely be relatively unaffected.⁴⁵¹

Telecommunications business services constitute the delivery of telecom services to multinational corporations, governments, and other large enterprises. Common business services encompass virtual private networks, Ethernet private lines, long-haul private lines, and dedicated Internet services.⁴⁵² Many of these involve setting up corporate networks that connect offices in different cities and countries. Of the five U.S. carriers that offer international business services, AT&T, CenturyLink, and Sprint operate in both the Canadian and Mexican markets, whereas GTT operates only in Canada. Verizon does not operate in either market.⁴⁵³

The obligations imposed by the telecom chapter's provisions would likely benefit U.S. business services providers by improving the business and regulatory climate within which they negotiate with their foreign counterparts to assemble and operate domestic networks and data centers. Such beneficial provisions include requirements for domestic carriers to connect with U.S. enterprise carriers (Article 18.4, specifically the Interconnection provisions, and Article 18.9); provisions allowing U.S. carriers to access and use local and long-distance networks (Articles 18.7, 18.8, and 18.10); provisions allowing U.S. carriers to construct physical networks in-country (Article 18.12); and provisions allowing U.S. carriers to access submarine cable landing stations (Article 18.3).⁴⁵⁴

More generally, USMCA provisions that help to establish a benign investment climate are likely to make it easier for U.S. carriers to operate in Canada and Mexico. Such provisions include the requirements for

three years to implement this section of the agreement, and the liability protection does not apply to content related to sex trafficking. USTR, USMCA full text, chap. 19, annex 19-A.

⁴⁴⁹ Timmons and Kolzowska, "Facebook, Google and Amazon Are Big Winners," October 2, 2018; Sternburg and Stelly, written testimony to the USITC, November 15–16, 2018, 5; Haas, written testimony to the USITC, October 26, 2018, 1; Friedman, written testimony to the USITC, 2.

⁴⁵⁰ CreativeFuture, written submission to the USITC, December 20, 2018, 3; RIAA, written submission to the USITC, December 20, 2018, 9; U.S. Alliance for Music, written submission to the USITC, December 20, 2018, 4; Association of American Publishers, written submission to the USITC, December 20, 2018, 5.

⁴⁵¹ The consumer segment covers individual users, whereas the business segment covers companies, government agencies, and other enterprises.

⁴⁵² TeleGeography, *Global Enterprise Networks* (executive summary), 2015, 1–12.

⁴⁵³ TeleGeography, *Global Enterprise Networks* (executive summary), 2015, 1–12; U.S. business carrier network maps.

⁴⁵⁴ Industry representative, telephone interview by USITC staff, November 19, 2018.

an independent regulator (Article 18.17); dispute resolution procedures (Article 18.23); transparency (Article 18.24); technological neutrality (Article 18.15); and regulatory oversight (Article 18.27).⁴⁵⁵

Due to changes in the telecommunications industry over the past few years, particularly the growing use of data and cloud computing centers, the provisions in USMCA's Digital Trade chapter (Chapter 19) have become critically important to the U.S. telecom industry.⁴⁵⁶ Specifically, Article 19.11 contains a firm commitment requiring the parties to allow the cross-border flow of information. This is of crucial importance to U.S. carriers, as cross-border data flows are integral to offering cloud computing services and/or migrating to software-defined networks (SDNs).⁴⁵⁷ The growing emphasis on such services also requires that U.S. carriers be able to establish data and network operating centers in locations of their choosing. As a consequence, Article 19.12, which stipulates that no party can require a covered person to use or locate computing facilities in that party's territory as a condition for conducting business in that territory, is likewise of major importance. Indeed, according to industry participants, protection from localization laws is essential for U.S. carriers seeking to manage data processing and network management functions from a centralized location. Such centralization offers these carriers major cost and network efficiencies.⁴⁵⁸

Another important benefit of USMCA to U.S. telecom business services carriers is simply that its provisions would benefit their multinational corporate clients across a broad set of industries, allowing such clients to enter the Canadian and/or Mexican markets or to increase existing sales in these markets. These expanded activities, in turn, typically lead to increased sales of business services.⁴⁵⁹

Nonetheless, U.S. telecom services providers are unlikely to enter the consumer telecom markets of either Canada or Mexico based solely on the provisions in USMCA. In Canada, for example, where the market is dominated by three national operators,⁴⁶⁰ several factors would likely deter the emergence of a strong fourth carrier (foreign or domestic). These include the mature, oligopolistic nature of the market; rigid spectrum trading rules; and the lack of attractive merger/acquisition opportunities. Moreover, the complicated patchwork of legacy regional operating concessions would also likely deter new market entrants.⁴⁶¹

In Mexico, AT&T entered the consumer market in 2015,⁴⁶² but further entry by U.S. carriers is likely to be discouraged by heightened industry competition. This situation has resulted in aggressive pricing by market participants and, ultimately, declining industry revenues. The elimination of roaming charges,

⁴⁵⁵ Industry representative, telephone interview by USITC staff, November 19, 2018.

⁴⁵⁶ Industry representative, telephone interview by USITC staff, November 19, 2018.

⁴⁵⁷ Industry representatives, interviews by USITC staff, Washington, DC, February 2, 2016; ITAC-8, TPP, December 3, 2015.

⁴⁵⁸ Industry representatives, February 2, 2016, and March 10, 2016; ITAC-8, The TPP, December 3, 2015.

⁴⁵⁹ Industry representatives, interviews by USITC staff, Washington, DC, June 18, 2015, and March 18, 2016.

⁴⁶⁰ Bell Canada, Rogers Communications, and Telus control 91 percent of mobile subscriptions in Canada.

⁴⁶¹ Fitch Solutions, *Canada Telecommunications Report*, Q4 2018, 1; EIU, *Industry Report: Canada Telecommunications*, Q3 2018.

⁴⁶² AT&T, "AT&T Completes Acquisition of Nextel Mexico," April 30, 2015; AT&T, "AT&T Closes Acquisition of Mexico Wireless Provider Iusacell," January 16, 2015.

both domestic and international, has also depressed industry revenues.⁴⁶³ Spectrum constraints also pose a challenge, as foreign firms seeking to enter the Mexican market would have to either rely on the government to allocate additional spectrum or buy it from an incumbent operator.⁴⁶⁴

Business-to-Consumer E-commerce

Business-to-consumer (B2C) e-commerce in the United States would likely benefit from increased DMT levels, digital trade-facilitating provisions, and explicit data flow protections.⁴⁶⁵ The spread of mobile technology and of enhanced, more flexible payment options is driving global demand for e-commerce, boosting e-commerce's share of total retail sales.⁴⁶⁶ The United States is a global leader in e-commerce and the world's second-largest B2C e-commerce market after China.⁴⁶⁷ Canada and Mexico are key markets for U.S. e-commerce exports.⁴⁶⁸ Further, U.S. e-commerce platforms, including Amazon and eBay, are leading B2C platforms in both Canada and Mexico.

DMTs primarily affect low-value B2C shipments delivered by express delivery firms, and the USMCA provision that raises DMTs would likely result in increased U.S. e-commerce exports. Quantitative analysis indicates that e-commerce shipments to both Canada and Mexico would increase substantially through cost savings and expedited shipments (see detailed analysis below). However, in both of these markets, the two countries' relatively lower thresholds for imposing taxes would dampen gains from the increased DMTs for customs duties, particularly as duties are already low or zero for many U.S. cross-border exports to USMCA partners. Moreover, the increased DMTs for Canada and Mexico under USMCA are still well below the U.S. level of \$800.⁴⁶⁹

U.S. B2C e-commerce firms also are likely to benefit from USMCA protections against data flow restrictions and forced localization. The free flow of data is essential to e-commerce firms, which rely on data for their operations. Activities such as product research, ordering, payments, account and customer management, marketing and customer analysis, fulfillment, and delivery are all data-intensive operations and essential to the e-commerce process. Moreover, USMCA's data provisions would allow e-commerce firms to access online services, which enable scalability, security, speed, and innovation.⁴⁷⁰ Other key USMCA provisions facilitating e-commerce would allow electronic authentication, e-signatures, and paperless trading, which all lower costs by increasing the efficiency of cross-border

⁴⁶³ MarketLine, *Wireless Telecommunication Services in Mexico*, July 2018, 7.

⁴⁶⁴ MarketLine, *Wireless Telecommunication Services in Mexico*, July 2018, 22.

⁴⁶⁵ DMTs apply to all shipments that fall below the DMTs, primarily B2C exports that are generally low volume and value; low-value B2B exports could also benefit from higher DMTs.

⁴⁶⁶ USITC, *Global Digital Trade 1*, 2017.

⁴⁶⁷ U.S. B2C e-commerce sales were \$340 billion in 2017. Equid, Richie, "10 of the Largest E-commerce Markets," February 22, 2017, <https://www.business.com/articles/10-of-the-largest-ecommerce-markets-in-the-world-b/>.

⁴⁶⁸ In B2C, Canada is the world's eighth-largest market. Canada had annual online sales of \$30 billion in 2016, which accounted for 6 percent of Canada's total retail sales. Mexico's e-commerce market is growing rapidly but is much smaller; its e-commerce sales of \$8 billion represented about 1 percent of Mexico's total retail sales. Statista, "Canada E-commerce Report"; Statista, "Mexico E-commerce Report" (both accessed November 22, 2018).

⁴⁶⁹ eBay, prehearing submission to the USITC, December 19, 2018, 3.

⁴⁷⁰ Aydin, "Cloud Computing for E-commerce," March–April, 2015.

transactions and delivery.⁴⁷¹ In addition, cross-border e-commerce sales of digital products would likely benefit from the agreement's prohibition on customs duties and fees and its requirement of nondiscriminatory treatment for digital products.

Express Delivery

Higher DMT levels specified by parties to the agreement would also likely benefit express delivery services providers and their customers through faster delivery times and lower costs for customs processing. In addition, as noted in chapter 6 ("Services") of this report, provisions on express shipments under the USMCA would also likely stimulate growth among e-commerce firms doing business in signatory countries.⁴⁷²

Express shipments that cross international borders are subject to DMTs. Items that fall below a country's DMT are exempt from customs duties and taxes and benefit from simplified clearance procedures at customs checkpoints.⁴⁷³ High DMTs would thus facilitate cross-border goods trade, which, as noted above, is increasingly composed of low-value e-commerce shipments.⁴⁷⁴

Overall, U.S. industry representatives voice much the same conclusions about express shipments as they did about e-commerce (see previous section). Specifically, they indicate that higher DMTs would enhance e-commerce transactions among USMCA countries by ensuring that low-value shipments, especially by SMEs, do not face customs-related duties and fees, as well as delays at customs checkpoints.⁴⁷⁵ On the other hand, U.S. industry sources also state that the specification of a lower DMT for taxes by Canada and Mexico may erode the benefits derived from higher customs DMTs in the two countries because shipments valued above the DMTs for taxes would still be subject to inspection by customs authorities, even though they would be exempt from customs duties. In particular, these shipments would still face sales taxes and fees and be subject to inspection by customs authorities. As a result, low tax DMTs would make it harder for U.S. exporters, including e-commerce firms and SMEs, to take advantage of simplified customs treatment for low-value shipments to Canada and Mexico.⁴⁷⁶

A further complication is that footnote 3 under USMCA Article 7.8(f) permits countries to impose, on a reciprocal basis, a lower DMT on shipments from another party to the agreement.⁴⁷⁷ This would mean that the United States could potentially offer Canada and Mexico a lower DMT than the \$800 amount it

⁴⁷¹ World Economic Forum, "Paperless Trading: How Does It Impact?" November 2, 2017.

http://www3.weforum.org/docs/WEF_36073_Paperless_Trading_How_Does_It_Impact_the_Trade_System.pdf.

⁴⁷² See this report's chapter 5 on services.

⁴⁷³ Industry representatives, interview by USITC staff, Washington, DC, October 29, 2018.

⁴⁷⁴ USITC, hearing transcript, November 15, 2018, 320 (testimony of Michael Mullen, Express Association of America).

⁴⁷⁵ At the same time, U.S. industry representatives encourage strengthening DMT provisions under Article 7.8(f). This could be achieved by removing distinctions in the agreement between DMT for customs duties and those for taxes, and ensuring that USMCA countries are obligated to maintain no less than the DMTs specified in the agreement with respect to USMCA trade partners. EAA, prehearing written submission to the USITC, November 15, 2018.

⁴⁷⁶ EAA, interview by USITC staff, Washington, DC, October 29, 2018; EAA, prehearing written submission to the USITC, November 15, 2018.

⁴⁷⁷ USTR, USMCA full text, Chapter 7: Customs Administration and Trade Facilitation, Article 7.8(f), footnote 3 (accessed November 5, 2018).

offers other countries. This, in turn, would run counter to the objective of the agreement and negatively affect e-commerce flows to the United States by effectively imposing a tax on U.S.-bound e-commerce shipments.⁴⁷⁸ Finally, U.S. industry representatives caution that the use of “best endeavor” language in Article 7.8 may weaken countries’ resolve to implement DMT provisions regarding express shipments.⁴⁷⁹ Without a firm commitment to such provisions, express delivery and e-commerce firms would likely not realize the agreement’s full benefits.⁴⁸⁰

Estimating the Effects of Higher De Minimis Thresholds

Industry-specific quantitative analysis of USMCA’s higher DMT levels suggest that U.S. e-commerce exports would increase by \$332 million to Canada and \$91 million to Mexico. E-commerce transactions here refers to only low-value merchandise purchases (under \$2,500) made by consumers through online platforms.⁴⁸¹ It does not cover all low-value shipments, which would also be affected by DMTs but were not included in the modeling analysis. An industry-specific partial equilibrium framework was used to analyze the effects on cross-border shipments of U.S.-based e-commerce firms from changes to Canadian and Mexican DMTs in USMCA.⁴⁸² The model treats different retail channels (including brick-and-mortar stores, domestic online platforms, and international online platforms) as imperfect substitutes for each other, allowing consumers to respond to price differences between brick-and-mortar retail firms and e-commerce firms. In general, as suggested earlier, higher DMTs for U.S. express shipments in Canada and Mexico should lead to a reduction in prices for Canadian and Mexican consumers and thus increase cross-border exports of U.S. e-commerce firms at the expense of brick-and-mortar stores and domestic online sales in those countries.⁴⁸³

Table 7.3 shows the way shipments from U.S.-based e-commerce firms to Canada would be affected by Canada’s and Mexico’s higher DMTs. As noted earlier, Canada’s DMTs would rise to \$30 for sales taxes and \$117 for duties; Mexico’s DMT would rise to \$117 for duties only, while its DMT for sales taxes would stay the same at \$50. The value of cross-border shipments from U.S. e-commerce firms to Canada would increase by 4.6 percent, which translates into \$333 million in additional sales for these U.S.-based e-commerce firms. Because there would be no increase in the DMT for taxes in Mexico, the impact of Mexico’s DMT change on US express shipments would be smaller than what was observed for Canada’s DMT changes. Table 7.3 shows that the value of cross-border shipments from U.S.-based e-commerce

⁴⁷⁸ EAA, interview by USITC staff, Washington, DC, October 29, 2018; USITC, hearing transcript, November 15, 2018, 254 (testimony of Michael Mullen, Express Association of America).

⁴⁷⁹ EAA, interview by USITC staff, Washington, DC, October 29, 2018; EAA, prehearing written submission to the USITC, November 15, 2018.

⁴⁸⁰ EAA, interview by USITC staff, Washington, DC, October 29, 2018.

⁴⁸¹ This is the U.S. Department of Commerce definition of low-value shipments. USDOC, “Trade Definitions,” <https://www.census.gov/foreign-trade/reference/definitions/index.html> (accessed April 5, 2019).

⁴⁸² See appendix I for more details on the PE framework employed in this analysis.

⁴⁸³ The USITC analysis assumes that increases in DMTs for express shipments are applicable only to the parties to the agreement, so shipments from the rest of the world would continue to fall under the previous DMTs in Canada and Mexico. If this is not the case, then other countries would also be able to take advantage of the lower DMTs, and the increased competition would diminish potential increases in the exports of U.S. e-commerce firms.

firms to Mexico would rise by 3.6 percent, which translates into \$91 million in additional sales for U.S. e-commerce firms.

These results, however, are sensitive to assumptions about the share of U.S. packages affected by the higher DMTs and the level of substitutability among the different retail channels. Lower shares of packages falling under the new DMT would reduce the expected increase in sales; so would less substitutability between brick-and-mortar stores and online platforms.

Table 7.3 Impact of Canada and Mexico increasing de minimis thresholds

Model results	Canada	Mexico
Current value of all e-commerce shipments (million dollars)	22,000.0	8,715.0
Current value of U.S. e-commerce shipments (million dollars)	7,260.0	2,527.0
Expected change in price of U.S. e-commerce shipments (percent)	-1.4	-1.1
Expected change in value of U.S. e-commerce shipments (million dollars)	332.3	91.3

Source: USITC estimates.

Note: E-commerce shipments refer to low-value merchandise purchases made by consumers through online platforms.

Electronic Payment Services

The USMCA's commitments on electronic payment services would likely provide greater certainty for payment services firms that operate in partner countries, making this step likely beneficial for U.S. service providers. In the Annexes to USMCA's financial services chapter, the parties agree that commitments to provide national treatment (17.3.3) and market access (17.5.1) to firms of the signatory countries would apply to electronic payment services for card transactions. These include payments via credit cards, charge cards, debit cards, traveler's checks, and banker's drafts, but not securities transactions. Users of online payment services typically place payment requests via websites or mobile applications; the requests are encrypted and securely transferred to a payment services provider (such as a bank or credit card company), which processes and settles the transaction. In defining "electronic payment services" (17.3.3), all three countries include business-to-business payment transactions on proprietary networks. The United States and Canada also include the broad category "processing of financial transactions," but Mexico includes only four specific processing activities: receiving and sending messages, calculating fees and balances, providing information about net financial positions, and value-added services related to the above.

USMCA's section on national treatment requires the countries to treat each other's providers of cross-border electronic payment services the same as their own domestic providers. (However, they do not have to permit cross-border suppliers to do business or solicit in their territory.) In the agreement's market access section, the parties agree not to cap the number of electronic payment service suppliers, limit the value of transactions or assets, apply economic needs tests, restrict the number of employees, or limit the types of legal entities through which firms can offer their electronic payment services. Mexico also includes a stipulation (in Annex 3 B-5) that cross-border electronic payment suppliers must provide the same services in their home country, and must have an authorized affiliate in Mexico.

The original NAFTA gave financial services providers the right to transfer information electronically across borders if those transfers were part of the ordinary course of business (Article 1407), but it did not mention electronic payments (see chapter 6 in this report, "Financial Services"). In the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, which includes Canada and

Mexico, the parties agree (in Annex 11-B Section D) to allow the supply of electronic payment services for payment card transactions from other parties, though some conditions can be imposed. The parties reserve the right to protect personal data, regulate interchange and switching fees, and impose fees on the suppliers of electronic payment services.

Canada has a mature electronic payment services market. In 2017, 99 percent of the Canadian population over age 15 had a financial account at an institution or with a mobile money service provider (exceeding the 93 percent figure for the United States).⁴⁸⁴ In 2016, the volume of payment transactions in Canada grew to \$9.2 trillion, and more money was transferred electronically than via checks.⁴⁸⁵ The average person in Canada used a card 276 times that year (in the United States it was 326).⁴⁸⁶ U.S. payment firms are active in Canada: Visa, MasterCard, and American Express all operate in the country, and accounted for an estimated 92 percent of the credit card market in 2015.⁴⁸⁷ PayPal also operates in Canada and has an estimated 76 percent share of the payment processing market (followed by Stripe and Square).⁴⁸⁸

Mexico's electronic payment services market is growing quickly, but from a lower base. In 2017, only 37 percent of the Mexican population over age 15 had a financial account at an institution or with a mobile money service provider, and credit cards were used only 21 times per person, on average, in 2016.⁴⁸⁹ The use of online banking services is still concentrated in urban areas like Mexico City.⁴⁹⁰ U.S. payment firms Visa, MasterCard, and American Express accounted for an estimated 96 percent of Mexico's credit card market in 2015.⁴⁹¹ Banks that partner with these networks to issue credit and debit cards in Mexico include BBVA Bancomer, Banamex (owned by Citigroup), Banorte, Santander, and HSBC. PayPal started operating in Mexico in 2012, and has an estimated 62 percent share of the payment processing market (followed by MercadoPago and Openpay).⁴⁹² In 2015, Alipay partnered with MercadoPago to enable payments in Mexico for goods on the Chinese platform Alibaba.⁴⁹³

Express/Postal Services

Overall, provisions on express delivery services in USMCA would be likely to have a positive effect on the operation of U.S. firms in Canada and Mexico, particularly by enhancing the transparency of rules governing participation in the express delivery sectors of MCA countries.⁴⁹⁴ Annex 15-A on delivery services incorporates competition principles between private delivery services firms, including express

⁴⁸⁴ World Bank, DataBank (accessed November 19, 2018).

⁴⁸⁵ Payments Canada, "Canadian Payment Methods and Trends," December 2017.

⁴⁸⁶ Bech et al., "Payments Are A-changin'," March 2018.

⁴⁸⁷ Worldpay, *Global Payments Report*, November 2015, 35.

⁴⁸⁸ Datanyze, "Market Share/Payment Processing/Canada" (accessed November 19, 2018).

⁴⁸⁹ World Bank, DataBank (accessed November 19, 2018); Bech et al., "Payments Are A-changin'," March 2018.

⁴⁹⁰ InstaPay, "Country Profile: Mexico" (accessed November 19, 2018).

⁴⁹¹ Worldpay, *Global Payments Report*, November 2015, 55.

⁴⁹² Datanyze, "Market Share/Payment Processing/Mexico" (accessed November 19, 2018).

⁴⁹³ Americas Market Intelligence, "Payments in Latin America," October 2016, 6.

⁴⁹⁴ Industry representatives, interview by USITC staff, Washington, DC, October 29.

providers, and postal authorities.⁴⁹⁵ The annex is designed to establish a level playing field between private firms and state-owned postal authorities in providing package delivery and other non-postal monopoly delivery services, a significant proportion of which are related to e-commerce flows.⁴⁹⁶

In general, provisions in the delivery services annex would (1) require postal authorities in USMCA countries to clearly define the scope of services that fall within their universal service obligation; (2) prohibit postal authorities from cross-subsidizing their competitive services with revenues from services covered by their postal monopoly;⁴⁹⁷ (3) prevent parties from requiring that private delivery firms provide universal service as a condition for receiving a license to operate; and (4) ensure that the authority responsible for regulating competitive delivery services is independent from the postal authority.⁴⁹⁸ In addition, Article 15-A(8) recognizes the right of private delivery firms operating outside their own country to contract with local providers to assume a portion of the firm's delivery service. This provision would ensure that private delivery services firms do not have to pay a fee to postal entities to provide services and that express firms are not required to meet universal service obligations.⁴⁹⁹

According to U.S. industry representatives, because the postal authorities of Canada and Mexico already adhere to provisions in the annex that prohibit postal authorities from cross-subsidizing their competitive services with revenues from services covered by their postal monopoly, USMCA would likely not result in large changes to the operating environment for express delivery firms in Canada and Mexico. In addition, the national treatment provisions within USMCA's Cross-Border Trade in Services chapter that concern express firms are similar to those in other recent U.S. free trade agreements. They generally underscore the absence of significant national treatment issues for foreign express providers in Canada and Mexico.⁵⁰⁰

⁴⁹⁵ Provisions under Annex 15-A apply to slower, more deferred types of package delivery services in addition to express delivery. Express Association of America (EAA), interview by USITC staff, Washington, DC, October 29, 2018.

⁴⁹⁶ EAA, interview by USITC staff, Washington, DC, October 29, 2018.

⁴⁹⁷ Footnote 8 under Annex 15-A (4) states that the postal authorities of parties to the agreement must submit to an independent audit to determine the existence or absence of cross-subsidization. By contrast, in the Trans-Pacific Partnership Agreement (TPP), the United States had a side letter with Japan that required an audit, but this provision was not part of the main text of the TPP. Express Association of America (EAA), interview by USITC staff, Washington, DC, October 29, 2018.

⁴⁹⁸ USTR, USMCA full text, Chapter 15: Cross-Border Trade in Services, Annex 15-A: Delivery Services, n.d. <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf> (accessed November 5, 2018); ITAC 10, *A Trade Agreement with Mexico and Potentially Canada*, Addendum, October 9, 2018, 3. Industry representatives suggest that the language in this provision would be stronger if it stated that parties should establish an independent regulator to oversee competition in commercial delivery services, rather than that the regulator should be independent from the postal authority. Express Association of America (EAA), interview by USITC staff, Washington, DC, October 29, 2018.

⁴⁹⁹ Express Association of America (EAA), interview by USITC staff, Washington, DC, October 29, 2018.

⁵⁰⁰ USITC, hearing transcript, November 15, 2018, 320 (testimony of Michael Mullen, Express Association of America).

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Chapter 8

Crosscutting Provisions: Investor-State Dispute Settlement, Intellectual Property Rights, and Labor

Overview

This section assesses the likely impact on the U.S. economy and industry sectors of changes to the following three “crosscutting” chapters of USMCA: the discussion of investor-state dispute settlement in the investment chapter (Chapter 14); the chapter on intellectual property rights (IPRs) (Chapter 20); and the chapter on labor (Chapter 23). To do so, this section summarizes the major provisions, identifies key changes to commitments (relative to NAFTA or other prevailing agreements), and assesses the impact of those changes both qualitatively and quantitatively. The Commission’s assessment of the impact of these chapters draws on information found in the literature and provided to the Commission during the course of the investigation (e.g., through the Commission’s public hearing on November 15–16, 2018), as well as the Commission’s own qualitative and quantitative analysis.

Changes in provisions in three crosscutting issues examined in this chapter are together expected to generate moderate gains for the overall U.S. economy. Because of the crosscutting nature of these three USMCA chapters or chapter sections, the new provisions are expected to affect multiple sectors of the U.S. economy and to do so in different ways. These effects should be considered as supplementary to the discrete effects identified in the earlier sections of this report. The analysis of these USMCA provisions is organized by their corresponding chapter number in USMCA, as seen in table 8.1 below.

Table 8.1 USMCA Chapters in this section

Chapter number	Chapter title
14	Investment (portions related to the Investor-State Dispute Settlement (ISDS))
20	Intellectual Property Rights (IPRs)
23	Labor

Source: USMCA full text.

Investor-State Dispute Settlement Mechanism

The investment chapter of USMCA, chapter 14, establishes a general framework for investment protection and enforcement for associated parties.⁵⁰¹ This chapter includes new provisions on investor-state dispute settlement (ISDS) mechanisms, which are the most substantial revisions to the investment chapter. These provisions provide arbitration options for investors who allege that host governments

⁵⁰¹ Compared to NAFTA, USMCA’s Chapter 14 offers a clearer definition of an “investment,” stating that “investment means every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, the expectation of gain or profit, or the assumption of risk.”

violate investment terms. The changes made to these provisions relate to legacy and pending investment claims (Annex 14-C), U.S.-Mexico dispute settlement (Annex 14-D), and covered government contracts (Annex 14-E) (table 8.2), which all generally limit the scope of ISDS. Specifically, the new measures would eliminate the ability of U.S. and Canadian investors to use the ISDS mechanism against one another after a three-year phaseout period. Moreover, it would retain ISDS regulations between the United States and Mexico only under specific circumstances. Annexes I and II in Part B of USMCA set out country-specific nonconforming measures relating to each party's obligations on investment. The assessments of these changes in the investment provisions are presented in chapter 6, and should be considered supplementary to the discrete ISDS-related effects described below.

This section starts with a brief introduction to the ISDS mechanism under NAFTA, followed by a description of the reduction in the scope of the ISDS mechanism under USMCA when compared to NAFTA. The section concludes with a summary of ISDS-related literature and the Commission's quantitative assessment on the most impactful ISDS provisions. The assessment indicates that the likely impact of the general reductions in scope of the ISDS mechanism will be a decrease in foreign affiliate sales in Mexico, and a redirection of a part of that capital to the U.S. economy. While this increased investment in the United States is small and is not likely to have a substantial economy-wide effect, its impact will likely be most significant in the improvement of output in the U.S. manufacturing and mining industry.

Assessment of Changes in Key ISDS Provisions

ISDS is a mechanism in a trade agreement or investment treaty that gives foreign investors the right to access an international tribunal to resolve investment disputes against a host country. The mechanism in Chapter 11 of the NAFTA is patterned after the investor-state dispute settlement mechanism of the standard U.S. bilateral investment treaty and permits an investor to submit its claim to binding arbitration under internationally accepted rules.⁵⁰² Articles 1116 and 1117 of NAFTA set forth the kinds of claims that an investor may submit to arbitration, including allegations of direct injury to an investor and allegations of indirect injury to an investor caused by injury to a firm in the host country that is owned or controlled by the investor. They allowed investors to bring claims where the injury results from an alleged breach of Section A of Chapter 11 or certain provisions governing the behavior of government monopolies in Chapter 15 of NAFTA.⁵⁰³ All claims were required to be brought within three years.⁵⁰⁴

USMCA substantially limits the scope of ISDS compared to NAFTA.⁵⁰⁵ Following is a summary of key USMCA provisions related to ISDS (table 8.2).

⁵⁰² The North American Free Trade Agreement Implementation Act, Statement of Administrative Action, at 145, contained in House Doc. 103-159, Vol. 1, 1993.

⁵⁰³ The North American Free Trade Agreement Implementation Act, Statement of Administrative Action, at 145, contained in House Doc. 103-159, Vol. 1, 1993.

⁵⁰⁴ The North American Free Trade Agreement Implementation Act, Statement of Administrative Action, at 146, contained in House Doc. 103-159, Vol. 1, 1993.

⁵⁰⁵ Provisions for ISDS were originally located in Section B of Chapter 11 of the original NAFTA. New provisions for ISDS under USMCA are contained in Annexes 14-C, 14-D, and 14-E.

Table 8.2 Summary of key USMCA provisions related to ISDS

USMCA provision	Comparison to NAFTA provisions
Legacy Investment Claims and Pending Claims. ISDS expires for current investments three years after USMCA enters into force (pending claims can proceed in this window). Eliminates ISDS between the U.S. and Canada after the three-year phaseout period.	New in USMCA
U.S.-Mexico Dispute Settlement. ISDS remains for U.S.-Mexico investors, but they must first exhaust domestic remedies, or spend 30 months attempting to exhaust them, before ISDS is an option (allows claims only for direct expropriation, national treatment, and most-favored-nation, or MFN, treatment).	New in USMCA
Covered Government Contracts. Allows full ISDS for U.S. investors in Mexico with a “covered government contract” for investments in five “covered sectors.”	New in USMCA
Performance Requirements. The provision prohibits rules imposed on the purchase or use of a specific technology or the adoption of a certain royalty rate under a licensed contract.	Modified in USMCA
National Treatment. Clarifies the concept of national treatment in “like circumstances.”	Modified in USMCA
Most-Favored-Nation (MFN) Treatment. Clarifies the concept of MFN treatment in “like circumstances.”	Modified in USMCA
Minimum Standard of Treatment. USMCA clarifies that “the mere fact that a Party takes or fails to take an action that may be inconsistent with an investor’s expectations does not constitute a breach of this Article.”	Modified in USMCA. Clarifies language used.

Source: USMCA full text.

As indicated in table 8.2 above, Annex 14-C of USMCA states that current and pending investments under the original NAFTA are still subject to the ISDS mechanism under the original NAFTA, following original Section B procedures indicated in NAFTA. This allowance will expire three years after USMCA enters into force.⁵⁰⁶ Meanwhile, Annex 14-D of USMCA only describes the ISDS mechanism between the United States and Mexico. The ISDS mechanism between the United States and Canada would be phased out three years after USMCA enters into force.⁵⁰⁷ Upon its expiration, U.S. investors in Canada could no longer use the ISDS mechanism under USMCA to pursue claims against the Canadian government. Such disputes would be handled by local Canadian courts.

For Mexico, ISDS regulations would remain in effect, but only in well-defined circumstances. Per Annex 14-E under USMCA, U.S. investors who are “a party to a covered government contract” with the Mexican government in five sectors (oil and natural gas, power generation, telecommunications, transportation services, and some infrastructure⁵⁰⁸) would be able to proceed directly to file claims

⁵⁰⁶ This three-year phaseout period for the old ISDS under the original NAFTA is fully trilateral—i.e., it applies to U.S. investors in Canada and Mexico, as well as Canadian and Mexican investors in the United States.

⁵⁰⁷ No new cases may be filed after three years under ISDS provisions in NAFTA. A case initiated within the three years may continue until it is complete, even if completion is outside the three-year time period. See USMCA, Annex 14-C, paragraph 4. After three years, any new investments—and all current investments after the three-year phaseout terminates—are subject to USMCA’s new dispute settlement provisions.

⁵⁰⁸ “Some infrastructure” refers to “the ownership or management of roads, railways, bridges, or canals that are not for the exclusive or predominant use and benefit of the government of an Annex Party.” See USMCA, Annex 14-E.

using the ISDS mechanism.⁵⁰⁹ These U.S. investors would be allowed to raise any claims for breach of obligations in the Investment Chapter (Chapter 14) of USMCA, including direct and indirect expropriation, national treatment, MFN treatment, performance requirement, and minimum standard of treatment (MST).⁵¹⁰ Therefore, these investors would still retain full access to ISDS, similar to the level of protection they received under the original NAFTA.

On the other hand, per Annex 14-D under USMCA, while U.S. investors outside those five sectors may use international arbitration courts, they must first exhaust Mexican domestic remedies to resolve their disputes, or spend at least 30 months attempting to do so.⁵¹¹ Moreover, U.S. investors outside those five sectors can raise claims against the Mexican government only about direct expropriation, national treatment, and MFN treatment. They can no longer file claims about other breaches, such as indirect expropriation or minimum standard of treatment (MST).⁵¹² Box 8.1 offers a summary of cases filed by investors using the ISDS mechanism under NAFTA, followed by a brief discussion of the ways that the changes in ISDS provisions under USMCA might affect these investors.

Box 8.1 History of ISDS under NAFTA

Sixty-one ISDS cases have been filed under NAFTA (see table in this textbox). Most of these—43 cases—were filed by U.S. investors, 26 against Canada and 17 against Mexico. Meanwhile, there are 16 cases filed under NAFTA against the U.S. government. Among them, 15 were filed by Canadian investors and one by a Mexican investor. The U.S. government did not lose any of these cases. Among the cases filed by U.S. investors against Canada, 4 were decided in favor of U.S. investors, 5 were settled outside of the arbitration proceedings, 4 were discontinued, 8 were dismissed, and the remaining 5 cases were still pending as of November 2018.^a Given that ISDS between Canada and the United States will be phased out after three years, U.S. investors will no longer be able to file cases against Canada under ISDS mechanisms in USMCA.

⁵⁰⁹ Annex-E of USMCA's Chapter 14 states that "covered government contract" means "a written agreement between a national authority of an Annex Party and a covered investment or investor of the other Annex Party, on which the covered investment or investor relies in establishing or acquiring a covered investment other than the written agreement itself, that grants rights to the covered investment or investor in a covered sector."

⁵¹⁰ For definition of NT, see Article 14.4 of USMCA's Chapter 14; for definition of MFN treatment, see Article 14.5 of USMCA's Chapter 14; for definition of MST, see Article 14.6 of USMCA's Chapter 14; for definition of performance requirements, see Article 14.10 of USMCA's Chapter 14. Note that breaches of "treatment in case of armed conflict or civil strife" can also be litigated using ISDS under both agreements (original NAFTA and USMCA). However, in NAFTA, that rule appears in the MST provision; in USMCA, it falls under a separate Article—Article 14.7. U.S. government official, email message to USITC staff, March 5, 2019.

⁵¹¹ Under the ISDS mechanism in the original NAFTA, an investor pursuing an investor-state dispute needs to wait six months before filing a case through ISDS. However, U.S. investors are not required to file cases through the Canadian federal court or the Mexican domestic court system first before going through ISDS.

⁵¹² Direct expropriation refers to a situation in which "an investment is nationalized or otherwise directly expropriated through formal transfer of title or outright seizure." See USMCA, Annex 14-B. For definition of indirect expropriation, see Annex 14-B(3) of the USMCA. Annexes 14-D and 14-E are fully reciprocal as between the United States and Mexico.

ISDS cases filed under NAFTA

Host Country	Investor Country	Total Cases	Breaches Claimed					Performance Requirement
			Direct Expropriation	Indirect Expropriation	National Treatment (NT)	MFN Treatment	Minimum Standard of Treatment	
Canada	United States	26	1	16	18	11	25	8
Mexico	United States	17	1	15	12	4	14	3
United States	Canada	15	0	11	14	7	14	1
Mexico	Canada	2	0	2	1	1	2	0
United States	Mexico	1	0	0	1	1	1	0
Canada	Mexico	-	-	-	-	-	-	-

Source: UNCTAD Investment Policy Hub, Investment Dispute Settlement Navigator <https://investmentpolicyhubold.unctad.org/ISDS> (accessed March 6, 2019).

Note: Some cases claimed multiple breaches. Therefore, the number of breaches claimed do not necessarily add up to the number of total cases. The provision on minimum standard of treatment includes the breaches regarding fair and equitable treatment and full protection and security.

Among the 17 cases U.S. investors filed against Mexico, 5 were decided in favor of U.S. investors, 2 were discontinued, another 7 dismissed, and the final 3 cases remained pending as of November 2018. The two most commonly invoked grounds for claims filed by U.S. investors against Mexico are indirect expropriation (15 out of 17 cases) and minimum standard of treatment (14 out of 17 cases) (see table in this textbox). Given that under the ISDS mechanism in USMCA, U.S. investors outside the five sectors previously identified can bring claims only on three types of breaches—direct expropriation, NT, and MFN treatment—access to the ISDS mechanism becomes much more limited for these investors than under NAFTA. Moreover, the majority of the U.S. investors who have filed claims against Mexico are outside the five sectors previously identified: 4 investors were in the manufacturing sector; 2 in agriculture, forestry, and fishing; 4 in water supply, sewage, and waste management; 2 in real estate activities; and the other 4 were in other services sectors (1 in construction services; 1 in arts and recreation services; 1 in wholesale and retail trade, and another in information and communication services).

Source: UNCTAD, Investment Dispute Settlement Navigator database (accessed November 9, 2018).

^a Among the 26 ISDS cases U.S. investors filed against Canada under NAFTA, one involved breaches alleged by U.S. investors based on direct expropriation—*AbitibiBowater Inc. v. the Government of Canada*—in which the corporation complained that a law passed by the government of Newfoundland and Labrador expropriated the corporation’s main assets in the province. Breaches alleged by U.S. investors in the other 25 cases all involved indirect expropriation and/or other breaches. Given that there was a case filed by a U.S. investor against Canada on direct expropriation under the ISDS mechanism in NAFTA, there are concerns among U.S. industry representatives that U.S. investors might not receive sufficient protection under the Canadian domestic legal system after the expiration of ISDS under NAFTA. U.S. industry representative, telephone interview by USITC staff, November 19, 2018.

Besides the changes already noted, the new ISDS mechanism under USMCA also excludes the filing of “pre-establishment” claims for national/MFN treatment and performance requirements, except for in

the five named sectors.⁵¹³ Meanwhile, in order to qualify to file cases under the new ISDS mechanism, a firm could not be owned or controlled by a non-market economy with which no party has a free trade agreement (FTA). This provision, which is found in Article 14.D.1 of the agreement, applies to investments covered under both Annex 14-D and Annex 14-E.

Furthermore, U.S. investors in the financial services industry could not use the ISDS system to bring claims on national treatment and MFN treatment under the NAFTA. The new ISDS mechanism under USMCA would allow U.S. investors in the financial services industry to bring claims on direct expropriation, national treatment and/or MFN treatment against Mexico. However, U.S. investors in the financial services industry would also need to exhaust remedies in Mexican's domestic court system, or spend 18 months attempting to do so, and could not bring claims for breaches such as indirect expropriation or MST.⁵¹⁴

Finally, in contrast to NAFTA, USMCA offers clear guidance to tribunals as to how to determine whether there has been an indirect expropriation. That is, the last paragraph of Annex 14-B under USMCA provides that—except in rare circumstances—nondiscriminatory regulatory actions designed and applied to protect “legitimate public welfare objectives” are not considered indirect expropriations.⁵¹⁵ In the meantime, Article 8 of Annex 14-D increases the transparency of arbitration proceedings under the ISDS mechanism.

As indicated, U.S. investors in Mexico could still bring claims involving direct expropriation, national treatment, and MFN treatment under USMCA. The new agreement adds clarifying language on the national treatment and MFN treatment provisions that did not exist in NAFTA regarding “like circumstances.”⁵¹⁶ Specifically, when deciding whether foreign investors are treated differently, tribunals would be required to determine whether treatment would be accorded in “like circumstances,” based on a totality-of-the-circumstances test. Such a test would include an assessment of whether the relevant treatment distinguishes between investors or investments based on “legitimate public welfare objectives.”

Similar clarifying language on national treatment and MFN treatment was introduced in the Trans-Pacific Partnership (TPP) Agreement, and likely reflects a common view that treating foreign investors and domestic investors differently does not necessarily breach the national treatment rule.⁵¹⁷ Under USMCA, an arbitrator would need to look at all of the facts and circumstances to determine whether a foreign investor is being treated differently based on nationality (not, for example, based on legitimate public welfare objectives).⁵¹⁸

⁵¹³ Per Article 14.D.3, U.S. investors outside the aforementioned five sectors can file claims on breaches regarding National Treatment and MFN treatment, except with respect to the establishment or acquisition of an investment.

⁵¹⁴ U.S. government official, email message to USITC staff, December 12, 2018.

⁵¹⁵ The United States has a version of this annex in all post-NAFTA trade agreements. It is not intended to narrow the scope of indirect expropriation claims, but rather to make explicit in more detail the U.S. approach to indirect expropriation. U.S. government official, email message to USITC staff, March 5, 2019.

⁵¹⁶ See USMCA, Article 14.4 and 14.5.

⁵¹⁷ U.S. government official, email message to USITC staff, December 12, 2018.

⁵¹⁸ The clarifying language on national treatment and MFN treatment applies to both ISDS and State-State Dispute Settlement (SSDS) procedures, which are the only forms of arbitration permitted under USMCA. U.S. government official, email message to USITC staff, December 12, 2018.

Finally, the performance requirement provision has improved substantially in USMCA compared to NAFTA, a change that strengthens the discipline on host countries. In the new agreement, the provision explicitly forbids host countries to impose rules related to the purchase or use of a specific technology, or to adopt a given rate or amount of royalty under a licensed contract.

Modeling of Changes to Key ISDS Provisions

The Commission’s quantitative assessment of the ISDS provisions sought to identify how the changes in ISDS provisions could affect the U.S. economy as well as different sectors. This section starts with a review of the related literature and opinions from industry representatives assessing the impact of ISDS provisions. Next, it describes the analytical framework used by the Commission to assess the effect of changes in ISDS provisions under USMCA compared to NAFTA. It will conclude with a summary of the modeling results, which suggest that capital used by U.S. foreign affiliates in Mexico is likely to be marginally redirected back into the United States, ultimately increasing output in U.S. manufacturing more than in other sectors that were considered.

Literature Review and Summary of Information from the Commission’s Public Hearing

This section reviews the economic literature that is relevant to assessing the impact of ISDS provisions. In addition to the economic literature, the Commission also considered information obtained at the Commission’s public hearing held on November 15–16, 2018, regarding industry concerns on the change of ISDS provisions under USMCA.

The literature generally finds that bilateral investment treaties (BITs), of which ISDS provisions form a crucial part, increase investment, though a substantial minority of papers find no effect.⁵¹⁹ Recent findings help explain this discrepancy by demonstrating the importance of host country conditions and the specific provisions included in the agreement itself.⁵²⁰ As discussed in the literature review below, the effects of BITs are strongest when the recipient of the investment is a developing or transition economy. Market risk and financial system development are also important determinants, as is the sector of the investment, and even the type of investment. Among BITs provisions, ISDS and national treatment have been shown to have important effects in some studies. The effects of ISDS are central to assessing the impact of USMCA. As discussed below, however, there is conflicting evidence on the impact of ISDS provisions alone on investment. Several authors have found that ISDS provisions form a crucial part of BITs, and that they increase BITs’ credibility and effectiveness (Wälde 2005, Allee and Peinhardt, 2011, Oldenski, 2015).⁵²¹ As such, there is an implicit, but logical, connection between

⁵¹⁹ For a review of the literature, see UNCTAD, “The Impact of International Investment Agreements,” 2014.

⁵²⁰ Studies’ conclusions also diverge because of methodological differences and data limitations. There is limited information on bilateral sectoral investment flows, particularly among developing economies, and no consensus has yet emerged on best practice in methodology for gravity analysis of investment determinants. UNCTAD, “The Impact of International Investment Agreements,” 2014, 6.

⁵²¹ Wälde, “The ‘Umbrella’ Clause in Investment Arbitration: A Comment on Original Intentions and Recent Cases,” 2005; Allee and Peinhardt, “Contingent Credibility: The Impact of Investment Treaty Violations on Foreign Direct Investment,” 2011; Oldenski, “What Do the Data Say about the Relationship between Investor-State Dispute Settlement Provisions and FDI?” 2015.

improved ISDS provisions (which would theoretically enhance the credibility of an effective BIT) and investment behavior.

The impact of BITs on investment was estimated in several studies. Egger and Merlo (2007) assess the impact of ratified BITs on bilateral outward stocks of FDI, and find that in the short run, the ratification of BITs is correlated with a 4.8 percent increase in outward FDI stock, while the long-run effect amounts to about 8.9 percent.⁵²² Berger et al. (2011) find that the impact of BITs on FDI depends significantly upon whether the transition countries in Central and Eastern Europe are included in the sample. The authors find that BITs do stimulate FDI flows. However, the impact of BITs on FDI becomes insignificant once transition economies are excluded from the sample. The authors further argue that the reason why BITs were an effective means to attract FDI to the transition countries studied is probably that such countries “lacked any reputation concerning the credibility of unilateral FDI-related measures.”⁵²³ Similarly, Busse et al. (2010) use a gravity-type model and find that BITs facilitate FDI flows to developing countries, and may even substitute for weak domestic institutions in the host country.⁵²⁴ SIRR, Garvey, and Gallagher (2017) investigate the impact of BITs on U.S. FDI, and find that BITs are positively related to vertical FDI. Their findings also demonstrate that BITs have a more positive effect on vertical FDI in countries with higher expropriation risk, poorer law and order, and lower government stability.⁵²⁵

However, there is no conclusive evidence that BITs signed between advanced economies could promote investment. Citing the conclusion from a 2013 study assessing the potential benefits to the United Kingdom of including ISDS provisions in a trade agreement with the United States, Oldenski (2015) states that the benefits would not be large because “the US government assesses the UK as a very safe place to invest,” even without additional ISDS provisions. That 2013 study (Skovgaard Poulsen et al. 2013) finds it unlikely that U.S. investors looking to invest in the United Kingdom will “...factor in the existence of an EU-US investment protection treaty when deciding whether to invest in the United Kingdom.” However, Oldenski further states that evidence from literature does suggest that “packages of investment protections, of which ISDS provisions are a key part, encourage FDI.”⁵²⁶

⁵²² The two authors use a dynamic panel dataset covering both OECD members and transition economies in Central and Eastern Europe between 1980 to 2001 to assess the impact of ratified BITs on outward FDI. Egger and Merlo, “The Impact of Bilateral Investment Treaties on FDI Dynamics,” 2007.

⁵²³ Berger et al. uses a gravity model with data from 14 source and 83 host countries from 1978 to 2004 to perform this analysis. Berger, Busse, Nunnenkamp, and Roy, “More Stringent BITs, Less Ambiguous Effects on FDI? Not a Bit!” 2011.

⁵²⁴ Busse, Königer, and Nunnenkamp, “FDI Promotion through Bilateral Investment Treaties: More than a Bit?” 2010.

⁵²⁵ The authors use data for the United States and 28 developing countries to perform this empirical analysis. According to the authors, vertical FDI is undertaken by multinational companies that have interlinked affiliates to divide the production process globally in order to make use of cheaper factor prices in foreign countries. The authors argue that multinational companies involved in vertical FDI are more vulnerable to host country risks, as their global operations depend upon the production at the location of their vertical firms. The authors measure the vertical FDI levels of U.S. foreign affiliates as the aggregate sales of goods by the affiliates to their U.S. parent companies and affiliated buyers in third countries. SIRR, Garvey, and Gallagher, “Bilateral Investment Treaties and Foreign Direct Investment: Evidence of Asymmetric Effects on Vertical and Horizontal Investments,” 2017.

⁵²⁶ Oldenski, “What Do the Data Say?” 2015.

Though economic literature suggests that ISDS serves as a key credibility-enhancing mechanism in BITs, and that BITs promote FDI to developing countries, the economic literature directly assessing the impact of ISDS provisions on FDI flows does not find consistent results of such an impact. For example, Berger et al. (2011) attribute the positive effects of BITs on FDI mainly to ISDS provisions; nevertheless, they conclude that the effectiveness of this relationship is sensitive to the exact specification of effective ISDS.⁵²⁷ Berger et al. (2013) find that the presence of national treatment provisions has a strong and positive relationship with FDI flows, while ISDS provisions appear to play a much weaker role.⁵²⁸

Apart from the economic literature finding evidence that BITs, of which ISDS is a key part, do promote FDI between advanced economies and developing countries, industry representatives have been consistently opposed to ISDS limitations throughout the USMCA negotiations. They have characterized them as “poison pills” from the beginning of the negotiations,⁵²⁹ have expressed reservations about the ISDS negotiating results, characterizing them as a notable step backwards, and have recommended that the new provisions not be precedents for future FTAs.⁵³⁰ One exception is the American Petroleum Institute (API), who expressed support for the new ISDS provisions. The API represents the oil and gas industry, which is exempted from the new ISDS limitations between the United States and Mexico.⁵³¹

Brzytwa (2018), of the American Chemistry Council, states that ISDS is a valuable mechanism because “it gives ACC member companies recourse when local courts have not addressed the problem.” He also makes the point that most of the benefits of ISDS are not visible, as they serve as deterrents to host countries who might otherwise impose rules that are prohibited by the agreements. As such, it is through its existence, not its actual use, that ISDS would “prevent the investment barriers from happening.”⁵³² Furthermore, industry representatives from the food and agriculture sector indicate that the scale-back of ISDS between the United States and Mexico would create additional business uncertainty for companies with plans to set up a processing plant in Mexico.⁵³³ When it comes to the services industry—the financial services industry in particular—industry representatives state that the

⁵²⁷ Berger, Busse, Nunnenkamp, and Roy, “More Stringent BITs, Less Ambiguous Effects on FDI? Not a Bit!” 2011.

⁵²⁸ The authors estimate a gravity-type model of FDI flows between 28 source and 83 host countries for the period 1978 to 2004. Berger, Busse, Nunnenkamp, and Roy, “Do Trade and Investment Agreements Lead to More FDI? Accounting for Key Provisions inside the Black Box,” 2013.

⁵²⁹ Eliminating ISDS was described as one of several “poison pills” by Tom Donohue, President of the U.S. Chamber of Commerce. Hackbarth, “U.S. Chamber’s Donohue: We Will Fight for a Modernized NAFTA,” October 10, 2017.

⁵³⁰ U.S. Chamber of Commerce, prehearing written submission to the USITC, October 30, 2018.

⁵³¹ Fortnam, “Industry Reps: Future Investment Rules Should not be Modeled on USMCA,” November 5, 2018.

Commissioner Broadbent notes that it is unclear to what extent these general industry reservations are the result of an interest in establishing a low-cost regional manufacturing platform for the North American market, or accessing an underserved Mexican market (for which in certain sectors a local presence may be required by law), or taking advantage of Mexico’s network of preferential trade agreements to export to markets in Japan, the EU, and the rest of Latin America. This wide range of business investment objectives suggests that individual companies and industries may evaluate quite differently the level of risk they are willing to assume when ISDS protections are reduced.

⁵³² Brzytwa, “ISDS as a Catalyst for Growth,” December 4, 2018.

⁵³³ USITC, hearing transcript, November 15, 2018, 195 (testimony of Randy Gordon, National Grain and Feed Association).

overall effect is mixed for them, as there are “some important improvements but also some negative outcomes.”⁵³⁴

Commission’s Estimates on the Effect of Changes in ISDS Provisions

The Commission’s economy-wide simulation takes into consideration the effects of the scale-back of ISDS on the United States. The Commission used the econometric estimate from Egger and Merlo (2007) that the ratification of BITs is correlated with a 4.8 percent increase of outward FDI stock in the short run.⁵³⁵ The Commission’s analysis assumes that the removal of a BIT reduces outward FDI stock by the same amount. Given that ample economic studies have found that ISDS is a key part of BITs—one of the components that makes these treaties enforceable, particularly between advanced economies and developing countries—a more restricted ISDS is likely to reduce outward FDI stock and corresponding foreign affiliate sales (FAS) in the host country. However, since the 4.8 percent represents the effects of the removal of BITs, of which ISDS is only a part, the impact of ISDS alone on FDI is likely to be lower. Therefore, the assumption that USMCA’s reduction in the scope of ISDS results in a 4.8 percent drop in the stock of FDI likely overestimates the impact of this change in the Commission’s economy-wide model (presented in Chapter 2). Even if overstated, however, the results detailed below show that the reduction in the scope of ISDS would have a limited economy-wide effect on the United States.

The Commission’s analysis uses the GTAP-FDI model (see appendix J) to translate the reduction in FDI in Mexico in all sectors, except the five exempted sectors, into estimated changes in productivity and capital expenditure in each country.⁵³⁶ The GTAP-FDI model is a computable general equilibrium model which incorporates FDI stock and FAS data. It is a comparative static, multiregional, and multisector model which differentiates between domestic and foreign firms on both the demand side and the supply side. One of the strengths of such a model is that it can be used to estimate the economy-wide and sectoral effects of changes in individual countries’ FDI policies and/or investment provisions within an FTA. For this analysis, the base year of the model was updated from 2014 to 2017. Data on U.S. FAS to Canada and Mexico were updated to 2016, the latest years for which data were available.

The results from the GTAP-FDI model indicate that a portion of the FDI will be redirected into the U.S. economy. Note, however, that the results discussed in this section reflect only the impact of the ISDS provisions and may not reflect the full impact of USMCA, which is discussed in chapter 2.⁵³⁷ The GTAP-

⁵³⁴ Compared to the original NAFTA, USMCA would allow investors in financial institutions recourse to ISDS for breaches of the core commitments of national treatment and MFN treatment. However, investors could not file claims for indirect expropriation, and there is concern that U.S. investors would not have recourse to ISDS with Canada after a grandfathering period. USITC, hearing transcript, November 15, 2018, 248–49 (testimony of Stephen Simchak, American Insurance Association).

⁵³⁵ Egger and Merlo, “The Impact of Bilateral Investment Treaties on FDI Dynamics,” 2007.

⁵³⁶ One caveat here is that BITs include other enforcement mechanisms, such as SDDS; moreover, transforming the 4.8 percent change in outward FDI stock into a 4.8 percent change in FAS assumes a full expansion of the production function. Therefore, the results from the FDI model should be interpreted as an upper bound estimate.

⁵³⁷ Note that U.S. foreign affiliates in Mexico may have been using capital equipment exported by U.S. suppliers in the United States—which was part of their capital expenditures—given the proximity of the U.S. market, the expense of qualifying new suppliers, or the unavailability of local suppliers in Mexico. Those expenditures would have been reported as part of U.S. exports.

FDI model estimates that overall (foreign and domestic) capital investment in Mexico will decline by up to 0.44 percent (\$2.9 billion).⁵³⁸

U.S. investors would respond, in part, by increasing investment in the United States, and in other foreign markets with perhaps better investment protections. According to the model, the U.S. portion of the re-investment would generate a small increase in output in the U.S. manufacturing and mining sector by up to 0.03 percent (\$1.3 billion). This increase in output would be brought about by the increasing amount of capital available in the United States for investing in those domestic manufacturing and mining industries.

Limitations on ISDS provisions would also result in an expansion of capital expenditure in the United States. The estimated changes in productivity and capital expenditure are included in the main economy-wide simulation (see chapter 2).⁵³⁹

Intellectual Property Rights

Chapter 20, the IPR chapter of USMCA, establishes a baseline framework for IPR protection and enforcement. The Commission assesses that full implementation and enforcement of the IPR chapter will benefit U.S. industries that rely on IPR protections. A wide range of Industry Trade Advisory Committees (ITACs)—which are charged with providing the President, the Congress, and USTR with their opinion as to whether the USMCA promotes the economic interests of the United States and satisfies the negotiating goals of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015—expressed support for the IPR chapter’s provisions.⁵⁴⁰

Some ITACs reported diverging views. The majority view of the IPR ITAC was that the chapter generally strengthened standards of IPR protection and enforcement and enhanced U.S. economic interests.⁵⁴¹ However, a minority of the IPR ITAC’s membership—those representing generic drug and biosimilar manufacturers—stated that the agreement failed to foster innovation and access to medicines and therefore was not in the economic interests of the United States.⁵⁴² In practice, the economic effects of

⁵³⁸ Meanwhile, the decline of U.S. and Canadian FDI into Mexico is compensated in part by increasing investment from other countries in Mexico.

⁵³⁹ For instance, any reduction in FDI by U.S. firms in Mexico would result in investors earning less income from their investments abroad, including lower repatriation of capital income.

⁵⁴⁰ See ITAC on Aerospace Equipment (ITAC 1), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 6–7; ITAC on Automotive Equipment and Capital Goods (ITAC 2), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 14; ITAC on Digital Economy (ITAC 8), *A Trade Agreement with Mexico and Potentially Canada*, September 25, 2018, 1; ITAC on Small and Minority Businesses (ITAC 9), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 3.

⁵⁴¹ ITAC on IPRs (ITAC 13), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 1.

⁵⁴² Other ITACs also raised concerns about the effects of the IPR chapter on access to medicine and pharmaceutical prices. See ITAC on Chemicals, Pharmaceuticals, Health Science Products and Services (ITAC 3), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 20–21; Intergovernmental Policy Advisory Committee on the Trade Agreement, *Trade Agreement between the U.S., Mexico and Potentially Canada*, September 27, 2018, 13; and Labor Advisory Committee for Trade Negotiations and Trade Policy, *Report on the Impacts of the Renegotiated NAFTA*, September 27, 2018, 27.

changes in IPR protections are difficult to quantify as gains and losses experienced by particular firms or industry sectors can offset one another; for example, biopharmaceutical firms that originate new drugs may be benefited by stronger IPR protections and generic firms by weaker protections.

The Commission's modeling of the IPR chapter is limited to six IPR-intensive manufacturing sectors identified in the literature: analytical instruments, biopharmaceuticals, chemicals, information and communications technology, medical devices, and production technology.⁵⁴³ The assessment identifies the statistical relationship between trade in these sectors and increased IPR protections under the USMCA, as measured by an external index that tracks the major provisions of the chapter and measures countries' current protection levels.⁵⁴⁴

Of the sectors considered for analysis, only two—scientific and analytical instruments and medical devices—exhibit a statistically significant relationship between increases in trade flows and increases in IPR protection to levels envisioned in USMCA. These findings suggest that increased domestic IPR protections under USMCA would be associated with greater import activity in these two sectors. These results are represented as ad valorem equivalent trade cost reductions of 8.2 percent for medical devices in Canada and 11.2 percent for medical devices in Mexico, and are incorporated into the economy-wide model. Trade cost reductions associated with scientific and analytical instruments of 10 percent in Canada and 13.6 percent in Mexico could not be reliably incorporated into the economy-wide model.⁵⁴⁵

This section will first summarize the key IPR changes in USMCA. It will then provide an assessment of these changes based on the views of industry representatives and other stakeholders shared with the Commission at the hearing and in written submissions. The section concludes with the Commission's quantitative assessment of the relationship between trade in certain IPR-intensive sectors and increased IPR protections under the USMCA.

Changes to Key IPR Provisions

Based on hearing testimony and written submissions to the Commission and USTR, USMCA generally strengthened IPR protections over those in NAFTA in the following key areas, among others: trade secrets, regulatory data protection (RDP), patents, trademarks, geographical indications (GIs), copyright and internet service provider (ISP) provisions, and enforcement obligations. Table 8.3 summarizes key changes in these areas.⁵⁴⁶

With regard to trade secrets, USMCA requires enhanced protections, including civil procedures and remedies, criminal procedures and penalties, judicial procedures to prevent the disclosure of trade secrets in litigation, and penalties for the unauthorized disclosure of trade secrets in regulatory

⁵⁴³ Due to trade data limitations, the analysis does not assess the relationship between trade in IPR-intensive services sectors and IPR protections under USMCA.

⁵⁴⁴ U.S. Chamber of Commerce, "International IP Index, Fourth Edition," 2016; U.S. Chamber of Commerce, "International IP Index, Fifth Edition," 2017; Pugatch Consilium, *Setting a New Standard*, 2019.

⁵⁴⁵ See appendix H.

⁵⁴⁶ The reported effects on the copyright industries of the cultural exemption in USMCA Art. 32.6 is discussed in chapter 6 of this report.

Crosscutting Provisions: Investor-State Dispute Settlement, Intellectual Property Rights, and Labor

proceedings. Protections apply not only in the private sector but also to trade secret misappropriation by state-owned entities.⁵⁴⁷ USMCA's RDP provisions protect undisclosed information submitted to regulators to demonstrate the safety and efficacy of new products. The provisions require at least 10 years of protection for data on new biologics products, 5 years for new pharmaceutical products, and 10 years for new agricultural chemicals.⁵⁴⁸ The provisions reflect an increase in the terms of protection for new biologics in Canada (currently at 8 years) and in Mexico (currently at 5 years, although industry representatives report that protection is unreliable).⁵⁴⁹

Changes to patent protections include a new requirement for patent term adjustments to account for patent office delays, and more detailed requirements for term adjustment for regulatory delays. USMCA also contains a patent resolution mechanism that requires notice to patent holders, and an opportunity for relief, when a generic manufacturer seeks to rely on an originator's test data for marketing approval without the patent holder's consent.⁵⁵⁰

With regard to trademarks, USMCA includes provisions that expand the scope of protectable trademarks, increase protections for well-known marks, and otherwise strengthen trademark rights.⁵⁵¹ USMCA also includes new transparency and due process provisions related to GIs.⁵⁵² Notable provisions include a requirement for governments to review GI applications and not just grant them as part of trade agreement negotiations; objection procedures that preclude the registration of future GIs without an opportunity for public comment; and a list of criteria to consider in determining whether a requested GI is a common name and not entitled to protection.⁵⁵³

USMCA further includes provisions that strengthen copyright protections. These obligations include the extension of the term of protection and full national treatment obligations to all IPR categories, and updated standards to address infringement in the digital environment, such as increased protections against the circumvention of technological protection measures.⁵⁵⁴ It also includes provisions that set

⁵⁴⁷ See USMCA, Arts. 20.70–20.78. These provisions are subject to transition periods, which extend the time by which Canada and Mexico must implement the obligations into their domestic laws. Mexico has 5 years to implement certain civil trade secret provisions, 5 years for regulatory data protections for agricultural chemical products, pharmaceuticals, and biologics, and 4.5 years for patent term adjustments for regulatory delays. Canada has 5 years to implement regulatory data protection for biologics and 4.5 years for patent terms adjustments for patent office delays. USMCA, Art. 20.90.

⁵⁴⁸ USMCA, Arts. 20.45, 20.48, and 20.49.

⁵⁴⁹ U.S. industry representative, interview by USITC staff, October 30, 2018; U.S. industry representative, interview by USITC staff, November 1, 2018.

⁵⁵⁰ USMCA, Arts. 20.44, 20.46, and 20.51.

⁵⁵¹ See USMCA, Arts. 20.17–20.26. Article 20.90 does not list any transition periods associated with the trademark and GI provisions.

⁵⁵² A GI is an indication or sign that identifies a good as originating in a particular geographic location, in the case where a given quality, reputation, or other characteristic of the good is essentially attributable to the location. USMCA, Art. 20.1. Some countries, like the United States, protect GIs through their trademark systems, while others have a separate or *sui generis* system for GI protection.

⁵⁵³ USMCA, Arts. 20.30–20.35.

⁵⁵⁴ See USMCA, Arts. 20.57–20.69 and 20.8. Canada has 2.5 years to increase its copyright term of protection. Art. 20.90.

U.S.-Mexico-Canada Trade Agreement

standards for exceptions to copyright protection and the terms of liability, and safe harbors, for ISPs and other internet intermediaries.⁵⁵⁵

USMCA includes an extensive set of IPR enforcement obligations. These obligations include the express application of enforcement procedures to the digital environment; mandatory requirements for remedies that were discretionary under NAFTA (such as the payment of court costs and fees and seizure and destruction of infringing goods); provisions for injunctive and provisional relief; criminal penalties for aiding and abetting and for commercial-scale infringements; and criminal procedures for the unauthorized “camcording” of films and for cable and satellite signal theft.⁵⁵⁶

⁵⁵⁵ See USMCA, Arts. 20.88–20.89 and Annex 20-A. Mexico has a transition period of 3 years to implement provisions on ISPs, legal remedies, and safe harbors. USMCA, Art. 20.90.

⁵⁵⁶ See USMCA, Arts. 20.79–20.87. Mexico has a transition period of 5 years to implement provisions related to civil protection and enforcement, provisional measures, and civil remedies. USMCA, Art. 20.90.

Table 8.3 Summary of key USMCA provisions on intellectual property rights

USMCA provision	Comparison to NAFTA provisions
Trade Secrets. Provides definitions, litigation protections, civil and criminal procedures and remedies, and penalties for government officials or state-owned entities that violate trade secret protections.	New in USMCA. Expands and strengthens trade secret-related protections required by NAFTA.
Regulatory Data Protection for Biologics. Requires protection of at least 10 years for regulatory data supporting new biologic drugs.	New in USMCA. Lengthens and clarifies data protections for biologics from current laws providing eight years of protection in Canada and five years in Mexico.
Patent Term Adjustment. Requires adjustment of patent terms due to unreasonable delays by the patent office or delays in regulatory review processes.	Modified in USMCA. Patent term adjustments for patent office delays were not part of NAFTA. Adjustments based on regulatory review delays expanded as compared to NAFTA.
Trademarks and GIs. Requires transparent and fair systems to challenge GIs, particularly when they conflict with pre-existing trademarks and common names.	New in USMCA. NAFTA did not include provisions for challenges to GIs. Expands current protections in Canada and Mexico.
Copyright Terms. Increases copyright term to author’s life plus 70 years, or 75 years from first publication for terms not calculated based on the author’s life.	Modified in USMCA. NAFTA required a copyright term of only 50 years. Canada’s current term is author’s life plus 50 years, or 70 years from first publication for terms not based on author’s life. Mexico’s current term is author’s life plus 100 years, 75 years from first performance, or 50 years from first publication for terms not based on author’s life.
Copyrights (Digital Environment). Requires implementation of the WIPO treaties governing copyrights in the digital environment.	New in USMCA. NAFTA did not address copyrights in the digital environment. Expands current protections in Canada and Mexico.
ISPs. Sets standards for conditional liability for ISPs for copyright infringement and safe harbors from liability.	New in USMCA. NAFTA did not address ISP liability standards. Canada is permitted to maintain its current “notice and notice” system and safe harbors. Mexico must create new “notice and takedown” rules for infringing works online and ISP safe harbors.
Enforcement. Provides authority for border officials and for detention of infringing goods in-transit; criminal remedies for camcording and for cable and satellite signal theft; and other enforcement-related measures.	Modified in USMCA. Expands NAFTA enforcement requirements governing administrative, civil, and criminal measures and remedies.

Source: USMCA text.

Assessment of Changes to Key IPR Provisions

Trade Secrets, Regulatory Data Protection, and Patent Provisions

Industry representatives generally consider enhanced trade secret protections under USMCA to be an important complement to the strengthening of U.S. law in 2016 to address a “growing and persistent

threat” of misappropriation by domestic and foreign actors.⁵⁵⁷ For example, U.S. industry representatives in the aerospace, automotive, electrical manufacturing, information technology, medical device, telecommunications, and semiconductor sectors support USMCA provisions requiring the parties to implement robust civil and criminal procedures and penalties, including stronger standards for injunctive relief and damages and greater confidentiality protections in litigation.⁵⁵⁸ U.S. industry representatives also generally support provisions requiring government officials to protect trade secrets or confidential business information collected as part of regulatory proceedings, as this information often has substantial competitive value.⁵⁵⁹

With regard to RDP, representatives of originator firms and generic/biosimilar firms, as well as various stakeholders, differ in their views on USMCA’s provision of 10 years of data protection for biologics. Some originator firm representatives state that at least 10 years of RDP is required—although the U.S. term of 12 years would be better—given the substantial time, costs, and risks associated with product development, testing, and approval.⁵⁶⁰ They consider RDP especially important for biologics because they are manufactured using large and complex living organisms, and may not be adequately protected by patents alone.⁵⁶¹

⁵⁵⁷ See the Defend Trade Secrets Act of 2016, 18 U.S.C. §1836 *et seq.*; Yeh, *Protection of Trade Secrets*, April 22, 2016, 1.

⁵⁵⁸ ITAC on Aerospace Equipment (ITAC 1), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 6–7; ITAC on Automotive Equipment and Capital Goods (ITAC 2), *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 14; ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 26; USITC, hearing transcript, November 16, 2018, 675–76 (testimony of Brian Scarpelli, ACT I The App Association, supporting USMCA provisions modeled on U.S. law); USITC, hearing transcript, November 16, 2018, 622 (testimony of Stephen Ezell, Information Technology & Innovation Foundation; trade secret provisions important given growing risk of cyber theft); USITC, hearing transcript, November 16, 2018, 625 (testimony of K.C. Swanson, Telecommunications Industry Association; criminal trade secret remedies particularly important); Semiconductor Industry Association, written submission to the USITC, December 17, 2018, 7–8 (trade secrets are core business assets for semiconductor companies and require robust protections); National Electrical Manufacturers Association, written submission to the USITC, December 20, 2018, 7 (expansion of trade secret protections provides more tools to protect the foundation of sector’s businesses and brands); TechNet, written submission to the USITC, December 20, 2018, 2; AdvaMed, written submission to the USITC, December 18, 2018, 2.

⁵⁵⁹ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 26. Industry representatives also support provisions in the TBT and Digital Trade chapters, respectively, that protect against the disclosure of confidential business information provided in conformity assessment procedures and the mandatory disclosure of source code to regulators. USITC, hearing transcript, November 16, 2018, 627 (testimony of K.C. Swanson, Telecommunications Industry Association); USITC, hearing transcript, November 16, 2018, 675 (testimony of Brian Scarpelli, ACT I The App Association); USITC, hearing transcript, November 16, 2018, 676 (testimony of Carl Schonander, Software & Information Industry Association); Semiconductor Industry Association, written submission to the USITC, December 17, 2018, 8.

⁵⁶⁰ PhRMA, “PhRMA Comments to the 2019 National Trade Estimate Report,” October 2018, 1–2. See also ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 24; ITIF, written submission to the USITC, October 30, 2018, 6; U.S. industry representative, interview by USITC staff, November 1, 2018; U.S. industry representative, interview by USITC staff, October 30, 2018.

⁵⁶¹ PhRMA, “PhRMA Comments to the 2019 National Trade Estimate Report,” October 2018, 23; USITC, hearing transcript, November 15, 2018, 655 (testimony of Stephen Ezell, ITIF) (while access to medicine is important, it presupposes the existence of medicines in the first place; without rules that incentivize new drugs, there would not be opportunities for follow-on products).

By contrast, representatives of the generic/biosimilar sector and other stakeholders—including some representatives of organized labor, insurance companies, consumers, and nonprofit organizations—oppose expanded RDP for biologics on the grounds that it will impede competition and access to affordable medicines.⁵⁶² For example, the Association for Accessible Medications (AAM) states that USMCA's broad definition of biologics means that products that would not be entitled to an extended RDP period under U.S. law may qualify under USMCA, with negative effects on access to medicines.⁵⁶³ According to U.S. biosimilar producer Mylan and others, overly broad protections for biologics could raise prescription drug prices, slow investment in innovation and in the development of new biosimilars, and delay access to potential markets in Canada and Mexico.⁵⁶⁴ To address these concerns, some stakeholders support balancing the RDP provisions, for example, with language that would grant the first follow-on producer a 180-day exclusivity period, as occurs in the United States.⁵⁶⁵

Some representatives of originator and generic firms also diverge in their views on expanded patent protections under USMCA. For example, some originator firm representatives broadly support strengthened requirements for patent term adjustments and patent resolution mechanisms to ensure that they obtain the full benefit of their patent investments.⁵⁶⁶ Some representatives of the generic sector, however, state that these provisions undermine competition and do not fully reflect the balance between the interests of originator and generic firms that is in U.S. law.⁵⁶⁷

⁵⁶² Mylan, written submission to the USITC, December 20, 2018, 5–6; AMM, letter to the Honorable Robert E. Lighthizer, November 5, 2018 (signed by 29 stakeholders); Patients for Affordable Drugs, written submission to the USITC, December 17, 2018, 1–2; MJF International, written submission to the USITC, December 20, 2018, 5; KEI, written submission, October 30, 2018, 8–9; USITC, hearing transcript, November 15, 2018, 237–38 (testimony of Celeste Drake, AFL-CIO).

⁵⁶³ AAM, written submission to the USITC, October 30, 2018, 2; Mylan, written submission to the USITC, December 20, 2018, 3–5; MJF International, written submission to the USITC, December 20, 2018, 12–14; KEI, written submission to the USITC, October 30, 2018, 8–9.

⁵⁶⁴ Mylan, written submission to the USITC, December 20, 2018, 5–6; AAM, written submission to the USITC, December 20, 2018, 2–3; MJF International, written submission to the USITC, December 20, 2018, 3–4; KEI, written submission to the USITC, October 30, 2018, 8–9; AFL-CIO, written submission to the USITC, October 30, 2018, 16; AMM, Letter to the Honorable Robert E. Lighthizer, November 5, 2018; Patients for Affordable Drugs, written submission to the USITC, December 17, 2018, 1–2.

⁵⁶⁵ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 24; Mylan, written submission to the USITC, December 20, 2018, 9; MJF International, written submission to the USITC, December 20, 2018, 27.

⁵⁶⁶ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 23–25; U.S. industry representative, interview by USITC staff, November 1, 2018; U.S. industry representative, interview by USITC staff, October 30, 2018.

⁵⁶⁷ AAM, written submission to the USITC, October 30, 2018, 3–4; Mylan, written submission to the USITC, December 20, 2018, 7–8; MJF International, written submission to the USITC, December 20, 2018, 17–19 and 23–24; ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 25; see also AFL-CIO, written submission to the USITC, October 30, 2018, 16.

Trademark and Geographical Indication Provisions

As owners of some of the world's most valuable trademarks,⁵⁶⁸ U.S. industry representatives broadly support expanded trademark provisions.⁵⁶⁹ U.S. industry representatives also generally support the increased transparency and review of GIs that would be provided under USMCA.⁵⁷⁰ According to the International Dairy Foods Association (IDFA), these provisions would be an important counter to the European Union's use of GIs to block U.S. cheesemakers from key markets, like Mexico.⁵⁷¹ The Consortium for Common Food Names similarly supports the GI provisions on the ground that they would make it more difficult to register new GIs that are common food names, and would provide procedures for common name users to oppose applications that would monopolize the use of generic terms for cheeses, meats, wines, and other products.⁵⁷² On the other hand, some industry representatives are disappointed that USMCA excludes wines and spirits from certain of the transparency and due process procedures.⁵⁷³ Some industry representatives also seek protections for a longer list of common cheese names, as well as names in other sectors relied upon by U.S. producers.⁵⁷⁴

Copyright and Internet Service Provider Provisions

Some representatives of the copyright industries—those that rely on copyright protection to produce and distribute creative content such as movies, music, books, and video games—and of internet intermediaries broadly agree that an important function of USMCA is to update NAFTA to reflect international norms in the digital age.⁵⁷⁵ They support USMCA provisions, such as those on technological protection measures, which implement requirements of the WIPO Copyright Treaty and the

⁵⁶⁸ According to Interbrand, for example, U.S. companies owned all of the top 5 most valuable global brands in 2018, and 7 of the top 10. Interbrand, "Best Global Brands 2018 Rankings," 2018.

⁵⁶⁹ See ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 3–4; World Trademark Review, "Very Good for Brand Owners," October 3, 2018.

⁵⁷⁰ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 16; USITC, hearing transcript, November 15, 2018, 168 (testimony of Michael Dykes, International Dairy Foods Association); Consortium for Common Food Names, "USMCA Breaks New Ground," November 27, 2018.

⁵⁷¹ USITC, hearing transcript, November 15, 2018, 170 (testimony of Michael Dykes, International Dairy Foods Association); ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 16–17.

⁵⁷² Consortium for Common Food Names, "USMCA Breaks New Ground," November 27, 2018.

⁵⁷³ ITAC 13, Addendum, *A Trade Agreement with Mexico and Potentially Canada*, October 25, 2018, 2–3; U.S. industry representative, interview by USITC staff, February 22, 2019.

⁵⁷⁴ USITC, hearing transcript, November 15, 2018, 204–5 (testimony of Michael Dykes, International Dairy Foods Association); ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 16; Consortium for Common Food Names, "USMCA Breaks New Ground," November 27, 2018.

⁵⁷⁵ The marketplace for copyrighted content has changed dramatically since NAFTA entered into force in 1994, with digital trade representing one of the largest and fastest-growing sectors of the U.S. economy. ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 5–6. See also USITC, hearing transcript, November 15, 2018, 595 (testimony of Alli Sternburg, Computer & Communications Industry Association; NAFTA overhaul needed to address the growth in the digital economy); USITC, hearing transcript, November 16, 2018, 601–2 (testimony of Jordan Haas, Internet Association).

Performances and Phonograms Treaty to ensure the protection of copyrights in the digital environment.⁵⁷⁶

Other provisions are particularly supported by representatives of the copyright industries. For example, some copyright industry representatives state that the extension of the copyright term in Canada will generate additional revenues based on the extra 20 years of protection for terms based on the author's life and the extra 5 years of protection for terms measured by the date of publication. While these terms are shorter than those in the United States and Mexico, industry representatives state that they set an important precedent and reflect an emerging global consensus on copyright terms.⁵⁷⁷ Moreover, some representatives of the music industry strongly support provisions that extend full national treatment to all IPR types, stating that Canada's denial of broadcast radio royalties results in losses to the U.S. music industry of about \$20 million per year.⁵⁷⁸

Representatives of the copyright industries and internet intermediaries hold diverging views on USMCA's provision on exceptions and limitations to copyright protection. Some copyright industry representatives support USMCA's reiteration of the "three-step test" for exceptions and limitations that is part of various international treaties, rather than more expansive language in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).⁵⁷⁹ Some copyright industry representatives state that the provision would help to ensure that Canada and Mexico do not undercut copyright protections, as reportedly has occurred with a broad educational exception to copyright protection in Canada.⁵⁸⁰

By contrast, some representatives of internet companies and others state that USMCA should have included the CPTPP language providing for an "appropriate balance" in copyright systems through limitations or exceptions for legitimate purposes such as criticism, comment, news reporting, teaching, scholarship, research, and other similar purposes.⁵⁸¹ They state that broader exceptions and limitations

⁵⁷⁶ IIPA, written submission to the USITC, December 20, 2018, 4; MPAA, written submission to the USITC, December 20, 2018; ESA, written submission to the USITC, December 20, 2018, 7–8; AAP, written submission to the USITC, December 20, 2018, 3; CreativeFuture, written submission to the USITC, December 20, 2018, 2; USITC, hearing transcript, November 15, 2018, 580–81 (testimony of Brian Scarpelli, the App Association); USITC, hearing transcript, November 15, 2018, 597 (testimony of Ali Sternburg, CCIA).

⁵⁷⁷ USAlliance for Music, written submission to the USITC, December 20, 2018, 2–3; MPAA, written submission to the USITC, December 20, 2018, 7; IIPA, written submission to the USITC, December 20, 2018, 5; ESA, written submission to the USITC, December 20, 2018, 6; RIAA, written submission to the USITC, December 20, 2018, 5.

⁵⁷⁸ RIAA, written submission to the USITC, December 20, 2018, 4; see also USAlliance for Music, written submission to the USITC, December 20, 2018, 3.

⁵⁷⁹ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 9; AAP, written submission to the USITC, December 20, 2018, 3; IIPA, written submission to the USITC, December 20, 2018, 4; MPAA, written submission to the USITC, December 20, 2018, 6; ESA, written submission to the USITC, December 20, 2018, 6; RIAA, written submission to the USITC, December 20, 2018, 5; USAlliance for Music, written submission to the USITC, December 20, 2018, 3.

⁵⁸⁰ AAP, written submission to the USITC, December 20, 2018, 3; IIPA, written submission to the USITC, December 20, 2018, 4; USITC, hearing transcript, November 16, 2018, 653–54 (testimony of Carl Schonander, Software & Information Industry Association).

⁵⁸¹ CCIA, written submission to the USITC, October 30, 2018, 3; Internet Association, written submission to the USITC, November 15, 2018, 3; Information Technology Industry Council (ITIC), written submission to the USITC, November 16, 2018, 3.

to copyright protection would benefit the foreign affiliates of U.S. firms in the software development, internet search and hosting provider, communications hardware, and scientific research sectors; however, copyright industry representatives disagree.⁵⁸²

Representatives of the copyright and internet industries also have differing views on USMCA's provisions on legal remedies and safe harbors from copyright liability for ISPs.⁵⁸³ Copyright industry representatives expressed disappointment that USMCA permits Canada to retain its "notice and notice" system rather than requiring ISPs to implement a U.S.-style "notice and takedown" system for infringing materials online.⁵⁸⁴ They also state that USMCA does not sufficiently incorporate important aspects of U.S. law, such as secondary liability principles, instead permitting Mexico and Canada to set their own conditions for safe harbors from liability.⁵⁸⁵ These gaps in copyright protections and ISP liability reportedly undermine creative workers' wages, according to the United States' Labor Advisory Committee on Trade Negotiations and Trade Policy and the AFL-CIO.⁵⁸⁶ By contrast, representatives of internet companies generally expressed support for USMCA's provisions on ISP liability, stating that they provide clear rules for the removal of infringing content, and balance IPR protections with the right framework to allow for technological development and online innovation.⁵⁸⁷

IPR Enforcement Provisions

Enhanced enforcement provisions to address losses resulting from copyright piracy, trademark counterfeiting, and other IPR violations in Canada and Mexico are broadly supported by U.S. industry representatives.⁵⁸⁸ For example, representatives of U.S. copyright industries consider new digital enforcement provisions to be of particular value in pursuing online infringers whose activities undermine the development of legitimate digital trade.⁵⁸⁹ U.S. industry representatives also broadly support enhanced border enforcement measures, including increased powers for customs officials to initiate border actions (*ex officio* authority) and the ability to take action against infringing goods that

⁵⁸² American University, Washington College of Law, Program on Information Justice and Intellectual Property, written submission to the USITC, December 20, 2018. But see RIAA, written submission to the USITC, December 20, 2018, 5–6 (disputing the findings of studies quantifying benefits to fair use exceptions).

⁵⁸³ USMCA, Art. 20.88, Art. 20.89, Annex 20-A.

⁵⁸⁴ IIPA, written submission to the USITC, December 20, 2018, 6–7; AAP, written submission to the USITC, December 20, 2018, 3–4; MPAA, written submission to the USITC, December 20, 2018, 7; CreativeFuture, written submission to the USITC, December 20, 2018, 3; ESA, written submission to the USITC, December 20, 2018, 7.

⁵⁸⁵ IIPA, written submission to the USITC, December 20, 2018, 6–7; AAP, written submission to the USITC, December 20, 2018, 3–4; MPAA, written submission to the USITC, December 20, 2018, 7; CreativeFuture, written submission to the USITC, December 20, 2018, 3; ESA, written submission to the USITC, December 20, 2018, 7.

⁵⁸⁶ Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 18; AFL-CIO, written submission to the USITC, December 20, 2018, 17–18; RIAA, written submission to the USITC, December 20, 2018, 8.

⁵⁸⁷ USITC, hearing transcript, November 16, 2018, 604 (testimony of Jordan Haas, Internet Association); USITC, hearing transcript, November 15, 2018, 596–97 (testimony of Ali Sternburg, CCIA).

⁵⁸⁸ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 26–27. But see KEI, written submission to the USITC, December 20, 2018, 1–10 (stating that the USMCA's provisions on damages are not consistent with U.S. law).

⁵⁸⁹ IIPA, written submission to the USITC, December 20, 2018, 4; MPAA, written submission to the USITC, December 20, 2018, 6–7; Creative Future, written submission to the USITC, December 20, 2018, 2–3.

are in transit from other countries or free trade zones.⁵⁹⁰ Given that Canada and Mexico are ports of entry for counterfeit goods that originate in China and other countries, representatives of trademark-protected products consider these provisions a significant gain in the fight against counterfeits.⁵⁹¹

Modeling of Changes to Key IPR Provisions

The Commission’s quantitative assessment of the effects of key IPR changes in USMCA identifies the statistical relationships between trade in certain IPR-intensive manufacturing sectors and increased IPR protections under USMCA, and then incorporates the results into an economy-wide model as ad valorem trade cost equivalents.⁵⁹² The underlying intuition for the quantitative assessment, which is supported by a substantial economic literature,⁵⁹³ is that improvements in IPR protections facilitate trade in IPR-intensive goods and services.⁵⁹⁴

The assessment is limited to six IPR-intensive manufacturing sectors identified in the literature: analytical instruments, biopharmaceuticals, chemicals, information and communications technology, medical devices, and production technology.⁵⁹⁵ To measure the increase in IPR protection associated with the USMCA, the assessment relies on an external index that scores the current level of countries’ IPR protections in key areas (such as trade secrets, RDP, patents, trademarks, copyrights, and enforcement), and the requirements of the USMCA.⁵⁹⁶ According to the index, implementation of the USMCA would raise IPR protection levels in Mexico and Canada considerably, while imposing only minor changes on the United States.⁵⁹⁷

Of the IPR-intensive manufacturing sectors considered for analysis, two—scientific and analytical instruments and medical devices—exhibit a statistically significant positive relationship between trade flows and IPR protection as measured by the external index. These findings suggest that higher domestic IPR protections are associated with greater import activity in these two sectors. These findings are consistent with the notion that some industries feature a greater share of gaining and losing firms than

⁵⁹⁰ ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 27–28; ESA, written submission to the USITC, December 20, 2018, 8; International Trademark Association (INTA), “USMCA Provides a Leg-Up,” November 1, 2018.

⁵⁹¹ INTA, “USMCA Provides a Leg-Up,” November 1, 2018; ESA, written submission to the USITC, December 20, 2018, 8; ITAC 13, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 27–28.

⁵⁹² Data limitations preclude the analysis of IPR-intensive services sectors. See appendix H for additional details.

⁵⁹³ Ivus, “Do Stronger Patent Rights,” 2010; Awokuse and Hong, “Does Stronger Intellectual Property Rights,” 2010; Park and Lippoldt, “Technology Transfer and the Economic Implications,” 2008; Maskus, “The New Globalisation,” 2014; Hassan, Yaqub, and Diepeveen, *Intellectual Property and Developing Countries*, 2010; Cavazos-Cepeda, Lippoldt, and Senft, “Policy Complements to the Strengthening of IPRs,” 2010.

⁵⁹⁴ Commissioner Kearns notes that the rationale for IPR provisions is that they encourage innovation by protecting rights holders in a way that may hurt consumers through higher short-run prices on innovative products, but provide the benefits of these products to consumers and the economy. This model, however, treats IPR protections as equivalent to a reduction in trade barriers or costs. Commissioner Kearns looks forward to methods of modeling the effect of IPR provisions in ways that better reflect their rationale and impact on the economy.

⁵⁹⁵ Delgado, Kyle, and McGahan, “Intellectual Property Protection and the Geography of Trade,” 2013.

⁵⁹⁶ U.S. Chamber of Commerce, “International IP Index, Fourth Edition,” 2016; U.S. Chamber of Commerce, “International IP Index, Fifth Edition,” 2017; Pugatch Consilium, *Setting a New Standard*, 2019, 19.

⁵⁹⁷ Pugatch Consilium, *Setting a New Standard*, 2019, 19.

others. For example, in the biopharmaceutical sector, estimated gains to originator firms from stronger protections are likely to be offset by losses to generic firms. By comparison, the high-tech portion of the medical device industry is largely characterized by products that are continuously and rapidly improved through innovation. There does not appear to be a large generic sector comparable to that in the biopharmaceutical industry to offset the gains experienced by originators.⁵⁹⁸ IPR improvements in Canada and Mexico thus demonstrate a significant relationship to medical device trade flows, increasing imports by these countries.⁵⁹⁹

Table 8.4 presents these results, represented as ad valorem equivalent trade cost reductions. The cost reductions for medical devices were also incorporated into the economy-wide model.⁶⁰⁰

Table 8.4 Estimated reductions in trade costs stemming from the IPR provisions in USMCA (percentage points)

Sector	Canada	Mexico	United States
Scientific instruments	9.96	13.61	0.53
Medical devices	8.21	11.22	0.44

Source: USITC estimates.

Labor

Chapter 23 of USMCA includes enforceable labor provisions that are subject to the same dispute settlement mechanism as other provisions in the agreement. Every U.S. trade agreement since the U.S.-Jordan Free Trade Agreement in 2000 has included labor provisions within the main text of the agreement, and these provisions have become increasingly stringent over time. However, the USMCA provisions represent a significant departure from NAFTA, which does not include a labor chapter. Instead, NAFTA parties addressed labor rights in a side agreement—the North American Agreement on Labor Cooperation (NAALC)—which includes far fewer obligations than USMCA and a separate dispute settlement mechanism.

U.S. negotiators assert that, as a whole, the USMCA labor chapter establishes mechanisms that would oblige all parties to protect labor rights, so as to ensure that no one party could gain a competitive position by disregarding those rights.⁶⁰¹ Some observers contend that USMCA labor provisions could have a positive impact on labor conditions in Mexico and on Mexican and U.S. wages over the long term. While labor groups generally view the USMCA labor chapter as an improvement upon the NAALC, they

⁵⁹⁸ USDOC, ITA, “Protecting Intellectual Property in Export Markets,” 2017; industry representative, telephone interview by USITC staff, February 4, 2019.

⁵⁹⁹ Doby and Siem, “Impact of the USMCA on the Medical Device industry,” January 11, 2019; Advamed, written submission to the USITC, December 18, 2018 (noting the value of the USMCA’s IPR provisions and estimating that nontariff barriers, particularly in the areas of trade facilitation, good regulatory practice, technical barriers, transparency, and fairness, are equivalent to tariffs of up to 30 percent).

⁶⁰⁰ Scientific instruments were not considered in the economy-wide model because there was no clear concordance to a sector in the economy-wide model.

⁶⁰¹ U.S. government representative, interview by USITC staff, October 4, 2018.

state that the impact of these provisions will largely depend on the parties’ willingness to proactively enforce these obligations.⁶⁰²

The Commission sought to estimate the effects associated with the collective bargaining provision of USMCA. It did this by econometrically modeling how changes in Mexican wages could change given changes associated with collective bargaining legislation. The Commission estimates that the collective bargaining legislation will likely increase unionization rates and wages in Mexico and also increase Mexican output. This, in turn, would be expected to increase U.S. output and employment also, resulting in a small (0.27 percent) increase in U.S. real wages to attract the new workers.

The USMCA labor chapter includes provisions that obligate parties to enforce their labor protections, and refrain from weakening them; prohibit imports of products made by using forced labor; maintain laws that protect workers from violence and discrimination; ensure that their labor regulations protect migrant workers; and set up mechanisms for cooperation and consultations among the parties, among several others. Table 8.5 lists some of the key provisions in Chapter 23 (Labor) of USMCA and compares these provisions to NAFTA parties’ obligations under the NAALC.⁶⁰³

Table 8.5 Summary of key USMCA provisions on labor

USMCA provision	Comparison to NAALC provisions^a
Inclusion of Labor Provisions. USMCA includes enforceable labor provisions within the text of the agreement.	Modified in USMCA. NAFTA does not include a labor chapter, but the parties concluded a side agreement on labor (NAALC) which is less specific and includes far fewer enforceable obligations than USMCA.
ILO Obligations. The parties acknowledge their ILO obligations and must maintain regulations that protect the labor rights specified in the <i>ILO Declaration on Rights at Work</i> .	Modified in USMCA. NAALC requires parties to maintain “high labor standards,” but does not define this term.
Labor Rights Regulations. Parties may not eliminate or weaken (i.e., derogate from) their labor rights regulations in a way that impacts intraparty trade or investment.	New in USMCA.
Collective Bargaining. Mexico must establish and maintain regulations that effectively recognize workers’ collective bargaining rights, as specified in the text of the agreement.	New in USMCA.
Forced/Compulsory Labor. Parties may not import goods that have been wholly or partly produced using forced or compulsory labor.	New in USMCA.
Violence against Workers. Parties are required to address violence against workers—and threats of such violence—that impacts intraparty trade or investment.	New in USMCA.

⁶⁰² More information about the positions of interested parties and other observers on the USMCA labor chapter is presented under the heading, “Assessment and Potential Implications of the Most Impactful Provisions,” below.

⁶⁰³ In addition to the provisions included in Chapter 23, another key labor-related provision in USMCA subjects the rules of origin for passenger vehicles to a minimum-wage criterion. This provision is included in Article 7 of Annex 4-B (Product-Specific Rules of Origin) of USMCA and is discussed in chapter 4 of this report.

U.S.-Mexico-Canada Trade Agreement

USMCA provision	Comparison to NAALC provisions^a
Migrant Workers. Parties must ensure that their labor laws afford protection to migrant workers.	New in USMCA. NAALC lists migrant workers as one of the potential subjects for cooperative activities, but includes no enforceable obligation on this issue.
Discrimination. Parties must maintain protections against workplace discrimination.	New in USMCA. NAALC lists workplace equality as one of the potential subjects for cooperative activities, but includes no enforceable obligation on this issue.
Dispute Settlement. Provisions in the USMCA labor chapter are subject to the same dispute settlement procedures as other obligations in the agreement.	Modified in USMCA. Under NAALC, a party's failure to enforce its standards on minimum wage, child labor, and occupational health and safety are subject to dispute settlement provisions separate from those contained in NAFTA.

Source: USMCA text.

^a NAFTA itself does not include provisions on labor, however NAFTA parties established labor obligations in a side agreement called the North American Agreement on Labor Cooperation (NAALC).

Several substantial differences exist between the provisions included in the USMCA labor chapter and the NAALC, as USMCA revises, clarifies, and adds to obligations under the NAFTA side agreement. Together, these revised and new provisions represent a significant strengthening of labor obligations among the United States, Canada, and Mexico.

The USMCA labor chapter differs from NAALC in that it provides some guidance regarding the minimum labor standards that parties must uphold, requiring parties to confirm their International Labor Organization (ILO) obligations and maintain regulations that protect those labor rights specified in the ILO *Declaration on Rights at Work* (table 8.5). By comparison, NAALC calls on parties to maintain “high labor standards,” but does not define such standards. Unlike NAALC, USMCA includes a nonderogation provision which prohibits the elimination or weakening of labor regulations in a way that impacts intra-party trade or investment.⁶⁰⁴ Further, while only a failure to enforce standards on child labor, occupational health and safety, or minimum wage is subject to dispute settlement under the NAALC, all of the provisions in the USMCA labor chapter are subject to the same dispute settlement process as other obligations in the agreement.⁶⁰⁵ Overall, the inclusion of these provisions in USMCA establishes a

⁶⁰⁴ These references to ILO standards and nonderogation have been included in every U.S. trade agreement since 2000. The ILO standards became enforceable beginning in 2007 following the conclusion of the “May 10 Agreement” between the George W. Bush administration and Congress. USTR (“Fact Sheet: Bipartisan Agreement on Trade Policy: Labor,” May 2007) states that the Bipartisan Agreement features an “[e]nforceable reciprocal obligation for the countries to adopt and maintain in their laws and practice the five basic internationally-recognized labor principles, as stated in the ILO Declaration on Fundamental Principles and Rights at Work.” Similarly, Rangel (“Moving Forward,” 2008, 390–91) states: “The main reason that an overwhelming majority of Democratic Members of Congress opposed a number of recent free trade agreements—in particular, CAFTA and the Oman Free Trade Agreement—was that those agreements failed to include meaningful and enforceable commitments to uphold basic, internationally-recognized labor standards. . . . For the first time under any trade agreement negotiated by any nation, these rights were incorporated into the text of the agreements that were negotiated (or renegotiated) following the May 10 Agreement. As a result, the failure to abide by ILO obligations can have exactly the same consequences as violations of any other provisions. . . . These obligations are subject to the same enforcement provisions in the agreements as every other obligation in the agreement.”

⁶⁰⁵ NAALC includes a separate dispute settlement process.

fixed baseline for labor standards in United States, Canada, and Mexico that can be enforced under the agreement's dispute settlement mechanism.

The USMCA labor chapter includes several provisions not in NAALC or any existing U.S. free trade agreement. Most notable among these are provisions requiring Mexico to adopt laws that establish and maintain regulations that effectively recognize workers' collective bargaining rights. These provisions, which appear in Annex 23-A of the agreement, obligate Mexico to adopt laws that protect the right to bargain collectively and allow workers "to organize, form, or join the union of their choice." The annex specifies, among other things, that this legislation must prohibit interference by employers in union undertakings, provide for free union elections that occur by means of a secret ballot, and require that revisions to collective bargaining agreements be approved by a majority of covered workers. Further, the annex stipulates that Mexico's failure to enact such legislation by the beginning of 2019 could prevent USMCA's entry into force.⁶⁰⁶

This annex addresses Mexico's current legislation on collective bargaining, which reportedly is lax and often used in ways that do not benefit workers. In particular, a large share of union contracts function as "protection contracts."⁶⁰⁷ These are contracts negotiated between an employer and a union, often without knowledge or input from the employees the union is supposed to represent.⁶⁰⁸ As a result of such arrangements, workers' wages reportedly are kept lower than would be expected in presence of strong representative unions.⁶⁰⁹ The AFL-CIO has characterized these protection contracts as "the single most serious threat to freedom of association, democratic collective bargaining, and higher wages in Mexico."^{610 611}

USMCA includes a new obligation that would prohibit imports of goods that have been wholly or partly produced using forced or compulsory labor. Although a similar but weaker provision was included in the TPP, no such obligation appears in any existing U.S. FTA. U.S. negotiators indicate that it was possible to include this provision in USMCA due to the removal of the "consumptive demands" language from

⁶⁰⁶ USMCA, Annex 23-A. As of April 13, 2019, Mexico had not enacted this legislation.

⁶⁰⁷ Some estimates suggest that up to 90 percent of all union contracts in Mexico function as protection contracts. Compa, *Justice for All*, 2003; Penman-Lomeli, "The Fight for Mexican Labor," October 20, 2016; Fair Labor Association, "Protection Contracts in Mexico," March 2015.

⁶⁰⁸ For more information on collective bargaining and protection contracts in Mexico, see USDOS, Bureau of Democracy, Human Rights, and Labor, *Mexico 2017 Human Rights Report*, 31–34 (accessed November 19, 2018).

⁶⁰⁹ Stevenson, "U.S.-Mexico Deal Unlikely to Boost," August 31, 2018; Compa, *Justice for All*, 2003, 16.

⁶¹⁰ AFL-CIO, post-hearing submission to the USITC, December 20, 2018, 5.

⁶¹¹ Commissioner Kearns notes that wages have been stagnant in Mexico, whereas productivity has been rising. Shaiken, "The NAFTA Paradox," 2014, 40; Polaski, "Mexican Unemployment," 2004. In fact, information included in the USITC's study of the potential economic impact of NAFTA suggests that wages at that time were well below marginal productivity levels in Mexico. USITC, *Potential Impact*, 1993, 1-14 to 1-15. Note that (1) the average hourly compensation in 1991 for Mexican production workers in manufacturing was \$2.17; (2) the average hourly compensation rate for U.S. production workers in manufacturing was \$15.45; (3) a 1989 study found that Mexican productivity rates appear to be 'converging' on U.S. productivity rates in several key industries. The Commission concluded that "[t]hese findings appear to match assessments by sources in the electronics and automobile industries, who have noted that given proper management, training, and capital, Mexican workers' productivity in certain areas may rival that of U.S. workers." The Commission noted that industry officials indicated that "[p]roductivity at Ford's Hermosillo stamping and assembly operation, for example, is acknowledged to be almost as high as at a comparable U.S. plant."

section 307 of the Tariff Act of 1930 (19 U.S.C. § 1307).⁶¹² Section 307 prohibits imports of goods that are partly or wholly produced by forced child labor, but had included an exception allowing such imports in cases in which U.S. production of a particular good did not meet U.S. demand.⁶¹³

Other new provisions in the USMCA labor chapter require parties to address violence against workers and threats of such violence that impact intra-party trade or investment; to ensure that their labor regulations protect migrant workers; and to protect workers from discrimination. Violence against workers has reportedly been a concern in other countries with which the United States has established trade agreements (such as Colombia and Guatemala) and has raised stakeholder concerns. U.S. negotiators report that it was important to address this issue in USMCA owing to the history of such violence in Mexico.⁶¹⁴ Migrant worker protections and equality across genders are addressed in the NAALC and in some existing U.S. FTAs as potential issues for cooperation between the parties or in these agreements' definitions of "labor law."⁶¹⁵ However, USMCA is the first U.S. trade agreement in which these issues and violence against workers are subject to explicit obligations.⁶¹⁶

Assessment of Changes to Key Labor Provisions

While many reviews of USMCA highlight labor as one of the areas in which the new agreement differs substantially from the NAFTA, the likely impact of these changes remains unclear. It is possible that USMCA labor provisions will promote higher wages and improved labor conditions in member markets, but observers argue that the likely impact of these provisions will wholly depend on the effectiveness of their enforcement.

Labor groups and other observers indicate that the USMCA chapter on labor rights improves upon the NAALC in several ways. The inclusion of enforceable labor provisions in the text of USMCA (rather than inclusion as unenforceable obligations in a side agreement) is reportedly a key change that may lead to stronger labor protections, particularly as Mexico's judicial system places great importance on international treaties.⁶¹⁷ Labor groups favor the inclusion of new provisions on forced or compulsory labor, violence against workers, migrant workers, and discrimination, as well as clarifications to the

⁶¹² Section 307 as amended by section 910(a)(1) of the Trade Facilitation and Trade Enforcement Act of 2015, Public Law 114-125, approved February 24, 2016. U.S. government representative, interview by USITC staff, October 4, 2018.

⁶¹³ DHS, CBP, "Forced Labor," October 29, 2018.

⁶¹⁴ U.S. government representative, interview by USITC staff, October 4, 2018.

⁶¹⁵ For example, the U.S.-Panama TPA (among other U.S. trade agreements) defines "labor laws" to include provisions related to "the elimination of discrimination in respect of employment and occupation" and lists migrant workers and gender among the issues that may be subject to capacity building and cooperation. United States-Panama Trade Promotion Agreement, Article 16.9 and Annex 16.6. NAALC includes both migrant worker protections and pay equality across genders in its definition of "labor law," and lists "migrant workers of the parties" and "the equality of men and women in the workplace" as potential areas for cooperation. North American Agreement on Labor Cooperation, Articles 11 and 49.

⁶¹⁶ U.S. government representative, interview by USITC staff, October 4, 2018.

⁶¹⁷ Kahn, "Will NAFTA 2.0 Really Boost Mexican Wages?" October 17, 2018.

terms “minimum wages” and “freedom of association” in the footnotes to the text.⁶¹⁸ One source suggests that USMCA labor provisions will improve the competitive environment for small, medium, and minority enterprises (SMMEs).⁶¹⁹ Further, some observers note that the Mexican government has already made some progress towards improving its labor legislation, as would be required under USMCA, and that Mexico’s new president has expressed support for improving labor conditions.⁶²⁰

A number of observers highlight the agreement’s new provisions on collective bargaining rights in Mexico (found in Annex 23-A) as a positive change.⁶²¹ One source suggests that this provision may speed the establishment of labor legislation in Mexico and protect this new legislation from future changes, while another contends that it will allow workers to exercise influence over union contracts and lead to the recertification of existing protection contracts.⁶²² Some observers indicate that these Annex 23-A provisions could lead to increased wages in Mexico, as they may strengthen workers’ ability to negotiate wage increases.⁶²³ Further, U.S. workers may benefit from higher Mexican wages, as reduced wage disparity may decrease U.S. firms’ motivation to outsource production to Mexico and increase workers’ leverage in wage negotiations⁶²⁴ and could provide an export market for U.S. products. However, these wage increases would likely occur over the long term and may depend on technical assistance from the United States, as the establishment of unions and the education of Mexican workers regarding their collective bargaining rights would not occur quickly.⁶²⁵

At the same time, some argue that the chapter has several weaknesses. Labor groups argue that the chapter’s adherence to the *ILO Declaration of Fundamental Principles and Rights at Work and its Follow-Up* (rather than specific ILO conventions), as well as a footnote that further describes the relationship between the chapter’s labor rights provisions and the ILO, create ambiguity that may hamper the enforcement of USMCA labor provisions.⁶²⁶ Further, while one source indicates that a new footnote defining the phrase “in a manner affecting trade and investment between the parties” may provide

⁶¹⁸ Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 20–21; AFL-CIO, prehearing submission to the USITC, October 31, 2018, 7; Fernández Campbell, “Trump’s New Trade Deal Is Better for Workers,” October 2, 2018.

⁶¹⁹ ITAC 9, *A Trade Agreement with Mexico and Potentially Canada*, September 27, 2018, 17.

⁶²⁰ Kahn, “Will NAFTA 2.0 Really Boost Mexican Wages?” October 17, 2018; Fernández Campbell, “Trump’s New Trade Deal Is Better for Workers,” October 2, 2018.

⁶²¹ AFL-CIO, prehearing submission to the USITC, October 31, 2018, 6–7; International Brotherhood of Teamsters, prehearing submission to the USITC, October 30, 2018, 2; ACTPN, *The Advisory Committee for Trade Policy Negotiations (ACTPN) Committee Report to the President, the Congress, and the United States Trade Representative on the Trade Agreement*, September 27, 2018, 9.

⁶²² Ebert and Villarreal, “The Renegotiated ‘NAFTA,’” October 11, 2018; Kahn, “Will NAFTA 2.0 Really Boost Mexican Wages?” October 17, 2018.

⁶²³ AFL-CIO, post-hearing submission to the USITC, November 23, 2018, 14; International Brotherhood of Teamsters, pre-hearing submission to the USITC, October 30, 2018, 2; Kahn, “Will NAFTA 2.0 Really Boost Mexican Wages?” October 17, 2018.

⁶²⁴ USITC, hearing transcript, November 15, 2018, 279 (testimony of Celeste Drake, AFL-CIO).

⁶²⁵ USITC, hearing transcript, November 15, 2018, 275-76 (testimony of Celeste Drake, AFL-CIO); Kahn, “Will NAFTA 2.0 Really Boost Mexican Wages?” October 17, 2018.

⁶²⁶ Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 20; AFL-CIO, pre-hearing submission to the USITC, October 31, 2018, 8.

greater clarity in the event of a labor dispute, labor groups state that the footnote's coverage is ambiguous and may allow employers in the public sector to suppress wages.⁶²⁷

Overall, labor organizations and other observers express the view that USMCA labor obligations will have no impact on wages or labor conditions if member countries fail to enforce these provisions.⁶²⁸ Despite the agreement's new and strengthened labor provisions, some groups criticize the agreement's lack of measures guaranteeing the enforcement or monitoring of its labor obligations.⁶²⁹ Some observers have expressed concern that the enforcement of USMCA labor provisions—like those in existing U.S. trade agreements—partly relies on voluntary action by the parties to the agreement, noting that parties to existing agreements have demonstrated a reluctance to initiate enforcement actions in the past.⁶³⁰

Several sources indicate that labor provisions in existing U.S. FTAs have not been enforced, and that the resolution of labor violations under FTA dispute settlement provisions can be a lengthy process.⁶³¹ For example, in its testimony before the Commission, the AFL-CIO reported that U.S. disputes with Bahrain, the Dominican Republic, and Honduras each remain open and unresolved after more than six years.⁶³² The AFL-CIO has also noted that it took nine years to reach a conclusion concerning a challenge from workers in the United States and Guatemala under the U.S.-Dominican Republic-Central America Free Trade Agreement.⁶³³ Further, labor groups assert that USMCA's dispute settlement provisions allow parties to prevent the establishment of a panel, which may hinder USMCA members' ability to enforce the agreement's labor provisions.⁶³⁴ The AFL-CIO has stated that it does not endorse the current draft of USMCA due to uncertainty regarding Mexico's labor reforms and the implementation and enforcement of the agreement.⁶³⁵ Labor groups indicate that their support for USMCA will depend, in large part, on

⁶²⁷ Ebert and Villarreal, "The Renegotiated 'NAFTA,'" October 11, 2018; Labor Advisory Committee, "Report on the Impacts," September 27, 2018, 20.

⁶²⁸ See, for example, AFL-CIO, prehearing submission to the USITC, October 31, 2018, 8; Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 7; Elliott, "Trump's NAFTA Rebrand Looks More Like TPP," October 9, 2018.

⁶²⁹ AFL-CIO, prehearing submission to the USITC, October 31, 2018, 8; Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 7; Citizens Trade Campaign, written submission to the USITC, December 19, 2018.

⁶³⁰ USITC, hearing transcript, November 15, 2018, 292–93 (testimony of Celeste Drake, AFL-CIO); Ebert and Villarreal, "The Renegotiated 'NAFTA,'" October 11, 2018.

⁶³¹ AFL-CIO, pre-hearing submission to the USITC, October 31, 2018, 9; USITC, hearing transcript, November 15, 2018, 292–93 (testimony of Celeste Drake, AFL-CIO); Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 22; Ebert and Villarreal, "The Renegotiated 'NAFTA,'" October 11, 2018; Fernández Campbell, "Trump's New Trade Deal Is Better," October 2, 2018; Brinkley, "House Democrats Won't Accept USMCA In Its Present Form," November 16, 2018.

⁶³² USITC, hearing transcript, November 15, 2018, 293 (testimony of Celeste Drake, AFL-CIO).

⁶³³ Drake, "U.S. Trade Policy," 2017.

⁶³⁴ Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 22; AFL-CIO, posthearing submission to the USITC, November 23, 2018, 18.

⁶³⁵ AFL-CIO, posthearing submission to the USITC, December 20, 2018, 18. In a separate submission, the Transportation Trades Department of AFL-CIO (TTD) indicates that the USMCA labor provisions include some improvements, but expresses doubt regarding these provisions' actual impact. Overall, the TTD indicates that it supports the AFL-CIO's comments on the agreement's labor provisions. AFL-CIO, TTD, written submission to the USITC, December 20, 2018, 2–3.

whether the U.S. implementing legislation for the agreement provides for the enforcement of its labor provisions.⁶³⁶

Modeling of Labor Provisions: Collective Bargaining in Mexico

Further assessment of the collective bargaining provision sought to identify statistically how improvements in the ability of Mexican workers to form labor unions affect wages in Mexico. It relied on estimating a union wage premium from microdata about Mexican workers' wages and unionization status, as well as on methodology found in the literature on the union wage premium.⁶³⁷ Econometric modeling of the union wage premium linked changes in collective bargaining legislation to changes in wages, assuming characteristics of workers and rates of unionization did not change. To estimate union wage premium taking into account the issue of protection contracts described above, workers who belong to public sector unions were compared to all other Mexican workers.⁶³⁸ This analysis found that on average, the collective bargaining provision would increase wages of unionized Mexican workers by 17.2 percent.⁶³⁹

In 2017, the unionization rate in Mexico was on average 14.5 percent.⁶⁴⁰ However, some sectors had much higher unionization rates than others. For example, workers in public sectors, such as employees of utility providers and providers of educational services, had unionization rates above 50.0 percent. On the other hand, only 0.2 percent of agricultural workers were unionized.⁶⁴¹ When incorporating the estimation results into the economy-wide model, Mexico's unionization rates by sector were assumed to remain at their 2017 rate. The wage increase of 17.2 percent was then applied to a portion of each sector's workforce determined by that sector's rate of unionization.

Inclusion of union wage premium in the economy-wide model had some impact on the Mexican economy. Household income and real GDP in Mexico increased slightly as a result of increase in the wages of unionized workers. However, this increase had negligible impacts on Mexico's product prices and trade with the United States. Ultimately, the effect of the collective bargaining provision in Mexico on the U.S. economy was small relative to other modeled provisions.⁶⁴²

To check for sensitivity of the economy-wide model to the assumption of constant unionization rates, an alternative specification of the model assumed that unionization rates in each sector would double.⁶⁴³

⁶³⁶ Labor Advisory Committee, *Report on the Impacts*, September 27, 2018, 2; AFL-CIO, prehearing submission to the USITC, October 31, 2018, summary, 20; USITC, hearing transcript, November 15, 2018, 277 (testimony of Celeste Drake, AFL-CIO); International Brotherhood of Teamsters, prehearing submission to the USITC, October 30, 2018, 4.

⁶³⁷ See appendix F for additional details.

⁶³⁸ Appendix F discusses this comparison assumption and presents alternative estimates as a sensitivity check.

⁶³⁹ This number is comparable to the estimates of union wage premium found in economic literature.

⁶⁴⁰ The average unionization rate was calculated using data from INEGI, ENOE, 2017.

⁶⁴¹ Sector-specific unionization rates are based on 2-digit NAICS aggregation of Mexican workers' self-reported unionization status using data from INEGI, ENOE, 2017.

⁶⁴² See tables 2.1 and 2.2 for economy-wide impacts of the USMCA.

⁶⁴³ This assumption is consistent with Zax and Ichniowski, "Bargaining Laws and Unionization," 1990.

Changes in the economy-wide outcomes resulting from doubling unionization rates in Mexico were negligible. Details of this analysis are presented in appendix F.⁶⁴⁴

⁶⁴⁴ Commissioner Kearns recognizes that:

- (1) Mexican wages have not tracked Mexican productivity increases;
- (2) Mexican wages are lower than they would be otherwise if Mexico provided its workers with their internationally recognized labor rights;
- (3) There is likely slack in the Mexican economy; and
- (4) Higher wages in Mexico could lead to an increase in consumption as workers spend relatively more of their income, including on consumption of U.S. exports.

Because these factors are not modeled, improvements in labor conditions in Mexico could have a much greater impact on U.S. GDP, employment, and wages.

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Chapter 9

Other Crosscutting Provisions

Overview

This section assesses crosscutting chapters of USMCA that are not broadly analyzed elsewhere in this report. It will summarize what each of these chapters are and identify key changes to their provisions under USMCA (relative to NAFTA or prevailing laws). As the economic impacts of these provisions are difficult to determine either qualitatively and quantitatively, assessments of the impacts are limited. However, views of industry representatives are included in the discussion of many of the provisions.

Since the analyzed USMCA provisions are crosscutting in nature, as they were in the prior chapter, their changes are likely to affect multiple sectors of the U.S. economy. The analysis of their effects should thus be considered as supplements to the discrete effects identified in the earlier chapters of this report. The analysis is organized by its corresponding chapter number in USMCA, as is shown in table 9.1.

Table 9.1 USMCA chapters described in this chapter

Chapter number	Chapter title
4	Rules of Origin
5	Origin Procedures
7	Customs and Trade Facilitation
10	Trade Remedies
11	Technical Barriers to Trade
13	Government Procurement
16	Temporary Entry
21	Competition Policy
22	State-Owned Enterprises and Designated Monopolies
24	Environment
25	Small and Medium-Sized Enterprises
26	Competitiveness
27	Anticorruption
28	Good Regulatory Practices
29	Publication and Administration
30	Administrative and Institutional Provisions
31	Dispute Settlement
32	Exceptions and General Provisions
33	Macroeconomic Policies and Exchange Rate Matters
34	Final Provisions

Source: USMCA text.

Rules of Origin Provisions (Chapter 4)

USMCA has two chapters for rules of origin: “Rules of Origin” (Chapter 4) and “Origin Procedures” (Chapter 5). These two chapters incorporate some of the provisions of NAFTA Chapter 4 and some of the provisions for customs procedures covered in NAFTA Chapter 5.

Rules of origin are used to determine the country of origin of an imported product for purposes of international trade and tariff-level accounting. USTR’s negotiation goals were, among others, to ensure that rules of origin promote production in North America, especially in the United States, establish origin procedures to streamline certification and verification of rules of origin, and strengthen enforcement.⁶⁴⁵ For USMCA, the Rules of Origin (Chapter 4) differ from those in NAFTA in various respects, and for different commodities and products. While duty-free access is maintained for originating goods, qualifying for origin under USMCA is more liberal than under NAFTA for some products and more stringent for others.

Table 9.2 Summary of key USMCA Chapter 4 provisions on Rules of Origin

USMCA provision	Comparison to NAFTA provisions
Duty-Free Access. New agreement maintains duty free access for originating goods.	Same as NAFTA
Provisions. Specific provisions for sets of goods, kits, composite goods, and remanufactured goods.	New in USMCA
Regional Content Value (RCV). Calculation by net cost method or transactional value method. Some sectors limited to one method, e.g., automotive sector must use net cost method.	Same as NAFTA
Valuation. Additional provisions allow for further adjustments to valuation.	Modified in USMCA. Not specifically covered in NAFTA.
Origin Verification. Origin certification process allows either the importer or exporter to prove origin in written or electronic form upon demand by U.S. Customs and Border Protection (CBP) rather than as a shipment-by-shipment process.	New in USMCA
Processing. Activities such as unloading, labeling, marking, reloading, etc., may be performed by non-USMCA members without changing the good’s originating status.	New in USMCA
Certain Exemptions. Rules of origin (ROOs) for horticultural products exempt import-sensitive canned peach, pear, and apricot products from de minimis requirements, as in the U.S.-Korea FTA.	New in USMCA
Peanuts Rule of Origin (ROO). New ROO allows U.S. peanuts processed in Mexico to be marketed in the United States and other markets. Benefits manufacturers with factories in the United States and Mexico.	New in USMCA
Sugar ROO. ROOs for sugar and sugar-containing products, footwear, and travel goods were unchanged, as well as provisions on accumulation and fungible goods	Same as NAFTA
Textile and Apparel ROO. Differ from NAFTA and require greater use of U.S.-made fibers, yarns, and fabrics, with transition periods of 12 to 30 months.	Modified in USMCA. NAFTA rules allowed more liberal use of other NAFTA and non-NAFTA inputs.
Textile Origin. Creates textile-specific procedures for verifying and enforcing origin.	Modified in USMCA. Not specifically covered in NAFTA.

Source: USMCA text.

⁶⁴⁵ For more information on USTR’s negotiating objectives under USMCA, see USTR, “Summary of Objectives for the NAFTA Renegotiation,” November 2017. <https://ustr.gov/sites/default/files/files/Press/Releases/Nov%20Objectives%20Update.pdf> (accessed March 7, 2019).

NAFTA ROOs focused on tariff shift requirements for individual parts and components, whereas USMCA uses a regional value content approach for many products. The NAFTA tracing scheme for origin was difficult and various provisions in the agreement allowed for non-originating content to be ‘deemed’ to be originating. Some U.S. industry representatives expressed concern that new, more-stringent origin requirements could be detrimental to overall use of the agreement.⁶⁴⁶ Others expressed concern about the delayed application of the new requirements and lengthy transition periods (e.g., 12 to 30 months for some textile provisions), although there is general agreement that transition periods are necessary for the trade and U.S. Customs and Border Protection (CBP) to develop programs and train personnel.⁶⁴⁷ The possibility of unintended consequences of the more stringent origin requirements is not unique to the textile/apparel sector. USMCA does not allow the use of cumulation between free trade agreement partners shared by the three parties in order to establish USMCA origin.

Origin Procedures Provisions (Chapter 5)

Rules of origin procedures are used to certify the origin of specific imports. Sections addressing these procedures in USMCA (Chapter 5) contain provisions that do not exist in NAFTA text, but are parallel to parts of Trans-Pacific Partnership (TPP) rules of origin and origin procedures (Chapter 3). The majority of provisions in the “New in USMCA” establish committees intended to focus on various aspects of rules of origin and the verification of origin.

Table 9.3 Summary of key USMCA provisions on origin procedures

USMCA provision	Comparison to NAFTA provisions
New Committee. Establishes a Committee on Rules of Origin and Origin Procedures	New in USMCA
New Subcommittee (Origin). Establishes a Subcommittee on Origin Verification.	New in USMCA
Content Allowance. Establishes a de minimis content allowance.	Modified Provision: De minimis content allowance increased from 7 percent under NAFTA to 10 percent in USMCA.
Preferential Tariff Treatment. An annex to Chapter 5 sets out minimum data elements that must be provided to establish a claim for preferential tariff treatment.	New in USMCA
New Subcommittee (Customs Enforcement). Establishes a subcommittee on customs enforcement; marking rules and uniform regulations are specifically mentioned as issues to be addressed.	New in USMCA
Obligations. Obligations regarding importations, exportations, record keeping, origin verification, and basis for origin claim unchanged.	Same as NAFTA

Source: USMCA text.

Note: The de minimis level sets the amount of non-originating material that may be used in the production of an FTA-qualifying item. Above that de minimis threshold the non-originating material would change origin and prevent the good from qualifying for benefits under the FTA. The USMCA de minimis threshold of 10% allows for a bit more than NAFTA’s 7% de minimis threshold.

USMCA’s origin procedures (Chapter 5) establish various trilateral committees and subcommittees to address rules of origin, procedures, origin verification, and customs enforcement issues. USMCA

⁶⁴⁶ ITAC 11, Textiles and Apparel, September 27, 2018, 6

⁶⁴⁷ ITAC 11, Textiles and Apparel, September 27, 2018, 6.

includes multiple methods of conferring origin and allows the importer to meet this requirement. The de minimis content allowance of 7 percent under NAFTA increased to 10 percent under USMCA, with certain specified exceptions set out in an annex. A certificate of origin could be produced in a format appropriate for the individual producing the certificate, including in electronic format. The agreement also allows for advanced rulings on origin. USMCA does not increase the \$1,000 transaction amount threshold below which a NAFTA certificate of origin is not required.

Customs and Trade Facilitations Provisions (Chapter 7)

Customs and trade facilitation procedures are measures that aim to simplify the flow of international trade. In its negotiating objectives for customs and trade facilitation provisions in USMCA, among other goals, USTR aimed to increase transparency with respect to the rules and procedures regarding customs administration in USMCA partners and provide for the expedited release of express shipments, including those that are above de minimis thresholds.⁶⁴⁸ Customs-related provisions under Chapter 7 of USMCA represent a significant advance from those in NAFTA, which did not include a separate chapter on customs and trade facilitation. Some of the provisions in Chapter 7 are similar to those in the TPP Agreement and in recent U.S. free trade agreements (FTAs). Other provisions incorporate language from the WTO Trade Facilitation Agreement, which entered into force on February 22, 2017. According to industry representatives, nearly 70 percent of U.S. express firms' business is in NAFTA countries. As a result, provisions on express shipments in Chapter 7 of USMCA would likely have a large, positive impact on the revenues of U.S. express firms, especially with regard to business-to-consumer ecommerce.

Table 9.4 Summary of key USMCA provisions on customs and trade facilitations

USMCA provision	Comparison to NAFTA provisions
Express Shipments. These address expedited customs procedures for express goods and establish de minimis levels for express shipments into Canada, Mexico, and the United States.	New in USMCA
Release of Goods. States that parties must maintain simplified customs procedures for clearing and releasing goods and must identify the reasons when goods are held by customs administrations.	New in USMCA
Provisions on Penalties. Ensures that penalties imposed by parties' customs administrations clearly relate to infractions of customs law and are not imposed due to clerical or other minor errors in customs transactions.	New in USMCA
Provisions on Customs Brokers. Allows for the self-filing of customs documentation.	New in USMCA

Source: USMCA text.

⁶⁴⁸ For more information on USTR's negotiating objectives under USMCA, see USTR, "Summary of Objectives for the NAFTA Renegotiation," November 2017, 4–5. <https://ustr.gov/sites/default/files/files/Press/Releases/Nov%20Objectives%20Update.pdf> (accessed March 7, 2019).

Among the 28 provisions in USMCA Chapter 7, those with the largest potential impact are on Express Shipments (Article 7.8), the Release of Goods (Article 7.7), Penalties (Article 7.18), and Customs Brokers (Article 7.21).⁶⁴⁹ These four provisions are designed to facilitate trade among USMCA partners by establishing higher de minimis levels for low-value shipments;⁶⁵⁰ strengthening the transparency and predictability of customs rules and regulations, especially for small and medium-sized enterprises (SMEs); and encouraging the use of “best practices” to speed the flow of goods through customs checkpoints.⁶⁵¹ In addition, the Single Window provision (Article 7.10) states that customs administrations must establish a single electronic submission system or entry point for all customs-related data requirements. This provision would advance the twin goals of harmonizing customs documentation requirements among USMCA countries and implementing online systems for processing and sharing customs-related information.⁶⁵²

The Express Shipment (Article 7.8) provision of USMCA includes several key provisions that would affect the ease of doing business by express delivery firms and increase ecommerce transactions among USMCA parties. Provisions under Article 7.8.1 state that parties should allow information to be cleared by authorities before the physical arrival of express shipments at customs checkpoints; provide for the submission of customs data and other information in a single document; permit express goods to be released immediately by customs authorities without delays from paperwork or inspection requirements; and ensure that no customs duties or taxes are levied on express shipments that meet de minimis thresholds.⁶⁵³ In addition, USMCA is the first trade agreement in which parties have specified de

⁶⁴⁹ USMCA, Chap. 7: Customs Administration and Trade Facilitation, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf> (accessed November 5, 2018).

⁶⁵⁰ In general, de minimis is defined as a monetary threshold below which customs duties and taxes on imports are not required, and customs paperwork on these imports is reduced. De minimis levels specified in the text of the USMCA apply only to express shipments. USMCA, Chap. 7: Customs Administration and Trade Facilitation, Art. 7.8(f), n.d. <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf> (accessed November 5, 2018); ITAC 12, Addendum to *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, October 24, 2018, 2.

https://ustr.gov/sites/default/files/files/agreements/FTA/AdvisoryCommitteeReports/ITAC_12_REPORT-Customs_Matters_and_Trade_Facilitation_Addendum.pdf (accessed November 5, 2018). De minimis provisions are discussed in greater detail in chapter 7 of this report (“Digital Trade and Ecommerce”).

⁶⁵¹ ITAC 14, *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, September 27, 2018, 4. The report states that the provisions on customs and trade facilitation in the USMCA “builds on previous trade agreements and goes beyond them in terms of its comprehensiveness, level of ambition, implementation of best practices, and alignment with modern business procedures.”

⁶⁵² Industry representative, meeting with USITC staff, Washington, DC, October 29, 2018; ITAC 14, *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, September 27, 2018, 4; World Bank, *Border Management Modernization*, 2011, 4, <https://openknowledge.worldbank.org/handle/10986/2544> (accessed November 3, 2018).

⁶⁵³ Prior U.S. trade agreements specified a window of time for the release of express shipments by customs authorities rather than calling for the immediate release of such goods. USITC, hearing transcript, November 15, 2018, 250–55, 320 (testimony of Michael Mullen, Express Association of America). See also discussion of de minimis provisions under USMCA on express delivery services in chap. 6 of this report, “Digital Trade and E-Commerce,” 126–27

minimis levels, and the first to identify “informal entry” procedures for goods valued below \$2,500.⁶⁵⁴

Despite these milestones, U.S. industry representatives see room for improvement in provisions on de minimis and informal entry. In particular, U.S. industry sources state that they would like greater certainty that countries have committed to de minimis levels specified in the agreement, for which conditional language now exists in footnote 3 of Article 7.8.1(f).⁶⁵⁵ In addition, firms seek a consensus among USMCA partners on the types of procedures that comprise informal entry, as these may vary by country. U.S. industry representatives indicate that the effective implementation of de minimis thresholds and informal entry procedures would partly determine the magnitude of potential benefits they realize from the agreement.⁶⁵⁶

The Release of Goods (Article 7.7) provision encourages parties to streamline customs clearance procedures. Key aspects of this article include establishing mechanisms for the advance electronic submission of customs documentation; requiring customs administrations to identify the reasons why they do not release goods at customs checkpoints when this occurs; separating the physical release of imported goods from the financial requirement that all customs duties, taxes, and fees be paid on those goods; and establishing guidelines for customs authorities to manage security bonds on imported goods for which duties and fees have not yet been paid.⁶⁵⁷ Article 7.7 is therefore aimed at ensuring that customs authorities advance the trade facilitation aspects of the agreement by expediting the release of goods at customs checkpoints.⁶⁵⁸

Articles 7.18 (Penalties) and 7.21 (Customs Brokers) together represent an important addition to customs and trade facilitation provisions in USMCA and build upon similar provisions in other U.S. trade agreements.⁶⁵⁹ Most notably, provisions under Article 7.18 allow importers to voluntarily report and correct minor clerical errors on their customs forms, which may have previously incurred customs penalties. Such penalties are now reserved only for serious infractions of customs law.⁶⁶⁰ Article 7.21 permits importers to file customs documentation without using a licensed customs broker, including through direct access to electronic customs platforms. Article 7.21 also removes limitations on the number of ports or locations from which a customs brokers may file customs declarations on behalf of

⁶⁵⁴ USMCA, Chap. 7, Art. 7.8.2, Customs Administration and Trade Facilitation, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf>. Under Art. 7.8.2, shipments valued below \$2,500 will be subject to less formal customs entry procedures than shipments valued above that amount.

⁶⁵⁵ Industry representative, meeting with USITC staff, Washington, DC, October 29, 2018; ITAC 12, Addendum to *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, October 24, 2018, 1; Coalition of Services Industries, “2018 Annual Global Services Summit,” October 17, 2018.

⁶⁵⁶ Industry representative, meeting with USITC staff, Washington, DC, October 29, 2018; ITAC 12, *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, September 27, 2018, 6.

⁶⁵⁷ USMCA, Chap. 7, Art. 7.8.2, Customs Administration and Trade Facilitation, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf>.

⁶⁵⁸ ITAC 12, *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, September 27, 2018, 5.

⁶⁵⁹ Industry representative, meeting with USITC staff, Washington, DC, October 29, 2018.

⁶⁶⁰ USMCA, Chap. 7, Art. 7.18.4, Customs Administration and Trade Facilitation, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf>; industry representative, meeting with USITC staff, Washington, DC, October 29, 2018.

their clients.⁶⁶¹ U.S. industry representatives state that self-filing in Mexico would eliminate burdensome requirements to use local customs brokers for clearing shipments and would facilitate the shipping of goods via land across the U.S.-Mexico border.⁶⁶² At the same time, permitting customs brokers to electronically file documentation from multiple locations would increase the efficiency and lower the costs of customs processing in signatory countries.⁶⁶³

Trade Remedies (Chapter 10)

Trade remedies are measures used to take remedial action against surges in imports that are causing serious injury to a domestic industry (“safeguard measures”) or against unfairly traded imports that are causing material injury to a domestic industry (“antidumping or countervailing measures”). USMCA Chapter 10 sets out certain provisions for trade remedies matters undertaken or enforced by any of the three USMCA parties. These include provisions concerning safeguard investigations, duty evasion, dispute settlement for antidumping and countervailing duty determinations, as well as an annex addressing best practices for antidumping and countervailing duty investigations.

Table 9.5 Summary of USMCA’s key trade remedy provisions

USMCA provision	Comparison to NAFTA provisions
Safeguard Exclusion. This exists for imports of North American goods unless “substantial share” and “contribute importantly” criteria are met.	Same as NAFTA
Dispute Settlement. Could use binational panel dispute settlement for AD/CVD cases, in lieu of domestic court review.	Modified in USMCA. Under USMCA, now incorporated into trade remedies chapter, rather than standalone chapter.
Duty Evasion. Procedures for cooperation on preventing duty evasion of trade remedy laws.	New in USMCA
Transparency and Inclusion. Annex provisions to promote transparency in AD/CVD proceedings and to ensure the opportunity of all interested parties to participate meaningfully in such proceedings.	New in USMCA

Source: USMCA text.

USMCA Chapter 10 covers topics related to trade remedies. It incorporates provisions contained in NAFTA: both the previous safeguard exclusion provisions (Chapter 8) and the dispute settlement provisions for antidumping and countervailing duty disputes (Chapter 19). USMCA also contains new sections.

⁶⁶¹ Limitations on the number of ports or locations are removed provided that the customs broker is licensed to operate at the port or location from which the filing of customs documentation occurs. USMCA, Chap. 7, Art. 7.21.3, Customs Administration and Trade Facilitation, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/07%20Customs%20%20and%20Trade%20Facilitation.pdf>.

⁶⁶² Michael Mullen, prehearing written submission to the USITC, November 15, 2018.

⁶⁶³ ITAC 12, *Report of the Industry Trade Advisory Committee on Customs Matters and Trade Facilitation*, September 27, 2018, 8.

With respect to safeguards as well as antidumping and countervailing duty measures, Section C of USMCA adds provisions addressing cooperation among the parties for the purposes of enforcing or assisting in the enforcement of their measures concerning duty evasion. In its report of September 27, 2018, the Advisory Committee for Trade Policy and Negotiations (ACTPN) stated that “several ACTPN members support the innovative provisions of this chapter including those addressing cooperation and verification of evasion and circumvention of antidumping, countervailing, and safeguard duties and information sharing.”⁶⁶⁴ At the Commission hearing, several witnesses—including the General Counsel of the American Iron and Steel Institute, the president/CEO of the association, and the president of the Steel Manufacturers’ Association—likewise endorsed USMCA’s provisions for increased cooperation and information sharing to address circumvention and evasion of trade remedy orders.⁶⁶⁵

USMCA Section A applies to safeguard measures only. Article 10.1 retains the language from NAFTA (Chapter 8) requiring exclusion from a safeguard for imports from each other party unless imports from that party account for a substantial share of total imports and contribute importantly to the serious injury, or threat thereof, caused by imports.

Specific to antidumping and countervailing duty actions, USMCA incorporates one set of existing provisions, while Annex 10-A adds new provisions on process and transparency. The existing provisions, now set out in Section D of USMCA and previously contained NAFTA (Chapter 19), set out procedures for binational panel review of antidumping and countervailing duty determinations. As in NAFTA, USMCA Section D, Article 10.12 continues to provide parties the option of seeking binational panel review in lieu of judicial review of antidumping and countervailing duty determinations. The views of stakeholders concerning the continued inclusion of these provisions appears to be mixed, as reflected, for example, in the report of the ACTPN. As of September 27, 2018, when the agreement negotiated between the United States and Mexico would have eliminated binational panel dispute resolution for antidumping and countervailing duty determinations, the committee reported that

[s]ome members . . . support the removal of the dispute resolution mechanism for antidumping and countervailing decisions and strongly suggest that should an agreement with Canada be reached, such provisions should not be reintroduced. The original dispute settlement provisions under Chapter 19 have been overtaken by developments in international trade law including the WTO’s implementation of a binding international dispute settlement mechanism. Other ACTPN members are concerned about the importance of having a strong dispute settlement provision within the agreement because they view the WTO’s process as inoperable at this time.⁶⁶⁶

At the Commission hearing, the president/CEO of the National Grain and Feed Association (NGFA) stated that NGFA and the North American Export Grain Association were “pleased that USMCA maintains the

⁶⁶⁴ ACTPN, *Advisory Committee Report*, September 27, 2018, 7.

⁶⁶⁵ USITC, hearing transcript, November 16, 2018, 367 (testimony of Kevin Dempsey, American Iron and Steel Institute), 374 (testimony of Heidi Brock, Aluminum Association), and 379 (testimony of Philip Bell, Steel Manufacturers Association).

⁶⁶⁶ ACTPN, *Advisory Committee Report*, September 27, 2018, 7.

dispute settlement process for anti-dumping and countervailing duty cases.”⁶⁶⁷ He explained that inclusion of this dispute settlement process “has been used successfully to maintain U.S. agricultural market access under NAFTA.”⁶⁶⁸

Annex 10-A to Chapter 10 of USMCA includes new provisions intended to promote transparency and ensure opportunity of all interested parties to participate meaningfully in antidumping and countervailing duty proceedings. This annex covers matters such as notifications, disclosures, and electronic filing and access to documents.

Some commenters discussed a topic that was included in USTR’s negotiating objectives, but was not covered by the negotiated agreement. That topic concerned seeking a separate domestic industry provision for perishable and seasonal products in antidumping and countervailing duty proceedings.⁶⁶⁹ The Intergovernmental Policy Advisory Committee (IGPAC), in its report of September 27, 2018, noted that it had varying opinions on the dropping of this provision.⁶⁷⁰ The report stated that “the IGPAC representative from Florida is disappointed that this provision was left out of the agreement while the representatives from Washington and Arizona support the elimination of this proposal.” At the Commission hearing, the Commissioner of Agriculture for the Florida Department of Agriculture and Consumer Services as well as the Chief Executive Officer of the Florida Fruit and Vegetable Association (FFVA) expressed disappointment that USMCA does not address the “unique seasonal circumstances” affecting Florida and other southeastern growers who are limited to a winter growing and marketing season.⁶⁷¹

According to FFVA, the adverse “industry trend lines evidenced under NAFTA are likely to accelerate under USMCA unless specific measures are pursued to deliver effective relief against unfairly traded Mexican produce in the near term.”⁶⁷² Thus, by FFVA’s projection, because the southeastern United States and Mexico produce a number of the same specialty crops and share the similar winter growing season, under existing NAFTA, vegetable imports from Mexico have had a “disproportionally negative impact on southeast farmers,” and could continue to do so absent tools to address this issue.⁶⁷³

Technical Barriers to Trade Provisions (Chapter 11)

Chapter 11 of USMCA applies to technical barriers to trade (TBTs), which collectively refer to the preparation, adoption, and application of standards, technical regulations, and conformity assessment procedures of central governments, which may affect trade in goods between the parties. The initial USTR negotiating objective on TBTs was to require that USMCA countries apply decisions and

⁶⁶⁷ USITC, hearing transcript, November 15, 2018, 159–62 (testimony of Randy Gordon, National Grain and Feed Association).

⁶⁶⁸ USITC, hearing transcript, November 15, 2018, 159 (testimony of Randy Gordon).

⁶⁶⁹ See USTR, “Summary of Objectives for NAFTA Renegotiation,” July 17, 2017, 14.

⁶⁷⁰ IGPAC, *Advisory Committee Report* September 27, 2018.

⁶⁷¹ USITC, hearing transcript, November 15, 2018, 136-46 (testimony of Putman and Stuart).

⁶⁷² Fruit and Vegetable Association, post-hearing submission to the USITC, November 21, 2018, 1–2.

⁶⁷³ USITC, hearing transcript, November 15, 2018, 141 (testimony of Putman).

recommendations adopted by the WTO TBT Committee, include strong provisions on transparency and public consultation, ensure national treatment of conformity assessment bodies, and establish an active TBT Chapter Committee.⁶⁷⁴ The chapter does not apply to technical standards prepared by a governmental body for production or consumption requirements of a governmental body, or to sanitary or phytosanitary measures.⁶⁷⁵ The goal of the chapter is to harmonize standards and procedures, where appropriate, to ensure nondiscrimination, and remove unnecessary obstacles to trade. The provisions of NAFTA (Chapter 9) that address standards-related measures entered into force before the provisions in the WTO Agreement on Technical Barriers to Trade (TBT Agreement). Chapter 11 of USMCA modernizes the treatment of TBTs in line with existing WTO commitments and includes some additional WTO commitments.

Table 9.6 Summary of USMCA’s key technical barriers to trade provisions

USMCA provision	Comparison to NAFTA provisions
Standards. These provisions affirm that standards set by U.S.-domiciled standards setting organizations are recognized as “international” standards. NAFTA predated the decision of the WTO Agreement on Technical Barriers to Trade.	Same as NAFTA
Certification Facilities. Allows manufacturers to use laboratories or certification facilities in Canada, Mexico, or the U.S. to qualify products for market access in all three countries.	New in USMCA
Third Parties. These provisions prohibit all parties from entering in to an agreement with a third party that would lower the standards agreed to under the USMCA.	Modified in USMCA. Expands upon similar NAFTA provisions.
CTBT. Renews the Committee on Technical Barriers to Trade.	Modified in USMCA. Expands upon similar NAFTA provisions.

Source: USMCA text.

The TBT chapter would help eliminate cross-border trade frictions in goods and services by ensuring that voluntary and mandatory product standards and procedures for determining whether products conform to those standards do not create unnecessary obstacles to trade between the United States, Mexico, and Canada. Under the TBT chapter, the parties commit to offer more transparency and greater access to the regulatory process for stakeholders from all three countries and to cooperate on common regulatory approaches. Importantly, USMCA (Chapter 11, Article 11:4) adopts the definition of “international standards” used by the WTO. This would preclude discrimination based on the location of a standards development organization. In addition, Article 11:6 removes in-country presence requirements on conformity-assessment providers, which would allow the services they provide to be considered valid regardless of geographic location. The chapter also creates new requirements for all parties that would permit foreign firms to participate in regulatory, standards, and conformity assessment processes on an equal footing with parties’ domestic interests.

NAFTA (Chapter 9) included an annex that addressed several industry-specific standards-related issues. A separate chapter of USMCA (Chapter 12) contains a series of TBT-related annexes that address chemical substances, cosmetic products, information and communications technology (ICT), energy performance standards, medical devices, and pharmaceuticals.

⁶⁷⁴ See USTR, “Summary of Objectives for NAFTA Renegotiation,” November 2017, 6.

⁶⁷⁵ See USMCA, Chap. 11, Art. 11.2 (Scope).

Government Procurement Provisions (Chapter 13)

The USMCA chapter on government procurement (Chapter 13) aims to establish fair, transparent, predictable, and nondiscriminatory rules that ensure reciprocity in market access.⁶⁷⁶ The USMCA chapter largely extends the provisions in NAFTA without additional commitments. However, this chapter only applies to procurement activities between Mexico and the United States, while government procurement activities under NAFTA (Chapter 10) applied to all three member countries. Still, U.S. firms will continue to have access to Canadian government procurement through the WTO Government Procurement Agreement (GPA), as both the United States and Canada are member countries.⁶⁷⁷

⁶⁷⁶ Government procurement refers to the purchasing of goods, services, and construction on behalf of a public authority. USTR, “Summary of Objectives,” November 2017, 15–16.

⁶⁷⁷ Government of Canada, “Government Procurement Summary” (accessed March 6, 2019). Mexico has not acceded to the Government Procurement Agreement (GPA), so its U.S. procurement opportunities are dictated via its trade agreements with the United States. WTO, “Agreement on Government Procurement” (accessed March 6, 2019).

Table 9.7 Summary of USMCA’s key government procurement provisions

USMCA provision	Comparison to NAFTA provisions
<p>Procurement Opportunities. The United States makes available procurement from 52 federal entities and 6 government enterprises. Mexico covers procurement by 23 federal entities and 36 government enterprises. States are the same as under NAFTA. The United States has access to Canadian government procurement through the WTO Government Procurement Agreement, which covers procurement at the provincial level, while NAFTA and USMCA only include central government commitments.</p>	Same as NAFTA
<p>Thresholds. For central government entities, the United States and Mexico agreed to raise the lower-bound procurement thresholds to \$80,317 for goods and services and \$10,441,216 for construction contracts. For government enterprises, the United States and Mexico agreed to raise the lower-bound procurement thresholds to \$401,584 for goods and services and \$12,851,327 for construction services.</p>	<p>Modified in USMCA. U.S. and Mexican thresholds are the same as those under NAFTA after adjustment for inflation. Under NAFTA, access to procurement opportunities with Mexico’s national oil and electric companies was initially subject to a set-aside of half of company’s yearly procurement to domestic suppliers. Now modified under USMCA so their set-aside contracts do not exceed \$466 million annually.</p>
<p>Exceptions. General provisions allow exceptions to protect public morals; order; safety; human, plant, and animal life; and intellectual property. Parties also exclude items from coverage, some of which may be mandated by national legislation. The United States exempts certain agricultural, military, and other goods. Mexico is allowed to set aside \$2.3 billion of its procurement annually.</p>	<p>Modified in USMCA. NAFTA similarly allowed general exceptions. NAFTA also allowed Mexico to exempt some procurement, but the amounts were based on shares of totals. The United States also exempted certain procurement under NAFTA. The exemption of procurement of textiles, apparel, and other items by the Transportation Security Administration (TSA), however, is new to USMCA.</p>
<p>Treatment. For covered procurement, the procuring entities are to treat suppliers of the other parties the same as they treat their own domestic suppliers. No change: NAFTA had similar provisions.</p>	Same as NAFTA
<p>Notices. For covered procurement, parties are to publish notices of intended procurement and other information in a consistent and accessible manner. Modified provision: NAFTA has similar provisions, but USMCA increases emphasis on electronic availability.</p>	<p>Modified in USMCA. NAFTA has similar provisions, but USMCA increases emphasis on electronic availability.</p>
<p>Evaluations. Proposals should be evaluated according to criteria stated in the notice, and all firms should receive fair and impartial treatment.</p>	<p>Modified in USMCA: NAFTA has similar provisions, but USMCA is updated to cover more contingencies and current means of communication.</p>
<p>Impartial Authority. Each party shall have at least one impartial administrative or judicial authority, independent from the procurement entity to review challenges or complaints.</p>	New in USMCA

Source: USMCA text. The procurement provisions between the United States and Mexico under USMCA are largely the same as under NAFTA. One exception is the exemption of procurement of textiles and apparel by the Transportation Security Administration (TSA) under USMCA, which would strengthen the Buy American provision applied to TSA uniforms.⁶⁷⁸

⁶⁷⁸ USITC, hearing transcript, November 16, 2018, 395 (testimony of Augustine Tantillo, National Council of Textile Organizations).

There are some notable differences between the procurement provisions in NAFTA and the GPA, however. For example, the GPA extends procurement opportunities to sub-central governmental entities (i.e. states and provinces) while NAFTA only includes central government commitments.⁶⁷⁹ U.S. access to Canadian procurement opportunities would be reduced due to the higher thresholds for goods under the GPA (\$180,000 for goods and services, compared to \$25,000 for goods and \$80,317 for services under NAFTA). In sum, the government procurement provisions of USMCA will likely have little impact on U.S. firms and taxpayers, although the loss of the low threshold in Canada under NAFTA, especially for goods procurement, could negatively affect some U.S. firms.⁶⁸⁰

Temporary Entry Provisions (Chapter 16)

Temporary Entry for Business Persons is addressed in Chapter 16 of USMCA. As in NAFTA, the chapter's provisions obligate parties to allow business visitors, traders and investors, intra-company transferees, and professionals from signatory countries to enter into their territories for the purpose of engaging in sales, marketing, and other activities that are specifically listed in the chapter's appendixes. Notably, USMCA is the first U.S. trade agreement since the U.S.-Chile and U.S.-Singapore FTAs—both of which entered into force on January 1, 2004—to include a chapter on temporary entry. However, USMCA provisions on temporary entry are largely similar to those in NAFTA's chapter on temporary entry, and as such, represent minimal change from the status quo that exists between the United States, Canada, and Mexico.

⁶⁷⁹ The Intergovernmental Policy Advisory Committee (IGPAC) favored not extending coverage beyond the central government level. IGPAC, *Advisory Committee Report*, September 27, 2018.

⁶⁸⁰ One trade analyst notes that the procurement provisions under USMCA are updated from NAFTA and now reflect international standards, but that coverage is not extended and falls short of some other agreements, such as the EU-Canada Comprehensive Economic and Trade Agreement (CETA). Grier, "USMCA—Modernize NAFTA: Procurement," October 5, 2018.

Table 9.8 Summary of USMCA's key temporary entry provisions

USMCA provision	Comparison to NAFTA provisions
Scope. The chapter includes an article specifying that provisions on the temporary entry of businesspersons do not apply to citizenship or access to a party's employment market, and do not preclude parties from regulating the cross-border entry and temporary stay of natural persons.	Modified provision. NAFTA does not include an article specifying the scope of this chapter.
Licensing and Codes of Conduct. USMCA specifies that businesspersons remain responsible for meeting licensing requirements and business codes of conduct.	Modified provision. NAFTA does not include this language on licensing and codes of conduct.
Consultation. Parties are obligated to consult with affected parties prior to establishing a visa requirement for business visitors, traders and investors, intra-company transferees, or professionals; and must engage in consultations regarding current requirements at the request of an affected party.	Modified provision. NAFTA included this language in its provisions on business visitors, intra-company transferees, and professionals, but not in its provisions on traders and investors.
Numeric Limits. NAFTA allowed parties to impose numerical limits on the temporary entry of professionals, and provided for the gradual phaseout of these limits.	Modified provision. Parties are precluded from imposing numerical limits on the temporary entry of professionals.
Dispute Resolution. The obligation to grant temporary entry to businesspersons is subject to dispute resolution under certain conditions.	Same as NAFTA.

Source: USMCA agreement text.

The USMCA chapter on temporary entry for businesspersons shares much in common with NAFTA. Both agreements include almost identical provisions which are subject to their respective agreements' general provisions on dispute settlement (table 9.18). Further, the lists of activities that qualify an individual for temporary entry as a business visitor under USMCA, as well as the categories of professionals that are eligible for temporary entry under that agreement, are virtually identical to those in NAFTA.⁶⁸¹

There are only a few minor differences between USMCA and NAFTA provisions on temporary entry. Unlike NAFTA, USMCA includes several provisions on scope. These provisions largely clarify what is not covered in the agreement; among other things, they specify that the chapter does not cover permanent employment or citizenship, does not prevent the application of the parties' temporary entry regulations, and does not exempt business persons from licensing or similar requirements.⁶⁸² USMCA requires parties to consult with potentially affected parties regarding current visa rules and before establishing a new visa requirement for any of the four categories of businesspersons covered by the agreement with the aim of avoiding or removing of such rules.⁶⁸³ This provision represents an expansion of obligations, as NAFTA includes this requirement in its provisions on business visitors, intra-company transferees, and professionals, but not in its provisions on traders and investors. Further, the NAFTA allowed parties to limit the number of professionals that enter into their territory, and directs parties to aim for the gradual increase and eventual elimination of these numerical limits. This provision does not appear in

⁶⁸¹ The USMCA lists include a few additional headings and clarifying footnotes.

⁶⁸² These provisions appear in USMCA, Art. 1602, Scope, and Art. 1604, Grant of Temporary Entry.

⁶⁸³ Under this provision, consultations on current visa rules are required when requested by an affected party. USMCA, Annex 16-A: Temporary Entry for Business Persons, Section B: Traders and Investors (3).

USMCA, reflecting the December 2003 expiration of the United States' numerical cap on the entry of Mexican professionals.⁶⁸⁴

USMCA text largely clarifies NAFTA provisions rather than imposing new obligations on the parties. Thus, USMCA would likely have little or no impact on the movement of persons between the United States, Canada, and Mexico.⁶⁸⁵ White & Case, an international law firm, reports that business groups are largely pleased with this outcome, as they had been concerned about the potential disruption of the current NAFTA visa regime.⁶⁸⁶ The Entertainment Software Association (ESA) stated that it would have preferred an update of the list of professional categories under which individuals are eligible for temporary entry under the agreement. Overall, however, the ESA stated that it is pleased that USMCA largely preserves NAFTA visa provisions, as the development of video games relies on the ability to transfer skilled workers between offices in USMCA partner countries.⁶⁸⁷

Competition Policy Provisions (Chapter 21)

USMCA's Competition Policy (Chapter 21) expands on the provisions of NAFTA (Chapter 15) which sought to ensure fair competition by requiring parties to adopt and maintain laws against anti-competitive business conduct. This chapter features nearly all of USTR's negotiation objectives, including rules that prohibit anticompetitive business conduct and rules for procedural fairness on competition law enforcement.⁶⁸⁸ While it is an update to NAFTA's Chapter 15, the new Competition Policy chapter's provisions are not new to FTAs negotiated by the United States. For example, nearly identical chapters are found in the final texts of the U.S.-Korea FTA and the TPP Agreement.⁶⁸⁹

Table 9.9 Summary of USMCA's key competition policy provisions

USMCA provision	Comparison to NAFTA provisions
Competition Law and Authorities and Procedural Fairness in Competition Law Enforcement. Each party must maintain laws that proscribe anticompetitive business conduct, must apply its competition laws to all commercial activities in its territory and must take appropriate action with respect to that conduct including maintaining a national authority responsible for their enforcement.	Modified in USMCA. The USMCA expands on the original Article 1501, Provision 1.
Cooperation. Parties' national competition authorities must endeavor to cooperate in relation to their enforcement laws and policies, including through investigative assistance, notification, consultation, and exchange of information.	Modified in USMCA. The USMCA expands on the original Article 1501, Provision 2.
Consumer Protection. Each party must adopt and promote national consumer protection laws (which may be civil or criminal in nature) that proscribe fraudulent and deceptive commercial activities.	New in USMCA.

⁶⁸⁴ DHS, "Lifting of Numerical Cap, January 8, 2004; White & Case, "Overview of Chapter 16," November 2018;; Kathleen C. Walker, "USMCA—All Quiet on the Immigration Front," October 2018, .

⁶⁸⁵ Several sources indicate that Chapter 16 of USMCA will likely have little impact as compared to the status quo under NAFTA. See, for example, Melissa Manna, "NAFTA May Have a New Name," October 4, 2018; PWC Canada, "US/Canada Deal Reached," October 4, 2018; and White & Case, "Overview of Chapter 16," November 2018,.

⁶⁸⁶ White & Case, "Overview of Chapter 16," November 2018.

⁶⁸⁷ Entertainment Software Association, written submission to the USITC, December 20, 2018, 9.

⁶⁸⁸ USTR, "Summary of Objectives for the NAFTA Renegotiation," November 2017, 11–12.

⁶⁸⁹ U.S.-Korea FTA, Chap. 16 ; TPP, Chap. 16.

USMCA provision	Comparison to NAFTA provisions
Transparency. On request of another party, a party must make available information about its national competition law enforcement policies and practices, as well as information about any exemptions and immunities to its national competition laws.	New in USMCA.
Consultations. On request of another party, a party must enter into consultations on competition laws or policies with the requesting party.	Modified in USMCA. A less formal version of the original's formation of a Working Group to discuss these matters.
Non-Application of Dispute Settlement. No party may have recourse to dispute settlement under this agreement for any matter arising under this chapter.	Same as NAFTA. Essentially the same as Art 1501, Provision 3.
Non-Application of Dispute Settlement. No party may have recourse to dispute settlement under Chapter 31 (Dispute Settlement) for a matter arising under this chapter.	New in USMCA.

Source: USMCA agreement text.

The main provisions of this chapter require that each party maintain national competition laws that “proscribe anticompetitive business conduct” and that each party apply its national competition laws to “all commercial activities in its territory.”⁶⁹⁰ Essentially, this requirement is the entirety of Article 1501 of NAFTA, and every further requirement in this chapter is new to USMCA.

Each party may offer exemptions to these laws “provided that those exemptions are transparent, established in its law, and based on public interest or public policy grounds.”⁶⁹¹ These laws must be administered fairly. Thus, enforcement of these laws must treat persons of another party “no less favorably than persons of the Party in like circumstances” and limit itself to conduct that occurs inside a party’s territory unless “there is an appropriate nexus to harm or threatened harm affecting the Party’s territory or commerce.”⁶⁹²

The chapter requires procedural fairness when enforcing these competition laws. To that end, the chapter requirements include transparent laws and regulations; time-limited investigations; and the “reasonable opportunity” to be represented by legal counsel.⁶⁹³ To ensure procedural fairness, the chapter also requires that confidential or privileged information “obtain[ed] during investigations . . . is not disclosed”⁶⁹⁴ and that each party’s “national competition authorities have the ultimate burden of establishing the legal and factual basis for an alleged violation in an enforcement proceeding.”⁶⁹⁵ Finally, violation proceedings must be trial-like,⁶⁹⁶ and the outcomes of violation proceedings and any penalties assessed must be transparent, fair, and reviewable.⁶⁹⁷

The chapter requires that the parties cooperate with each other to facilitate enforcement by sharing information and coordinating investigations when necessary.⁶⁹⁸ It also requires that each party adopt

⁶⁹⁰ USMCA, Art. X.1 §1 & 2.

⁶⁹¹ USMCA, Art. X.1 §3.

⁶⁹² USMCA, Art. X.1 §5.

⁶⁹³ USMCA, Art. X.2(a)-(c).

⁶⁹⁴ USMCA, Art. X.2 §3.

⁶⁹⁵ USMCA, Art. X.2 §5.

⁶⁹⁶ USMCA, Art. X.2 §7.

⁶⁹⁷ USMCA, Art. X.2 §6 and 8.

⁶⁹⁸ USMCA, Art. X.3.

consumer protection laws that proscribe fraudulent and deceptive commercial activities and cooperate with each other in their enforcement as well.⁶⁹⁹ However, the above requirements are not subject to dispute settlement under Chapter 31 (Dispute Settlement).⁷⁰⁰

State-owned Enterprises and Designated Monopolies Provisions (Chapter 22)

State-owned enterprises (SOEs) are companies that are directly or indirectly owned or controlled by the government as a majority or minority owner. Such SOEs, and designated monopolies, are the subjects of Chapter 22 of USMCA. This chapter aims to ensure that these entities are regulated impartially, and do not benefit from special treatment and unfairly infringe upon the activities of private firms.⁷⁰¹ The definition of SOEs and designated monopolies (DMs) is broad, but many types of activities, such as sovereign wealth funds, state pension funds, regulatory and supervisory activities of a financial entity, and various party-specific organizations, are exempt.

⁶⁹⁹ USMCA, Art. X.4.

⁷⁰⁰ USMCA, Art. X.5.

⁷⁰¹ USTR, “Summary of Objectives,” November 2017, 10–11.

Table 9.10 Summary of USMCA’s key state-owned enterprises and designated monopolies provisions

USMCA provision	Comparison to NAFTA provisions
Commercial Considerations. Parties ensure that their state-owned enterprises (SOEs) and designated monopolies (DMs) act in accordance with commercial considerations in buying and selling goods and services	Modified in USMCA. NAFTA did not have a specific chapter on SOEs and DMs, but similar provisions are found in the chapter on Competition Policy, Monopolies, and State Enterprises.
Jurisdiction. Parties give their courts jurisdiction over civil claims against an SOE owned or controlled by a foreign government based on commercial activity carried out in its territory.	New in USMCA
Non-Commercial Assistance. Grants, forgiving debts, loans and loan guarantees at better than commercial rates, converting debt to equity, and similar activities are called “non-commercial assistance,” and parties are prohibited from providing such assistance to a SOE that produces or sells goods (other than electricity).	New in USMCA
Injury to Domestic Industry. A party may claim that its domestic industry is injured by another party’s SOE based on a determination involving the volume of production of a SOE receiving non-commercial assistance, the effect on prices of like goods sold by the domestic industry, and the effect on production of the domestic industry.	New in USMCA
Disclosure of Non-Commercial Assistance. At the request of another party, a party will provide information about a SOE regarding ownership shares, voting rights, annual revenue, total assets, exemptions and immunities, and any non-commercial assistance it may have received.	New in USMCA
Definition. USMCA defines a SOE as an enterprise that is principally engaged in commercial activities and which a party (government) directly or indirectly owns or has the power to control through direct or indirect ownership. Provisions in the chapter do not apply to central banks and entities regulating or supervising financial services.	Modified in USMCA. In NAFTA, Canada defined a state enterprise as a Crown corporation per its Financial Administration Act. Mexico excluded the National Company for Basic Commodities from its definition. USMCA has a single definition, which expands on the TPP definition to include minority and indirect ownership. NAFTA similarly excluded central banks.
New Committee. Parties will establish a Committee with government representatives to identify and promote ways to increase trade and investment by SMEs. The Committee will also foster dialog between private-sector SMEs, relevant non-governmental organizations, and academic experts.	New in USMCA

Source: USMCA text.

SOEs and DMs have a greater presence in Canada than in the United States or Mexico, especially as they related to Crown corporations (independent companies owned by the federal or provincial government). Thus, the provisions of this chapter are expected to benefit U.S. firms operating in Canada, and in Mexico to a lesser extent. The Intergovernmental Policy Advisory Committee states that this chapter is expected to increase the transparency of SOE operations and enable U.S. firms to compete on

a more equal basis.⁷⁰² Industry representatives are supportive of the SOE chapter for these reasons, as it establishes disciplines for market-distorting behavior of SOEs.⁷⁰³

This chapter takes initial steps in setting up a system through which a party can seek damages when its domestic industry is injured by another party's SOE that receives non-commercial assistance (Article 22.7 and 22.8). The likely impact on the U.S. economy and U.S. industry sectors is difficult to assess, but effects are thought to be small, as the commercial activities of most SOEs of these parties take place primarily within each party's sovereign territory. However, U.S. industry representatives have emphasized the chapter's importance as a template for future agreements in markets where SOEs are more active and non-commercial assistance is more widespread.⁷⁰⁴

Environmental Provisions (Chapter 24)

The objectives of USMCA Chapter 24 on the environment are to promote mutually supportive trade and environmental policies and practices; promote enforcement of environmental laws; and enhance cooperation to support sustainable development. Although the NAFTA did not contain an environment chapter, the parties signed a separate side agreement called the North American Agreement on Environmental Cooperation (NAAEC).⁷⁰⁵ This was unique at the time in that the parties formally linked environmental protection with a major regional trade agreement.⁷⁰⁶ In addition to modernizing the NAAEC, USMCA's environment chapter draws extensively from TPP Agreement, Chapter 20.⁷⁰⁷

The impact of USMCA's environment chapter on the U.S. economy and trade is difficult to measure quantitatively because of the complexity in measuring the economic impacts of environmental policies (especially those that are nonbinding). There does not appear to be any public analysis of the potential economic impact of the chapter; commentaries have focused on the environmental aspects.

More generally, in the environmental economics literature, there are two major camps on the impact of environmental policies on competitiveness: the pollution haven hypothesis and the Porter hypothesis.⁷⁰⁸ The pollution haven hypothesis, which draws from the Heckscher-Ohlin model of international trade, theorizes that imposing stronger environmental policies can erode the competitiveness of industries

⁷⁰² IGPAC, *Advisory Committee Report*, September 27, 2018, 11.

⁷⁰³ USITC, hearing transcript, November 16, 2018, 368, 428 (testimony of Kevin Dempsey, American Iron and Steel Institute); USITC, hearing transcript, November 16, 2018, 374 (testimony of Heidi Brock, Aluminum Association); USITC, hearing transcript, November 16, 2018, 428 (testimony of Philip Bell, Steel Manufacturers' Association); Semiconductor Industry Association, written submission to the USITC, December 17, 2018, 3–7.

⁷⁰⁴ USITC, hearing transcript, November 16, 2018, 368, 428 (testimony of Kevin Dempsey, American Iron and Steel Institute); USITC, hearing transcript, November 16, 2018, 374 (testimony of Heidi Brock, Aluminum Association); USITC, hearing transcript, November 16, 2018, 428 (testimony of Philip Bell, Steel Manufacturers' Association); Semiconductor Industry Association, written submission to the USITC, December 17, 2018, 3–7.

⁷⁰⁵ The NAAEC created a Commission for Environmental Cooperation (CEC) to guide NAFTA's environment-related work. In December 2018, the United States, Mexico, and Canada completed a replacement for the NAAEC called the Environmental Cooperation Agreement (ECA), which would take effect when the USMCA enters into force. The ECA provides that the parties must continue to participate in the CEC.

⁷⁰⁶ Vaughan, "NAFTA's Environmental Record," 2017.

⁷⁰⁷ Trans-Pacific Partnership (TPP) agreement, Chap. 20, "Environment."

⁷⁰⁸ Dechezleprêtre and Sato, "The Impacts of Environmental Regulations," 2017.

with high compliance costs, shifting production to countries with weaker environmental policies.⁷⁰⁹ The Porter hypothesis, in contrast, theorizes that stronger environmental policies will lead to cost-cutting and innovation at regulated industries, which will improve their competitiveness over time.⁷¹⁰

Table 9.11 Summary of USMCA’s key environmental provisions

USMCA provision	Comparison to NAFTA provisions
Enforcement. Parties must enforce their environmental laws, while also retaining the right to exercise discretion with respect to enforcement of those laws.	New in USMCA. Similar intent in NAAEC. NAAEC provided a listing of more specific techniques to achieve this objective. Based on prior TPP language.
Assessments. Parties must maintain procedures for assessing the environmental impacts of proposed projects. Similar intent in NAAEC.	New in USMCA. Not based on any TPP language.
Multilateral Environmental Agreements. Parties affirm commitment to implement multilateral environmental agreements to which they are a party.	New in USMCA. NAAEC does not include this provision. Based on prior TPP language.
Recognition. Parties recognize the importance of protecting specified parts of the environment, such as the ozone layer, marine environment, air quality, biodiversity, fisheries, flora and fauna, and forests.	New in USMCA. NAAEC does not include these provisions. Draws partially from prior TPP language.
Trade/Investment Promotion. Parties must strive to promote trade and investment in environmental goods and services.	New in USMCA. NAAEC does not include this provision. Based on prior TPP language.
Complaints. Any person of a party may file a complaint that a party is not enforcing its environmental laws.	New in USMCA. Similar intent in both NAAEC and TPP.

Source: USMCA text.

The parties affirm in USMCA (Chapter 24) their commitment to enforce their domestic environmental laws and implement the multilateral environmental agreements (MEAs) to which they are signatories. Specific environmental and conservation topics—such as the ozone layer, flora and fauna, marine environments, forests, and air quality—are recognized by the parties as being important to designate for environmental protection. In the case of marine litter, the parties agree to take measures to prevent and reduce marine litter. Measures include cooperation in addressing land and sea-based pollution, promoting waste management infrastructure, and advancing efforts related to abandoned, lost, or otherwise discarded fishing gear. The parties commit to combat wildlife trafficking and enhance protection of marine species such as great whales, sharks, sea turtles, and seabirds. The chapter also provides for reducing and eventually eliminating some subsidies that result in overfishing; the World Trade Organization has been discussing this subject since 2001 but has not reached a final agreement.⁷¹¹ An important characteristic of USMCA’s environment chapter is that some provisions are binding while others are nonbinding.

The Trade and Environment Policy Advisory Committee (TEPAC) submitted to the USTR its statutorily required report in September 2018. TEPAC wrote that it “finds the agreement as a whole will contribute to improved environmental outcomes by building on the environmental provisions of NAFTA 1994”

⁷⁰⁹ Brunnermeier and Levinson, “Examining the Evidence on Environmental Regulations,” 2004.

⁷¹⁰ Porter and van der Linde, “Toward a New Conception,” 1995.

⁷¹¹ TEPAC, *Report of the Trade and Environment*, September 27, 2018, 7–8; Vaughan, “USMCA versus NAFTA,” October 3, 2018.

[more precisely, the NAAEC].⁷¹² While regretting that “it misses some important opportunities to advance sustainable development,” TEPAC contends it meets the environmental objectives set by Congress in the Bipartisan Congressional Trade Priorities and Accountability Act of 2015.⁷¹³ The Sierra Club, an environmental organization, testified at the Commission’s USMCA hearing and criticized, among other things, the nonbinding nature of some USMCA Chapter 24 provisions.⁷¹⁴

USMCA’s environment chapter references “clean technologies” as a means of improving environmental and economic performance (Article 24.24), and the role that forests play in “carbon storage” (Article 24.23), but is otherwise minimalistic on greenhouse gas emissions and climate change mitigation. TEPAC regrets these limited provisions in USMCA, as climate change poses a serious threat to, among other things, “economic activity.”⁷¹⁵

Small and Medium-sized Enterprises Provisions (Chapter 25)

The chapter on small and medium-sized enterprises (SMEs) is new to USMCA.⁷¹⁶ The main provisions involve cooperation, information sharing, and setting up a committee to identify ways to increase trade and investment by SMEs.

Table 9.12 Summary of USMCA’s key small and medium-sized enterprises (SME) provisions

USMCA provision	Comparison to NAFTA provisions
Promote SME Trade/Investment. Parties agree to cooperate to increase trade and investment opportunities for SMEs through export-assistance centers, business incubators, information exchanges, and other means.	New in USMCA
Public Website. Parties will establish or maintain a public website with information about this agreement and other information to facilitate trade for SMEs.	New in USMCA
SME Committee. Parties will establish a committee with government representatives to identify and promote ways to increase trade and investment by SMEs. The committee will also foster dialogue between private-sector SMEs, relevant nongovernmental organizations, and academic experts	New in USMCA

Source: USMCA text.

SMEs often lack expertise in trade and are adversely affected by complicated regulations. The provisions in USMC’s chapter on SMEs are designed to make it easier for smaller businesses to learn about the opportunities and requirements for exporting to Mexico and Canada, disseminating information through the public website, export assistance centers, and information exchanges. The involvement and investment of a committee devoted to SME export promotion is also intended to contribute to growing

⁷¹² TEPAC, *Report of the Trade and Environment*, September 27, 2018, 2.

⁷¹³ TEPAC, *Report of the Trade and Environment*, September 27, 2018, 2.

⁷¹⁴ USITC, hearing transcript, November 15, 2018, 265 (testimony of Ben Beachy, Sierra Club).

⁷¹⁵ TEPAC, *Report of the Trade and Environment*, September 27, 2018, 10–12.

⁷¹⁶ A definition of SMEs is not provided in the USMCA. The Office of Advocacy at the U.S. Small Business Administration defines a small business as an independent business having fewer than 500 employees, though threshold criteria can change based on the industry. 13 C.F.R. § 121.105 (1996) <https://www.ecfr.gov/cgi-bin/text-idx?SID=b919ec8f32159d9edaaa36a7eaf6b695&mc=true&node=pt13.1.121&rgn=div5#sp13.1.121.a>.

trade opportunities for SMEs.⁷¹⁷ These provisions would enhance SMEs' ability to export, but the impact would depend on how SMEs respond to these export-facilitating assistance tools.

In addition to the provisions in USMCA's chapter on SMEs, provisions in other chapters are expected to benefit SMEs. For example, efforts to increase mutual recognition and harmonization of regulations and standards should benefit SMEs. Provisions related to agriculture could also benefit SMEs, although the Industry Trade Advisory Committee for small and minority business (ITAC 9) states that SMEs may need assistance in order to access dairy, poultry, and egg markets that Canada is opening.⁷¹⁸ The higher de minimis thresholds for express shipping in Chapter 7 of USMCA are also expected to benefit SMEs, particularly those engaged in e-commerce.⁷¹⁹

Competitiveness (Chapter 26)

The Competitiveness chapter of USMCA has no counterpart in NAFTA. The chapter provides for the establishment of the North American Competitiveness Committee, which is to be composed of government representatives from each party. The committee's stated purpose is to promote further economic integration among the parties and enhance the competitiveness of North American exports. It is tasked with identifying projects and policies "to develop a modern physical and digital trade- and investment-related infrastructure, and improve the movement of goods and provision of services within the free trade area." The committee is also asked to "provide advice and recommendations to the [Free Trade Commission] on ways to further enhance the competitiveness of the North American economy." The text of the chapter provides that the committee may work with any other groups set up by USMCA, as well as seek advice from appropriate outside experts. It further requires that each party establish or maintain a means for regular and timely input from interested persons on matters relevant to enhancing competitiveness. Finally, it provides that the committee should meet annually, beginning one year after it is signed by the parties.

⁷¹⁷ USITC, hearing transcript, November 15, 2018, 256–59 (testimony of Linda Schmid, Trade in Services International).

⁷¹⁸ ITAC 9, Addendum to *A Trade Agreement with Mexico and Potentially Canada: Report of the Industry Trade Advisory Committee on Small and Minority Business*, October 22, 2018.

⁷¹⁹ USITC, hearing transcript, November 15, 2018, 253–54 (testimony of Michael Mullen, Express Association of America); see chapter 6 of this report for modeling results of de minimis impacts on trade flows.

Table 9.13 Summary of USMCA's key competitiveness provisions

USMCA provision	Comparison to NAFTA provisions
North American Competitiveness Committee. Parties must establish a North American Competitiveness Committee (Competitiveness Committee), composed of government representatives of each party, in order to promote further economic integration among the parties and enhance the competitiveness of North American exports.	New in USMCA. Similar to prior TPP language.
Engagement with Interested Persons. Each party must establish or maintain an appropriate mechanism to provide regular and timely opportunities for interested persons to provide input on matters relevant to enhancing competitiveness.	New in USMCA. Similar to prior TPP language.
Non-Application of Dispute Settlement. No party may have recourse to dispute settlement for a matter arising under this chapter.	New in USMCA. Similar to prior TPP language.

Source: USMCA text.

Anticorruption Provisions (Chapter 27)

USMCA Chapter 27 on anticorruption has no counterpart in NAFTA. The text of the chapter is based largely on the text of chapter 26 of the TPP Agreement. The parties' main aim in USMCA Chapter 27 is to affirm their commitment to deter corruption and bribery in international trade and investment through, among other things, domestic enforcement of anticorruption laws and application of accounting standards.

Table 9.14 Summary of USMCA's key anticorruption provisions

USMCA provision	Comparison to NAFTA provisions
Bribery and Corruption. New in USMCA. Parties affirm their resolve to prevent and combat bribery and corruption in international trade and investment.	New in USMCA. Based on prior TPP language.
Anticorruption Laws Related to Public Officials. Parties must adopt or maintain laws that prohibit corrupt practices aimed at influencing the actions of public officials.	New in USMCA. Based on prior TPP language.
Accounting Standards. To prevent corruption, parties must adopt or maintain measures regarding the maintenance of books and records; financial statement disclosures; and accounting and auditing standards.	New in USMCA. Based on prior TPP language.
Best Practices. Parties should promote integrity among their public officials by adopting or maintaining several specified best practices.	New in USMCA. Based on prior TPP language.
Other Anti-Corruption Measures. Parties must promote the participation of groups outside the public sector in the prevention of corruption in international trade and investment.	New in USMCA. Based on prior TPP language.
Enforcement. Parties must enforce their international trade and investment anticorruption laws, while also retaining the right to exercise discretion with respect to enforcement of those laws.	New in USMCA. Based on prior TPP language.

Source: USMCA agreement text.

The United States, Canada, and Mexico are signatories to key governance conventions including the United Nations Convention Against Corruption (UNCAC); the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (OECD Convention); and the Inter-American Convention Against Corruption (IACAC). In 1977, the United States passed the Foreign Corrupt Practices Act, which prohibits companies and their officers from bribing foreign officials. In recent years,

the United States has included anticorruption provisions in its trade agreements, and over time these have become incrementally stronger.⁷²⁰

Quantitatively measuring corruption—and the economic impact of anticorruption policies—is challenging.⁷²¹ Enhanced application of the principles embodied in USMCA anticorruption provisions, however, will likely produce net gains for all three parties. Research suggests that reducing corruption can contribute to trade and economic growth,⁷²² particularly by improving a country’s business environment and increasing transparency.

Good Regulatory Provisions (Chapter 28)

This chapter has no counterpart in NAFTA. However, the text is similar to that in the Trans-Pacific Partnership Agreement (Chapter 25) and to text in Canada’s free trade agreement with the European Union.⁷²³ This chapter seeks to “promote regulatory quality” by “sett[ing] forth specific obligations with respect to good regulatory practices, including practices relating to the planning, design, issuance, implementation, and review of the Parties’ respective regulations.”⁷²⁴

Table 9.15 Summary of USMCA’s key good regulatory provisions

USMCA provision	Comparison to NAFTA provisions
Central regulatory body. The parties intend to maintain their respective central regulatory coordinating bodies, within their respective mandates and consistent with their law.	New in USMCA
Internal Consultation, Coordination, and Review. Each party must adopt or maintain processes to pursue good regulatory objectives. These include promoting government-wide adherence to good regulatory practices, identifying and developing improvements to government-wide regulatory processes, preventing the creation of inconsistent requirements across authorities, supporting compliance with international trade and investment obligations, promoting consideration of regulatory impacts, and encouraging regulatory approaches that avoid unnecessary restrictions on competition in the marketplace.	New in USMCA
Information Quality. Each party should adopt or maintain publicly available guidance or mechanisms that encourage its regulatory authorities to develop regulations that are based upon information that is reliable and of high quality. It goes on to lay out some rules to that end.	New in USMCA
Early Planning. Each party must publish annually a list of regulations that it reasonably expects within the following 12 months to adopt or propose to adopt.	New in USMCA
Transparent Development of Regulations. This provision mandates that any new regulation being considered must go through a notice and comment period before being enacted.	New in USMCA

⁷²⁰ Jenkins, “Anti-corruption and Transparency Provisions,” 2017.

⁷²¹ See, for example, Banerjee, Hanna, and Mullainathan, “Corruption,” 2012, 41–51; Heinrich and Hodess, “Measuring Corruption,” 2011, 18–31.

⁷²² See, for example, OECD, *Consequences of Corruption*, 2015; Jain, “Corruption: A Review,” 2001, 71–121.

⁷²³ TPP, Chap. 25; CETA, Chap. 21.

⁷²⁴ USMCA, Art. X.2

USMCA provision	Comparison to NAFTA provisions
Application of Dispute Settlement. No party may have recourse for dispute settlement for a matter arising under this chapter except to address a sustained and recurring course of action or inaction that is inconsistent with a provision of this chapter.	New in USMCA

Source: USMCA agreement text.

The chapter states each party's intent "to maintain their respective central regulatory coordinating bodies"⁷²⁵ which have their own internal processes which "promot[e] government-wide adherence to good regulatory practices"⁷²⁶ including transparent regulatory development, identifying and reducing regulatory overlap, and ensuring compliance with international trade and investment obligations. The chapter encourages each party, when developing new regulation, to consider only the best information available and to "use sound statistical methodologies before drawing generalized conclusions concerning the impact of the regulation on the population affected by the regulation."⁷²⁷

It requires that any new regulations be published in an annual list of that year's anticipated proposed regulations, including "an indication, if known, of sectors to be affected and whether there is any expected significant effect on international trade or investment."⁷²⁸ The chapter lays out other provisions that encourage or require parties to accompany any proposed regulation with publication of the draft text, the regulation's objectives and rationale, and an explanation of information and analysis "relied upon to support the regulation."⁷²⁹ The chapter requires that the central regulatory body must provide opportunities for public comment⁷³⁰ including notice and timing requirements for when a party "expects a draft regulation to have a significant impact on trade."⁷³¹ Each party is encouraged to conduct and publish regulatory impact assessments⁷³² along with the full requirements of the final regulation.⁷³³

Finally, each party is encouraged to "promot[e] regulatory compatibility and regulatory cooperation where appropriate" and details the kinds of cooperation envisioned⁷³⁴ and a Committee of Good Regulatory Practices is formed to "enhance their communication and collaboration in matters relating to this Chapter."⁷³⁵

Article 28.20 of the chapter makes applicable to the chapter the dispute settlement provisions in Chapter 31 of USMCA.⁷³⁶ Annex A to the chapter makes clear that the President of the United States and

⁷²⁵ USMCA, Art. X.3.

⁷²⁶ USMCA, Art. X.4 §1.

⁷²⁷ USMCA, Art. X.5.

⁷²⁸ USMCA, Art. X.6(c).

⁷²⁹ USMCA, Art. X.9 §1(c).

⁷³⁰ USMCA, Art. X.9 §3.

⁷³¹ USMCA, Art. X.9 §4.

⁷³² USMCA, Art. X.11.

⁷³³ USMCA, Art. X.12.

⁷³⁴ USMCA, Art. X.17.

⁷³⁵ USMCA, Art. X.18 §2; USMCA, Art. X.18 §2.

⁷³⁶ USMCA, Art. X.20 §3.

Canada’s Governor in Council are not considered regulatory authorities covered in this chapter.⁷³⁷ Furthermore, the chapter’s Annex A excludes several types of regulations, such as those relating to military affairs and taxation, from the chapter’s requirements.⁷³⁸

Publication and Administration Provisions (Chapter 29)

USMCA Chapter 29 details the requirements for parties’ publication and administration of laws arising from USMCA obligations. USMCA Chapter 29 carries over basic obligations in NAFTA Chapter 18 and requires that parties establish impartial administrative proceedings that provide notice and opportunity to comment, and that parties establish impartial and independent review processes for administrative decisions. Similar to NAFTA, parties must also publish laws, regulations, and administrative rulings covered by USMCA. The agreement has a requirement that laws and rulings be made freely accessible online and on sites that are capable of performing searches.

Table 9.16 Summary of USMCA’s key publication and administration provisions

USMCA provision	Comparison to NAFTA provisions
Transparency. Parties must meet transparency requirements for “national health care” programs (e.g., Medicare and Medicaid) when setting reimbursement levels for pharmaceuticals or medical equipment.	New in USMCA
Notice. Parties’ administrative proceedings must give notice and opportunity to present information to persons impacted by decisions.	Same as NAFTA
Independent Review. Parties must establish independent review procedures for administrative actions taken under agreement.	Same as NAFTA
Publish Laws. Parties must make available and publish laws and rules covered under agreement so that other parties may become acquainted with them.	Modified in USMCA. NAFTA included similar provisions, but a requirement that laws be made available online is new to USMCA.

Source: USMCA text.

Also new to USMCA are Chapter 29’s provisions for “transparency and fairness” requirements for national health care programs, which the agreement specifies apply to the United States’ Centers for Medicare & Medicaid Services and to Canada’s Federal Drug Benefits Committee.⁷³⁹ Where these authorities list pharmaceutical products or medical devices for reimbursement programs, USMCA requires that procedures for such listings be based upon established rules and procedures, afford public notice and comment, and provide for an independent review process where a product is denied. Parties must also allow pharmaceutical or product manufacturers to advertise products to medical professionals within its territory, albeit subject to each party’s laws and regulations (e.g., balancing the risks and benefits of a product). While the chapter provides for a consultation process regarding the parties’ implementation of these provisions, disputes regarding this provisions are specifically exempt from USMCA’s dispute settlement procedures.

⁷³⁷ USMCA, Annex A §2.

⁷³⁸ USMCA, Annex A §1.

⁷³⁹ USMCA, Annex 29-B. No national health care authority for Mexico is identified in the agreement.

Administrative and Institutional Provisions (Chapter 30)

USMCA Chapter 30 updates the institutional provisions in current NAFTA Chapter 20. It includes wording similar to that in Chapter 27 of the TPP. As with NAFTA, USMCA provides for the establishment of a Free Trade Commission that is made up of ministerial level (e.g., cabinet level) representatives from each member state and that makes decisions by consensus. The Free Trade Commission acts as the central governing body of USMCA, overseeing the agreement's implementation, proposals for its amendment, and exercising oversight of the agreement's committees and working groups. The Free Trade Commission also plays a role in dispute settlement, with authority to adopt and update rules of procedures for dispute panels, reviews and issues new rosters of panelists, and issues interpretations of the agreement that are binding on USMCA dispute tribunals and panels. While USMCA Chapter 30 expands on those institutional provisions from NAFTA Chapter 20, the provisions closely reflect standards in more recently negotiated agreements, including Chapter 27 of TPP.

Table 9.17 Summary of USMCA's key administrative and institutional provisions

USMCA provision	Comparison to NAFTA provisions
Free Trade Commission. The agreement establishes a "Free Trade Commission" that acts as supervisory body for its implementation and any proposals for modification.	Modified in USMCA. Similar provisions were included in NAFTA, but new text is more detailed regarding commission's responsibilities and procedures; new language is similar to TPP.
Secretariat. The commission will establish a secretariat that provides administrative and logistical assistance to the commission, dispute panels, and committees.	Same as NAFTA

Source: USMCA agreement text.

USMCA also establishes a secretariat, with each party establishing an office within their country. Whereas the Free Trade Commission (FTC) convenes only when decided by the parties, the secretariat acts as the permanent administrative body for USMCA, providing assistance and support to the FTC, dispute tribunals and panels, and the committees and working groups established under USMCA. No major economic implications are anticipated from this provision, as it is not materially different from NAFTA.

Dispute Settlement Provisions (Chapter 31)

USMCA Chapter 31 details the procedures for settlement of disputes between the parties regarding interpretation or application of the agreement; allegations that a party's measures are inconsistent with its obligations under the agreement or that a party has failed to comply with its obligations under the agreement; or nullification or impairment of an expected benefit under certain chapters of the agreement as a result of the application of a measure of another party that is not inconsistent with the agreement.

Table 9.18 Summary of USMCA’s key dispute settlement provisions

USMCA provision	Comparison to NAFTA provisions
Choice of Forum. Complaining party may select forum in which to settle dispute.	Modified in USMCA. NAFTA choice of forum addressed only conflicts with GATT proceedings. Uses same language as TPP.
Panel Hearings. Generally will be public; submissions will be made public except for confidential information.	Modified in USMCA. Panel hearings and submissions were confidential.
Filings. All documents to be filed electronically.	New in USMCA
Panelists. Five panelists; two from each country in dispute; chair from another country.	Same as NAFTA
Expert Panelists. In disputes arising under Labor or Environment Chapters, parties must select panelists, other than the chair, who have expertise or experience in the relevant field.	New in USMCA. Language is similar to TPP.
Procedures. Sets out procedures for reconvening of panel if requested by responding party to consider whether level of benefits proposed to be suspended is manifestly excessive, or that it has eliminated the non-conformity or nullification or impairment.	Modified in USMCA. Provided for either disputing panel to request establishment of a new panel to determine whether the level of benefits suspended by a party is manifestly excessive.

Source: USMCA text.

USMCA Chapter 31 contains the agreement’s state-to-state dispute settlement provisions applicable to all disputes arising under the agreement except as otherwise provided in certain chapters of the agreement. Chapter 31 retains in large part the dispute settlement provisions contained in NAFTA Chapter 20, as updated to reflect negotiating experience from the WTO agreement and other FTAs, as well as technological developments since 1994 (such as electronic filing).⁷⁴⁰ USMCA Article 31.2 sets out the scope to which the dispute settlement provisions apply, providing that in addition to disputes concerning interpretation and application of provisions and non-conformity with covered obligations, a party may allege nullification or impairment of a benefit it reasonably expected to accrue under various listed chapters as a result of a measure that is not inconsistent with the agreement. Four of these were already included in NAFTA: USMCA Chapter 2 (National Treatment and Market Access for Goods), Chapter 11 (Technical Barriers to Trade), Chapter 15 (Cross-border Trade in Services), and Chapter 20 (Intellectual Property). In addition, a party may now raise nullification or impairment pertaining to Chapter 3 (Agriculture), Chapter 4 (Rules of Origin), Chapter 5 (Origin Procedures), Chapter 6 (Textile

⁷⁴⁰ The Labor Advisory Committee (LAC) on Trade Negotiations and Trade Policy expressed concern that the new Dispute Settlement Chapter allows for the Free Trade Commission to refuse to meet, which would block the establishment of a dispute settlement panel altogether. LAC, *Report on the Impacts of the Renegotiated North American Free Trade Agreement*, September 27, 2018, 6, 22, 26. At the Commission hearing, and in its posthearing brief, the AFL-CIO echoed this concern. USITC, hearing transcript, November 15, 2018, 275 (testimony of Celeste Drake, AFL-CIO); AFL-CIO, posthearing submission to the USITC, November 23, 2018, 18. The AFL-CIO cites to the confluence between USMCA Article 31.6, para. 1, which provides for a consulting party to request a panel after the Free Trade Commission has convened to attempt to resolve the matter, and USMCA Article 31.5, para. 3, which states that “[u]nless it decides otherwise,” the Free Trade Commission must convene within 10 days after delivery of a consulting party’s request for a meeting. The concern expressed is that any single party can prevent a panel from being established by declining to participate in the prerequisite meeting of the Free Trade Commission. The agreement language cited by AFL-CIO, however, is lifted verbatim from NAFTA Article 2008, para.1 and Article 2007, para.3; there is no indication that these existing terms have been used to block panel requests.

and Apparel Goods), Chapter 7 (Customs Administration and Trade Facilitation), Chapter 9 (Sanitary and Phytosanitary Measures), and Chapter 13 (Government Procurement).

In its report of September 27, 2018, the Advisory Committee for Trade Policy and Negotiations (ACTPN) expressed its support for inclusion of matters arising under the Agriculture Chapter and the Financial Services Chapter in USMCA dispute settlement provisions.⁷⁴¹ The Intergovernmental Policy Advisory Committee (IGPAC), in its report of September 27, 2018, endorsed the decision to provide “the same binding dispute settlement provisions” to the Labor and Environment Chapters “that are applied to commercial disputes.”⁷⁴² While both of these chapters require parties to first attempt to resolve disputes under the specific terms of these respective chapters, they both allow resort to the Chapter 31 dispute settlement procedures if such efforts fail.⁷⁴³

As under NAFTA, USMCA panels will consist of five members, chosen from a consensus roster of objective, independent individuals.⁷⁴⁴ Article 31.8, paragraph 3 adds a new provision requiring topic-specific expertise for panelists, other than the chair, selected for panels arising under the Labor or Environment Chapters. Conversely, the Financial Services Chapter internally requires that the chair of any dispute arising under that Chapter have experience or expertise in financial services.⁷⁴⁵ In the Dispute Settlement Chapter, paragraph 4 provides that in disputes regarding specialized areas of law other than labor and environment, the disputing parties should select panelists “to ensure that the necessary expertise is available on the panel.”

The procedure for selecting panelists otherwise echoes those under NAFTA. The disputing parties should endeavor to agree on the chair. If they cannot agree, one of the disputing parties will be chosen by lot to select a chair who is not a citizen of that party.⁷⁴⁶ Each disputing party then selects two panelists who are citizens of the other disputing party.⁷⁴⁷ If a party fails to select panelists, Article 31.9 (d) provides that panelists are to be selected by lot from among roster members who are members of the other disputing party. Like NAFTA, USMCA does not specify what to do if a party fails to maintain a roster of potential panelists. USMCA adds a provision clarifying the procedures for replacing a panelist who resigns, is removed, or becomes unavailable to serve. In those circumstances, the panel proceedings will be suspended until a replacement is appointed in accordance with the same timeframes and procedures for initial appointment of panelists.⁷⁴⁸

Articles 31.18 and 31.19, updating the provisions of NAFTA Articles 2018 and 2019, address implementation of the panel’s findings, or barring the ability of the disputing parties to agree on resolution, temporary suspension by the complaining party of benefits of equivalent effect to the non-conformity or the nullification or impairment. As under NAFTA, the complaining party must first seek to suspend benefits in the same sector as that affected by the measure or other matter that was the

⁷⁴¹ Advisory Committee for Trade Policy and Negotiations, *Report to the USTR*, September 27, 2018, 6, 8, and 10.

⁷⁴² Intergovernmental Policy Advisory Committee (IGPAC), *Report to the USTR*, September 27, 2018, 10-11.

⁷⁴³ USMCA, Chap. 23, Labor, Art. 23.17.11; USMCA, Chap. 24, Environment Chapter, Art. 24.32.

⁷⁴⁴ USMCA, Art. 31.8 and 31.9.

⁷⁴⁵ USMCA, Chap. 17, Financial Services, Art. 17.23, para. 2.

⁷⁴⁶ USMCA, Art. 31.9.

⁷⁴⁷ USMCA, Art. 31.9.

⁷⁴⁸ USMCA, Art. 31.10.

subject of the dispute. Where this is not practical or effective, the party may suspend benefits in other sectors unless otherwise provided for in the agreement.⁷⁴⁹ Paragraph 3 of USMCA Articles 31.19 clarifies and streamlines the procedures for review of the complaining party’s suspension of benefits. NAFTA language, in Article 2019, contemplated establishment of a new panel, and suggested this panel could only review whether the complaining party had proposed manifestly excessive compensation. USMCA provides for the re-convening of the original panel, and recognizes that this implementation panel can review not only the level of compensation, but also whether the responding party has eliminated the nonconformity or the nullification or impairment that the original panel found to exist.

Exceptions and General Provisions (Chapter 32)

USMCA Chapter 32 addresses subjects not addressed elsewhere in the agreement. For example, its provision concerning non-market countries is new. The Commission is unaware of a similar counterpart to USMCA in any U.S. trade agreement whereby when a party enters into a free trade agreement with a non-market country, the other parties may terminate their obligations to that party under USMCA by giving six-months’ notice, and by entering into a new bilateral agreement between them.

Table 9.19 Summary of USMCA’s key exceptions and general provisions

USMCA provision	Comparison to NAFTA provisions
Termination. Parties have the option of terminating the agreement with a party that enters into an FTA with a “non-market country,” and the remaining parties have the option of entering into a new bilateral version of the agreement with each other.	New in USMCA
Taxation. Provisions of the agreement do not generally apply to taxation measures unless otherwise specified. Examples of provisions that do apply to taxation measures include national treatment for market access, financial services, and investment.	Modified in USMCA. Similar provisions in NAFTA, although more detailed language has been added.
Legal Framework. Each party will develop a legal framework to protect “personal information.”	New in USMCA
Essential Security. Parties are not precluded from taking measures that they consider necessary for international peace or security, or for protection of their own essential security interests.	Modified in USMCA. Particular scenarios are no longer listed (as was the case under NAFTA) and measures are now explicitly self-judging for each party. Uses similar language from TPP.

Source: USMCA text.

The provision defines “non-market countries” as those countries determined to be a “non-market economy” for the purposes of antidumping duty laws by each member and with which no party has already signed a free trade agreement (FTA) on the date of USMCA entering into force. In the United

⁷⁴⁹ For example, USMCA, Art. 17.23, paragraph 4 of the Financial Services Chapter limits suspension of benefits in the financial services sector to the extent that the measure affects the complaining party’s financial services sector.

States, the Department of Commerce (USDOC) defines such countries.⁷⁵⁰ USDOC typically makes such determinations in the context of an antidumping duty investigation or review; three countries currently subject to antidumping duty orders are designated as non-market economies: China, Vietnam, and Belarus.⁷⁵¹ Canada maintains a list of countries designated as non-market economies, which currently includes China, Vietnam, and Tajikistan.⁷⁵² Mexico decides case by case in each antidumping investigation whether to treat a state as a non-market economy, and Mexico has typically treated the China as a non-market economy.⁷⁵³ Because USMCA ties its definition of non-market country to those designations on the date of entry into force of USMCA, any future change to the status of non-market economy designations by members would not alter the provision's scope. Of the USMCA parties, only Canada is known to have recently considered negotiation of a FTA with a non-market country.⁷⁵⁴

Macroeconomic Policies and Exchange Rate Matters (Chapter 33)

In Chapter 33 of USMCA, the United States, Canada, and Mexico, agree to allow foreign exchange rates to be determined by market forces, to transparently and regularly report interventions in the foreign exchange market, and to establish a Macroeconomic Committee. The committee would meet on, at least, an annual basis to monitor implementation of the reporting and transparency requirements, address failures of the same, and discuss the macroeconomic and monetary policies of each country. These provisions are new to USMCA and not present in NAFTA. The Commission is unaware of a similar provision in the text of any other trade agreements, although notes that the TPP included a side letter with similar commitments but without a connection to a dispute resolution mechanism (U.S. Treasury, 2015; Bergsten, 2018; Segal, 2018).⁷⁵⁵

Chapter 33 is unlikely to affect existing policies in member country and merely inserts these status quo commitments into the body of the trilateral trade agreement. Bergsten states that the United States,

⁷⁵⁰ 19 U.S.C. § 1677(18).

⁷⁵¹ As noted, this provision includes only countries “with which no Party has signed a free trade agreement” on the date of the agreement entering into force. Because Canada and Mexico are members of CPTPP, which includes Vietnam, Vietnam would not appear to meet the definition of non-market economy for purposes of this provision of USMCA. Also, for states not currently subject to antidumping duty orders, previous designations as non-market economies remain in effect until revoked. For instance, some former states of the U.S.S.R., such as Armenia, Azerbaijan, Moldova, and Uzbekistan, appear to have retained their status as non-market economies (inherited from the U.S.S.R.) because there have been few or no antidumping investigations of these countries since their independence. Other countries subject to more antidumping investigations, such as Ukraine and Kazakhstan, have been graduated to market economy status by the U.S. Department of Commerce since attaining independence.

⁷⁵² Government of Canada, Special Import Measures Regulations, SOR/84-927, Regulation 17.1.

⁷⁵³ Regulations of Foreign Trade Laws § 48 (2014). In contrast to the United States or Canada, Mexico's treatment of China as a non-market economy could in theory vary between investigations. Yet because the United States and Canada have both “determined” China to be a non-market economy, the fluidity of Mexico's system regarding China's designation would not appear to raise ambiguities about the USMCA provision's application to China.

⁷⁵⁴ See, e.g., Reuters, “Trade Pact Clause Seen Deterring China Trade Deal,” October 2, 2018, noting exploratory talks between Canada and China for an FTA in 2016.

⁷⁵⁵ U.S. Treasury, “Joint Declaration,” 2015; Bergsten, “A Positive Step in the USMCA,” 2018; Segal, “USMCA Currency Provisions,” 2018.

Canada, and Mexico all have flexible, market-determined exchange rates and adhere to International Monetary Fund (IMF) commitments about the avoidance of competitive devaluations. Further, the agreement excludes monetary policy from its purview and so central banks can continue to conduct expansionary monetary policies in periods of economic stagnation (Bergsten, 2018).⁷⁵⁶ However, incorporating mechanisms into USMCA to avoid NAFTA countries from manipulating currencies to affect balance of payments adjustments was a USTR negotiating objective. (USTR, 2017) This document incorporates explicit language to that effect into USMCA agreement text.⁷⁵⁷

Table 9.20 Summary of USMCA’s key macroeconomic policies and exchange rate matters provisions

USMCA provision	Comparison to NAFTA provisions
Market Determination. Parties agree to adhere to IMF Articles of Agreement to allow exchange rates to be market determined and refrain from competitive devaluations via market interventions.	New in USMCA. Signifies commitment to market-determined exchange rates (no competitive devaluations).
Reserves. Parties agree to report on a monthly basis forex reserves data and forex interventions and on a quarterly basis balance of payments capital flows and imports and exports according to IMF standards.	New in USMCA. Signifies transparency and reporting requirements with respect to forex interventions and positions.
Macroeconomic Committee. Formation of Macroeconomic Committee to meet annually to discuss each country’s macroeconomic and exchange rate policies and to discuss changes, except for scope, by consensus agreement to Chapter 33. Committee shall discuss each party’s adherence to the transparency and reporting commitments of Chapter 33.	New in USMCA. Signifies the formation of tri-party Macroeconomic Committee.
Violations. Parties may refer recurring or persistent violations of the transparency and reporting requirements to the dispute settlement mechanism, outlined in Chapter 31.	New in USMCA. Use of the dispute settlement mechanism to resolve violations of reporting and transparency commitments.

Source: USMCA text.

Seven trade advisory committees referenced Chapter 33 in their reports to USTR, including the Advisory Committee for Trade Policy and Negotiations (ACTPN), 2018; Intergovernmental Policy Advisory Committee (IGPAC), 2018; Labor Advisory Committee (LAC), 2018; Industry Trade Advisory Committee on Automotive Equipment and Capital Goods (ITAC 2), 2018; Industry Trade Advisory Committee on Industry Trade Advisory Committee on Chemicals, Pharmaceuticals, Health/Science Products and Services (ITAC 3), 2018; Industry Trade Advisory Committee on Steel (ITAC 7), 2018; Industry Trade Advisory Committee on Small and Minority Business (ITAC 9), 2018. Most of the reports support the inclusion, for the first time in the body of a U.S. trade agreement, of explicit commitments to market-determined, flexible exchange rates; promises to avoid using currency manipulation to rectify bilateral trade imbalances; and pledges to report foreign exchange market interventions.

However, these reports note that the provisions are essentially reaffirmations of existing International Monetary Fund (IMF) commitments. They expressed the view that due to the lack of enforcement provisions related to currency manipulation, the ultimate effects of these provisions will be negligible. Bergsten (2018) and Segal (2018) hold a similar view that Chapter 33 mainly raises the stature of the

⁷⁵⁶ Bergsten, “A Positive Step in the USMCA,” 2018.

⁷⁵⁷ USTR, “Summary of Objectives,” 2017.

currency manipulation issue by including it in the main body of the agreement, without actually preventing potential manipulation.⁷⁵⁸ The analysis indicates that the economic impacts will be minimal because the provisions in Chapter 33 merely reaffirm the existing policies in each member country. The only legally binding and enforceable provisions in Chapter 33 concern reporting and transparency requirements. While Chapter 33 does create a vehicle for monitoring each party's exchange rate intervention actions and discussing macroeconomic and monetary policy, it lacks a mechanism to address competitive devaluations or other foreign exchange rate market interventions as part of monetary, credit, or trade policy. Consequently, the report anticipates little to no direct policy impact from the provisions in this chapter.

Final Provisions (Chapter 34)

USMCA Chapter 34 lists procedures and provisions regarding the agreement's entry into force, amendment, withdrawal or termination. When it commenced negotiations, USTR announced its intent that a new agreement "provide a mechanism for ensuring Parties assess the benefits of the agreement on a regular basis," and the result is Article 34.7.⁷⁵⁹ While USMCA includes 6-year reviews like NAFTA, USMCA also includes a termination clause that states that the agreement will terminate 16 years after it enters into force unless each party confirms that it wishes to continue the agreement for another 16-year term following these reviews. Article 34.6 also includes a withdrawal provision. That provision states that a party may withdraw from the agreement "by providing written notice of withdrawal to the other Parties. A withdrawal shall take effect six months after a Party provides written notice to the other Parties." The agreement would remain in force for the remaining parties.⁷⁶⁰

During Commission hearings, parties have expressed a variety of views on the 16-year termination provision. Several commentators noted that flaws in NAFTA only became apparent over time, and they believed that building regular reviews into the agreement would be beneficial to address any such issues that may emerge in USMCA.⁷⁶¹ One party approved of coupling 6-year reviews with a 16-year sunset term, noting that this essentially allows 10 years for negotiations on problems that arise under the agreement.⁷⁶² Another party supported the possibility of termination after 16 years because of the importance of issues that may arise after USMCA's negotiation but that are not addressed in the agreement.⁷⁶³

⁷⁵⁸ Bergsten, "A Positive Step in the USMCA," 2018; Segal, "USMCA Currency Provisions," 2018.

⁷⁵⁹ USTR, *Summary of Objectives for the NAFTA Renegotiation*, November 2017, 17.

⁷⁶⁰ Section 110(b) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (the Act) (19 U.S.C. § 4209) makes applicable to trade agreements entered into under section 103 of the Act (19 U.S.C. § 4202) the termination and withdrawal authority provisions of section 125 of the Trade Act of 1974 (19 U.S.C. § 2135).

⁷⁶¹ USITC, hearing transcript, November 15, 2018, 13 (testimony of Representative Sander Levin, 9th District, Michigan); and USITC, hearing transcript, November 15, 2018, 326–27 (testimony of Jeffrey Bergstrand, University of Notre Dame).

⁷⁶² USITC, hearing transcript, November 15, 2018, 41–42 (testimony of Celeste Drake, American Federation of Labor).

⁷⁶³ USITC, hearing transcript, November 15, 2018, 328–29 (testimony of Ben Beachy, Sierra Club) (noting that climate change was not considered in NAFTA negotiations).

However, other parties expressed concern at possible uncertainty that arises under this provision. Parties noted that such a sunset clause could discourage long-term investment, including in the automotive industry.⁷⁶⁴ Representatives from the apparel industry also expressed concern that the provision would lead to “premature termination” and ultimately discourage business investment.⁷⁶⁵ Industry representatives requested that businesses be included in 6-year reviews to ensure that negotiators considered the impact of the discussions on business investments.⁷⁶⁶

Table 9.21 Summary of USMCA’s key final provisions

USMCA provision	Comparison to NAFTA provisions
Termination. By default, the agreement will end after 16 years. Parties are required to meet for a “joint review” at least every 6 years to decide whether to extend the agreement for a new 16-year period (starting from the joint review). If any party does not agree to an extension, joint reviews will be held annually until either (1) all parties agree to a new 16-year period or (2) termination following the expiration of the current 16-year period.	New in USMCA
Changes. The agreement contains provisions on annexes, amendments, entry into force, and withdrawal from agreement.	Same as NAFTA
Transition. The agreement contains provisions for the transition from NAFTA to USMCA, including transitions of treaty commissions and committees, bi-national panel disputes, and preferential tariff treatment claims under NAFTA.	New in USMCA

Source: USMCA text.

⁷⁶⁴ USITC, hearing transcript, November 15, 2018, 62–63 (testimony of William Hanvey, Auto Care Association); and USITC, hearing transcript, November 15, 2018, 111 (testimony of John Bozzella, Global Automakers and Here for America).

⁷⁶⁵ USITC, hearing transcript, November 16, 2018, 409 (testimony of Rick Helfenbein, American Apparel and Footwear Association).

⁷⁶⁶ USITC, hearing transcript, November 15, 2018, 87 (testimony of William Hanvey, Auto Care Association).

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Appendix A

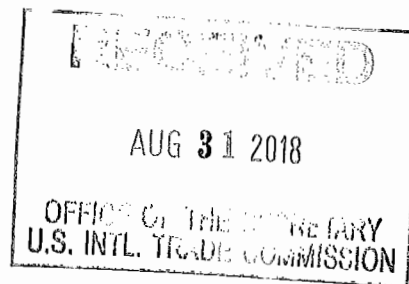
Request Letter



DOCKET NUMBER
3337
Office of the Secretary Int'l Trade Commission

THE UNITED STATES TRADE REPRESENTATIVE
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON

August 31, 2018



The Honorable David S. Johanson
Chairman
United States International Trade Commission
500 E St. SW
Washington, DC 20436

Dear Chairman Johanson:

Today, the President notified Congress of his intent to enter into a trade agreement with Mexico – and with Canada if it is willing, in a timely manner, to meet the high standards for free, fair, and reciprocal trade contained therein. Pursuant to authority delegated to me by the President and in accordance with section 105(c) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (“Trade Priorities Act”), I request the Commission to prepare a report as specified in section 105(c)(2)-(3) of the Trade Priorities Act assessing the likely impact of the agreement on the United States economy as a whole and on specific industry sectors and interests of U.S. consumers.

I am providing the Commission with the details of the agreement as it exists at this time and will continue to keep the Commission current with respect to the details of the agreement. In addition, I have instructed my staff to be available to answer questions or provide additional information on the agreement. I would greatly appreciate it if the Commission could issue its report as soon as possible after the agreement is signed.

Thank you for your continued cooperation and assistance in this matter.

Sincerely yours

Ambassador Robert E. Lighthizer
United States Trade Representative

Appendix B

Federal Register Notices

and a public comment period is scheduled for 11:30–12:00.

Before including your address, phone number, email address, or other personal identifying information in your comments, please be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Authority: 43 CFR 1784.4–2

Jeffrey Rose,

Burns District Manager.

[FR Doc. 2018–22495 Filed 10–15–18; 8:45 am]

BILLING CODE 4310–33–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. TPA–105–003]

United States-Mexico-Canada Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors; Institution of Investigation and Scheduling of Hearing

AGENCY: United States International Trade Commission.

ACTION: Institution of investigation and scheduling of public hearing.

SUMMARY: Following receipt of a request from the U.S. Trade Representative (USTR) on August 31, 2018, the U.S. International Trade Commission (Commission) has instituted investigation No. TPA–105–003 for the purpose of preparing the report required by section 105(c) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (19 U.S.C. 4204(c)). The report will assess the likely impact of the United States-Mexico-Canada Agreement (USMCA) on the U.S. economy as a whole, on selected industry sectors, and on U.S. consumer interests. The Commission will submit its report to the President and Congress.

DATES:

October 29, 2018: Deadline for filing requests to appear at the public hearing

October 30, 2018: Deadline for filing prehearing briefs and statements
November 15, 2018 and continuing on November 16, 2018 if necessary: Public hearing

November 23, 2018: Deadline for filing posthearing briefs

December 20, 2018: Written submissions from the public

Transmittal of Commission report to the President and Congress: No later than 105 days after the President enters into the agreement

ADDRESSES: All Commission offices, including the Commission’s hearing rooms, are located in the United States International Trade Commission Building, 500 E Street SW, Washington, DC. All written submissions should be addressed to the Secretary, United States International Trade Commission, 500 E Street SW, Washington, DC 20436. The public record for this investigation may be viewed on the Commission’s electronic docket (EDIS) at <https://edis.usitc.gov/>.

FOR FURTHER INFORMATION CONTACT: Co-Project Leader Serge Shikher (202–205–2393 or serge.shikher@usitc.gov) or Co-Project Leader Mihir Torsekar (202–205–3350 or mihir.torsekar@usitc.gov) for information specific to this investigation. For information on the legal aspects of this investigation, contact William Gearhart of the Commission’s Office of the General Counsel (202–205–3091 or william.gearhart@usitc.gov). The media should contact Margaret O’Laughlin, Office of External Relations (202–205–1819 or margaret.oloughlin@usitc.gov). Hearing-impaired individuals may obtain information on this matter by contacting the Commission’s TDD terminal at 202–205–1810. General information concerning the Commission may also be obtained by accessing its website (<http://www.usitc.gov>). Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2002.

SUPPLEMENTARY INFORMATION:

Background

On August 31, 2018, the Commission received a letter from the United States Trade Representative (USTR) stating that the President that day had notified Congress of his intent to enter into a trade agreement “with Mexico—and with Canada if it is willing.” On October 1, 2018, the Office of the USTR published the text of the United States-Mexico-Canada Agreement (USMCA) on its website at <https://www.ustr.gov>. In his August 31, 2018, letter, the USTR requested that the Commission prepare the report specified in section 105(c)(2)(3) of the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (19 U.S.C. 4204(c)(2)–(3)) (TPA Act). The TPA Act requires that the Commission submit to the President and Congress a report assessing the likely impact of the agreement on the United States

economy as a whole and on specific industry sectors, including the impact the agreement will have on the gross domestic product, exports and imports, aggregate employment and employment opportunities, the production, employment, and competitive position of industries likely to be significantly affected by the agreement, and the interests of U.S. consumers. In addition, the TPA Act requires the Commission to review available economic assessments regarding the agreement, including literature regarding any substantially equivalent proposed agreement, and provide in its assessment a description of the analyses used and conclusions drawn in such literature, and a discussion of areas of consensus and divergence between the various analyses and conclusions, including those of the Commission regarding the agreement.

The statute requires that the Commission submit its assessment to the President and Congress no later than 105 days after the President enters into the Agreement.

Public Hearing

A public hearing in connection with this investigation will be held at the U.S. International Trade Commission Building, 500 E Street SW, Washington, DC, beginning at 9:30 a.m. on November 15, 2018, and continuing on November 16, 2018, if necessary. Requests to appear at the public hearing should be filed with the Secretary, no later than 5:15 p.m., October 29, 2018; all pre-hearing briefs and statements should be filed no later than 5:15 p.m., October 30, 2018; and all post-hearing briefs responding to matters raised at the hearing should be filed no later than 5:15 p.m., November 23, 2018. All requests to appear, pre-hearing briefs and statements, and post-hearing briefs must be filed in accordance with the procedural requirements in the “Submissions” section below. In the event that, as of the close of business on November 8, 2018, no witnesses are scheduled to appear at the hearing, the hearing will be canceled.

Written Submissions

In lieu of or in addition to participating in the hearing, the Commission invites interested parties to submit written statements concerning this investigation. All written submissions should be addressed to the Secretary, and should be received no later than 5:15 p.m., December 20, 2018. All written submissions must conform with the provisions of section 201.8 of the Commission’s *Rules of Practice and Procedure* (19 CFR 201.8). Section 201.8 and the Commission’s *Handbook on*

Filing Procedures require that interested parties file documents electronically on or before the filing deadline and submit eight (8) true paper copies by 12:00 p.m. Eastern Time on the next business day. In the event that confidential treatment of a document is requested, interested parties must file, at the same time as the eight paper copies, at least four (4) additional true paper copies in which the confidential information must be deleted (see the following paragraph for further information regarding confidential business information or "CBI"). Persons with questions regarding electronic filing should contact the Office of the Secretary, Docket Services Division (202-205-1802).

Confidential Business Information (CBI)

Any submissions that contain CBI must also conform to the requirements of section 201.6 of the *Commission's Rules of Practice and Procedure* (19 CFR 201.6). Section 201.6 of the rules requires that the cover of the document and the individual pages be clearly marked as to whether they are the "confidential" or "non-confidential" version, and that the CBI is clearly identified using brackets. All written submissions, except for those containing CBI, will be made available for inspection by interested parties.

All information, including CBI, submitted in this investigation may be disclosed to and used (i) by the Commission, its employees and Offices, and contract personnel (a) for developing or maintaining the records of this or a related proceeding, or (b) in internal investigations, audits, reviews, and evaluations relating to the programs, personnel, and operations of the Commission, including under 5 U.S.C. Appendix 3; or (ii) by U.S. government employees and contract personnel for cybersecurity purposes. The Commission will not otherwise disclose any CBI in a manner that would reveal the operations of the firm supplying the information. The report that the Commission sends to the President and Congress will not include any CBI.

Summaries of Written Submissions

The Commission intends to publish summaries of the written submissions filed by interested persons. Persons wishing to have a summary of their submission included in the report should include a summary with their written submission and should mark the summary as having been provided for that purpose. The summary should be clearly marked as "summary" at the top of the page. It may not exceed 500

words, should be in MSWord format or a format that can be easily converted to MSWord, and should not include any CBI. The summary will be published as provided if it meets these requirements and is germane to the subject matter of the investigation. The Commission will identify the name of the organization furnishing the summary and will include a link to the Commission's Electronic Document Information System (EDIS) where the full written submission can be found.

By order of the Commission.

Issued: October 12, 2018.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2018-22672 Filed 10-15-18; 8:45 am]

BILLING CODE 7020-02-P

DEPARTMENT OF JUSTICE

Antitrust Division

Notice Pursuant to the National Cooperative Research and Production Act of 1993—Cable Television Laboratories, Inc.

Notice is hereby given that, on September 26, 2018, pursuant to Section 6(a) of the National Cooperative Research and Production Act of 1993, 15 U.S.C. 4301 *et seq.* ("the Act"), Cable Television Laboratories, Inc. ("CableLabs") filed written notifications simultaneously with the Attorney General and the Federal Trade Commission disclosing changes in its membership. The notifications were filed for the purpose of extending the Act's provisions limiting the recovery of antitrust plaintiffs to actual damages under specified circumstances. Specifically, LiLAC Services Ltd., Hamilton, BERMUDA, and CCI Systems, Inc. d/b/a Packerland Broadband, Iron Mountain, MI, have been added as parties to this venture.

No other changes have been made in either the membership or planned activity of the group research project. Membership in this group research project remains open, and CableLabs intends to file additional written notifications disclosing all changes in membership.

On August 8, 1988, CableLabs filed its original notification pursuant to Section 6(a) of the Act. The Department of Justice published a notice in the **Federal Register** pursuant to Section 6(b) of the Act on September 7, 1988 (53 FR 34593).

The last notification was filed with the Department on October 5, 2017. A notice was published in the **Federal**

Register pursuant to Section 6(b) of the Act on October 31, 2017 (82 FR 50444).

Suzanne Morris,

Chief, Premerger and Division Statistics Unit, Antitrust Division.

[FR Doc. 2018-22468 Filed 10-15-18; 8:45 am]

BILLING CODE 4410-11-P

DEPARTMENT OF JUSTICE

Federal Bureau of Investigation

Meeting of the CJIS Advisory Policy Board

AGENCY: Federal Bureau of Investigation (FBI), DOJ.

ACTION: Meeting notice.

SUMMARY: The purpose of this notice is to announce the meeting of the Federal Bureau of Investigation's Criminal Justice Information Services (CJIS) Advisory Policy Board (APB). The CJIS APB is a federal advisory committee established pursuant to the Federal Advisory Committee Act (FACA). This meeting announcement is being published as required by Section 10 of the FACA.

DATES: The APB will meet in open session from 9 a.m. until 5 p.m., on December 5-6, 2018.

ADDRESSES: The meeting will take place at the Hyatt Regency New Orleans, 601 Loyola Avenue, New Orleans, LA 70113, telephone 504-561-1234.

FOR FURTHER INFORMATION CONTACT: Inquiries may be addressed to Ms. Melissa Abel; Management and Program Assistant; CJIS Training and Advisory Process Unit, Resources Management Section; FBI CJIS Division, Module C2, 1000 Custer Hollow Road, Clarksburg, West Virginia 26306-0149; telephone (304) 625-5670, facsimile (304) 625-5090.

SUPPLEMENTARY INFORMATION: The FBI CJIS APB is responsible for reviewing policy issues and appropriate technical and operational issues related to the programs administered by the FBI's CJIS Division, and thereafter, making appropriate recommendations to the FBI Director. The programs administered by the CJIS Division are the Next Generation Identification, Interstate Identification Index, Law Enforcement Enterprise Portal, National Crime Information Center, National Instant Criminal Background Check System, National Incident-Based Reporting System, National Data Exchange, and Uniform Crime Reporting.

This meeting is open to the public. All attendees will be required to check-in at the meeting registration desk.

ADDRESSES: You may obtain copies of all documents and submit comments on the applicant's ITP application by one of the following methods. Please refer to the proposed permit number when requesting documents or submitting comments.

- *Email:* fw2_hcp_permits@fws.gov.
- *U.S. Mail:* U.S. Fish and Wildlife Service, Endangered Species—IICP Permits, P.O. Box 1306, Room 6093, Albuquerque, NM 87103.

FOR FURTHER INFORMATION CONTACT: Marty Tuegel, Branch Chief, by U.S. mail at U.S. Fish and Wildlife Service, Environmental Review Division, P.O. Box 1306, Room 6078, Albuquerque, NM 87103; by telephone at 505–248–6651; or via the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Introduction

Under the Endangered Species Act, as amended (ESA; 16 U.S.C. 1531 *et seq.*), we, the U.S. Fish and Wildlife Service, invite the public to comment on an incidental take permit (ITP) application to take the federally listed American burying beetle (*Nicrophorus americanus*) during oil and gas well field infrastructure geophysical exploration (seismic) and construction, maintenance, operation, repair, and decommissioning, as well as oil and gas gathering, transmission, and distribution pipeline infrastructure construction, maintenance, operation, repair, decommissioning, and reclamation in Oklahoma.

If approved, the permit would be issued to the applicant under the *American Burying Beetle Amended Oil and Gas Industry Conservation Plan (ICP) Endangered Species Act Section 10(a)(1)(B) Permit Issuance in Oklahoma*. The original ICP was approved on May 21, 2014, and the “no significant impact” finding notice was published in the **Federal Register** on July 25, 2014 (79 FR 43504). The draft amended ICP was made available for comment on March 8, 2016 (81 FR 12113), and approved on April 13, 2016. The ICP and the associated environmental assessment/finding of no significant impact are available on our website at <http://www.fws.gov/southwest/es/oklahoma/ABBICP>. However, we are no longer taking comments on these finalized, approved documents.

Application Available for Review and Comment

We invite local, state, Tribal, and Federal agencies, and the public to comment on the following application

under the ICP for incidentally taking the federally listed American burying beetle. Please refer to the proposed permit number (TE14926D) when requesting application documents and when submitting comments. Documents and other information the applicant submitted are available for review, subject to Privacy Act (5 U.S.C. 552a) and Freedom of Information Act (5 U.S.C. 552) requirements.

Permit No. TE14926D

Applicant: DCP Operating Company, LP, Denver, CO

Applicant requests a permit for oil and gas upstream and midstream production, including oil and gas well field infrastructure geophysical exploration (seismic) and construction, maintenance, operation, repair, and decommissioning, as well as oil and gas gathering, transmission, and distribution pipeline infrastructure construction, maintenance, operation, repair, decommissioning, and reclamation in Oklahoma.

Public Availability of Comments

Written comments we receive become part of the public record associated with this action. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware your entire comment—including your personal identifying information—may be made publicly available at any time. While you can request in your comment that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

Authority

We provide this notice under section 10(c) of the ESA (16 U.S.C. 1531 *et seq.*), its implementing regulations (50 CFR 17.22), and the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) and its implementing regulations (40 CFR 1506.6).

Dated: November 20, 2018.

Amy Lueders,

Regional Director, Southwest Region.

[FR Doc. 2019–02622 Filed 2–15–19; 8:45 am]

BILLING CODE 4333–15–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. TPA–105–003]

United States-Mexico-Canada Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors

AGENCY: United States International Trade Commission.

ACTION: Change in date for transmittal of Commission report to the President and Congress.

SUMMARY: The Commission has changed the date for transmittal of its report to the President and Congress from no later than 105 days after the President entered into the agreement, to no later than 105 days plus an additional 35 days due to the lapse of appropriation between December 22, 2018 and January 25, 2019.

DATES: February 11, 2019.

FOR FURTHER INFORMATION CONTACT: Project Leader Serge Shikher (202–205–2393 or serge.shikher@usitc.gov) or Co-Project Leader Mihir Torsekar (202–205–3350 or mihir.torsekar@usitc.gov) for information specific to these investigations. For information on the legal aspects of these investigations, contact William Gearhart of the Commission's Office of the General Counsel (202–205–3091 or william.gearhart@usitc.gov). The media should contact Margaret O'Laughlin, Office of External Relations (202–205–1819 or margaret.olaughlin@usitc.gov). Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its internet server (<https://www.usitc.gov>). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at <https://edis.usitc.gov>.

SUPPLEMENTARY INFORMATION: The Commission published notice of institution of the above referenced investigation in the **Federal Register** on October 16, 2018 (83 FR 52232, October 16, 2018). In that notice the Commission stated that it would transmit its report to the President and Congress no later than 105 days after the President enters into the agreement. However, due to the lapse in appropriation (December 22, 2018 to January 25, 2019), the Commission will transmit its report to

the President and Congress no later than 105 days after the President entered into the agreement plus an additional 35 days. All other dates pertaining to this investigation remain the same as in the notice published in the **Federal Register** on October 16, 2018.

By order of the Commission.

Issued: February 12, 2019.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2019-02603 Filed 2-15-19; 8:45 am]

BILLING CODE 7020-02-P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 332-569]

U.S. SME Exports: Trade-Related Barriers Affecting Exports of U.S. Small- and Medium-Sized Enterprises to the United Kingdom

AGENCY: United States International Trade Commission.

ACTION: Notice, change in dates.

SUMMARY: Due to the lapse of appropriation between December 22, 2018 and January 25, 2019, the Commission has changed certain dates announced in its notice of investigation and hearing for these investigations: (i) It has extended the deadline for filing requests to appear at the public hearing from February 8, 2019 to March 28, 2019; (ii) it has extended the deadline for filing prehearing briefs and statements from February 13, 2019 to April 1, 2019; (iii) it has rescheduled the public hearing from February 26, 2019 to April 11, 2019; (iv) it has extended the deadline for filing post-hearing briefs from March 8, 2019 to April 18, 2019; (v) it has extended the deadline for filing all other written submissions from March 15, 2019 to April 30, 2019; and (vi) it will transmit its report to the USTR by September 4, 2019 instead of by July 31, 2019.

DATES: February 11, 2019.

FOR FURTHER INFORMATION CONTACT: Project Leader Mahnaz Khan (202-205-2046 or Mahnaz.khan@usitc.gov) or Deputy Project Leader Sarah Scott (202-708-1397 or sarah.scott@usitc.gov) for information specific to these investigations. For information on the legal aspects of these investigations, contact William Gearhart of the Commission's Office of the General Counsel (202-205-3091 or william.gearhart@usitc.gov). The media should contact Margaret O'Laughlin, Office of External Relations (202-205-1819 or margaret.olaughlin@usitc.gov). Hearing-impaired persons can obtain

information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000. General information concerning the Commission may also be obtained by accessing its internet server (<https://www.usitc.gov>). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at <https://edis.usitc.gov>.

SUPPLEMENTARY INFORMATION: The Commission published notice of institution of the above referenced investigations in the **Federal Register** on September 6, 2018 (83 FR 45281, September 6, 2018). Due to the lapse in appropriation (December 22, 2018 to January 25, 2019), the Commission has changed certain dates announced in that notice regarding these investigations: (i) It has extended the deadline for filing requests to appear at the public hearing from February 8, 2019 to March 28, 2019; (ii) it has extended the deadline for filing prehearing briefs and statements from February 13, 2019 to April 1, 2019; (iii) it has rescheduled a public hearing from February 26, 2019 to April 11 2019; (iv) it has extended the deadline for filing post-hearing briefs from March 8, 2019 to April 18, 2019; (v) it has extended the deadline for filing all other written submissions from March 15, 2019 to April 30, 2019 and (vi) it will transmit its report to the USTR by September 4, 2019 instead of by July 31, 2019.

By order of the Commission.

Issued: February 12, 2019.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2019-02601 Filed 2-15-19; 8:45 am]

BILLING CODE 7020-02-P

INTERNATIONAL TRADE COMMISSION

[Investigative No. 337-TA-1063]

Certain X-Ray Breast Imaging Devices and Components Thereof; Notice of Commission Decision To Terminate the Investigation Based on Settlement; Termination of the Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to grant the private parties' joint motion to terminate

the investigation based on settlement. The investigation is terminated.

FOR FURTHER INFORMATION CONTACT: Amanda Pitcher Fisherow, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 205-2737. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its internet server at <https://www.usitc.gov>. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at <https://edis.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on August 1, 2017, based on a complaint and supplement, filed on behalf of Hologic, Inc. of Marlborough, Massachusetts. 82 FR 35823-24 (Aug. 1, 2017). The complaint, as supplemented, alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain x-ray breast imaging devices and components thereof by reason of infringement of certain claims of U.S. Patent No. 7,831,296; U.S. Patent No. 8,452,379 ("the '379 patent"); U.S. Patent No. 7,688,940; U.S. Patent No. 7,986,765 ("the '765 patent"); and U.S. Patent No. 7,123,684. The complaint further alleges that an industry in the United States exists as required by section 337. The notice of investigation named FUJIFILM Corporation of Tokyo, Japan; FUJIFILM Medical Systems USA, Inc. of Stamford, Connecticut; and FUJIFILM Techno Products Co., Ltd. of Hanamaki-Shi Iwate, Japan (collectively "Fujifilm") as respondents. The Office of Unfair Import Investigations ("OUII") was named as a party. On January 18, 2018, the '765 patent was terminated in its entirety from the investigation. See Order No. 18 (Jan. 18, 2018) (unreviewed). On February 27, 2018, claims 6-10 of the '379 patent were terminated from the investigation. See Order No. 21 (Feb. 27, 2018) (unreviewed).

On July 26, 2018, the administrative law judge ("ALJ") issued the final initial

Appendix C

Calendar of Hearing Witnesses

CALENDAR OF PUBLIC HEARING

Those listed below are scheduled to appear as witnesses at the United States International Trade Commission's hearing:

Subject: U.S.-Mexico-Canada Agreement: Likely Impact on the U.S. Economy and Specific Industry Sectors
Inv. No.: TPA-105-003
Dates and Time: November 15 and 16, 2018 - 9:30 a.m.

Sessions will be held in connection with this investigation in the Main Hearing Room (room 101), 500 E Street, S.W., Washington, DC.

Thursday, November 15, 2018

CONGRESSIONAL WITNESSES:

The Honorable Sander Levin, U.S. Representative, 9th District, Michigan

The Honorable Bill Pascrell, Jr., U.S. Representative, 9th District, New Jersey

PANEL 1: Automotive

ORGANIZATION AND WITNESS:

American Automotive Policy Council
Washington, DC

Governor Matt Blunt, President

American International Automobile Dealers Association
Alexandria, VA

Cody Lusk, President and CEO

Alliance of Automotive Manufacturers
Washington, DC

Jennifer Thomas, Vice President, Federal Government Affairs

Association of Global Automakers
Washington, DC

John Bozzella, President and CEO

Motor & Equipment Manufacturers Association
Washington, DC

U.S.-Mexico-Canada Trade Agreement

Ann Wilson, Senior Vice President, Government Affairs

Auto Care Association

William Hanvey, President and CEO

PANEL 2: Agriculture

ORGANIZATION AND WITNESS:

Florida Department of Agriculture and Consumer Services
Tallahassee, FL

The Honorable Adam Putnam, Commissioner of Agriculture

Florida Fruit and Vegetable Association
Maitland, FL

Michael Stuart, CEO

Florida Strawberry Growers Association
Plant City, FL

Kenneth Parker, Executive Director

Georgia Fruit and Vegetable Growers Association
LaGrange, GA

The Honorable Gary Black, Commissioner of Agriculture

National Grain and Feed Association, North American Export Grain Association
Arlington, VA

Randy Gordon, President and CEO (NGFA)

U.S. Grains Council
Washington, DC

Jim Stitzlein, Chairman

International Dairy Foods Association
Washington, DC

Michael Dykes, President and CEO

PANEL 3: Domestic Industry, Consultancy, and Labor Associations

ORGANIZATION AND WITNESS:

American Federation of Labor and Congress of Industrial Organizations
Washington, DC

Celeste Drake, Policy Specialist for Trade and International Economics

International Brotherhood of Teamsters
Washington, DC

Michael Dolan

American Insurance Association
Washington, DC

Stephen Simchak, Vice President and Chief International Counsel

Express Association of America
Great Falls, VA

Michael Mullen, Executive Director

Trade in Services International
Washington, DC

Linda Schmid, International Trade and Development Adviser

Sierra Club
Washington, DC

Ben Beachy, Director, A Living Economy

University of Notre Dame
Notre Dame, IN

Jeffrey Bergstrand, Professor

Friday, November 16, 2018

PANEL 4: General Manufacturing

ORGANIZATION AND WITNESS:

American Iron and Steel Institute
Washington, DC

Kevin Dempsey, Senior Vice President, Public Policy and General Counsel

The Aluminum Association
Arlington, VA

Heidi Brock, President and CEO

Steel Manufacturers Association
Washington, DC

Philip Bell, President

Beer Institute
Washington, DC

James McGreevy III, President and CEO

United States Fashion Industry Association
Washington, DC

Julia Hughes, President

Knowledge Ecology International
Washington, DC

Jamie Love, Director

National Council of Textile Organizations
Washington, DC

Augustine Tantillo, President and CEO

Association for Accessible Medications
Washington, DC

Jeffrey Francer, Senior Vice President and General Counsel

American Apparel & Footwear Association
Washington, DC

Rick Helfenbein, President and CEO

PANEL 5: Meats

ORGANIZATION AND WITNESS:

National Pork Producers Council
Washington, DC

Maria Zieba, Director of International Affairs

North American Meat Institute
Washington, DC

William Westman, Senior Vice President, International Affairs

National Cattlemen's Beef Association
Washington, DC

Kelley Sullivan, NBCA member and rancher

Rancher-Cattlemen Action Legal Fund United Stockgrowers of America
Billings, MT

William Bullard, CEO

PANEL 6: Digital Organizations

ORGANIZATION AND WITNESS:

ACT | The App Association
Washington, DC

Brian Scarpelli, Senior Global Policy Counsel

Brookings Institution
Washington, DC

Joshua Meltzer, Senior Fellow, Global Economy and Development Program

BSA | The Software Alliance

U.S.-Mexico-Canada Trade Agreement

Washington, DC

Joseph Whitlock, Director, Policy

Computer & Communications Industry Association
Washington, DC

Ali Sternburg, Senior Policy Counsel

Internet Association
Washington, DC

Jordan Haas, Director, Trade Policy

Information Technology Industry Council
Washington, DC

Ashley Friedman, Senior Director for Global Policy

Software & Information Industry Association
Washington, DC

Carl Schonander, Senior Director, International Public Policy

Information Technology and Innovation Foundation
Washington, DC

Stephen Ezell, Vice President, Global Innovation Policy

Telecommunications Industry Association
Arlington, VA

Kathlene C. (K.C.) Swanson, Director, Global Policy

-END-

Appendix D Summary of Views of Interested Parties

Views of Interested Parties

Interested parties had the opportunity to file written submissions to the Commission in the course of this investigation and to provide summaries of the positions expressed in the submissions for inclusion in this report. This appendix contains these written summaries, provided that they meet certain requirements set out in the notice of investigation. The Commission has not edited these summaries. This appendix also contains the names of other interested parties who filed written submissions during investigation but did not provide written summaries. A copy of each written submission is available in the Commission's Electronic Docket Information System (EDIS).⁷⁶⁷ The Commission also held a public hearing in connection with this investigation on January 13–15, 2016. The full text of the transcript of the Commission's hearing is also available on EDIS.

Written Submissions

Representative Bill Pascrell

No written summary. Please see EDIS for full submission.

Representative Sander Levin

No written summary. Please see EDIS for full submission.

ACT | The App Association

No written summary. Please see EDIS for full submission.

Acuity Brands

No written summary. Please see EDIS for full submission.

Advanced Medical Technology Association

No written summary. Please see EDIS for full submission.

Alliance of Automobile Manufacturers

No written summary. Please see EDIS for full submission.

The Aluminum Association

⁷⁶⁷ Available online at <http://edis.usitc.gov>.

U.S.-Mexico-Canada Trade Agreement

No written summary. Please see EDIS for full submission.

American Apparel & Footwear Association

No written summary. Please see EDIS for full submission.

American Automotive Policy Council

No written summary. Please see EDIS for full submission.

American Chemistry Council

No written summary. Please see EDIS for full submission.

American Farm Bureau Federation

No written summary. Please see EDIS for full submission.

American Federation of Labor and Congress of Industrial Organizations

As AFL-CIO President Richard Trumka stated upon the signing of the renegotiated NAFTA:

“[T]his agreement has not earned the support of America's working families. Without major improvements, this supposed overhaul will prove to be nothing more than a rebranded corporate handout.

Any progress made by this deal is meaningless without swift and certain enforcement tools to safeguard key labor protections. Real steps forward start with changes in the text, comprehensive labor law reform from Mexico and a strong implementation bill from the United States.

The Trump administration still has an opportunity to make that happen. We encourage the administration and Congress to continue working with us to deliver a fair and just agreement for working families. In addition to enforcement provisions, that means securing tools to combat outsourcing in key sectors such as aerospace, meat packing, food processing and call centers; tightening auto rules of origin; and eliminating rules that keep prescription medicine prices sky high and interfere with the creation of workplace safety and other public interest protections.

Working people have lived through the devastation of failed, corporate-written trade deals for too long. That's why we will continue the fight for an agreement that creates good jobs and raises wages here at home while protecting the rights and dignities of workers across all borders.”

In comparison to the original, the new NAFTA:

- Includes modest but meaningful improvements to the labor obligations (but without a swift and certain enforcement mechanism);
- Requires a periodic performance review;

- Slashes the unjustifiable and indefensible investor-to-state dispute settlement (ISDS) mechanism; and
- Has stronger, innovative rules of origin (although we lack evidence to conclude that they will create the promised jobs).

However, the new NAFTA could harm working families by:

- Limiting public interest regulations, including with respect to chemical safety and financial services;
- Keeping drug prices sky-high;
- Failing to protect private data;
- Taking no action to stop outsourcing in industries including aerospace, call centers, and baked goods; and
- Failing to reinstate country-of-origin labeling (COOL).

In addition, the final text weakened an important new rule against workplace discrimination on the basis of gender, gender identity, sexual orientation, pregnancy, and caregiving status. Importantly, we still do not know whether Mexico will comply with its obligation to reform its labor laws or whether the U.S. will ensure that labor and environmental enforcement will be swift and certain.

By design, the original NAFTA distorted power relationships in favor of global employers over workers, weakening bargaining power, and eliminating good manufacturing jobs. Equitable economic growth requires fundamental changes to trade policy. The new NAFTA should stimulate trade while promoting wage-driven growth and high standards for working families and democracy across North America.

The deal before us falls short of this ambitious, transformative changes needed, most critically be weakening, rather than strengthening labor enforcement provisions. Its current terms are insufficient to significantly reduce outsourcing and otherwise benefit ordinary working families across the continent. It must be reopened and improved to earn the support of working people.

American Forest & Paper Association

No written summary. Please see EDIS for full submission.

American Insurance Association

No written summary. Please see EDIS for full submission.

American International Automobile Dealers Association

No written summary. Please see EDIS for full submission.

American Iron and Steel Institute

No written summary. Please see EDIS for full submission.

American Petroleum Institute

No written summary. Please see EDIS for full submission.

The American Pizza Community

No written summary. Please see EDIS for full submission.

American Primary Aluminum Association

No written summary. Please see EDIS for full submission.

American Trucking Associations

No written summary. Please see EDIS for full submission.

Arkema Inc.

Arkema is a diversified, worldwide chemical manufacturer and is a leading supplier of high performance materials that are used in a range of industries and applications. In the U.S., the Arkema Group, which includes Arkema Inc. and Bostik Inc., operates 35 business, manufacturing and/or distribution facilities, including 2 research and development facilities, in 19 states and provides employment for 3,200 persons. Arkema's products and materials serve a variety of industries and end-markets, including: automotive, packaging, the chemical industry, hygiene and beauty, electronics, agrochemicals, paper, construction, water treatment, energy and sports and leisure.

As is much the case within the chemical manufacturing industry, Arkema increasingly relies on robust exports and imports of either, or both, manufactured products and raw materials. The American Chemistry Council has noted that the "[t]he chemical industry is an \$800 billion dollar enterprise, supporting nearly 25% of U.S. gross domestic product (GDP), and providing over 800,000 skilled, good-paying American jobs, with production in nearly every State. The American chemical industry produces 15 percent of the world's chemicals, and accounts for 14 percent of all U.S. exports, amounting to \$191 billion in 2014." Thus, agreements, such as the USMCA, are vital to the equitable establishment of fair and efficient "rules of the road" that govern international trade.

Overall, Arkema supports the USMCA, welcomes the renewal and continuation of this critical trade network and greatly appreciates the inclusion of provisions that will help promote free and fair trade among and between the three countries. Among the overall benefits that the USMCA will bring to businesses and the chemical manufacturing industry are the following: continued certainty regarding current zero duty rates on a variety of key raw materials and/or products within the USMCA zone; important rules of origin provisions and updates such as electronic certification processes that will provide greater efficiencies.

Association for Accessible Medicines

No written summary. Please see EDIS for full submission.

Association of American Publishers

No written summary. Please see EDIS for full submission.

Association of American Railroads

The Association of American Railroads (AAR) respectfully submits this summary as part of the International Trade Commission's assessment of the economic impact of the U.S.-Mexico-Canada Agreement (USMCA). AAR members account for the vast majority of freight railroad mileage, employees, and traffic in Canada, Mexico, and the United States.

The AAR congratulates leaders of the three countries for recognizing the importance of preserving free trade and the huge benefits it brings to the North America's economy. Congress should quickly ratify the agreement to provide market certainty, stimulate further investment, and enhance the standard of living in all three countries. It is equally important for market certainty that while the ratification debate continues, the United States does not withdraw from NAFTA prematurely.

Railroads know firsthand that the seamless movement of goods makes economies stronger and more competitive. In North America, freight railroads have common standards, including infrastructure, equipment, data protocols, and operating practices, allowing seamless service throughout the continent. In fact, the rail systems of the United States, Canada, and Mexico operate across borders largely barrier-free. Consequently, each of the ten largest North American freight rail systems have ownership interest or operations in two or more of the USMCA countries.

It is difficult to overemphasize the importance of trade to railroads and the importance of railroads to trade. Based on conservative estimates, international trade accounts for at least 35 percent of U.S. freight rail revenue (\$26.4 billion out of \$75.1 billion); 27 percent of U.S. rail tonnage (511 million tons out of 1.88 billion); and 42 percent of the carloads and intermodal units (13.4 million units out of 32.2 million).¹ Railroads account for approximately one-third of U.S. exports by volume.

Rail movements associated with international trade include countless rail commodities and every region of the country — coal for export from Chesapeake Bay ports; paper and lumber imported from Canada by manufacturers and construction firms; imports and exports of automotive products between factories in dozens of U.S. states, Canada and Mexico; and agricultural goods to the world, including nearly \$43 billion worth of goods to Canada and Mexico in 2016. The list goes on and on.

Robust international trade means more jobs for American firms, farmers, and resource producers, as well as for railroaders. Approximately 50,000 rail jobs, worth more than \$5.5 billion in annual wages and benefits, depend directly on international trade. This does not include other significant job-related impacts including employees at ports who handle rail shipments; jobs at firms that supply goods and services to railroads and others in support of trade-related rail movements; and impacts derived from expenditures of rail and port employees, and their suppliers.

Policymakers should not deprive Americans of the tremendous advantages resulting from full engagement with the global economy. The USMCA will help further this goal.

Auto Care Association

U.S.-Mexico-Canada Trade Agreement

No written summary. Please see EDIS for full submission.

Beer Institute

No written summary. Please see EDIS for full submission.

Professor Jeffrey H. Bergstrand

No written summary. Please see EDIS for full submission.

Border Trade Alliance

No written summary. Please see EDIS for full submission.

Brookings Institution

No written summary. Please see EDIS for full submission.

BSA | The Software Alliance

No written summary. Please see EDIS for full submission.

Centro de Los Derechos del Migrante, Inc.

No written summary. Please see EDIS for full submission.

Citizens Trade Campaign

Citizens Trade Campaign and 4,737 individual supporters submitted written testimony that the proposed text of the renegotiated North American Free Trade Agreement (NAFTA), also called the United States-Mexico-Canada Agreement, fails to include critical changes needed to protect jobs, raise wages, defend human rights, safeguard the environment and promote public health. While progress has been made in some important areas, steps backward have been taken in others. These serious shortcomings have real costs associated with them.

In studying the likely impacts of the current NAFTA text, the USITC was urged to specifically investigate (1) how the lack of swift and certain enforcement mechanisms negates the value of labor and environmental provisions; (2) the impact of proposed rules of origin on jobs and wages in the United States, Mexico and Canada, especially in light of the absence of easily-enforced labor and environmental provisions; (3) the costs to U.S. taxpayers and consumers associated with locking-in long monopoly protections for drug companies; and (4) the costs to U.S. taxpayers and the economy if climate change continues to be ignored.

They also added that the ITC's requirement that 8 hard copies of any testimony be submitted to its Washington, DC office is a barrier to public comment and public participation.

Coalition of Services Industries

No written summary. Please see EDIS for full submission.

Computer & Communications Industry Association

No written summary. Please see EDIS for full submission.

Corn Refiners Association

No written summary. Please see EDIS for full submission.

CreativeFuture

No written summary. Please see EDIS for full submission.

Distilled Spirits Council

No written summary. Please see EDIS for full submission.

eBay Inc.

No written summary. Please see EDIS for full submission.

Entertainment Software Association

No written summary. Please see EDIS for full submission.

Express Association of America

No written summary. Please see EDIS for full submission.

Florida Department of Agriculture and Consumer Services

No written summary. Please see EDIS for full submission.

Florida Fruit & Vegetable Association

No written summary. Please see EDIS for full submission.

Florida Strawberry Growers Association

No written summary. Please see EDIS for full submission.

Fresh Produce Association of the Americas

No written summary. Please see EDIS for full submission.

Georgia Fruit & Vegetable Growers Association

U.S. Department of Agriculture Secretary Sonny Perdue has publicly confirmed that specialty crops have not fared well under NAFTA and has advocated finding effective solutions to the problem, including in the NAFTA renegotiation process:

Certainly, I think our vegetables, and our produce sectors of agriculture ...have maybe been the ones that have not benefited as much under NAFTA. . . . Regarding NAFTA

*negotiations, it is my hope . . . [that] one area we can improve our position vis a vis Mexico is in regards to vegetables.*⁷⁶⁸

The original NAFTA negotiators anticipated this result, forecasting that producers of winter fruits and vegetables and vegetables would be negatively affected once NAFTA was implemented. True to that forecast, Southeast specialty-crop farmers have faced mounting pressure from growing Mexican imports in virtually every year since NAFTA took effect.

US antidumping and countervailing duty laws are not currently well structured to prevent injury during the Southeast **industry's limited marketing period. As a consequence, Southeast producers have been far more exposed to import injury than most other US industries under NAFTA.**

Congress has recognized that the Southeast produce industry needs relief tools to address these special trade circumstances. The TPA Act expressly calls on all new US trade deals to ***“eliminate practices that adversely affect trade in perishable or cyclical products, while improving import relief mechanisms to recognize the unique characteristics of perishable and cyclical agriculture.”***⁷⁶⁹

For produce farmers throughout the Southeast, effective, near-term relief against **unfair Mexican imports has become a matter of survival. Georgia fruit and vegetable growers will continue to work with Congress and the Administration on measures to accomplish this urgently needed relief.**

On behalf of the Georgia and southeastern growers struggling to save their operations from these unfair trade practices, GFVGA respectfully requests the ITC reflect in its report to Congress an assessment **supportive to remedy this in the USMCA, as GFVGA continues to work with Congress and the Administration on measures to accomplish this urgently needed relief.**

Global Automakers; Here for America

No written summary. Please see EDIS for full submission.

Industrial Fasteners Institute

No written summary. Please see EDIS for full submission.

Information Technology and Innovation Foundation

No written summary. Please see EDIS for full submission.

Information Technology Industry Council

No written summary. Please see EDIS for full submission.

Institute for Agriculture and Trade Policy

No written summary. Please see EDIS for full submission.

Institute of Scrap Recycling Industries, Inc.

⁷⁶⁸ May 17, 2017, testimony before the House Committee on Agriculture.

⁷⁶⁹ The TPA Act, Pub. L. No. 114-26, § 102(b)(3), 129 Stat. 320, 322-23 (2015).

The Institute of Scrap Recycling Industries, Inc. (ISRI) represents 1,300 processors, brokers and consumers of scrap materials, including ferrous and non-ferrous metals, paper, plastic, tire and rubber, glass, textiles and electronics. Among ISRI members are companies from 41 different countries, but North America – and especially the United States – makes up the vast majority of our membership, which contributes over \$117 billion, generating \$13.2 billion in federal, state and local tax revenue while supporting more than 530,000 jobs.

ISRI works in close collaboration with the Canadian Association for Recycling Industries (CARI) and Mexico's National Institute of Recyclers (INARE). All told, our three associations represent more than 4,000 processors, brokers and consumers of scrap materials with a combined US\$130 billion contribution to the North American economy and a US\$6.3 billion trade among the three economies in the first ten months of this year (a 17% increase over the same time period last year).

ISRI supports the USMCA, as currently understood through publicly available documents, because much like the existing NAFTA, it supports free and fair trade of scrap materials and will create the potential to increase trade through market stability and enhanced customs procedures. Tariffs will remain zero. ISRI believes the Chapter on Technical Barriers to Trade provides for the internationally-accepted ISRI Scrap Specification Circular (www.isri.org/specs) will be recognized by regulators as a guideline for scrap traded within North America, and it provides for a much broader public consultative process, which we would welcome participating in as needed. Enhanced Rules of Origin for a range of manufactured goods, such as automobiles, could create good trade opportunities because the recycling industry is the first link in the manufacturing supply chain. The Customs Administration and Trade Facilitation chapter includes provisions to streamline customs procedures, including through automation and harmonization, enhanced inspections procedures and cooperation for swifter customs clearances – all of which will allow scrap traders to ensure timely delivery. Finally, although we appreciate the parties negotiating a chapter for the Temporary Entry of Business Persons, we are concerned that political interference could impede its implementation.

International Brotherhood of Teamsters

No written summary. Please see EDIS for full submission.

International Dairy Foods Association

No written summary. Please see EDIS for full submission.

International Intellectual Property Alliance

No written summary. Please see EDIS for full submission.

International Union, United Automobile, Aerospace and Agricultural Implement Workers of America

No written summary. Please see EDIS for full submission.

Internet Association

No written summary. Please see EDIS for full submission.

Knowledge Ecology International

No written summary. Please see EDIS for full submission.

Maine Citizen Trade Policy Commission

No written summary. Please see EDIS for full submission.

Christine McDaniel, Senior Research Fellow

No written summary. Please see EDIS for full submission.

MFJ International, LLC

The USMCA clearly sides with the originator pharmaceutical industry at the expense of generic/biosimilar companies. The terms set in the intellectual property chapter would delay the entry of competition in the pharmaceutical market thus hindering access to more affordable medicines and putting at risk the sustainability of the generic/biosimilar industry which would face new barriers to entry to the markets of the Parties involved. Furthermore, the USMCA includes several provisions that may change U.S. law further hindering the generic/biosimilar industry, as well as consumers and payers whose access to more affordable drugs may be delayed and/or blocked. This requires that the agreement be rectified and the easiest way to do so would be through the adoption of the terms for the protection of intellectual property rights set in the New Trade Policy or May 10th Agreement, which reflected a more balanced compromise that garnered bipartisan support. In addition, the USMCA should also include other provisions to ensure the expedited launch of competition such as incentives to challenge the validity or enforceability of patents, the disclosure of the best mode in patent applications and penalties for those who misuse IP rights to prevent competition.

Given that the USMCA will also set a precedent for future trade agreements it is essential that it be amended to strike a balance that fosters both innovation and competition, thus ensuring patients expedited access to more affordable drugs, as well as benefiting both originator and generic/biosimilar companies and maximizing U.S. pharmaceutical exports.

Motion Picture Association of America, Inc.

No written summary. Please see EDIS for full submission.

Motor & Equipment Manufacturers Association

No written summary. Please see EDIS for full submission.

Mylan

Mylan supports this Administration's goals of promoting competition and affordability in the pharmaceutical market. However, USMCA contains provisions that will be harmful in all three countries, including the United States, by delaying access to biosimilars and generics. We strongly encourage the Administration to not allow these detrimental provisions to stand in this agreement or as a template for future trade agreements.

Increasing access to biosimilars and generics is critical to increase competition and affordability. A major concern is that the USMCA definition of biologic may be broader than the US definition. Also, the USMCA could allow a transitioning biologic to receive both 5-year and 3-year exclusivity for a small molecule product, and then potentially an additional 10 years for biologic product exclusivity. It is premature to establish any type of exclusivity for biologics in a trade agreement when there are only six biosimilars on the US market. Furthermore, the FTC clearly states that no exclusivity is necessary for biologics, and the USMCA should not enshrine unnecessary barriers to entry for biosimilar drugs preventing Congress from making a different judgment in the future. The provision changing biologic exclusivity to 10 years will also hinder access to foreign markets in Mexico and Canada, which is necessary so that companies can gain capital to invest in the challenging US market and patients can gain access to affordable medicines.

Another concern is that the terms used for the criteria for small molecule exclusivity are ambiguous. Also, the USMCA's standard of barring "same or similar" products from the market could keep entire therapeutic classes off the market. Further, if USMCA does include patent term extensions, it should include the same conditions and limitations currently in US law.

Finally, the agreement has language requiring that ANDA applicants that relied on the evidence or information about the safety and effectiveness of a previously-approved product give notice to that patent owner prior to marketing. This would change how notice to patent owners works under US law and be onerous and intrusive for generic companies. It could also be used by patent owners to delay competition.

While USMCA provisions should be amended because of the issues above, there are also certain provisions that should be added to further promote competition. For example, a more encompassing regulatory review exception and a best mode requirement should be included.

Mylan urges the Administration to change, clarify, and add these important provisions to the USMCA to increase competition, access, and affordability in the US. The USMCA should be revised to provide balance that encourages and does not hinder access to more affordable generics and biosimilars.

National Association of State Departments of Agriculture

No written summary. Please see EDIS for full submission.

National Automobile Dealers Association

No written summary. Please see EDIS for full submission.

National Cattlemen's Beef Association

No written summary. Please see EDIS for full submission.

National Cotton Council of America

Since its implementation in 1994, the North American Free Trade Agreement (NAFTA) has resulted in significant shifts and adjustments to the U.S. textile industry in order to compete and remain competitive. NAFTA has ensured dependable market access for exports of U.S. cotton, and led to the

U.S.-Mexico-Canada Trade Agreement

development of an integrated regional supply chain for textile yarn and fabric manufacturers, thereby stabilizing employment and encouraging investment throughout the sector.

The North American market accounted for approximately \$2 billion in annual U.S. exports of raw cotton fiber and cotton textile products during the most recent three-year period, from 2015-2017. Mexico is the fifth-largest foreign destination for U.S. raw cotton, annually purchasing about 8% of total U.S. cotton exports. Mexico also ranks second among U.S. cotton textile and apparel export customers, accounting for 15% of total U.S. exports. Canada accounts for 6% of U.S. cotton and textile exports, making it the fourth-largest market. In 2017, trade in textile and apparel products between the NAFTA markets was approximately \$20 billion, nearly triple the level of annual pre-NAFTA trade.

Overall, the USMCA would preserve the current benefits of NAFTA and encourage continued regional integration of the cotton and textile supply chain. It would also enhance regulatory coordination on sanitary and phytosanitary (SPS) disciplines and encourage greater cooperation in biotechnology, including gene editing. Finally, it would improve the terms of trade for U.S. textile manufacturers.

A major benefit of the USMCA is the preservation of export market access for U.S. cotton and cotton products. The new SPS chapter would enhance regulatory transparency and encourage the compatibility of science-based measures. The inclusion of the SPS and biotechnology-related provisions in the USMCA represents a significant step forward.

Importantly, USMCA establishes a new, separate textile chapter and incorporates NAFTA's yarn-forward rule of origin. Together with the preservation of market access for U.S. cotton exports, the incorporation of NAFTA's yarn-forward rule of origin represents another major benefit of the USMCA. Under NAFTA, the yarn-forward rule of origin has played a central role in the development of an integrated regional supply chain. It has also helped ensure that the benefits of growing trade accrued to manufacturers within the region.

The textile chapter would strengthen customs enforcement. The USMCA also offers new benefits corresponding to the use of USCMA-origin sewing thread, pocketing, narrow elastics, and coated fabrics for certain end items. The annual regional market value for sewing thread in apparel applications is approximately \$250 million, while the annual market for pocketing is worth \$70 million.

Finally, U.S. textile manufacturers would benefit from the USMCA's closure of a NAFTA loophole that exempts purchases by the U.S. Department of Homeland Security's Transportation Security Administration from the Buy American requirements known as the Kissell Amendment. In FY2017, TSA purchased approximately \$34 million worth of textile and apparel products. Eliminating NAFTA's loophole would thus provide significant benefits to manufacturers of U.S.-origin textile and apparel products.

National Council of Textile Organizations

No written summary. Please see EDIS for full submission.

National Customs Brokers and Forwarders Association of America

No written summary. Please see EDIS for full submission.

National Electrical Manufacturers Association

No written summary. Please see EDIS for **full submission**.

National Grain and Feed Association; North American Export Grain Association

The National Grain and Feed Association (NGFA) and North American Export Grain Association (NAEGA) are pleased the United States-Mexico-Canada Agreement (USMCA) maintains and expands all current agricultural market access and preserves the dispute-settlement process for antidumping and countervailing duty cases, while modernizing the agreement to address the challenges of 21st century global trade.

In addition, the NGFA and NAEGA believe USMCA will help facilitate cross-border trade flows through higher levels of regulatory coherence and cooperation, the implementation of timelines and notifications for adverse import checks, the inclusion of steps to reduce the likelihood of trade disruptions in products of agricultural biotechnology, the use of technical consultations for sanitary and phytosanitary (SPS) disputes, and by requiring that SPS standards be grounded in science and based on proper risk assessments and implemented using accepted risk management techniques.

While it is disappointing the agreement eliminates the investor-state dispute-settlement procedures, which has been important for U.S. food and agriculture, the agreement, taken together, makes significant progress – particularly in addressing nontariff trade barriers – in facilitating the trade of grains, oilseeds and their derived products within the North American marketplace.

The NGFA and NAEGA thank you for the opportunity to express these views and greatly appreciate the Administration's efforts on USMCA to preserve and build upon the core benefits of North American trade that have helped the U.S. food and agricultural sector flourish and support U.S. economic growth and job creation.

National Pork Producers Council

No written summary. Please see EDIS for full submission.

National Potato Council

No written summary. Please see EDIS for full submission.

North American Association of Food Equipment Manufacturers

No written summary. Please see EDIS for full submission.

North American Meat Institute

No written summary. Please see EDIS for full submission.

Patients for Affordable Drugs

No written summary. Please see EDIS for full submission.

Personal Care Products Council

U.S.-Mexico-Canada Trade Agreement

No written summary. Please see EDIS for full submission.

Pet Food Institute

No written summary. Please see EDIS for full submission.

Program on Information Justice and Intellectual Property

No written summary. Please see EDIS for full submission.

Public Citizen

Public Citizen, a national, nonprofit consumer organization, has conducted extensive analysis of the economic impacts of existing and prospective U.S. trade and investment agreements and the methodologies employed to project such impacts, starting in 1991 during the North American Free Trade Agreement (NAFTA) negotiations.

Our comments focus on what methodologies the United States International Trade Commission (USITC) should employ in this investigation to obtain the most accurate and useful data on prospective effects of a renegotiated NAFTA. The USITC's past trade agreement assessments have proved to be widely off the mark. Often, the failure has not only been one of degree, but of **direction**.

Prior to the 1993 congressional consideration of NAFTA, the USITC provided rosy projections of the pact's likely economic impacts that proved to be dramatically wrong. Rather than improving U.S. trade balances with Mexico and Canada, as the USITC projected, the pact led to a massive new NAFTA trade deficit. Rather than increasing U.S. and Mexican wages, as the USITC projected, U.S. wages are flat, and Mexican wages are down in real terms. Rather than creating U.S. jobs, as the USITC projected, the U.S. Labor Department has certified 959,547 U.S. jobs as lost to NAFTA, with more U.S. jobs outsourced to Mexico weekly and the Trade Adjustment Assistance (TAA) data not even fully accounting for all 2017 NAFTA-related job losses.

Unfortunately, the inaccuracies in the USITC NAFTA projections were not a one-off fluke. Our submission describes the poor track record of USITC's projections with respect to other free trade agreements (FTAs) and Permanent Normal Trade Relations (PNTR) with China. We offer specific methodological changes that could improve the accuracy of USITC projections related to this investigation. These include:

- Avoiding unjustified modeling assumptions and enhancing transparency to reveal the impact of assumptions on the model. For instance, the assumption of full employment is highly problematic in view of recent research showing workers face lengthy gaps in employment when losing jobs to trade agreements and many face significantly lower wages when reemployed.
- Not replicating past USITC methodologies that employ broad-brush assumptions about gains from elimination of domestic consumer and environmental protections, while ignoring economic and social costs, and computable general equilibrium (CGE) modeling of so-called "nontariff barriers" that is ill-suited to assess the impact of nontariff policy changes.
- Assessing the distributional impacts of various NAFTA 2.0 provisions, including those that provide more expansive patent and **copyright monopoly protections. This is especially important when considering intellectual property protections in NAFTA 2.0 that will increase**

protections currently in place in partner countries. Receipts from new licensing fees extracted from other countries, for example, can entail losses to U.S. workers by necessitating a rise in the trade deficit in areas like manufactured goods. This needs to be accounted for in the model, not simply the positive gains to U.S. pharmaceutical or content-providing companies.

- Modeling scenarios under which various NAFTA 2.0 nontariff provisions, like labor standards, are enforced and are not enforced to reveal the implications of uncertain enforcement of the pact's obligations.

Railway Supply Institute

The Railway Supply Institute (RSI) is pleased to provide comments on Investigation No. TPA-105-003 for the purpose of preparing the report required by the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 in order to assess the likely impact of the United States-Mexico-Canada Agreement (USMCA) on the U.S. economy, on selected industry sectors, and on U.S. consumer interests.

RSI is an international trade association representing more than 200 companies involved in the manufacture of goods and services in the locomotive, freight car, maintenance of way, communications and signaling and passenger rail industries. Our members represent more than 100,000 railway supply industry employees located in 45 states. Collectively, railway suppliers contribute \$20 billion annually to developing rail capital across the U.S.

While our members have a strong presence across the U.S., they market their products around the world and have complex global supply chains that support these manufacturing operations. Particularly here in North America, RSI member companies' operations are highly integrated with supply chains that have grown rapidly in the twenty years since the North American Free Trade Agreement was signed. As a result, our members and our rail customers are highly reliant on trade and the ability to move both critical parts and finished products between the U.S., Canada and Mexico. We urge Congress and the Administration to strive for favorable conclusion of the new USMCA and ensure that the significant benefits associated with a highly integrated North American marketplace are sustained.

In 2018, RSI, partnering with the Railway Engineering-Maintenance Suppliers Association, Railway Systems Suppliers, Inc. and Railway Tie Association, released the results of a study quantifying the economic and workforce impact of the products and services produced by the railway supply industry. The report, *Tracking the Power of Rail Supply: The Economic Impact of Rail Suppliers in the U.S.*, highlights the importance of the industry to the U.S. economy in terms of jobs, tax revenue, and gross domestic product (GDP) on both the state and national level.

Beyond their critical support for a railroad system, the railway supply industry is also essential to the national economy—generating value, stimulating jobs, and paying taxes. The economic contribution of the railway supply industry in 2017 amounted to more than \$74.2 billion in GDP and paid \$16.9 billion in taxes to local, state and federal governments. Workers in the industry are highly productive with annual wages of \$78,800, on average, placing them +42% above the U.S. average income. Railway suppliers directly employ more than 125,000 people. In addition, for each worker directly employed by the railway supply industry, a further 4.2 jobs are supported in the wider economy meaning that 650,000 jobs across America can be tied to a railway supplier, their supply chain or spending of those employed by these firms. The results of this study reveal the power and contribution of the railway supply industry

that is driven by investment in our nation's railroads and the reliance of its success on fair and free trade in North America.

Ranchers-Cattlemen Action Legal Fund, United Stockgrowers of America

The U.S.-Mexico-Canada Agreement (USMCA) incorporates the same provisions contained in the 1994 North American Free Trade Agreement (NAFTA) regarding cattle and beef trade. The results of those provisions are now known and measurable. Those results are substantially negative and include:

1. Twenty percent of all U.S. beef cattle operations exited the industry from 1994 to 2012, based on latest available census data.
2. Seventy-five percent of all U.S. cattle feedlots exited the industry from 1996 to 2017.
3. By 2014, the U.S. beef cow herd declined to the lowest level in seven decades and today is nearly three million head less than it was in 1994.
4. Forty-eight U.S. beef packing plants exited the industry between 1995-2014, and there have been very few new entrants into the sector or new packing plants built.
5. The average annual returns per bred cow for U.S. cow/calf producers declined from an average of \$50 during the seven years prior to 1994 to only \$37 from 1994 through 2017.
6. The only years cow/calf returns per bred cow exceeded the NAFTA period's \$37 average were in 2004-2005 when the U.S. banned Canadian cattle imports; and after the 2009 implementation of country-of-origin labeling (COOL).
7. Under NAFTA, the U.S. cattle industry suffered on average an annual \$1.4 billion deficit in the trade of cattle, beef, beef variety meats and processed beef, resulting in a cumulative NAFTA trade deficit of negative \$31 billion.
8. In 2014, the U.S. cattle industry suffered a 41 percent value-based import surge from Canada and Mexico, resulting in the collapse of U.S. cattle prices beginning in 2015.
9. The U.S. cattle producers' share of every consumer beef dollar declined from 56 percent the year before NAFTA to just 45 percent in 2017; consequently, packer margins reached unprecedented levels in recent years, averaging \$216 per head from 2016 through mid-2018.
10. Average returns to U.S. cattle feeders during the past 18 years under NAFTA were a negative \$20.40 per head per month.

The substantially negative impacts that NAFTA wrought upon the U.S. cattle industry were predictable. NAFTA was fundamentally flawed upon its inception. Its provisions empowered multinational beef packers to indiscriminately displace domestic cattle and beef production with cheaper, undifferentiated imports of both cattle and beef. This substantially weakened the U.S. live cattle supply chain and has caused the dismantling of the domestic supply chain's critical marketing channels and infrastructure, which has substantially reduced competition for the industry and is contributing to the hollowing out of America's rural communities.

The proposed USMCA incorporates NAFTA's fundamentally flawed provisions. It is expected that the USMCA will now cause the elimination of the critical mass of competitive marketing channels and industry infrastructure needed to sustain an independent family farm and ranch system of cattle production in the United States. Thus, the new USMCA will accelerate the destruction of the U.S. cattle industry as we know it today.

Recording Industry Association of America

No written summary. Please see EDIS for full submission.

Remanufacturing Industries Council

No written summary. Please see EDIS for full submission.

Semiconductor Industry Association

No written summary. Please see EDIS for full submission.

Sierra Club

No written summary. Please see EDIS for full submission.

Society of Chemical Manufacturers & Affiliates

No written summary. Please see EDIS for full submission.

Software & Information Industry Association

No written summary. Please see EDIS for full submission.

Steel Manufacturers Association

No written summary. Please see EDIS for full submission.

TechNet

No written summary. Please see EDIS for full submission.

Telecommunications Industry Association

No written summary. Please see EDIS for full submission.

Texas Independent Producers and Royalty Owners Association

No written summary. Please see EDIS for full submission.

Texas Oil & Gas Association; Texas Alliance of Energy Producers; Texas Independent Producers and Royalty Owners Association; Permian Basin Petroleum Association; Texas Association of Business; Texas Association of Manufacturers; Association of Energy Service

U.S.-Mexico-Canada Trade Agreement

No written summary. Please see EDIS for full submission.

Titanium Metals Corporation

No written summary. Please see EDIS for full submission.

Trade in Services International

No written summary. Please see EDIS for full submission.

Transportation Trade Department, AFL-CIO

No written summary. Please see EDIS for full submission.

U.S. Chamber of Commerce

No written summary. Please see EDIS for full submission.

U.S. Dairy Export Council

No written summary. Please see EDIS for full submission.

U.S. Grains Council

No written summary. Please see EDIS for full submission.

U.S. Meat Export Federation

The U.S. Meat Export Federation (USMEF) appreciates the opportunity to submit comments on ITC investigation No. TPA-105-003 concerning the impact of the United States-Mexico-Canada Agreement (USMCA) and the likely impact on the U.S. red meat industry. The following is the summary submission.

The members of USMEF have benefited greatly from the North American Free Trade Agreement (NAFTA) and the integration it brought to the beef and pork industries across the three countries. U.S. beef and pork producers benefit from essentially unfettered access to two of our leading markets in Mexico and Canada, which together took \$4 billion, or 30 percent, of U.S. red meat exports in 2017. The three-way trade makes our industry stronger and more efficient while also benefitting consumers. North American market integration enables U.S. producers to focus on their comparative advantages and compete with other agricultural powerhouses like Brazil.

USMEF commends the administration on its efforts to complete the USMCA and maintain the market access benefits of NAFTA for the red meat industry, while achieving additional trade-facilitating mechanisms such as the enhanced sanitary and phytosanitary (SPS) chapter. USMEF fully supports implementation of the USMCA.

Unfortunately, USMEF members will not fully realize the benefits of the USMCA until the existing 20 percent retaliatory tariff on U.S. pork exports to Mexico and Canada's 10 percent retaliatory duty on prepared U.S. beef are removed. Mexico and Canada continue to retaliate against U.S. pork and beef products in response to the U.S. section 232 tariffs on steel and aluminum.

Mexico was the top volume growth market for U.S. pork in 2017 and similar trends were expected for this year, prior to the retaliatory duties. Lost export value for the four months following implementation of the 20 percent duty totaled \$111 million. Losses due to lower prices for hams and picnics, following retaliatory duties on pork exports to Mexico and China, averaged \$9.90 per head or \$720 million for the hogs processed during that period.

Canada also imposed retaliatory duties on U.S. beef in response to the steel and aluminum tariffs, applying duties of 10 percent to two cooked/prepared beef product groups, under which imports from the U.S. in 2017 were valued at \$164 million. Canada's imports of these products from the U.S. dropped by \$4 million, or 7 percent from July through October, compared to the same period last year.

USMEF fully supports implementation of the USMCA and the continuance of NAFTA until the USMCA enters into force. USMEF urgently requests that a solution be reached on the section 232 steel and aluminum tariffs, and that U.S. red meat exports to Mexico and Canada are again unrestricted: no tariffs and no quotas.

United States Fashion Industry Association

No written summary. Please see EDIS for full submission.

USAlliance for Music

No written summary. Please see EDIS for full submission.

Appendix E

Economy-wide Model

Introduction

The discussion that follows focuses on the economy-wide analysis in this report—the computable general equilibrium (CGE) analysis presented in chapter 2 and other chapters. CGE models use economic statistics reflecting an interconnected global economy. They are therefore useful for economy-wide analyses, as they provide empirical insight about wide ranging policy changes such as those associated with USMCA.

This discussion details the procedures used to adapt the standard Global Trade Analysis Project (GTAP) database and model to enable the Commission to assess the likely effects of USMCA on the U.S. economy and industry sectors. Specifically, this appendix introduces the basic features of the GTAP framework, describes the adjustments that the Commission made to the standard database and model, and explains the various analyses that incorporated the different USMCA provisions quantified throughout this report. The Commission estimated aggregate effects of USMCA for several specifications. Chapter 2 discusses these specifications and presents a subset of the associated results. The full set of results across specifications are presented at the end of this appendix.

The simulated general equilibrium effects were obtained using a General Equilibrium Modeling Package (GEMPACK).⁷⁷⁰ GEMPACK is a suite of economic modeling software that is especially suitable for obtaining simulated effects from a CGE model.

The GTAP Framework

For this report, CGE analysis was conducted using a common tool among trade practitioners: the Global Trade Analysis Project (GTAP). GTAP has two main components. One is a documented global database on international trade, economy-wide inter-industry relationships, and national income accounts (the GTAP database). The other is a standard modeling framework used to organize and analyze the data (the GTAP model).⁷⁷¹ The modeling framework, which relies on CGE modeling, allows comparisons of the global economy in two environments: one in which the base values of policy instruments such as tariffs, tariff-rate quotas (TRQs), and various nontariff trade costs are unchanged (i.e., the current NAFTA trading environment), and one in which these measures are changed to reflect the new USMCA provisions being analyzed. It is expected that policy changes will affect the economies depicted in the model. The difference between these two scenarios represents the estimated impact of USMCA on the U.S. economy and industry sectors.

⁷⁷⁰ For more details, see Harrison and Pearson, “Computing Solutions,” 1996.

⁷⁷¹ The GTAP model is documented in Hertel, *Global Trade Analysis*, 1997, and in Corong et al., “The Standard GTAP Model,” 2017.

In the GTAP model, domestic products and imports are consumed by firms, governments, and households. Product markets are assumed to be perfectly competitive (implying zero economic profit for the firm).⁷⁷² In the model, imports are imperfect substitutes for domestic products (i.e., consumers distinguish between products based on their foreign or domestic origin), and sectoral production is determined by global demand and supply.

Adapting the GTAP Framework for USMCA Analyses

The current version of the GTAP database (pre-release 10) covers trade in 57 commodity and service aggregates, or GTAP sectors, among 141 economies.⁷⁷³ For the purpose of the USMCA analysis, the database was aggregated into 19 economies.⁷⁷⁴ At the same time, a number of the standard GTAP sectors were disaggregated in order to identify products of interest, resulting in 103 sectors in all.⁷⁷⁵ In addition to the data on bilateral trade used in each sector in the model, the Commission incorporated data for the domestic production and use of products and services in each sector (including use in the production of other commodities and services); the supply and use of land, labor, and capital; GDP; and tariffs and other taxes.

Besides disaggregating a number of the standard GTAP sectors, the present study disaggregated the labor endowment and sectoral employment in the three countries into five labor types. The labor types reflect different levels of educational attainment, ranging from less than a high school education through a graduate degree. It was specified that the economy-wide supplies of the labor types could respond to changes in the real wage rate.

This study also explored the implications of restricted labor mobility across sectors. The main specification assumed that there are frictions in the reallocation of labor between sectors in the U.S. economy in response to changed economic conditions. As a result of those frictions, the wages for each labor type were not equalized across sectors. The alternative specification assumed that labor could move freely across sectors, and thus wages were equalized across sectors for each type of labor. The motivation for these assumptions is discussed in greater detail in the next section.

⁷⁷² Under perfect competition, entering a market is costless, which drives the product price down to average cost and reduces profits to zero in the sense that every productive factor receives a wage or a return that is commensurate to its productivity.

⁷⁷³ The data for the year 2014 are from GTAP Database Version 10 (beta version). The earlier GTAP 9 Data Base is documented in Aguiar, Narayanan, and McDougall, "An Overview of the GTAP 9 Data Base," 2016.

⁷⁷⁴ In addition to the United States, Mexico, and Canada, the regional specification includes Australia, Brunei, Chile, China, the European Union, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, Peru, Singapore, South Korea, Thailand, Vietnam, and a rest-of-the-world region representing all other countries in the world.

⁷⁷⁵ GTAP sectors were disaggregated using the Splitcom suite of economic modeling software. Horridge, *SplitCom: Programs to Disaggregate a GTAP Sector*, 2005.

To account for the relationship between USMCA, U.S. investment, and growth, the standard GTAP model was modified, as suggested by Francois, McDonald, and Nordström in 1996, to allow for the linkage between investment in new capital goods and the capital employed in U.S. production.⁷⁷⁶

An additional component of the data is a set of parameters which, in the context of the model's equations, determine economic behavior. These are principally a set of elasticity values that determine, among other things, the extent to which imports and domestically produced goods can substitute for one another. The present study adopts a flat Armington trade structure in which the upper-level elasticity of substitution between domestic and imported goods for a particular sector (called ESUBD in the GTAP model) is equal to the lower-level elasticity between different import sources (ESUBM in the GTAP model). This approach is supported by recent work by Feenstra et al. (2018) which suggests that for between two-thirds and three-quarters of sample goods, there is no significant difference between the estimates of the upper- and lower-level elasticities of substitution.⁷⁷⁷

Simulations with the standard GTAP model typically provide trade balance effects, which are based on changes in relative prices and returns to investment. However, economic research indicates that changes in trade balances are highly dependent on dynamic macroeconomic factors, such as intertemporal savings and investment decisions.⁷⁷⁸ Because of the dynamic nature of trade balance effects, static CGE models like the standard GTAP model used for USMCA analysis are not well suited to providing accurate estimates of changes in trade balances. In the standard GTAP model, the trade balance effects occur under the assumption that the average U.S. savings rate is fixed. For the USMCA analysis, this assumption was relaxed. Instead, it was assumed that the average U.S. savings rate would increase, so that the U.S. current account and trade balance would not change in response to improved returns to investment in the United States attributable to USMCA.⁷⁷⁹

The standard GTAP data are currently based on the year 2014; that is, trade flows, trade costs, and other data refer to the world in that year. For the purpose of the present study, the standard GTAP data were updated to reflect the world in 2017.⁷⁸⁰ The methodology employed updated broad measures, such as GDP and international trade, for all economies in the database, and then selectively updated more disaggregated U.S. trade flows that were critical to the USMCA policy simulation. Total imports for each of the 19 world regions were benchmarked to 2017 trade flows. Gross output for select U.S. sectors was also updated accordingly.

⁷⁷⁶ Francois, McDonald, and Nordström, "Liberalization and Capital Accumulation," 2016.

⁷⁷⁷ Feenstra et al., "In Search of the Armington Elasticity," 2018.

⁷⁷⁸ See Kim and Shikher, "Can Protectionism Improve Trade Balance?" 2017, 3–5, and Obstfeld, "Does the Current Account Still Matter?" 2012. The Commission is not precluding the possibility that trade policies can affect trade balances by affecting savings and investment decisions. The factors present in the Commission's economy-wide model account for only a small portion of the determinants of global trade balances, implying that it is a tool that is not well suited for such an analysis.

⁷⁷⁹ This assumption fixes the nominal trade balance. The results presented throughout this report are not very sensitive to this assumption. Alternative specifications that hold the real trade balance fixed, or that permit the trade balance to change, result in estimates that differ by a negligible amount.

⁷⁸⁰ GTAP data were updated using the GTAPAdjust suite of economic modeling software. Horridge, *SplitCom: Programs to Disaggregate a GTAP Sector*, 2011.

In addition to updating the baseline data to reflect the world in 2017, several influential policy changes that were introduced in 2018 were incorporated as well. These include the United States' steel and aluminum tariffs, imposed under section 232 of the Trade Expansion Act of 1962; the additional tariffs imposed on U.S. products by China, the European Union, Canada, and Mexico in response to those tariffs; the additional tariffs imposed by the United States under section 301 of the Trade Act of 1974 on imports from China, starting on September 24, 2018; and further tariffs imposed on U.S. products by China in response to the U.S. section 301 tariffs. Figures for these tariff changes, aggregated to GTAP sectors, were obtained from the CARD Trade War Tariffs Database maintained by Iowa State University.⁷⁸¹

Several other recent policy changes were not included. For example, the scheduled bilateral tariff increases by the United States and China for January 1, 2019, were not included in the database because, as of the time of writing, they had not been enacted.⁷⁸² Similarly, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) agreement, which went into effect for Canada, Mexico, and several other countries on December 30, 2018, was not included in the baseline. Nevertheless, as a result of the inclusions mentioned in the previous paragraph, the economy-wide model estimated the effects of USMCA on a U.S. economy that resembled the U.S. economy in 2017 with many 2018 trade policies in place.

Labor Mobility

The economy-wide model assumed that there are some restrictions to how easily workers can move between different industries. This assumption is motivated by empirical evidence that the majority of workers who switch jobs tend to move within sectors, while cross-sector mobility accounts for a relatively small portion of overall labor mobility (Jovanovic and Moffitt, 1990).⁷⁸³ Economic literature suggests that the degree of “stickiness” in labor mobility (as the ability of workers to switch jobs quickly and effortlessly) is primarily determined by the knowledge and skills of workers, known as their human capital.

Literature on human capital accumulation originated with the seminal work of Mincer (1958) and Becker (1964).⁷⁸⁴ In this literature, human capital was initially split into two types. First is generic human capital that can be applied in any job (e.g., general literacy) and is therefore transferrable between jobs. Second is specific human capital, a set of skills applicable only to a particular job or a set of similar jobs (e.g., jobs involving a specific software used by a particular firm).

In later years, a third type of human capital that is specific to a sector but not necessarily a particular firm became central to the literature. Sector-specific human capital literature finds that there are almost no losses to workers' wages following reemployment in the same sector (Neal, 1995), that workers prefer to remain unemployed longer in hopes of staying in the sector of their previous employment

⁷⁸¹ Li, *CARD Trade War Tariffs Database*, 2018.

⁷⁸² While the incorporation of these trade policy changes affects the 2017 baseline, limited sensitivity analysis suggested that the estimated impact of USMCA would not be significantly affected by their inclusion.

⁷⁸³ Jovanovic and Moffitt, “An Estimate of a Sectoral Model,” 1990.

⁷⁸⁴ Becker, *Human Capital, a Theoretical and Empirical Analysis*, 1964; Mincer, “Investment in Human Capital,” 1958.

(Herz, 2019), and that workers are more likely to switch jobs if similar jobs are available nearby (Kosteas, 2019).⁷⁸⁵ On the labor demand side, this literature shows that firms place value on the sector-specific human capital of their employees. Looking at both the supply and the demand for labor, Rogerson (2005) shows that experienced workers in declining sectors often move out of the labor force because they are unable to find work in their skill-specific sectors, while firms entering expanding sectors prefer to hire new entrants into the labor force.⁷⁸⁶ Additionally, Jara-Figueroa et al. (2018) find that new firms that hire workers with skills specific to their sector on average grow faster and survive longer.⁷⁸⁷

These literature findings suggest that workers are not perfectly substitutable across sectors. Thus, the Commission modified the economy-wide model to restrict labor mobility, rather than assume mobility to be immediate and effortless. The advantage of this modeling approach is that wages of workers across sectors do not equalize, unlike in the case when labor is assumed to be freely mobile. Therefore, assuming somewhat restricted labor mobility allows a more realistic modeling and a detailed discussion of the distributional effects of USMCA on workers in different sectors.⁷⁸⁸ Within the economy-wide model, a constant elasticity of transformation (CET) function is employed to model the reallocation of labor across sectors in the U.S. economy in response to changes in wages at the sector level, with a value of negative one assigned to the elasticity of transformation.

Labor Types

In this report, the distributional effects of USMCA on U.S. workers are examined in the context of educational attainment. The choice to focus on the education of workers rather than their occupation—the more commonly used measure—arose from the fact that there are often large differences in educational attainment and earnings within an occupation in an industry.⁷⁸⁹ Since this report is concerned with comparing workers within and across industries, education is a more appropriate measure of the effects of USMCA on the U.S. labor force. The labor input in production was split in the GTAP database to reflect the composition of labor types in the United States, Mexico, and Canada, drawing on survey data from the three parties.

In each GTAP sector, the total labor input in production was split into five groupings. The elasticity of substitution between labor inputs in GTAP, which estimates the tendency of workers to switch professions given changes in wages, comes from the set of standard GTAP parameters. The level of educational attainment for the split was chosen based on data definitions and distribution of

⁷⁸⁵ Herz, “Specific Human Capital,” 2019; Kosteas, “Determinants of Postdisplacement,” 2019; Neal, “Industry-Specific Human Capital,” 1990.

⁷⁸⁶ Rogerson, “Sectoral Shocks,” 2005.

⁷⁸⁷ Jara-Figueroa et al., “The Role of Industry-Specific, Occupation-Specific, and Location-Specific Knowledge,” 2018.

⁷⁸⁸ Wage equalization across broad sectors in the case of a free labor mobility assumption can be seen in the last column of table E.3 below. Taking the case in which there is a moderate impact of provisions deterring future trade barriers as an example, wages in all three sectors would increase by about 0.27 percent in the free labor mobility scenario. But wage increases would range between 0.23 and 0.50 percent in the somewhat restricted labor mobility scenario.

⁷⁸⁹ For a discussion of these differences in the United States, see Torpey, “Same Occupation, Different Pay,” May 2015.

observations, in order to be consistent across all three country parties. The U.S. split was based on the Current Population Survey (CPS), a representative sample of 65,000 U.S. households. This report used data from March 2017.⁷⁹⁰ The split for Mexico was based on the National Survey of Occupation and Employment (ENOE), a quarterly survey of over 120,000 Mexican households.⁷⁹¹ The split for Canada was based on the Labour Force Survey (LFS), a monthly representative survey of 54,000 households across Canada.⁷⁹² The data for Mexico and Canada are also from 2017.

Employment data were aggregated into 23 NAICS 2-digit industries, which were then matched to GTAP sectors. Appendix table E.1 presents summary statistics for educational attainment of workers 15 years of age and older in all industries for all three parties.⁷⁹³

Table E.1 Educational attainment by group, as share of total, all industries (percent)

Educational attainment	United States	Mexico	Canada
0–9 years (secondary)	8.1	47.1	5.4
10–12 years (some HS and HS graduates)	36.4	22.5	33.8
13–15 years (some postsecondary, postsecondary certificates, trade schools)	26.8	4.2	40.0
BA/BS or equivalent degree (university degree)	18.3	23.8	14.3
Graduate (professional, MA, PhD)	10.5	2.4	6.5

Source: USITC estimates.

In addition to differences in distribution of educational attainment across the three parties, there are also differences in educational attainment across industries within each party. Taking two services industries—construction and food services—as an example, the former tends to employ more highly educated workers in greater proportions. This relationship holds for all parties to the agreement.

The GTAP model was modified to reflect the fact that the labor supply in the United States is not fixed: workers tend to change their labor force participation status in response to changing wages. In 2017, the U.S. civilian labor force participation rate remained just below 63 percent, the lowest rate since the 1980s.⁷⁹⁴ However, if wages change in response to USMCA policies, additional workers may change their labor force status between participation and non-participation. Moreover, the unemployment rate of the U.S. workers 16 years of age or older was very low in 2017: between January and December of that year, the aggregate unemployment rate decreased from 4.7 percent to 4.1 percent.⁷⁹⁵ Such a tight labor market can put some upward pressure on wages and create additional incentives for non-participants to

⁷⁹⁰ For more information and to download the data, visit USDOL, BLS, Current Population Survey, <https://www.bls.gov/cps/> (accessed February 19, 2019).

⁷⁹¹ INEGI, ENOE, 2017, <http://en.www.inegi.org.mx/proyectos/enchogares/historicas/enoe/> (accessed March 8, 2019).

⁷⁹² <https://www.statcan.gc.ca/eng/survey/household/3701>.

⁷⁹³ Summary statistics for Mexico are the average of the results of four quarterly surveys collected in 2017. Summary statistics for Canada are the average of the results of 12 monthly surveys collected in 2017.

⁷⁹⁴ USDOL, BLS, Civilian Labor Force Participation Rate (accessed December 12, 2018).

⁷⁹⁵ USDOL, BLS, Labor Force Statistics from the Current Population Survey, Series ID: LNS14000000 (accessed December 12, 2018).

enter the labor force.⁷⁹⁶ As wages in the economy increase, some of the adults who were out of the labor force may decide to start working.

On average, economic literature estimates that the labor supply elasticity in the U.S. is 0.5.⁷⁹⁷ However, there are notable differences in the responsiveness of workers to wage changes, depending on workers' level of educational attainment. Workers in lower education groups tend to be more responsive to wage changes than workers in higher education groups.

The specification of labor supply elasticities for the five labor groupings in the United States is based on the work of Fiorito and Zanella (2012) and Keane and Wasi (2016).⁷⁹⁸ Taking 0.5 as the average parameter, lower levels of labor supply elasticity are assigned to workers with higher levels of education. Table E.2 presents the values of labor supply elasticity for each education group used in this study.

Table E.2 U.S. labor supply elasticities

Labor groups by education attainment	Labor supply elasticity
0–9 years	0.90
10–12 years	0.60
13–15 years	0.60
BA/BS or equivalent	0.25
Graduate degree	0.15

Source: USITC estimates.

The model considers only labor force participation and does not include unemployment. It also assumes full capacity utilization of capital.

⁷⁹⁶ Elmeskov and Pichelmann, "Unemployment and Labour Force Participation," 1993.

⁷⁹⁷ In his seminal paper, MaCurdy, "An Empirical Model of Labour Supply," 1981, sets out the model of life-cycle labor supply elasticity and estimates the value to be around 0.5. More recent estimates of aggregate labor supply elasticity range between 0.2 and 0.8. See Attanasio et al., "Aggregating Elasticities," 2018; Blundell, Bozio, and Laroque, "Labor Supply and the Extensive Margin," 2011; Chetty et al., "Are Micro and Macro Labor Supply Elasticities Consistent?" 2011.

⁷⁹⁸ Fiorito and Zanella, "The Anatomy of the Aggregate Labor Supply Elasticity," 2012; Keane and Wasi, "Labour Supply," 2016.

Aggregate Effects of the USMCA from All Simulation Specifications

Table E.3 Economy-wide effects of USMCA (percent changes relative to the baseline, unless specified otherwise)

Ability of labor to reallocate between industries	Somewhat restricted	Somewhat restricted	Somewhat restricted	Free
Impact of provisions reducing policy uncertainty	None	Moderate	High	Moderate
U.S. real GDP	-0.12	0.35	1.21	0.36
U.S. real GDP (billion \$)	-22.6	68.2	235.0	70.6
U.S. real output				
Agriculture	-0.22	0.18	0.88	0.19
Manufacturing and mining	0.37	0.57	0.88	0.65
Services	-0.13	0.17	0.71	0.18
U.S. employment	-0.04	0.12	0.40	0.11
Agriculture	-0.15	0.12	0.58	0.09
Manufacturing and mining	0.28	0.37	0.51	0.45
Services	-0.07	0.09	0.38	0.08
U.S. employment (1,000 full-time equivalent jobs)	-53.9	175.7	588.9	169.3
Agriculture	-2.3	1.7	8.6	1.3
Manufacturing and mining	36.9	49.7	68.6	60.9
Services	-88.5	124.3	511.7	107.1
U.S. wages	-0.06	0.27	0.86	0.27
Agriculture	-0.18	0.23	0.94	0.26
Manufacturing and mining	0.25	0.50	0.94	0.27
Services	-0.10	0.23	0.84	0.27

Source: USITC estimates.

Table E.4 Effects of USMCA on trade (percent changes relative to the baseline, unless specified otherwise)

Ability of labor to reallocate between industries	Somewhat restricted	Somewhat restricted	Somewhat restricted	Free
Impact of provisions reducing policy uncertainty	None	Moderate	High	Moderate
Total U.S. exports to the world	-0.53	2.44	7.86	2.45
Agriculture	-0.37	1.08	3.73	1.15
Manufacturing and mining	-0.42	3.29	10.14	3.28
Services	-0.79	1.18	4.63	1.21
Total U.S. imports from the world	-0.43	1.99	6.40	1.99
Agriculture	0.49	1.33	2.95	1.33
Manufacturing and mining	-1.22	2.09	8.18	2.09
Services	0.52	3.42	8.60	3.45
Total U.S. exports to Canada	1.57	5.88	13.85	5.90
Agriculture	1.74	3.69	7.64	3.65
Manufacturing and mining	1.65	5.74	13.57	5.75
Services	0.86	8.33	20.21	8.50
Total U.S. imports from Canada	1.01	4.80	11.77	4.84
Agriculture	1.44	3.37	6.99	3.21
Manufacturing and mining	1.02	4.87	12.05	4.94
Services	0.38	5.45	13.59	5.39
Total U.S. exports to Mexico	1.20	6.65	15.00	6.48
Agriculture	-2.30	1.99	8.85	1.74
Manufacturing and mining	1.74	7.23	15.47	7.07
Services	-2.38	4.53	17.95	4.43
Total U.S. imports from Mexico	-0.57	3.84	10.35	3.73
Agriculture	0.09	0.79	2.10	1.26
Manufacturing and mining	-0.64	4.02	10.91	3.82
Services	-0.03	6.69	15.12	7.55

Source: USITC estimates.

Table E.5 Effects of USMCA on U.S. labor, by level of education (percent changes relative to the baseline, unless specified otherwise)

Ability of labor to reallocate between industries	Somewhat restricted	Somewhat restricted	Somewhat restricted	Free
Impact of provisions deterring future trade barriers				
	None	Moderate	High	Moderate
U.S. employment	-0.04	0.12	0.40	0.11
0–9 years	-0.06	0.20	0.68	0.20
10–12 years	-0.04	0.15	0.49	0.15
13–15 years	-0.04	0.14	0.47	0.14
BA/BS or equivalent	-0.03	0.06	0.22	0.06
Graduate degree	-0.02	0.04	0.14	0.03
U.S. employment (1,000 full-time equivalent jobs)	-53.9	175.7	588.9	169.3
0–9 years	-3.8	13.1	43.5	13.0
10–12 years	-18.0	75.0	242.0	71.3
13–15 years	-18.4	62.5	208.0	60.7
BA/BS or equivalent	-10.0	19.4	72.8	19.1
Graduate degree	-3.7	5.6	22.6	5.2
U.S. wages	-0.06	0.27	0.86	0.27
0–9 years	-0.07	0.23	0.76	0.22
10–12 years	-0.04	0.27	0.83	0.26
13–15 years	-0.05	0.25	0.80	0.25
BA/BS or equivalent	-0.08	0.27	0.90	0.28
Graduate degree	-0.09	0.30	1.00	0.31

Source: USITC estimates.

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Appendix F

Modeling of Labor Provisions

USMCA includes enforceable labor provisions that are subject to the same dispute settlement mechanism as other provisions in the agreement. An additional provision that is specific to Mexico is described in USMCA's Annex 23-A.⁷⁹⁹ This appendix gives a technical description of the econometric model used to estimate the impact of changes to Mexico's collective bargaining legislation on the U.S. economy. It also describes how enforceable labor provisions may affect trade between the parties. Finally, it discusses the model's sensitivity to different assumptions about labor standards enforcement and the effects of the new bargaining legislation on wages in Mexico.

Modeling Provisions of Labor Standards

Including enforceable labor standards in free trade agreements (FTAs) is a fairly recent trend. In 1990, no trade agreement included labor clauses that were subject to strict enforcement under the agreement. By 2015, 41 percent of all trade agreements globally (180 out of 439) had some labor clauses, and new trade agreements in the years leading up to 2015 included increasingly stricter labor provisions.⁸⁰⁰ There is limited economic literature estimating the size of the effects of including improved labor standards in FTAs on bilateral trade flows between FTA partners. In a recent example (2017) of such a study, the authors use a gravity modeling framework to examine whether labor standards provisions change the volume of trade between FTA partners.⁸⁰¹ They find that in general, labor standards provisions do not have significant effects on bilateral trade following ratification of an FTA. One exception to this rule is an increase in the volume of trade flows going from low-income countries with relatively weak worker protections to high-income countries with stronger worker protections.

While improvements in labor standards may not lead to large changes in volumes of trade flows, adopting stricter labor standards may lead to better overall economic performance. A strand of economic literature studying this issue finds that improving work conditions leads to a long-term increase in workers' productivity and GDP growth rates.⁸⁰²

⁷⁹⁹ Labor provisions are discussed in more details in chapter 8 of this report.

⁸⁰⁰ Carrere, Olarreaga, and Raess, "Labor Clauses in Trade Agreements," 2017. Commissioner Kearns notes that a key conclusion—arguably the key conclusion—from this study is that there appears to be no support for "the idea that [labor provisions in trade agreements] are set for protectionist reasons, casting doubt on the reluctance by low-income countries to include labor clauses in their trade agreements."

⁸⁰¹ For a discussion of gravity modeling, see appendix H.

⁸⁰² Deakin, "The Contribution of Labour Law," 2016, provides an extensive review of theoretical and empirical research literature studying the economic effects of labor laws. Commissioner Kearns notes that this long-term increase in workers' productivity and GDP growth rates could have long-term positive impacts on trade flows. For example, as explained elsewhere in this report (see footnote 644 in chapter 8), if workers' wages in Mexico grow as a result of improvements in labor standards, it is quite possible that U.S. exports to Mexico would grow too.

Since Mexico is required to adopt legislation regulating collective bargaining, the sensitivity analysis section below includes a short discussion of how the U.S. economy would respond to increases in labor standards in Mexico under the assumption that stricter labor standards increase production costs.⁸⁰³

Modeling Mexico’s Collective Bargaining Legislation

Annex 23-A of USMCA stipulates that Mexico should enact and enforce new legislation regulating collective bargaining procedures. This annex is intended to address Mexico’s current legislation on collective bargaining, which is reportedly lax and often used in ways that do not benefit workers. A large share of union contracts function as “protection contracts.”⁸⁰⁴ These are contracts negotiated between an employer and a union, often without knowledge or input from the employees the union is supposed to represent.⁸⁰⁵ As a result of such arrangements, workers’ wages reportedly are kept lower than would be expected in the presence of strong representative unions.⁸⁰⁶

The Commission’s modeling of the effects of changes in collective bargaining legislation in Mexico follows a two-step procedure. This section describes the first step, which econometrically estimates how the returns to union membership of Mexican workers would change in response to stronger collective bargaining provisions.

Methodology

Econometric modeling of the union wage premium is based on work of Lewis (1986), which links back to the seminal work of Mincer (1974) and Becker (1964).⁸⁰⁷ The gap in wages between unionized and non-unionized workers in Mexico is estimated using the following model:

Commissioner Kearns does not believe the findings in Carrère, Olarreaga, and Raess (“Labor Clauses in Trade Agreements,” 2017) are inconsistent with this view.

⁸⁰³ Therefore, in the main specification of the model, the labor standards prescribed by USMCA are assumed to have a negligible impact on trade, welfare, and labor outcomes in the United States and are excluded from modeling. This is because all three parties to the USMCA already have in place domestic regulations prohibiting discrimination, workplace violence, child labor, and other violations of international labor standards. Furthermore, USMCA includes a non-derogation provision that prohibits the elimination or weakening of existing labor regulations in a way that impacts intraparty trade or investment. Commissioner Kearns disagrees that, with the exception of collective bargaining, (1) Mexico already fully complies with international labor standards; and (2) USMCA would therefore have a negligible impact on trade, welfare, and labor outcomes in the United States.

⁸⁰⁴ Some estimates suggest that up to 90 percent of all union contracts in Mexico function as protection contracts. Compa, *Justice for All*, 2003; Penman-Lomeli, “The Fight for Mexican Labor,” October 20, 2016; Fair Labor Association, “Protection Contracts in Mexico,” March 2015.

⁸⁰⁵ For more information on collective bargaining and protection contracts in Mexico, see USDOS, Bureau of Democracy, Human Rights, and Labor, *Mexico 2017 Human Rights Report*, 31–34 (accessed March 1, 2019).

⁸⁰⁶ Stevenson, “U.S.-Mexico Deal Unlikely to Boost,” August 31, 2018; Compa, *Justice for All: The Struggle*, 2003.

⁸⁰⁷ While Becker, *Human Capital*, 1964, and Mincer, “Investment in Human Capital,” 1958, focus on estimating labor market returns to education, their methodology is widely used in research examining earnings as a function of union status. For recent examples, see Blanchflower and Bryson, “What Effect Do Unions Have?” 2004; Martínez

$$w_i = \beta_0 + \beta_1 U_i + \sum_k \beta_k X_i^k + \epsilon_i \quad (\text{F. 1})$$

where w_i is the log hourly wage of an individual i , U_i is a binary indicator of the individual's union membership status, and X_i^k is a vector of controls for gender, age, and education. In the main specification, U_i takes a value of 1 if an individual i is employed in the public sector and belongs to a union. It takes value of 0 if that individual is employed in the public sector, but does not belong to a union.

The use of unionized public sector employees as the comparison category is motivated by the research of Martínez Chombo and Morales Ramos (2009), who find evidence that unionized public sector workers in Mexico receive higher wages than unionized private sector workers.⁸⁰⁸ The authors note that the public sector in Mexico has higher unionization rates and stronger unions, while private unions (operating under the “protection contracts” mentioned earlier) often function as de facto protectors of the employers instead of the union members. The authors therefore argue that only unionized public sector workers should be categorized as belonging to a “true” union. Further, employees working in private sectors that are operating under protection contracts are often unaware that there is a union at their workplace and that they belong to that union.⁸⁰⁹ Thus, the comparison should be made between the unionized public sector workers and workers in the public sector who do not belong to a union.

However, in order to check the sensitivity of the economy-wide model to changes in the union wage premium in Mexico, the Commission's analysis produces two additional econometric estimates. In the first specification, union membership variable U_i takes a value of 1 if an individual i is employed in the private sector and belongs to a union. This group of unionized private sector workers is compared to those in private sector who do not belong to a union. In the second specification, the union membership variable U_i takes a value of 1 if an individual i is employed in the public sector and belongs to a union. The comparison category includes all workers who are employed in the public sector but do not belong to a union, as well as all workers employed in the private sector.⁸¹⁰

Data

Data used to estimate the union wage premium in Mexico come from the National Survey of Occupation and Employment (ENOE), a survey of a representative sample of Mexicans 15 years of age and older collected by Mexico's National Institute of Statistics and Geography (INEGI).⁸¹¹ The survey contains detailed information about demographics and employment for over 160,000 Mexican adults who were employed in 2017. Table F.1 shows summary statistics by self-reported union membership status. Of the full sample of 164,000, nearly 115,000 (70 percent) reported their union status. Of those reporting,

Chombo and Morales Ramos, “Public-Private Sector Wage Gap,” 2009; and Douglas, “Problems with Estimating,” 2016.

⁸⁰⁸ Martínez Chombo and Morales Ramos, “Public-Private Sector Wage Gap,” 2009.

⁸⁰⁹ See chapter 8 for a deeper discussion of the “protection contracts” unions.

⁸¹⁰ This is effectively equivalent to assuming that belonging to a private sector union has no effect on the wages of unionized workers in private sectors. Thus, both non-unionized and unionized private sector workers are assumed to have the same workplace protections as non-unionized public sector workers, but gain no additional benefit from belonging to a union.

⁸¹¹ This report uses data for 2017 downloaded from the survey's website at INEGI, ENOE, 2017.

almost 17,000 (15 percent) belonged to a union.⁸¹² Of those in unions, almost 3,000 (17 percent) were employed in the public sector.

Table F.1 Union membership status in Mexico (1,000 persons)

	Number of individuals reporting
Total sample size	164.0
Union status	114.8
Union members, if reporting union status	17.0
Belong to a public sector union, if reporting as belonging to a union	2.8

Source: USITC estimates.

In addition to including an indicator for union status, the estimation equations include a vector X_i^k of variables controlling for gender, age, and education. The average age of an individual in the sample is 37 years. The youngest individuals included are 16 years old, while the oldest are 97 years old. Table F.2 presents the gender and education breakdown for the full sample of 114,785 individuals used in making the estimation.

Table F.2 Gender and education summary of workers in Mexico

	Number of people (1,000 persons)	Percent of total
Gender		
Male	99.1	60.4
Female	65.0	39.6
Education		
0–9 years	54.1	47.1
10–12 years	25.8	22.5
13–15 years	4.9	4.2
BA/BS or equivalent	27.3	23.8
Graduate	2.8	2.4

Source: USITC estimates.

Estimation Results

Table F.3 presents results from estimating three specifications of the model described above. The first column of results shows estimation results for the main specification, where the union wage premium is estimated based on the sample of public sector employees only. Union members employed in public sector on average earn 17.2 percent more than non-union members employed in the same sector.⁸¹³ All other controls have expected the signs, magnitudes, and significance levels.

⁸¹² The “unionization” rate may be higher than this, given that employees are often not aware that they are in a union, as noted above. Thus, current unionization rates may not reflect the likely unionization rate if workers in Mexico were accorded their full internationally recognized labor rights. However, no alternative measure has been identified by the Commission.

⁸¹³ This result is comparable in magnitude to literature estimates of the union wage premium. For example, Douglas, “The Union Wage Premium,” 2016, estimates a 14.7 percent union wage premium for U.S. workers.

Table F.3 Union premium estimation results of workers in Mexico

	Public sector employees	Private sector employees	Public and private sector employees
Union membership	0.172*** (0.015)	0.375*** (0.006)	0.327*** (0.013)
Gender	-0.011 (0.015)	0.067*** (0.004)	0.060*** (0.004)
Age	0.006*** (0.000)	0.005*** (0.000)	0.006*** (0.000)
Education			
10–12 years	0.300*** (0.021)	0.128*** (0.005)	0.168*** (0.005)
13–15 years	0.413*** (0.033)	0.283*** (0.010)	0.341*** (0.010)
BA/BS or equivalent	0.682*** (0.019)	0.605*** (0.005)	0.692*** (0.005)
Graduate	1.050*** (0.034)	1.081*** (0.015)	1.230*** (0.014)
Number of observations	5,735	80,954	86,689

Source: USITC estimates.

Note: *** indicates the estimate is significant at 1 percent significance level. Standard errors in parentheses.

The second column of results presented in table F.3 shows estimation results for an alternative specification of the model, including only workers in the private sector in Mexico, whether unionized or non-unionized. The estimated union wage premium for those workers is 37.5 percent. As explained in the methodology section of this appendix, this estimate may not capture the true magnitude of the effect of unionization on wages because unions operating in private sector are often corrupt, and employees working for these corrupt unionized organizations may not even know that they belong to a union. Thus, the premium could be higher than 37.5 percent.

The third column of results presented in table F.3 shows estimates for the union wage premium for unionized public sector employees compared to all other working adults in the sample. The estimated union wage premium is 32.7 percent. This estimate is lower than the one reported in column two, but it is still high in comparison to the more moderate estimate of 17.2 percent in the public sector.

All other estimates in the second and third columns of results in table F.3 have signs, significance levels, and magnitudes consistent with the economic literature on wage determinants. However, unlike in the first case, where public sector employers did not seem to discriminate based on gender, in the private sectors, men receive a 6–7 percent higher wage.

Incorporating the Union Wage Premium into the Economy-wide Analysis

Unionization rates in Mexico vary greatly across industries. Table F.4 presents the 2017 unionization rates for 23 industries classified using the North American Industry Classification System (NAICS) 2-digit standard. As seen in the table, workers in predominantly public sectors (e.g., utilities providers, education and health institutions, government) tend to have higher rates of unionization than workers in mostly private sectors (e.g., construction or food services). In the main specification, industry

unionization rates are assumed to remain at their 2017 levels. The union wage premium is then applied to a unionized share of workers in each of the 23 industries.

Table F.4 Unionization rates in Mexico in 2017, by 2-digit NAICS industry classification

NAICS code	Industry Name	Unionization rate (percent)
11	Agriculture, Forestry, Fishing and Hunting	0.3
21	Mining, Quarrying, and Oil and Gas Extraction	30.4
22	Utilities	53.8
23	Construction	0.8
31	Manufacturing	6.6
32	Manufacturing	15.1
33	Manufacturing	20.2
42	Wholesale Trade	4.4
44–45	Retail Trade	1.2
48	Transportation and Warehousing	5.2
49	Transportation and Warehousing	17.0
51	Information	14.4
52	Finance and Insurance	5.4
53	Real Estate and Rental and Leasing	1.5
54	Professional, Scientific, and Technical Services	1.5
55	Management of Companies and Enterprises	11.7
56	Administrative and Support and Waste Management and Remediation Services	3.2
61	Educational Services	56.8
62	Health Care and Social Assistance	34.7
71	Arts, Entertainment, and Recreation	3.9
72	Accommodation and Food Services	4.1
81	Other Services (except Public Administration)	0.9
92	Public Administration	31.5

Source: INEGI, ENOE (accessed September 27, 2018).

Sensitivity Analysis

The main specification assumes that unionization rates in Mexican industries remain at their 2017 level and that the union wage premium is 17.2 percent.⁸¹⁴ This section discusses whether the model is sensitive to those assumptions. The first set of simulations tests whether the model outputs change in response to changes in assumptions about the union wage premium. In this set of tests, the unionization rates in Mexico are assumed to remain at their 2017 sector-specific levels, while the union wage premium is allowed to vary. As described in estimation section of this appendix, alternative

⁸¹⁴ Throughout this section, the main specification refers to the main specification of the economy-wide model discussed in chapter 2. Commissioner Kearns expects the premium could be much higher. Specifically, as Mexican real wages have stagnated since NAFTA, while Mexican productivity rose more, Mexican wages could be at least several times their current level had they kept pace with Mexican productivity. These kind of wage changes could lead to structural changes in the Mexican economy.

specifications of the union comparison category produce two union wage premium estimates. The first is 32.7 percent; the second is 37.5 percent.⁸¹⁵

Results of simulations under two different assumptions about the union wage premium are presented in tables F.5 and F.6. For easier comparison of these specifications with the main specification, the second column of both tables presents the main results described in chapter 2 and appendix E.⁸¹⁶ The third and fourth columns of table F.5 show results for economy-wide effects of USMCA, assuming that the union wage premium is 32.7 and 37.5 percent, respectively. U.S. real GDP remains unchanged, while total imports from and exports to the rest of the world increase by about 0.01 percent. Changing the assumptions about the union wage premium results in no changes to employment and minimal changes to wages of the U.S. workers across sectors. Wages of workers in agriculture decrease by 0.01 percent; wages of workers in manufacturing and mining and services sectors increase by 0.01 percent.

The third and fourth columns of table F.6 show results for the effects of USMCA on different types of workers, again assuming the union wage premium is 32.7 and 37.5 percent, respectively. Changing the assumptions about the union wage premium results in no changes to the employment and wages of different types of U.S. workers.

Table F.5 Economy-wide effects of USMCA and effects of USMCA on trade under different assumptions about the union wage premium in Mexico (percent changes relative to the baseline, unless specified otherwise)

Union wage premium	17.2	32.7	37.5
U.S. real GDP	0.35	0.35	0.35
U.S. real GDP (billion \$)	68.15	68.22	68.23
U.S. employment	0.12	0.12	0.12
Agriculture	0.12	0.11	0.11
Manufacturing and mining	0.37	0.37	0.37
Services	0.09	0.09	0.09
U.S. employment (1,000 full-time equivalent jobs)	175.70	176.17	176.31
Agriculture	1.71	1.63	1.61
Manufacturing and mining	49.68	50.02	50.13
Services	124.30	124.52	124.58
U.S. wages	0.27	0.27	0.27
Agriculture	0.23	0.22	0.22
Manufacturing and mining	0.50	0.51	0.51
Services	0.23	0.24	0.24

⁸¹⁵ As discussed above, improvements to labor standards in some cases lead to increased productivity, possibly resulting in higher consumption. The sensitivity analysis presented in this section does not take into account the possibility of these positive spillovers on Mexico's workforce, because there is limited evidence to support the idea that labor standards in Mexico will change enough to affect the country's macroeconomic performance. Further, even holding productivity constant, an increased share of labor income in national income may result in higher consumption, including of U.S. exports.

⁸¹⁶ The main model specification assumes somewhat restricted labor mobility and moderate uncertainty about policy reversal.

U.S.-Mexico-Canada Trade Agreement

Union wage premium	17.2	32.7	37.5
Total U.S. exports to the world	2.44	2.46	2.46
Agriculture	1.08	1.08	1.08
Manufacturing and mining	3.29	3.32	3.32
Services	1.18	1.20	1.20
Total U.S. imports from the world	1.99	2.00	2.01
Agriculture	1.33	1.36	1.37
Manufacturing and mining	2.09	2.11	2.12
Services	3.42	3.43	3.44
Total U.S. exports to Canada	5.88	5.89	5.89
Agriculture	3.69	3.69	3.69
Manufacturing and mining	5.74	5.76	5.76
Services	8.33	8.35	8.35
Total U.S. imports from Canada	4.80	4.81	4.81
Agriculture	3.37	3.36	3.35
Manufacturing and mining	4.87	4.89	4.89
Services	5.45	5.46	5.46
Total U.S. exports to Mexico	6.65	6.72	6.74
Agriculture	1.99	1.81	1.75
Manufacturing and mining	7.23	7.33	7.36
Services	4.53	4.68	4.73
Total U.S. imports from Mexico	3.84	3.90	3.92
Agriculture	0.79	1.13	1.24
Manufacturing and mining	4.02	4.04	4.04
Services	6.69	7.20	7.35

Source: USITC estimates.

Table F.6 Effects of USMCA on U.S. labor by level of education under different assumptions about the union wage premium in Mexico (percent changes relative to the baseline, unless specified otherwise)

Union wage premium	17.2	32.7	37.5
U.S. Employment	0.12	0.12	0.12
0–9 years	0.20	0.20	0.20
10–12 years	0.15	0.15	0.15
13–15 years	0.14	0.14	0.14
BA/BS or equivalent	0.06	0.06	0.06
Graduate degree	0.04	0.04	0.04
U.S. Employment (1,000 full-time equivalent jobs)	175.70	176.17	176.31
0–9 years	13.12	13.14	13.15
10–12 years	75.03	75.23	75.29
13–15 years	62.50	62.67	62.72
BA/BS or equivalent	19.41	19.46	19.48
Graduate degree	5.65	5.66	5.67
U.S. Wages	0.27	0.27	0.27
0–9 years	0.23	0.23	0.23
10–12 years	0.27	0.27	0.27
13–15 years	0.25	0.25	0.25
BA/BS or equivalent	0.27	0.27	0.27
Graduate degree	0.30	0.30	0.30

Source: USITC estimates.

The second set of simulations tests whether the model output changes in response to changes in assumptions about unionization rates in Mexico. In this set of tests, the union wage premium is assumed to be 17.2 percent, while sector-specific unionization rates in Mexico are allowed to vary. The first simulation assumes that sector-specific unionization rates double, compared to their 2017 values. The second simulation assumes that all Mexican workers become unionized.

Results of the simulations under two different assumptions about changes in the unionization rates of Mexican workers are presented in tables F.7 and F.8. For easier comparison of these specifications with the main specification, column 2 of both tables presents the main results described in chapter 2 and appendix E.⁸¹⁷ Column 3 of table F.7 shows results for the economy-wide effects of USMCA, assuming that the sector-specific unionization rate in Mexico double compared to their 2017 levels. Column 4 of table F.7 shows results for the economy-wide effects of USMCA, assuming that all workers in Mexico become unionized.

U.S. real GDP remains unchanged, while total imports from and exports to the rest of the world increase by about 0.01 percent. Changing the assumptions about the union wage premium results in no changes to employment and minimal changes to the wages of U.S. workers across sectors. Wages of workers in agriculture decrease by 0.05–0.07 percent; wages of workers in the manufacturing and mining sector increase by 0.01 percent.

The third and fourth columns of table F.8 show results for the effects of USMCA on different types of workers, again assuming a doubling of unionization rates and the unionizing of the entire Mexican labor

⁸¹⁷ The main model specification assumes somewhat restricted labor mobility and moderate uncertainty about policy reversal.

force, respectively. Changing the assumptions about unionization rates results in minimal changes to the employment and wages of different types of the U.S. workers.

Table F.7 Economy-wide effects of USMCA and effects of USMCA on trade under different assumptions about the unionization rate in Mexico (percent changes relative to the baseline, unless specified otherwise)

Unionization rate	2017 rate	Double of 2017 rate	100 percent unionization
U.S. real GDP	0.35	0.35	0.35
U.S. real GDP (billion \$)	68.15	68.22	68.13
U.S. employment	0.12	0.12	0.12
Agriculture	0.12	0.11	0.12
Manufacturing and mining	0.37	0.37	0.37
Services	0.09	0.09	0.09
U.S. employment (1,000 full-time equivalent jobs)	175.70	176.22	175.14
Agriculture	1.71	1.62	1.82
Manufacturing and mining	49.68	50.06	49.86
Services	124.30	124.54	123.46
U.S. wages	0.27	0.27	0.27
Agriculture	0.23	0.22	0.23
Manufacturing and mining	0.50	0.51	0.51
Services	0.23	0.24	0.23
Total U.S. exports to the world	2.44	2.46	2.51
Agriculture	1.08	1.08	1.17
Manufacturing and mining	3.29	3.32	3.36
Services	1.18	1.20	1.26
Total U.S. imports from the world	1.99	2.00	2.04
Agriculture	1.33	1.36	1.35
Manufacturing and mining	2.09	2.12	2.19
Services	3.42	3.44	3.46
Total U.S. exports to Canada	5.88	5.89	5.95
Agriculture	3.69	3.69	3.78
Manufacturing and mining	5.74	5.76	5.82
Services	8.33	8.35	8.41
Total U.S. imports from Canada	4.80	4.81	4.87
Agriculture	3.37	3.35	3.47
Manufacturing and mining	4.87	4.89	4.94
Services	5.45	5.46	5.52
Total U.S. exports to Mexico	6.65	6.73	6.66
Agriculture	1.99	1.79	2.29
Manufacturing and mining	7.23	7.34	7.21
Services	4.53	4.70	4.47
Total U.S. imports from Mexico	3.84	3.91	3.86
Agriculture	0.79	1.17	0.47
Manufacturing and mining	4.02	4.04	4.08
Services	6.69	7.25	6.19

Source: USITC estimates.

Table F.8 Effects of USMCA on U.S. labor by level of education under different assumptions about the unionization rate in Mexico (percent changes relative to the baseline, unless specified otherwise)

Unionization rate	2017 rate	Double of 2017 rate	100 percent unionization
U.S. employment	0.12	0.12	0.12
0–9 years	0.20	0.20	0.20
10–12 years	0.15	0.15	0.15
13–15 years	0.14	0.14	0.14
BA/BS or equivalent	0.06	0.06	0.06
Graduate degree	0.04	0.04	0.04
U.S. employment (1,000 full-time equivalent jobs)	175.70	176.22	175.14
0–9 years	13.12	13.15	13.12
10–12 years	75.03	75.25	74.85
13–15 years	62.50	62.69	62.27
BA/BS or equivalent	19.41	19.47	19.30
Graduate degree	5.65	5.67	5.60
U.S. wages	0.27	0.27	0.27
0–9 years	0.23	0.23	0.23
10–12 years	0.27	0.27	0.27
13–15 years	0.25	0.25	0.25
BA/BS or equivalent	0.27	0.27	0.27
Graduate degree	0.30	0.30	0.30

Source: USITC estimates.

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Appendix G

Automotive Rules of Origin Model

This appendix provides a technical description of the industry-specific model used to estimate the impact of the new automotive rules of origin (ROOs). This industry model is considered to be a partial equilibrium model because it focuses on one sector of the economy that is assumed to operate independently of broader economic conditions. The model also provides a sensitivity analysis of the simulation results reported in chapter 3 of this report and discusses limitations of the partial economic model.

Methodology

The economic model tracks vehicles at the level of 393 individual vehicle models, such as the Chevrolet Malibu and the Toyota Tundra. It assumes that the market for vehicles in North America is segmented by country and by vehicle class. The three national markets in the economic model are the United States, Canada, and Mexico. The four groups of vehicle classes included in the model are small cars (including subcompact and compact cars), mid-size and full-size cars (including midsize and full-size cars, sports cars, and high-performance or muscle cars), multi-passenger vehicles (including sport-utility vehicles [SUVs], minivans, and passenger vans), and pickup trucks.

The demand for these differentiated products is represented by standard linear demand curves, with price coefficients calibrated to elasticity values from the econometric literature on consumer demand in the U.S. automotive industry.⁸¹⁸ There is imperfect competition among the 22 manufacturers that sell vehicles in each market segment. The economic model assumes that there is a Bertrand-Nash equilibrium in prices, with firms choosing their own prices (for their multiple vehicle models) to maximize their joint profits across their models, taking the prices of their competitors as given.⁸¹⁹ The model assumes that there is a fixed number of products competing in each market segment.

The initial marginal cost of producing each vehicle model was calibrated to initial prices and market shares using the first-order conditions from the manufacturers' profit-maximizing pricing. Some of the manufacturers would respond to the new ROOs by adjusting their sourcing of core parts, like engines and transmissions. A shift to North American sourcing would increase their costs of vehicle production.⁸²⁰ The economic model focuses on shifts in engine or transmission sourcing to the United

⁸¹⁸ The model assumes a total market elasticity equal to -1.0, following Berry, Levinsohn, and Pakes, "Differentiated Products," 2004, and an elasticity of substitution among the vehicle models of 5.9, following Hertel, Hummels, Ivanic, and Keeney, "How Confident Can We Be," 2007.

⁸¹⁹ The modeling approach is similar to, but more simplified than, the academic literature on estimating demand and simulating the effects of trade policy, including Berry, Levinsohn, and Pakes, "Automobile Prices," 1995; Berry, Levinsohn, and Pakes, "Voluntary Export Restraints," 1999; Berry, Levinsohn, and Pakes, "Differentiated Products," 2004; and Goldberg, "Product Differentiation," 1995.

⁸²⁰ For example, the engines produced in Japan and Germany are generally less costly for a foreign-owned manufacturer to produce in Japan or Germany than in the United States. U.S. demand for certain types of engines (e.g., smaller diesel and gasoline engines) is relatively low, and sometimes is not high enough for a manufacturer to

States. Some of the sourcing would be shifted from European and Asian manufacturers, to satisfy the new ROOs' regional value content requirements; other sourcing would shift from manufacturers in Mexico, to satisfy the new ROOs' labor value content requirements. The predicted adjustments to the sourcing of these two core parts is based on data at the level of the 393 individual vehicle models and on confidential Commission staff interviews with North American vehicle manufacturers.

The model simulates the new equilibrium price of each vehicle model in each of the three countries in USMCA by finding the Nash equilibrium under the new ROOs. The simulated changes in equilibrium prices imply changes to vehicle sales, international trade, production, employment, and capital expenditures.

Types of Data in the Economic Model

The economic model includes the following sources of disaggregated data on the vehicle manufacturers' prices, international trade, part sourcing, employment, and capital expenditures:

- Sales by vehicle model in each country in 2017, from Ward's Automotive Yearbook 2018.⁸²¹
- Sourcing of engines and transmissions by vehicle model, from American Automotive Labeling Act (AALA) reports.⁸²²
- International differences in the costs of producing engines and transmissions, estimated by comparing entries in the Global Trade Atlas database of international trade average unit values.⁸²³
- Employment and capital expenditures in vehicle, engine, and transmission production in the United States, from the *2016 Annual Survey of Manufactures: General Statistics, Value of Products Shipments, Industry-Product Analysis and Geographic Area Statistics*.⁸²⁴
- Cost shares of core parts in U.S. vehicle production, from the most recent benchmark input-output table of the U.S. Bureau of Economic Analysis (BEA), (2012).⁸²⁵
- Manufacturer suggested retail prices by vehicle model in 2017, from *Kelley Blue Book*.⁸²⁶
- Market participants' predictions about adjustments to the sourcing of core parts in response to the new ROOs, from confidential Commission staff interviews with North American vehicle manufacturers.

achieve scale by producing the engines in North America. Comparing unit costs of U.S. engine imports from Japan and Germany to U.S. engine exports shows U.S. engine exports to be significantly more expensive. Size difference between U.S. and EU/Japan engines likely also plays a role in the cost difference (U.S. engine production tends to be focused on larger engines). IHS Markit, Global Trade Atlas (accessed November 15, 2018).

⁸²¹ Norris, *Ward's Automotive Yearbook*, 2018, 110–11, 126–27, 196–98.

⁸²² USDOT, NHTSA, "Part 583 American Automotive Labeling Act Report 2018," 2018.

⁸²³ IHS Markit, Global Trade Atlas Database (accessed November 7, 2018).

⁸²⁴ U.S. Census, *2016 Annual Survey of Manufactures*, December 15, 2017.

⁸²⁵ USDOC, BEA, *2012 Benchmark Input-Output Accounts Data*.

⁸²⁶ *Kelley Blue Book*, 2018 (accessed December 3, 2018).

Contribution to the Calculation of the Economy-wide Effects of the USMCA

The effects of the new ROOs on production costs that were estimated using the industry-specific partial equilibrium model in this appendix and chapter 3 were then incorporated into the Global Trade Analysis Project (GTAP) model of economy-wide effects reported in chapter 2. Specifically, the disaggregated effects of USMCA on vehicle production costs in each country were first aggregated to the level of GTAP sectors. Next, the now aggregated effects were used as targets to calibrate shocks to the cost of importing parts in the GTAP simulation of economy-wide effects reported in chapter 2.

Additional Simulations Using the Industry-specific Model

The first sensitivity analysis reran the model simulation of the new ROOs using a less price-elastic total market demand, -0.4 rather than -1.⁸²⁷ With this less price-elastic demand, the percent change in average price was larger and the quantity response in vehicle demand was smaller for each of the four vehicle classes. However, the estimated effects on U.S. employment and capital expenditure in the industry were very similar to the effects in chapter 4. These additional simulation results are reported in tables G.1 through G.3.

Table G.1 Vehicle prices and consumption in the U.S. market assuming less price-elastic demand (percent changes relative to the baseline, unless otherwise specified)

	Small cars	Midsize to full-size cars	Multi-passenger vehicles	Pickup trucks
Average vehicle price in the U.S. market	1.77	0.47	0.58	0.41
Total vehicle consumption in the U.S. market	-1.45	-0.35	-0.10	-0.32
Total vehicle consumption in the U.S. market (1,000 vehicles)	-46.6	-10.1	-8.3	-9.0

Source: USITC estimates.

Note: Values are based on a demand elasticity of -0.4.

⁸²⁷ These two alternative values are used in Berry, Levinsohn, and Pakes, "Differentiated Products Demand Systems," 2004.

Table G.2 U.S. vehicle production and international trade assuming less price-elastic demand: Changes in 1,000 vehicles relative to the baseline (percent changes relative to the baseline)

	Small cars	Midsize to full-size cars	Multi-passenger vehicles	Pickup trucks
Change in U.S. vehicle production for North America	-23.2 (-2.08)	-19.5 (-0.99)	-29.8 (-0.64)	3.4 (0.12)
Change in U.S. exports of vehicles to Canada	-3.3 (-2.70)	-0.9 (-1.06)	-4.0 (-0.91)	0.5 (0.15)
Change in U.S. exports of vehicles to Mexico	-1.9 (-5.38)	-0.4 (-2.12)	-0.1 (-0.16)	0.4 (0.33)
Change in U.S. imports of vehicles from Canada	-4.5 (-1.27)	3.6 (1.23)	-4.9 (-0.42)	0 (0.00)
Change in U.S. imports of vehicles from Mexico	-74.0 (-8.61)	-1.5 (-0.65)	-17.6 (-3.01)	-11.4 (-2.03)
Change in U.S. imports of vehicles from the rest of the world	50.0 (4.80)	5.9 (1.27)	39.8 (1.63)	0 (0.00)

Source: USITC estimates.

Note: Values are based on a demand elasticity of -0.4.

Table G.3 U.S. employment in the industry (changes in 1,000 full-time equivalent workers relative to the baseline)

U.S. industry	Change in employment
U.S. employment in vehicle, engine, and transmission production	29.0
U.S. employment in engine and transmission production	30.0
U.S. employment in vehicle production	-1.0

Source: USITC estimates.

Note: Values are based on a demand elasticity of -0.4.

The second sensitivity analysis reran the model simulation of the new ROOs while adopting a different assumption about whether the vehicle manufacturers would adjust their sourcing of core parts to comply with the new ROOs. Specifically, the alternative assumption was that none of the manufacturers would adjust its sourcing—i.e., that all would choose to pay non-preferential duties on engine, transmission, and vehicle imports that are noncompliant. In this case, there would be net declines in both U.S. employment and capital expenditures in the industry, because there would be a reduction in U.S. vehicle production but no positive effects from reshoring the production of core parts. There would still be an increase in average market prices and a decrease in vehicle consumption in each of the four vehicle classes, but the effects would be much smaller. These additional simulation results are reported in tables G4–G5.

Table G.4 Vehicle prices and consumption in the U.S. market assuming noncompliance (percent changes relative to the baseline unless specified otherwise)

	Small cars	Midsize to full-size cars	Multi-passenger vehicles	Pickup trucks
Average price in the U.S. market	0.08	0.02	0.03	0.02
Total vehicle consumption in the U.S. market	-0.12	-0.03	-0.02	-0.02
Total vehicle consumption in the U.S. market (1,000 vehicles)	-3.8	-0.9	-1.6	-0.7

Source: USITC estimates.

Table G.5 U.S. vehicle production and international trade assuming noncompliance: Changes in 1,000 vehicles relative to the baseline (percent changes relative to the baseline)

	Small cars	Midsize to full-size cars	Multi-passenger vehicles	Pickup trucks
U.S. vehicle production for North America	-2.5 (-0.22)	-1.4 (-0.07)	-2.1 (-0.05)	-0.2 (-0.01)
U.S. exports of vehicles to Canada	-0.329 (-0.27)	(a) (-0.07)	-0.3 (-0.07)	(a) (0.00)
U.S. exports of vehicles to Mexico	-0.1 (-0.37)	(a) (-0.13)	(a) (-0.06)	(a) (-0.03)
U.S. imports of vehicles from Canada	-1.7 (-0.46)	0.2 (0.05)	-1.3 (-0.12)	(a) (0.00)
U.S. imports of vehicles from Mexico	-2.2 (-0.26)	(a) (0.01)	-0.5 (-0.08)	-0.5 (-0.09)
U.S. imports of vehicles from the rest of the world	2.2 (0.21)	0.3 (0.06)	1.9 (0.08)	(a) (0.00)

Source: USITC estimates.

^a Absolute change is less than 0.1

The second sensitivity analysis demonstrates that estimates of all the economic effects, including the employment effects, are sensitive to the assumption (in the simulations reported in chapter 3) that certain manufacturers would increase their production costs by shifting sourcing of core parts to the United States. The assumption posits that they would do so even though the nonpreferential tariff rates that they would face if they did not comply with the new automobile ROOs would be small—at least for cars and multi-passenger vehicles (MPVs), and absent any new automobile tariffs that may be imposed as a result of an investigation under section 232 of the Trade Expansion Act of 1962.

In this sense, the estimates reported in chapter 4 are practical upper bounds on the economic effects of the new ROOs. Nonetheless, they are not upper bounds in the formal sense (i.e., they are not the largest possible economic effects) because several factors are not included in the economic model, as described in the next section on the limitations of the estimates.

Limitations of the Estimates

The automotive ROOs are complex, and manufacturers' adjustments to the new ROOs are difficult to predict.⁸²⁸ A precise and complete evaluation of the economic effects of the new ROOs would require extensive business confidential information from all manufacturers competing in the market; the collection and analysis of these data would take longer than the timeframe for this Commission investigation.

Given these limitations, the economic model adopts several simplifications in its representation of the automotive industry.

1. The economic model framework assumes that each manufacturer's unit cost of production would not increase with its scale of vehicle production.

⁸²⁸ USITC, hearing transcript, November 15, 2018, 101–2 (testimony of Ann Wilson, Motor Equipment and Manufacturers Association).

2. The model assumes that the set of vehicle models sold in each national market would not change in response to the new ROOs, though there would be a change in the number of vehicles of each model that are sold.⁸²⁹
3. The economic model quantifies the effects of the new ROOs on U.S. exports to Canada and Mexico, but it does not quantify the negative effects on U.S. exports of vehicles outside of North America, though those exports would likely decline with the increase in production costs.
4. The relatively simple demand system in the economic model does not fully capture the complex substitution patterns in the automotive industry.⁸³⁰
5. The production cost effects included in the economic simulations are limited to adjustment in the sourcing of engines and transmissions, because there are available data on the sourcing of these core parts, though they are not the only core parts listed in the new ROOs.
6. The estimated economic effects of the new ROOs are based on a “snapshot” of the recent supply chains and other industry data representing current conditions. This baseline could change significantly in the future—for example, if automotive tariffs were imposed as a result of an investigation under section 232. The estimated effects based on current conditions are not a perfect predictor of future responses to the new ROOs, but they are still informative.
7. The quantification of employment impacts is not comprehensive. It is limited to an estimate of additional U.S. jobs in the production of vehicles and of two core parts—engines and transmissions (these are covered by NAICS codes 336111, 336112, 336310, and 336350). The Commission recognizes that new ROOs would probably have an impact on U.S. jobs producing other core parts, like steering systems (NAICS code 336330) and braking systems (NAICS code 336340). But the economic model does not quantify these effects on employment, because vehicle model-level data on the sourcing of core parts (other than engines and transmissions) were not available. The new ROOs could also have indirect job effects that are not quantified by the economic model. For example, there might be a reduction in U.S. jobs in retail dealerships in the United States if total vehicle consumption declines due to the increase in production costs.⁸³¹

⁸²⁹ However, this simplifying assumption is probably unrealistic. According to industry representatives, some vehicle manufacturers are considering no longer offering certain vehicle models in the United States if they have noncompliant supply chains.

⁸³⁰ The complex substitution patterns are estimated in the academic literature, which seeks to estimate demand and simulates the effects of trade policy. Examples include three articles by Berry, Levinsohn, and Pakes: “Automobile Prices in Market Equilibrium,” 1995; “Voluntary Export Restraints on Automobiles,” 1999; and “Differentiated Products Demand Systems,” 2004, and one by Goldberg, “Product Differentiation and Oligopoly in International Markets,” 1995. The data and time requirements of their models are much more elaborate than in the model described in this appendix.

⁸³¹ USITC, hearing transcript, November 15, 2019, 38 (testimony of Cody Lusk, American International Automobile Dealers Association).

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Appendix H

Gravity Modeling of International Data Transfer, Cross-border Services, and IPR Provisions

Many of the provisions in USMCA—including the international data transfer, cross-border services, and intellectual property rights (IPR) provisions—are quantified econometrically in the Commission’s study using a structural gravity modeling approach. The structural gravity model is a powerful tool that excels at estimating trade costs by using extensive public data; as a result, it has become a workhorse model in international trade. In this report, structural gravity models were used to estimate ad valorem equivalent (AVE) trade costs associated with nontariff measures (NTMs) applied at the country level. These models were used to estimate the magnitude of the effects of changes to international data transfer, IPRs, and investment policies within the agreement.

It is well established that trade in goods and services faces significant costs at the border.⁸³² These costs take many forms in addition to tariffs, including administrative procedures, certification, border delays, and many other regulatory standards. Empirical literature using structural gravity models have regularly found that these NTMs stifle trade.⁸³³ The results presented throughout this appendix are consistent with this research, finding that the impact of NTMs broadly is high in each industry considered. It is important to note that the policies analyzed here represent only a small part of the total collection of NTMs faced by exporters. Thus, while a certain USMCA provision may represent a reduction in costs of several percentage points, that reduction reflects only a small share of the total NTM costs faced by firms.

A structural gravity model is a theoretically grounded and empirically powerful model that explains bilateral trade patterns between a collection of countries. In its simplest form, the model supposes that trade between an importing country (“importer”) and an exporting country (“exporter”) is dependent on the characteristics of those two countries and the bilateral frictions between them. For an exporter, these country-specific characteristics might include labor productivity, the price of inputs (domestic or foreign), and export facilitation efforts. For an importer, these country-specific characteristics might include gross domestic product (GDP), domestic production, and NTMs. Finally, the bilateral frictions reflect factors affecting trade between these two particular countries, such as the distance between them, linguistic differences, or preferential trade agreements (PTAs). These three components of

⁸³² For a more detailed discussion of the impacts of NTMs, see Ferrantino, “Non-Tariff Measures,” 2016, or Berden and Francois, “Quantifying Non-tariff Measures for TTIP,” 2015.

⁸³³ For goods, Egger et al., “Non-tariff Barriers, Integration and the Transatlantic Economy,” 2015, find that average NTM costs in specific industries often exceed 40 percent ad valorem equivalent (AVE). Kee, Nicita, and Olearreaga, “Estimating Trade Restrictiveness Indices,” 2009, find values that are similarly high. For services trade, Fontagné, Mitaritonna, and Signoret, “Estimations of Tariff Equivalents,” 2011, find values often in excess of 90 percent in some industries. The Commission’s analysis of the Trans-Pacific Partnership (TPP) found comparable values for services, which were regularly in excess of 50 percent. USITC, *Trans-Pacific Partnership*, 2016.

trade—exporter characteristics, importer characteristics, and bilateral frictions—are then estimated using a large data sample containing information on bilateral trade flows and country characteristics. The estimates can then be used to calculate both bilateral trade costs and country-specific at-the-border trade costs.⁸³⁴

Methodology

The modeling of digital trade, cross-border services, and IPR provisions for this report followed a gravity approach in which country-specific, at-the-border trade costs associated with specific policies were estimated for importers. This approach estimated a structural gravity mode, used the econometrically determined estimates to calculate a total importer trade costs, and then identified the portion of those trade costs that are associated with provisions in USMCA.

The empirical gravity model follows the work of Fontagné, Guillin, and Mitaritonna (2011), Fontagné, Mitaritonna, and Signoret (2016), and Herman, Horowitz, and Torsekar (2018), and takes the following form:⁸³⁵

$$\frac{X_{ijst}}{Y_{jt}} = \exp \left(\sum_k \beta^k z_{ijt}^k + \mu_{it} + \nu_{jt} + \epsilon_{ijst} \right). \quad \text{H. 1}$$

The above model examines the statistical relationship between country i 's exports to country j (as a share of country j 's GDP) and common trade determinants such distance, shared borders, and unobserved characteristics of the two countries. The term X_{ijst} denotes bilateral exports from exporting country i to importer j of goods or services in sector s during year t . The bilateral trade is modeled as a function of a collection of bilateral “gravity” variables indexed by k , including the distance between the countries and indicators for shared borders, common languages, colonial relationships, joint European Union (EU) membership, and PTAs.⁸³⁶ All country-level effects are controlled for by including multilateral resistance terms (MRTs), which succinctly reflect a country’s “aggregate trade cost”.⁸³⁷ These MRTs are estimated via country-year fixed effects as described by Feenstra (2002) and denoted by μ_{jt} and ν_{it} .⁸³⁸ In many gravity specifications, a country’s economic size (typically measured using GDP) is captured by the country fixed effects. However, for the modeling of NTM provisions in this report, it is necessary to disentangle importer GDP from its fixed effect. To do so, the importer GDP—denoted Y_{jt} —is explicitly moved to the left side of the equation.⁸³⁹

⁸³⁴ For a deeper survey of gravity modeling, see Yotov and Piermartini, “Estimating Trade Policy Effects,” 2016, or Head and Mayer, “Gravity Equation,” 2014.

⁸³⁵ Fontagné, Guillin, and Mitaritonna, “Estimations of Tariff Equivalents,” 2011; Fontagné, Mitaritonna, and Signoret, “Estimated Tariff Equivalents,” 2016; Herman, Horowitz, and Torsekar, “Competitive Conditions Affecting U.S. Exports,” 2018.

⁸³⁶ Each of these measures is taken from the Dynamic Gravity dataset as described by Gurevich and Herman, “The Dynamic Gravity Dataset,” 2018.

⁸³⁷ Larch and Yotov, “General Equilibrium Trade Policy Analysis,” 2016.

⁸³⁸ Feenstra, “Border Effects,” 2002.

⁸³⁹ This modification assumes a GDP elasticity of 1, as is assumed by Feenstra, “Border Effects,” 2002.

Equation H.1 is estimated using the USITC gravity modeling environment (GME).⁸⁴⁰ The estimation uses a nonlinear Poisson pseudo-maximum likelihood estimator, as proposed by Santos Silva and Tenreyro (2006), which handles zero-trade flows and heteroscedasticity (cases in which the variability of an independent variable is unequal for different values of the dependent variable) better than linear estimators like ordinary least squares.⁸⁴¹ The model is estimated separately for each sector so that the coefficients of each covariate—and, more importantly, the country fixed effects—are allowed to vary for each sector.

The importer fixed effects reflect average trade costs experienced at the importer’s border. These estimated fixed effects can be used to infer an AVE trade cost for that country. The inferred trade cost is that which explains the difference between a country’s actual imports and what it would import under free trade. However, because free trade is not observed in real life, Fontagné, Guillin, and Mitaritonna (2011) suggest using a benchmark country that exhibits low barriers as a proxy for free trade.⁸⁴² This benchmark country is that which exhibits the largest fixed effect and therefore imports the most, given its GDP. Using the benchmark country, an AVE can be estimated from the following structural relationship:

$$\hat{\tau}_{jst} = \exp\left(\frac{\hat{\nu}_{jst} - \hat{\nu}_{*s}}{1 - \sigma_s}\right). \quad (\text{H. 2})$$

The estimated AVE, denoted by $\hat{\tau}_{jst}$, reflects the tariff rate equivalent trade cost for importer j relative to the (unobserved) costs of the benchmark country, denoted by $*$. Importantly, this estimation requires an external value for the elasticity of substitution, denoted by σ_s , which is not estimated by the model. Values from the economy-wide model are used for each sector to ensure consistency between models.

A limitation of the methodology used for estimating the AVE is that the estimate is very broad and potentially reflects much more than the policy measures of interest. To overcome this limitation, a second analysis is undertaken to empirically relate the estimated AVEs to specific policy measures. The AVEs are regressed against indices of policy incidence or restrictiveness in order to identify the share of the total AVE that can be attributed to the policies affected by USMCA.

While the general methodology described above is used for modeling digital trade, cross-border services, and IPRs, each topic differs in some notable ways, such as data sources, sectoral composition, and policy measures. The remainder of this section describes the individual features of each topic.

Modeling Policy Uncertainty

Many of the provisions in USMCA represent commitments to maintain current conditions and deter future trade barriers. These commitments reduce the policy uncertainty faced by exporting firms by ensuring that current regulatory conditions will remain in place in the future. As discussed in chapter 2, reductions in policy uncertainty have been found to have positive impacts on trade. In particular, several studies have found that reductions in policy uncertainty have an impact equal to about half that of the policies that are being deterred. For example, Handley and Limão (“Trade and Investment under Policy

⁸⁴⁰ <https://www.usitc.gov/data/gravity/models.htm>.

⁸⁴¹ Santos Silva and Tenreyro, “The Log of Gravity,” 2006.

⁸⁴² Fontagné, Guillin, and Mitaritonna, “Estimations of Tariff Equivalents,” 2011.

Uncertainty,” 2017) find that this was the case when China acceded to the WTO, locking in preferential tariff rates in the United States. The growth in exports from Chinese firms following accession was attributed to reductions in uncertainty surrounding possible future increases in tariffs because there was previously nothing preventing the preferential tariff status from being retracted. Similarly, Ciuriak and Lysenko (“Technical Paper for: Better In than Out?” 2016) find the same for services sectors with respect to differences between actual conditions and the commitments required under the WTO’s General Agreement on Trade in Services (GATS).

In this report, the estimated effects of most data transfer provisions, cross-border services provisions, and many investment provisions reflect the assessment that the provisions would deter future trade barriers and reduce uncertainty. In each case, the econometric estimates measured the costs of the barriers that the commitments prohibit. Following the empirical evidence from the literature, these estimates were reweighted to reflect reductions in policy uncertainty. The literature suggests the estimates should be about 50 percent of the impact of the policies they prevent.⁸⁴³ For example, if a data localization measure was estimated to reduce trade as much as a 10 percent tariff, the commitment to not introducing such a measure—and thereby removing uncertainty over free data mobility—would have an impact equal to the removal of a 5 percent tariff.

The economy-wide model described in chapter 2 of this report uses a more conservative value of 25 percent of the full impact. This lower value was chosen because none of the literature is specific to USMCA or to many of the provisions within it that are being modeled in this report. This case is often referred to as the “moderate impact of uncertainty” case throughout this report. Using a smaller value reduces the likelihood of overestimating the impact of many of the USMCA provisions that were modeled. However, two other values were considered in alternative simulations. First, a higher-impact value of 50 percent was considered, which reflects the value identified in the economic literature described above. This case is often referred to as the “high impact of uncertainty” case in this report. Second, a lower bound estimate of zero (0) percent, reflecting no impact from reducing uncertainty, was considered. The results of the economy-wide analysis under these alternative weights are also presented in chapter 2 and appendix E of this report.

International Data Transfer

The modeling of the international data transfer provisions used services trade data and an index for services trade restrictiveness to estimate the potential costs of introducing data restrictions within Canada, Mexico, and the United States, for both services and digitally intensive goods sectors.

The initial gravity estimation was based on bilateral services trade data made available through the OECD’s extended balance of payments (EBOPS) dataset, which measures cross-border service trade in modes 1, 2, and 4.⁸⁴⁴ The services trade data were combined with the gravity variables described in the previous section.⁸⁴⁵ Additionally, an indicator for common legal origin derived from data made available

⁸⁴³ Handley and Limão, “Trade and Investment under Policy Uncertainty,” 2017; Ciuriak and Lysenko, “Technical Paper for: Better In than Out?” 2016.

⁸⁴⁴ OECD, EBOPS database (accessed September 28, 2018).

⁸⁴⁵ Gurevich and Herman, “The Dynamic Gravity Dataset,” 2018.

by La Porta, Lopez-de-Silanes, and Shleifer (2008) was included among the gravity variables.⁸⁴⁶ The gravity estimation was conducted for 120 countries and 14 services sectors between the years 2014 and 2016, which reflected the years available in both the EBOPS data and the OECD's Services Trade Restrictiveness Index (STRI).⁸⁴⁷ The calculation of AVEs from the gravity estimates was based on an elasticity of substitution value of 3.8, which is the GTAP value used in the economy-wide simulation.

The second-stage analysis was based on policy information in the OECD's Services Trade Restrictiveness Index (STRI).⁸⁴⁸ The STRI provides measures for 43 of the countries, restricting the scope of the second-stage analysis accordingly. In the second stage, the AVE estimates from the gravity model were regressed against the sector-level values of the STRI for each country. This analysis estimated the statistical relationship between the STRI score in each country and sector, and the respective country-sector AVE estimated in the previous stage. The second-stage regression was specified in the following way.

$$\hat{t}_{jst} = c + \alpha R_{js} + \pi_s + \rho_t + \epsilon_{jst} \quad (\text{H. 3})$$

Here, \hat{t}_{jst} denotes the estimated AVE from equation (H.2), R_{js} denotes the STRI score, c denotes a constant, and π_s and ρ_t denote sector and year fixed effects, respectively. The relationship between the STRI score and the estimated AVE is reflected in the coefficient α .

Within the STRI, USMCA would affect several measures relating to data flows. These measures represent a share of the STRI between 0.7 and 6.6 percent, depending on both the sector and the severity of the data measure.⁸⁴⁹ Using these weights in the STRI and the estimated relationship with the AVEs, a country and sector-specific change in the AVE was computed, reflecting the digital trade provisions in USMCA.

Within the STRI, there are several potential data transfer restrictions that USMCA would preclude.⁸⁵⁰ The most severe potential restriction is the full prohibition of personal data transfer (question 1_20_5 in the STRI). The simulation reflecting a higher impact from uncertainty (50 percent) described in the previous section and in chapter 2 of this report reflects this level of restriction. The standard economy wide simulation (reflecting an uncertainty weight of 25 percent) is more conservative, reflecting less restrictive potential policies that are based one of two possible circumstances. The first is that a combination of requirements be fulfilled before data transfer is possible (question 1_20_4 in the STRI). The second is that certain private safeguards be in place before transfer and that the transfer be made only to a country with substantially similar privacy protection laws or by government authority (questions 1_20_2 and 1_20_3 in the STRI). Thus, compared to other components examining uncertainty, the moderate-impact and high-impact simulations for data transfer provisions reflect two

⁸⁴⁶ La Porta, Lopez-de-Silanes, and Shleifer, "The Economic Consequences of Legal Origins," 2008.

⁸⁴⁷ The services sectors include accounting, air transport, commercial banking, computer, construction, courier, logistics, insurance, legal, maritime transport, motion pictures, sound recording, rail freight transport, road freight transport, and telecom services. Architectural and engineering services sectors were both excluded due to excessively variable estimates.

⁸⁴⁸ OECD, STRI Policy Simulator (accessed September 28, 2018).

⁸⁴⁹ These measures are reflected in questions 1.20.2 through 1.20.5 in the 2014–17 editions of the STRI.

⁸⁵⁰ The analysis was based on the 2017 version of the STRI, which contained five questions relating to data transfer. The 2018 version of the STRI included a sixth question that was not included in the analysis.

differences. The high-impact simulation represents both a higher impact in terms of reducing uncertainty and a more substantive commitment in terms of the policies that are being prohibited.

Finally, data transfer measures would likely affect all firms that gather, store, and process data, including those outside services sectors. Therefore, this model's estimates were extrapolated to non-service sectors based on a sector's digital intensity, which encompasses the extent to which these sectors engage in data gathering, storing, and processing activities. The 2017 OECD *Science, Technology and Industry Scoreboard* (STIS) outlines six measures that can be used to proxy digital intensity of non-service sector firms: software investment, tangible investment in information and communications technology (ICT), the ratio of intermediate ICT goods purchases to total sales, the ratio of intermediate ICT services purchases to total sales, robot use, online sales revenue, and the share of ICT specialists among total employment. This report's analysis used the OECD measure of software investment to measure digital intensity, since its sector-level coverage is broader than that provided by the other measures outlined in the STIS. The STIS index uses averages across countries and years for the years 2013–15 across the following countries: Australia, Austria, Denmark, Finland, France, Italy, Japan, the Netherlands, Norway, Sweden, the United Kingdom, and the United States. The values are standardized relative to a mean of zero.⁸⁵¹

Since the STIS index contains both negative and positive values, in order to use it to extend this analysis, the data were first re-indexed to the least digitally intensive sector (agriculture) so that all values would be positive. Next, non-service sector values were compared to the value of information technology (IT) services (a subsegment of computer services) and given a digital intensity value that is relative to computer services. As an example, computer and electronics manufacturing is about 49 percent as digitally intensive as computer services, based on their software investment. This relative level of digital intensity was translated into a relative AVE such that a sector that invests half as much in software as computer services does is assigned an AVE equal to half that of computer services. Thus, if the computer services AVE were equal to 1 percent, the AVE for computer and electronics manufacturing would be 0.49 percent. The full collection of digital trade AVE estimates as estimated for services sectors and extrapolated to goods sectors are presented in table H.1.

⁸⁵¹ See OECD, chapter 2, figure 30. OECD, *Science, Technology and Industry Scoreboard 2017*, November 22, 2017. Underlying data available at <http://dx.doi.org/10.1787/888933617377>.

Gravity Modeling of International Data Transfer, Cross-border Services, and IPR Provisions

Table H.1 Estimated reductions in trade costs stemming from the international data transfer provisions in USMCA (percentage points)

Impact of provisions reducing policy uncertainty	None	Moderate	High
Agriculture and animal products (all sectors)	0.00	0.56	1.69
Forestry	0.00	0.56	1.69
Fishing	0.00	0.56	1.69
Coal	0.00	0.56	1.69
Oil	0.00	0.56	1.69
Gas	0.00	0.56	1.69
Other mining	0.00	0.56	1.69
Other food	0.00	0.94	2.82
Beverages and tobacco products	0.00	0.94	2.82
Textiles	0.00	1.31	3.94
Wearing apparel	0.00	1.31	3.94
Leather	0.00	1.31	3.94
Lumber	0.00	1.13	3.38
Paper and paper products	0.00	1.13	3.38
Petroleum and coke	0.00	0.94	2.82
Chemical rubber products	0.00	0.94	2.82
Non-metallic minerals	0.00	1.13	3.38
Iron and steel	0.00	1.13	3.38
Non-ferrous metals	0.00	1.13	3.38
Fabricated metal products	0.00	1.13	3.38
Motor vehicles and parts	0.00	1.13	3.38
Other transport equipment	0.00	1.13	3.38
Electronic equipment	0.00	1.31	3.94
Other machinery and equipment	0.00	1.31	3.94
Other manufacturing	0.00	1.31	3.94
Electricity	0.00	0.94	2.82
Gas distribution	0.00	0.94	2.82
Water	0.00	0.94	2.82
Construction	0.00	2.82	8.45
Trade	0.00	1.50	4.50
Other transport	0.00	3.38	10.14
Water transport	0.00	3.19	9.57
Air transport	0.00	1.31	3.94
Communications	0.00	1.69	5.07
Other financial intermediation			
Canada	4.50	4.50	4.50
Mexico and the United States	0.00	2.25	6.76
Insurance			
Canada	2.63	2.63	2.63
Mexico and the United States	0.00	1.31	3.94
Other business services	0.00	2.21	6.64
Recreation and other services	0.00	0.94	2.82
Government services	0.00	1.88	5.63
Dwellings	0.00	2.21	6.64

Source: USITC estimates.

Note: The columns showing estimates of no impact, moderate impact, and high impact of provisions reducing policy uncertainty reflect the values used in each of the corresponding simulations described in chapter 2 and appendix H. The Canadian values for other financial intermediation and insurance reflect actual alterations to current policies and are not treated as reducing uncertainty.

The AVE effects of the USMCA international data transfer provisions depend on the measures currently in place in each country and sector. In the Canadian banking and insurance sectors, there are existing data localization measures. As these measures are prohibited and must be reversed, the USMCA implies explicit changes to the AVEs.⁸⁵² In all other sectors, however, no such measures are in place. The provisions in USMCA therefore reflect commitments to maintain the status quo and not introduce data flow restrictions. In these other cases, the estimated changes in AVEs were treated as reducing policy uncertainty in the same way as is done elsewhere in this report.⁸⁵³

Cross-border Services

The modeling of cross-border services provisions closely followed that of the digital trade provisions described in the previous section. The structural gravity estimation was the same as that used for digital trade. The differences in the methods used for cross-border services modeling stem from the estimated changes in the STRI resulting from USMCA provisions.⁸⁵⁴ Provisions affecting cross-border services in USMCA correspond to components in the STRI weighing between 0.1 percent and 1.9 percent, depending on both the industry and the portion of the industry affected by the provisions. Additional details on the quantification of USMCA with respect to the STRI can be found in appendix J. These measures would result in the estimated AVE cost reductions depicted in table H.2. The provisions impacting cross-border services represent stronger commitments to maintaining current levels of openness, so they were treated as reducing policy uncertainty.

Table H.2 Estimated reductions in trade costs for cross-border services due to the effects of USMCA commitments (percentage points)

Impact of provisions reducing policy uncertainty	Moderate	High
Canada		
Commercial banking	1.13	2.25
Insurance	0.66	1.31
Railway passenger and freight transport	0.33	0.66
Telecom services	0.84	1.69
Mexico		
Architecture services	0.12	0.23
Audiovisual	0.47	0.94
Broadcasting	0.94	1.88
Commercial banking	1.13	2.25
Computer services	0.56	1.13
Distribution	0.23	0.47
Engineering services	0.12	0.23

⁸⁵² In the appendix to USMCA's Chapter 17, Canada is given one year to comply with the prohibition on data localization and data transfer provisions.

⁸⁵³ See chapter 2 of this report.

⁸⁵⁴ The process for converting changes in USMCA provisions covering cross-border services trade into STRI values follows the same methodology as that used for sales of services by foreign affiliates. It is described in detail in appendix J of this report.

Gravity Modeling of International Data Transfer, Cross-border Services, and IPR Provisions

Impact of provisions reducing policy uncertainty	Moderate	High
Insurance	0.66	1.31
Legal services	0.94	1.88
Logistics cargo handling	0.56	1.13
Logistics freight forwarding	0.23	0.47
Logistics warehousing	0.94	1.88
Maritime transport	0.94	1.88
Rail transport	0.23	0.47
Telecom services	0.14	0.28
United States		
Broadcasting	1.78	3.57
Commercial banking	1.13	2.25
Courier services	1.41	2.82
Insurance	0.66	1.31
Legal services	0.94	1.88
Logistics cargo handling	0.61	1.22
Logistics warehousing	0.66	1.31
Telecom services	1.78	3.57

Source: USITC estimates.

Note: The moderate and high impact of provisions reducing policy uncertainty columns reflect the values used in each of the corresponding simulations described in chapter 2. The values were all zero (0.00) in the no-impact simulation.

Intellectual Property

The modeling of USMCA's IPR provisions used manufacturing trade data and an IPR index that scores protections in 42 countries, and also scores the level of IPR protections required by USMCA, to estimate the potential value of improving IPR protections in Canada or Mexico on IPR-intensive goods sectors. The underlying intuition for the model is that improvements in IPR protections facilitate trade in IPR-intensive goods. This intuition is supported by a substantial economic literature.⁸⁵⁵

The initial gravity estimation was based on bilateral goods trade data made available by the UN's Comtrade database in six IPR-intensive sectors identified by Delgado, Kyle, and McGahan in 2013: biopharmaceuticals, analytical instruments, information and communications technology, medical devices, chemicals, and production technology.⁸⁵⁶ These sectors are considered IPR intensive because they exhibit particularly high numbers of patents, copyrights, and trademarks. IPR-intensive services sectors, such as computer software, banking, research and development, audiovisual services, or charges for the use of intellectual property were not included because of data limitations. The bilateral trade data were combined with the gravity variables described in the previous section, as well as an

⁸⁵⁵ Ivus, "Do Stronger Patent Rights," 2010; Awokuse and Hong, "Does Stronger Intellectual Property Rights," 2010; Park and Lippoldt, "Technology Transfer," 2008; Maskus, "The New Globalization," 2014; Hassan, Yaqub, and Diepeveen, *Intellectual Property and Developing Countries*, 2010; Cavazos-Cepeda, Lippoldt, and Senft, "Policy Complements to the Strengthening of IPRs," 2010.

⁸⁵⁶ UN, Comtrade (accessed November 7, 2018); Delgado, Kyle, and McGahan, "Intellectual Property Protection and the Geography of Trade," 2013.

additional measure—joint membership in the World Trade Organization (WTO).⁸⁵⁷ These data cover 117 countries between the years 2015 and 2017.

The second-stage analysis was based on policy information identified in the U.S. Chamber of Commerce’s International IP Index (IP Index).⁸⁵⁸ The IP Index provides an evaluation of the IPR protections in each country across multiple categories, such as patents, copyrights, trade secrets, market access, and enforcement. The index includes measures for 42 of the 117 countries for the years 2016 and 2017, restricting the analysis in the second stage accordingly.⁸⁵⁹ The calculation of AVEs from the gravity estimates was based on an elasticity of substitution value of 8.1, which is the GTAP value used in the economy-wide simulation.

In the second stage, the AVE estimates from the gravity model were regressed against IP Index values for each country in each year. This analysis estimated the statistical relationship between the IP Index score in each country and the AVE estimated for each sector in that country in the previous stage. Because there is sufficient variation in the IP Index scores between years, a difference-in-difference approach was used to estimate the relationship between the change in AVE and the IP Index score between 2016 and 2017. Additionally, the estimation was defined such that the relationship is sector-specific by interacting the IP Index score with sector indicators, as in the following equation.

$$(\hat{t}_{js,t} - \hat{t}_{js,t-1}) = c + \sum_{r \in S} \alpha_r (P_{j,t} - P_{j,t-1}) I_r + \pi_s + \epsilon_{jst} \quad (\text{H. 4})$$

Similar to equation H.2, \hat{t}_{jst} denotes the estimated AVE for country j in sector s and year t . The term P_{jt} denotes IP Index score, c denotes a constant, and π_s denotes a sector fixed effect. The term I_r is an indicator that takes a value of 1 if $r = s$, implying that π_r is a sector fixed effect. Finally, the estimated relationship between the index score and the AVE is given by α_r . This estimated relationship reflects the extent to which changes in IPR protections correlate with changes in AVE trade costs and, therefore, changes in trade.

The IPR provisions in USMCA would improve IPR protections in Canada and Mexico along several dimensions, which would improve their IP Index values.⁸⁶⁰ Table H.3 presents the 2017 IP Index scores for Canada, Mexico, and the United States, as well as the scores of each country under USMCA. The increase in each country’s score is converted to a corresponding AVE reduction in each sector based on the estimated relationship between the index score and AVEs. Of the six sectors estimated, two—medical devices and analytical instruments—exhibit statistically significant relationships between the estimated AVE and IP Index. These estimates are presented in table H.4. An increase in IPR protections of one unit is correlated with a 1.1 percentage-point reduction in the AVE for analytical instruments and a 0.9 percentage-point reduction for medical devices. Of these two sectors, however, only the medical devices estimate is integrated into the economy-wide simulation, because there is no matching sector for analytical devices in the economy-wide model.

⁸⁵⁷ Gurevich and Herman, “The Dynamic Gravity Dataset,” 2018.

⁸⁵⁸ U.S. Chamber, “International IP Index, Fourth Edition,” 2016; U.S. Chamber, “International IP Index,” 2017.

⁸⁵⁹ The second-stage countries are those covered in both the gravity estimation and the intellectual property (IP) index.

⁸⁶⁰ Pugatch Consilium, *Setting a New Standard*, 2019, 19.

Gravity Modeling of International Data Transfer, Cross-border Services, and IPR Provisions

Table H.3 IPR protection scores for Canada, Mexico, and the United States before and after USMCA

	Canada	Mexico	United States
2017 IP index score	21.4	16.9	32.6
Score under USMCA	30.8	29.6	33.1

Source: USITC calculation based on U.S. Chamber of Commerce, "International IP Index, Fifth Edition," 2017; and Pugatch Consilium, *Setting a New Standard*, 2019.

Table H.4 Estimated reductions in trade costs stemming from the IPR provisions in USMCA (percentage points)

Sector	Canada	Mexico	United States
Analytical instruments	9.96	13.61	0.53
Medical Devices	8.21	11.22	0.44

Source: USITC estimates.

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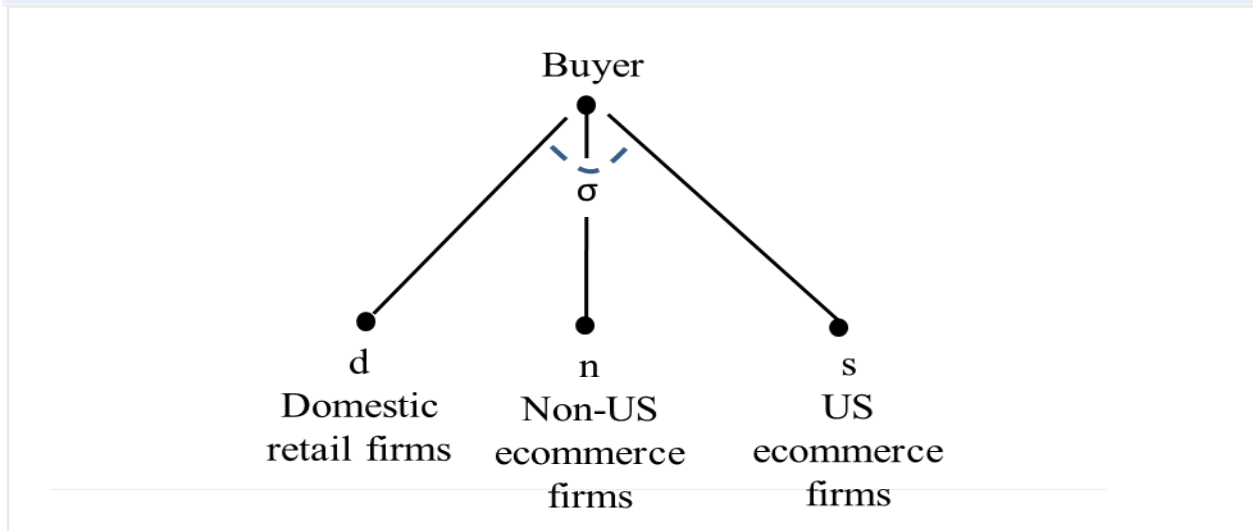
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Appendix I Modeling of E-commerce

The Commission used a partial equilibrium framework to analyze the likely effects on cross-border sales of U.S. e-commerce firms of changes in Canadian and Mexican de minimis thresholds (DMTs) under USMCA.⁸⁶¹ This model is considered to be a partial equilibrium model because it focuses on one sector of the economy that is assumed to operate independently of broader economic conditions. Hallren and Riker (2015) provide more details on the partial-equilibrium framework employed in this analysis.⁸⁶²

The Commission used a constant elasticity of substitution (CES) structure to model consumer demand by using an aggregate price index for retail products that are sold through different retail channels. In this model, consumers in Canada and Mexico have three sources through which they can purchase retail goods: brick-and-mortar retail firms, non-U.S. e-commerce firms, and U.S. e-commerce firms. The model assumes that these three retail channels are imperfect substitutes for each other. That is, domestic consumers in these countries can choose (substitute) between each retail channel at a constant rate that is captured by the elasticity of substitution σ . A higher elasticity of substitution means that consumers would be more willing to switch from one retail channel to another in response to changes in costs. Figure I.1 shows this CES demand framework.

Figure I.1: Constant elasticity of substitution (CES) demand assumption



Source: Compiled by USITC

In the equation below, let p_d be the price charged for the good by firms supplying domestic brick-and-mortar retail stores, p_n the price received for the good by non-U.S. firms supplying local consumers through online platforms, and p_s the price received for the good by U.S. e-commerce firms making online sales to local consumers. When consumers purchase a good, they incur transaction costs of t_i ; these are the costs that are in addition to the price of the good itself. Here t_i represents one plus the ad

⁸⁶¹ U.S. e-commerce firms here includes foreign firms that are based in the United States and supply Canada and Mexico through their U.S. operations.

⁸⁶² Hallren and Riker, "An Introduction to Partial Equilibrium Modeling," 2015.

valorem equivalent (AVE) of local sales taxes, import duties, domestic and international shipping costs, as well as other customs barriers. Therefore, $t_i > 1$ for $i \in \{d, n, s\}$ for any purchase made by a consumer. Thus, the actual prices paid by consumers in Mexico and Canada would be $p_d t_d$, $p_n t_n$ and $p_s t_s$ for domestic retail firms, non-U.S. e-commerce firms, and U.S. e-commerce firms, respectively. Domestic and foreign (“non-U.S.”) producers would face a perfectly elastic supply, so that there would be 100 percent pass-through of changes in transaction costs to the consumer.⁸⁶³

When consumers maximize utility subject to a budget constraint, we can obtain the standard relationship between quantity demanded and the aggregate price index:

$$q_i^* = \left(\frac{t_i p_i}{P} \right)^{-\sigma} \frac{E}{P} \quad (\text{I. 1})$$

where q_i is the quantity purchased from retail source $i \in \{d, n, s\}$; p_i is the price charged by the firms supplying through retail channel i , and t_i are the transaction costs that would be incurred by the consumer when purchasing from i . Lastly, E would be the total amount spent on retail goods by domestic consumers.

The aggregate price index for all retail goods available in the market is captured by

$$P = (\sum_i (t_i p_i)^{1-\sigma})^{\frac{1}{1-\sigma}}$$

For the domestic market, let $s_i = \frac{V_i}{\sum V_i}$ be i 's value share in total retail sales (physical and e-commerce).

Then changes in q_i and V_i can be decomposed as a function of changes in p_i and t_i along with overall share s_i :

$$\hat{q}_i = (\sigma - 1)s_i - \sigma(\hat{p}_i + \hat{t}_i) \quad (\text{I. 2})$$

$$\hat{V}_i = (\sigma - 1)(s_i - 1)(\hat{p}_i + \hat{t}_i) \quad (\text{I. 3})$$

With no additional price effects, the equations shown in I.2 and I.3 can be used to analyze the effect on firms supplying through all three retail channels—domestic brick-and-mortar, non-U.S. e-commerce, and U.S. e-commerce—from changes in transaction costs. This analysis focuses on the impact on U.S. firms from changes in t_s that would result from new de minimis thresholds in Canada and Mexico.⁸⁶⁴

Data Inputs

As shown in equations I.2 and I.3, the main data inputs needed to determine the effects on shipments of U.S. firms to Canada and Mexico due to higher DMTs are the changes in the AVE costs of goods shipped,

⁸⁶³ This assumes that e-commerce activity in Mexico and Canada is relatively low compared to that in global markets.

⁸⁶⁴ We assume that increases in DMTs for express shipments are applicable only to the parties to the agreement, so shipments from the rest of the world would continue to fall under the previous DMTs in Canada and Mexico. If this is not the case, then other countries would also be able to take advantage of the lower DMTs, and the increased competition would diminish potential increases in the exports of U.S. e-commerce firms. Further, the higher DMTs could also increase e-commerce trade between Mexico and Canada; however existing e-commerce transactions between these two countries is minimal and so is ignored in the analysis.

the market shares of the relevant retail firms in Canada and Mexico, and the elasticity of substitution between brick-and-mortar establishments and online platforms.

In the next section, the focus is on how the Commission collected these data inputs for each category. Values of the main data inputs in the partial equilibrium model are summarized in table I.1.

Table I.1 Data Inputs in the partial-equilibrium model

	Canada	Mexico
Market value of domestic retail (billion \$)	314.3	512.6
Market value of U.S. e-commerce shipments (billion \$)	7.3	2.5
Market value of Non-U.S. e-commerce shipments (billion \$)	14.7	6.2
Changes in weighted AVE of U.S. shipments (percent)	-1.4	-1.1
Elasticity of substitution	4.3	4.3

Source: USITC calculations and estimates based on Statista, “E-commerce in Canada”; Statista, “E-commerce in Mexico”; Paypers, Canada: Cross-Border E-commerce Report; Paypers, Mexico: Cross-Border E-commerce Report; Lapitov, McDaniel, and Schropp, “The De Minimis Threshold in International Trade,” 2017 and Dolfen et al., “Assessing the Gains from E-Commerce,” 2019.

Change in Ad Valorem Tariffs

The analysis followed Lapitov, McDaniel, and Schropp (2017) and assumed that the reduction in transaction costs due to higher DMTs could be attributed to Canadian and Mexican consumers no longer paying import duties, sales taxes, and brokerage fees for parcels falling below the new DMTs. Canadian and Mexican consumers often end up paying more than twice the retail price of the purchased product when buying products online from the United States that are priced above the DMT as a result of additional duties, sales taxes and the courier or broker fees.⁸⁶⁵ The first task is then to determine how much of these transaction costs would change for U.S. express shipments to Canada and Mexico that are now below the new DMTs.

As noted in chapter 7, the only packages affected by Canada’s higher DMTs would be express shipments that are within these two value ranges: \$15 to below \$30 (exempt from sales taxes and duties) and \$30 to \$115 (exempt from duties). Table I.2 shows the respective reduction in costs for express shipments falling within these two particular value ranges. The most notable difference in costs between these two ranges is that packages with a value in the \$15 to \$30 range are not levied the Canadian sales tax. As in Lapitov, McDaniel, and Schropp (2017), we use the retail trade-weighted average of 12 percent as the representative sales tax faced by Canadian consumers when making purchases above the DMT.⁸⁶⁶ Consumers would also avoid paying the most-favored-nation (MFN) duty of 1 percent on packages in both ranges, which would otherwise be assessed if the U.S. firms were unable to meet NAFTA’s rule of origin requirements.⁸⁶⁷ Finally, there is a sharp reduction in costs associated with brokerage fees for express shipments in these two value ranges: packages within the \$15 to \$30 range would see a reduction of 23 percent, while those in the \$30–\$115 range would see a reduction of 27 percent.⁸⁶⁸ Thus

⁸⁶⁵ Panetta, “Americans Buying Online,” 2016.

⁸⁶⁶ Lapitov, McDaniel, and Schropp, “The De Minimis Threshold in International Trade,” 2017.

⁸⁶⁷ World Bank, World Development Indicators, “Applied Tariff Rates, Weighted Mean, Manufactured Products,” (accessed December 2, 2018).

⁸⁶⁸ Brokerage fees vary considerably between postal and express couriers. The brokerage fees charged to ship packages from the United States to Canada above de minimis were obtained using both UPS Standard

the biggest impact from the higher DMTs would be from a reduction in brokerage fees for both price ranges. Overall, the estimates in table I.2 show that Canada’s higher DMTs would lead to a reduction in AVE costs of 36 percent for U.S. express shipments to Canada in the \$15 to \$30 range and 28 percent for those in the \$30 to \$115 range.

Table I.2 Estimated reduction in AVE costs for express shipments to Canada due to higher de minimis thresholds (percentage points relative to the baseline)

Packages below de minimis	Sales tax	Duties	Brokerage fees	Total AVE
Package value of \$15–30	12	1	23	36
Package value of \$30–115		1	27	28

Source: USITC estimates.

Express shipments from the United States to Canada above a value of \$115 would not see any change in AVE costs from higher DMTs. Further, as discussed in chapter 7, shipments handled by the postal services would not be affected by these changes in DMTs. According to Commission interviews with express shipment representatives, postal shipments made up about two-thirds of total U.S. shipments to Canada.⁸⁶⁹

In order to calculate the change in AVE costs for all low-value U.S. shipments to Canada, it is necessary to determine the share of the affected express packages listed in table I.2 in all U.S. shipments to Canada (both express and postal). For instance, if there is a 20 percent decrease in trade costs for packages listed in table I.2 that are below the new DMTs, and if these packages comprise 10 percent of the total value of all small packages shipped from the United States to Canada, then the corresponding change in trade costs for all packages would be $20 \times 0.1 = 1$ percent. This weighted AVE change can then be used as an input in the partial equilibrium model discussed in equation I.1.

Using proprietary data from express couriers, Lapitov, McDaniel, and Schropp (2017) were able to assess the distribution of the values of packages shipped to Canada.⁸⁷⁰ The Commission relied on this same distribution of parcel values to determine the share of express shipments that would fall below the new DMTs. Table I.3 shows the distribution of express shipments from the United States to Canada, as well as the respective weights of these intervals based on their mid-values.⁸⁷¹ Since packages below a value of \$15 comprised 36 percent of all express shipments, the Commission assigned these shipments a weight of 1.6 percent in the total value of express shipments. The Commission assigned a weight to the other ranges in a similar way.

(<https://www.ups.com/ca/en/shipping/zones-and-rates/customs-clearance.page>) and FedEx International Ground (https://www.fedex.com/content/dam/fedex/us-united-states/services/Fees_Shipping_Information.pdf). These two services are the cheapest option available for each express courier when shipping to Canada. For Mexico, the relevant brokerage fees were from FedEx International only (<http://www.fedex.com/ancillary/go/service/#79>).

⁸⁶⁹ Industry representatives, interview by USITC staff, Washington, DC, October 29, 2018.

⁸⁷⁰ Lapitov, McDaniel, and Schropp, “The De Minimis Threshold in International Trade,” 2017, rely on data from the Global Express Association on Canadian inbound parcels handled by express couriers to determine the approximate distribution of express shipments across consignment values.

⁸⁷¹ Lapitov, McDaniel, and Schropp, “The De Minimis Threshold in International Trade,” 2017, do not provide an upper bound for their last interval and so we use \$2500 as the cutoff point for small packages. Changing the upper bound will impact the weight for the highest value interval and thus can change the weights of the other intervals.

Table I.3 Distribution of package values shipped to Canada using express couriers

Package range in value (\$)	0–15	15–60	60–75	75–150	150–2,500
Share (%)	36	33	6	14	11
Mid value (\$)	7.5	37.5	67.5	112.5	1,175.0
Weight (%)	1.6	7.5	2.5	9.6	78.7

Source: USITC estimates.

Using the cost changes in table I.2 and relative weights in table I.3, the Commission computed the value-weighted change in AVE costs for all express shipments from the United States to Canada to be 4.5 percent. If express shipments are assumed to comprise one-third of all U.S. shipments to Canada, then this implies a reduction in AVE of 1.4 percent for low-value shipments from the United States to Canada as a result of the higher DMTs.

The Commission used a similar approach to calculate how much AVE costs for U.S. shipments to Mexico would be reduced due to the higher DMTs in USMCA. To Mexico, the only packages that would be affected by the new de minimis threshold would be packages with values above \$50 and below \$115. These packages would see a reduction in AVE costs of 36 percent associated with MFN duties (around 1 percent), if they did not meet the rules of origin requirement, and brokerage fees (around 35 percent). Data were not available on the distribution of package values for Mexico. Therefore, the Commission’s analysis again relied on the distribution values in Lapitov, McDaniel, and Schropp (2017) to determine the respective weight for packages in this interval. Based on the weights in table I.3, a reduction in AVE costs of 1.1 percent is estimated for all low-value shipments from the United States to Mexico as a result of Mexico raising its de minimis threshold to \$115.

Market Shares

Data on the market shares of domestic brick-and-mortar firms, non-U.S. e-commerce firms, and U.S. e-commerce firms in the Canadian and Mexican retail industry were obtained from industry groups as well as proprietary sources.⁸⁷² Total retail sales in Canada in 2017 were around \$314 billion, with e-commerce comprising 7.3 percent of total retail sales (\$22.0 billion). U.S. e-commerce platforms and websites such as Amazon and CrossBorderShopping.ca are quite popular with Canadian shoppers as it allows them to save on retail goods even after accounting for cross-border duties and taxes. Based on a survey of Canadian consumers, around 33 percent of these e-commerce sales were attributed to U.S.-based firms, so U.S. e-commerce shipments to Canada in 2017 accounted for \$7.3 billion. The remaining 67 percent of e-commerce sales in Canada were attributed to domestic and non-U.S. firms (\$14.7 billion). In 2017, total retail sales in Mexico were around \$512 billion, of which e-commerce comprised only 1.7 percent (\$8.7 billion). About 30 percent of these e-commerce sales were attributed to U.S. firms (\$2.5 billion), with the remainder attributed to domestic and non-U.S. firms (\$6.2 billion).

⁸⁷² Statista, “E-commerce in Canada” (accessed November 15, 2019, fee required); Statista, “E-commerce in Mexico” (accessed November 15, 2019, fee required); Paypers, *Canada: Cross-Border E-commerce Report*, (accessed November 29, 2019); Paypers, *Mexico: Cross-Border E-commerce Report*, (accessed November 29, 2019).

Elasticity of Substitution

The elasticity of substitution is a key parameter in the analysis. It indicates how sensitive consumers are to changes in the relative prices of goods across the three retail channels. Preliminary work by Dolfen et al. (2019) estimates the elasticity of substitution between brick-and-mortar and e-commerce firms for U.S. consumers.⁸⁷³ Using individual Visa transactions data, the authors find a substitution elasticity of about 4.3 between online (e-commerce) and offline (brick-and-mortar) retail merchants. The Commission used this value for the elasticity of substitution across the different retail channels in the USMCA partial equilibrium model.

Model Results

Table I.4 shows the effect of changes in DMTs on shipments from U.S. e-commerce firms to Canada and Mexico, using the data inputs in table I.1. E-commerce shipments here refers to only low-value merchandise purchases made by Canadian and Mexican consumers through online platforms. It does not cover all low value shipments, which would also be affected by de minimis but were not included in the modeling analysis. The value of e-commerce shipments from U.S.-based firms to Canada would increase by 4.6 percent, which translates into \$332.9 million in additional sales. Similarly, the value of e-commerce shipments from U.S.-based firms to Mexico would increase by 3.6 percent, which translates into \$91.3 million in additional cross-border sales. These results, however, are sensitive to the share of packages affected by the higher DMTs and the value of the elasticity of substitution. Lower shares of packages shipped under the new DMTs, along with smaller values for the elasticity of substitution, would lead to a smaller increase in sales.

The Commission incorporated the increases in U.S. cross-border trade to Canada and Mexico from changes in DMTs, as shown in table I.4, into the retail sector of the economy-wide model.

Table I.4 Effect on U.S. e-commerce sales from changes in de minimis thresholds (DMTs)

	Canada	Mexico
Current value of U.S. e-commerce shipments (million \$)	7260	2527
Change in price of U.S. e-commerce shipments (%)	-1.4	-1.1
Change in quantity of U.S. e-commerce shipments (%)	6.0	4.7
Change in value of U.S. e-commerce shipments (%)	4.6	3.6
Change in value of U.S. e-commerce shipments (million \$)	332.9	91.3

Source: USITC estimate.

Note: E-commerce shipments refer to low-value merchandise purchases made through online platforms.

⁸⁷³ Dolfen et al., “Assessing the Gains,” 2019.

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Appendix J Modeling Investment

The investment provisions in USMCA were modeled in two ways. First, effective changes to market access commitments and nonconforming measures (NCMs) were modeled by econometrically estimating the effects of these provisions on foreign affiliate sales. The Global Trade Analysis Project's foreign direct investment (GTAP-FDI) model was then used to translate these econometric estimates into changes in productivity and capital expenditure for incorporation into the economy-wide model. Second, changes in the investor-state dispute settlement (ISDS) provisions were directly modeled using GTAP-FDI, which produced estimated impacts for inclusion in the economy-wide model. The remainder of this appendix will explain each of these two approaches.

Econometric Analysis of Market Access and NCM Commitments

The impact of USMCA's effective changes to market access commitments and NCMs on foreign affiliate sales was analyzed in two steps. The first step used a framework inspired by gravity models, similar to that used in the previous sections to econometrically estimate the effect of reducing trade restrictions on foreign affiliate sales.⁸⁷⁴ The second step used the GTAP-FDI model to translate the econometric estimates into changes in productivity and income repatriation for incorporation into the economy-wide model.

The econometric modeling used in the first step was based on foreign affiliate sales data from the U.S. Bureau of Economic Analysis (BEA) and the European Commission's Eurostat.⁸⁷⁵ Gravity variables for distance, preferential trade agreements, colonial relationships, common borders, joint EU membership, and joint World Trade Organization (WTO) membership were included from the Dynamic Gravity dataset.⁸⁷⁶ The compiled data reflects foreign affiliate sales in 38 countries and 13 sectors from 33 source countries in the years 2014–15.⁸⁷⁷ Using these data, the following model was estimated.

$$\ln(Y_{ijst}) = c + \sum_k \alpha^k z_{ijt}^k + \beta * STRI_{jst} + \mu_i + \nu_j + \rho_s + \psi_t + \epsilon_{ijst} \quad (J.1)$$

⁸⁷⁴ Gravity models are explained in appendix H. The econometric model resembles a typical gravity framework. However, due to limitations in the foreign affiliate sales data used for the analysis, the analysis did not follow all methods that modern gravity analysis is based on, such as nonlinear estimation or country-year fixed effects.

⁸⁷⁵ USDOC, BEA, International Transactions Account database, Foreign Direct Investment Position in the United States on a Historical-cost Basis; USDOC, BEA, U.S. Direct Investment Position Abroad on a Historical-cost Basis (accessed November 27, 2018); and Eurostat, Foreign Control of Enterprises by Economic Activity and a Selection of Controlling Countries (accessed November 7, 2018).

⁸⁷⁶ Gurevich and Herman, "The Dynamic Gravity Dataset," 2018.

⁸⁷⁷ The data for the services sectors are based on the overlap between foreign affiliate sales data and data from the Services Trade Restrictiveness Index (STRI) of the Organisation for Economic Cooperation and Development (OECD). In some cases, sectors in one data source were combined in order to match a sector in the other. The 13 sectors used for analysis include architecture and engineering; construction; courier; distribution; banking; insurance; broadcasting, motion pictures, and sound recording; accounting; legal; telecommunications; air transport; and road freight transport.

This model measures the extent to which foreign affiliate sales depend on the gravity variables and trade restrictiveness across a variety of countries, sectors, and time. The term Y_{ijst} denotes foreign affiliate sales of firms from country i in country j , in sector s , during year t . On the right hand side, Z_{ijst}^k denotes the collection of gravity variables; μ_i , ν_j , ρ_s , and ψ_t denote source country, destination country, sector, and year fixed effects; and ϵ_{ijst} is an error term. The term $STRI_{jst}$, which is explained in greater detail below, denotes the Services Trade Restrictiveness Index (STRI) measure for the country and sector in which the foreign affiliate sales are taking place. This measure is the basis of the modeling of the investment provisions in USMCA.⁸⁷⁸ The coefficient β captures the relationship between services trade restrictions, as measured by the index, and the level of foreign affiliate sales in the country. The STRI measure used reflects the portion of the STRI classified as “restrictions on foreign entry.” Finally, equation J.1 was estimated via ordinary least squares (OLS).

The estimates of the effect of the USMCA investment provisions on foreign affiliate sales was based on applying the estimated effect of existing services trade restrictions (described in the following section) to those being affected in the agreement. The coefficient estimate of interest, $\hat{\beta}$, indicates that that foreign affiliate sales are inversely correlated with the level of services trade restrictions, meaning that an increase in restrictions is associated with a decrease in foreign affiliate sales. Separately, the provisions in USMCA were mapped to questions within the STRI for each sector, so that a rescored value was developed that reflects the content of the agreement. The changes in the rescored STRI were combined with the estimated relationship between the STRI and foreign affiliate sales in order to produce estimated, sector-specific changes in foreign affiliate sales within the affected countries.

In all cases, the provisions in the agreement represented commitments to current policies that prohibit the future introduction of restrictions in Canada, Mexico, and the United States. Similar to the digital trade modeling, these provisions were treated as reducing policy uncertainty. As such, their effect on foreign affiliate sales was weighted in the same way as other policy uncertainty issues.

Quantification of USMCA Services Commitments

This section describes the methodology used to determine the extent of effective changes to NAFTA and GATS services commitments made by the United States, Canada, and Mexico in USMCA. It also describes the translation of the commitments to values corresponding to the restrictiveness scores in the STRI,⁸⁷⁹ which were used as inputs into the quantitative analyses conducted for this investigation.⁸⁸⁰ This process analyzed commitments affecting both mode 1 and mode 3 services trade. The effects on mode 3 services trade informed the modeling of investment described in this appendix. The effects on mode 1 services trade informed the analysis of cross-border services discussed in chapter 2 and appendix H.

⁸⁷⁸ OECD, Services Trade Restrictiveness Index (accessed November 8, 2018 through February 1, 2019)

⁸⁷⁹ The OECD’s Services Trade Restrictiveness Index (STRI) is a rough measure of market openness to services trade, covering 22 services sectors. Scores range between zero (complete openness to trade and investment) and one (total market closure to foreign services providers). For an overview of the STRI, see OECD, “OECD Services Trade Restrictiveness Index,” March 2018.

⁸⁸⁰ These additional commitments provide increased certainty, typically by binding to on-the-ground policy. The value of these commitments is calculated for use in the quantitative analyses. This is different than rescored a new policy environment under the agreement.

For the purpose of this exercise, “effective changes” are commitments captured in USMCA Annexes I, II, or III that differ from those made by the parties in NAFTA or GATS and that were not captured by the NAFTA ratchet.⁸⁸¹ The relevant texts of USMCA, NAFTA, and GATS were analyzed to determine where there have been effective changes to quantify.

Two types of effective changes were identified for quantification: market access commitments made by a party that differ from the party’s GATS commitments, and changes reflected in the differences between a party’s NAFTA and USMCA nonconforming measures (NCMs). Commitments that reflect changes to provincial- or state-level measures, and definitional changes affecting market access commitments, were not included in the quantitative analyses. Provisions in USMCA that are more restrictive than their NAFTA counterparts either do not correspond to an OECD STRI sector, are not a policy included in the OECD STRI, or—in the case of the United States cross-border trucking commitments—concern NAFTA provisions that were not fully implemented.⁸⁸² These are not considered to be effective changes for these reasons and therefore were not included in the quantitative analysis.

Market Access Commitments

A subset of the sector-level market access commitments discussed in chapter 6 is captured in the quantitative analyses conducted for this investigation. Each USMCA party’s market access commitments, as specified in USMCA Chapter 17 for financial services and Appendix II-A for all other services, were compared to its GATS obligations in order to identify effective changes that were included in the quantitative analyses.

Changes that impact national-level provisions and changes that impact sectors which closely correspond to sectors included in the OECD STRI were included in the quantitative analyses.⁸⁸³ Where a sector and mode of trade is impacted by effective changes to both market access commitments (relative to GATS) and NCMs (relative to NAFTA), the NCM changes typically supersede those involving market access commitments.⁸⁸⁴ As noted above, any changes to sector definitions relative to GATS are excluded from the analysis.

Few effective changes to U.S. or Canadian market access commitments were included in the analysis, as many of the changes to these parties’ obligations impact state- or provincial-level regulations. Further, for the United States, a number of changes to sector definitions and sectors were not mapped to the OECD STRI and therefore were not included in the quantitative analyses. As a result of these parameters, the only effective Canadian market access changes that were included in the quantitative analysis were Canada’s removal of its national cabotage restriction in the railway sector (mode 1), as

⁸⁸¹ Apart from changes relating to USMCA market access obligations, the analyses do not include changes stemming from differences in the main text of the chapters on Cross-Border Trade in Services or Financial Services in NAFTA and USMCA.

⁸⁸² The United States’ commitments in USMCA for cross-border trucking bind to current on-the-ground policy. While the United States committed in NAFTA to phase out some of its restrictions on Mexican trucks, these restrictions were ultimately not removed.

⁸⁸³ The OECD STRI is based on the Nomenclature générale des Activités économiques dans les Communautés européennes (General Classification of Economic Activities, or NACE), revision 2. <http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm> (accessed February 1, 2019).

⁸⁸⁴ Mexico’s mode 3 legal services commitments fall under this category.

well as market access commitments in Canada’s commercial banking and insurance (also mode 1).⁸⁸⁵ Market access changes made by the United States that were incorporated in the analyses include measures affecting parts of cargo handling and of storage and warehousing (modes 1 and 3) and courier services (modes 1 and 3), as well as commercial banking and insurance (mode 1).

A large portion of Mexico’s effective changes affect sectors for which Mexico has undertaken new commitments in USMCA. However, foreign equity restrictions are not covered by USMCA’s market access provisions; instead, they are captured under the agreement’s national treatment obligations. As a result, the absence of equity restrictions in a sector-mode within USMCA’s market access commitments is not interpreted as an effective change. For example, a foreign equity restriction present in Mexico’s mode 3 market access commitments under GATS—but absent from its USMCA mode 3 market access commitments as in the case of accounting, auditing, and bookkeeping services—is excluded from the quantitative analysis.

NCM Commitments

The quantitative analyses also include effective changes to the parties’ services obligations stemming from differences between NCMs listed in NAFTA and those listed in USMCA. These typically involve the movement of NCMs from Annex II in NAFTA to Annex I in USMCA.⁸⁸⁶ NAFTA Annex I NCMs that do not appear in USMCA or that are modified by USMCA to reflect autonomous regulatory changes that occurred since NAFTA first went into effect are considered to have been captured by NAFTA’s ratchet mechanism; as such, they are not considered to represent an effective change and are not included in the quantitative analyses. For more details on each country’s NCMs, see chapter 6.

OECD STRI Rescoring and Weighting

To express effective changes quantitatively, scores were assigned to these changes based on the value of relevant measures from the OECD’s STRI category “restrictions on foreign entry.” Specifically,

- Market access and NCM-based changes affecting mode 1 were scored based on the contribution to the STRI of a corresponding market entry measure that affects all modes of trade.
- Changes impacting market access through mode 3 are scored using the average OECD STRI scores for two subcategories of “restrictions on foreign entry”: “legal form: only joint ventures are allowed” and “screening explicitly considers economic interests.”⁸⁸⁷
- Mode 3 NCM-based changes were scored by recalculating the portion of the STRI representing foreign equity restrictions.

⁸⁸⁵ Cabotage is the right to operate transportation services within a country.

⁸⁸⁶ In both NAFTA and USMCA, Annex I lists existing measures that do not conform to the agreement’s obligations, while Annex II lists areas in which the parties reserve the right to maintain current barriers or impose more restrictive or new barriers. Annex I items are subject to a ratchet mechanism, under which any autonomous liberalizations by a party after the agreement enters into force are incorporated into the agreement. Thus a reservation that moves from NAFTA Annex II to USMCA Annex I indicates that any future liberalization will be captured by the USMCA ratchet mechanism and that the policy will not be made more restrictive in the future.

⁸⁸⁷ For example, in Mexico’s maritime transport industry, these measures account for about 8 percent of the total Services Trade Restrictiveness Index (STRI), which is the value that is used in the quantitative analyses.

For example, Mexico had a broad legal services reservation applying to the provision of legal services by U.S. nationals in NAFTA Annex II, and also maintained an NCM on legal services in NAFTA Annex I. Under USMCA, Mexico eliminated its Annex II legal services reservation and modified its Annex I reservation to allow foreign ownership in line with on-the-ground policy. This modification of Mexico's legal services reservations was considered an effective change. The modification was mapped to the OECD STRI's legal services sector for Mexico and the measure (foreign equity participation) was isolated so that all other policies were held constant.

To understand the value of this commitment not to impose additional restrictions in the future, a hypothetical future situation was estimated where Mexico increased restrictions on foreign equity participation in legal services. The result was a simulated movement in the STRI from a policy environment with no restrictions on foreign equity participation to an environment where foreign equity participation is prohibited (i.e., moving from 100 percent foreign equity allowed to 0 percent foreign equity allowed), which is calculated as 0.395. This calculation was applied to the overall effect of the STRI on foreign affiliate sales, which was estimated through the gravity-inspired model described earlier in this appendix. The gravity model estimates that a 1 percent increase in the STRI (0.01) results in a 3.94 percent decrease in foreign affiliate sales. In this case, the STRI decrease (0.395) was multiplied by the gravity model coefficient (3.94), and also scaled by the 25 percent uncertainty scenario described in this report's appendix H, which together resulted in an estimated increase in foreign affiliate sales for this country-sector-mode of 38.86 percent.

To provide another example, under USMCA Canada removed the limitation on market access to cabotage it maintained under GATS for mode 1 rail passenger and freight transport.⁸⁸⁸ This commitment was mapped to a measure included in the OECD STRI affecting cross-border trade in Canada's rail freight transport sector, and the sector was weighted by the portion of the sector affected (i.e., cabotage represents only a part of "railway transport" as defined by the OECD and so was assigned a weight based on Commission calculations). A representative measure was used to approximate the level of restrictiveness that is represented by this effective change (after accounting for the weighting, the STRI movement was estimated to be 0.0035). This calculation was applied to the overall effect of the STRI on cross-border services trade and was estimated through the structural gravity model described in this report's appendix H. The gravity model estimates that a 1 percent increase in the STRI (0.01) results in a 3.75 decrease in trade costs. In this case, the STRI decrease (0.0035) was multiplied by the gravity model coefficient (3.75), and also scaled by the 25 percent uncertainty impact described in appendix H, which resulted in an estimated decrease in trade costs for this country-sector-mode of 0.33

⁸⁸⁸ This was captured as an effective change because NAFTA did not include market access commitments.

percent. The full set of estimates are presented in table J.1 (foreign affiliate sales) and table H.2 (cross-border services).

Table J.1 Estimated increases in foreign affiliate sales due to the effects of USMCA commitments (percent)

Impact of provisions reducing policy uncertainty	Moderate	High
Canada		
Telecom services	11.91	23.81
Mexico		
Architecture services	0.28	0.57
Audiovisual	1.08	2.16
Broadcasting	27.45	54.90
Commercial banking	7.05	14.09
Computer services	1.59	3.17
Distribution	0.50	1.01
Engineering services	0.28	0.57
Freight forwarding	0.55	1.11
Legal services	38.86	77.73
Logistics warehousing	2.02	4.03
Maritime transport	5.95	11.91
Rail freight transport	19.87	39.75
Telecom services	9.15	18.30
United States		
Broadcasting	27.45	54.90
Logistics cargo handling	0.93	1.87
Courier services	1.65	3.30
Legal services	38.86	77.73
Storage and warehousing	1.01	2.02
Telecom services	22.93	45.85

Source: USITC estimates.
 Note: The “Moderate” and “High” impact estimates reflect the values used in each of the corresponding simulations described in chapter 2 and appendix H. The values were all zero (0.00) in the no-impact simulation.

Quantification of Investment and ISDS Provisions – GTAP-FDI Simulations

This section provides a description of the GTAP-FDI model used to quantify the investment provisions relating to both the market access commitments and nonconforming measure commitments, as well as the ISDS alterations. It also discusses how the estimated changes produced by the GTAP-FDI model were incorporated into the economy-wide simulations.

The Commission used the GTAP-FDI model to simulate the effects of investment provisions. This model has been used in recent Commission reports on trade and investment barriers in India, as well as on the Transpacific Partnership (TPP) Agreement. The GTAP-FDI model is a computable general equilibrium (CGE) model that incorporates FDI stock and foreign affiliate sales data. It is a comparative, static, multiregional, and multisector CGE model which differentiates between domestic and foreign firms on both the demand side and the supply side. The model can be used to estimate the economy-wide and sectoral effects resulting from changes in a country’s FDI policies and/or investment provisions within a

free trade agreement (FTA). This model has also been extended to treat the labor force as an endogenous variable.⁸⁸⁹ Under this assumption, the labor supply elasticity is greater than zero, which implies that the labor supply will expand in response to a rise in real wages, and contract if wages fall.

Another important update to this model is that it allows sector-specific capital to move across borders (Tsigas and Yuan, 2018). The capital used by U.S. motor vehicle producers is a good example. The model assumes that the capital used as an input by U.S. motor vehicle producers all over the world is fixed, and this fixed amount of capital is allocated among U.S. domestic motor vehicle producers as well as U.S. motor vehicle foreign affiliates located all over the world. With the movement of capital across borders, this model is able to take into account the offshoring/reshoring of businesses resulting from changes in foreign affiliate sales.

The simulation used GTAP version 10, and the baseline is updated to 2017. One hundred forty-one regions of the original GTAP model were aggregated into 19 regions, which is the same country-level aggregation as that used in the main economy-wide model.⁸⁹⁰ The Commission maintains the 57 GTAP sectors as in the original GTAP model. The GDP of all regions were updated to 2017, data on U.S. output were updated to 2015, and data on U.S. foreign affiliate sales to Canada and Mexico were updated to 2016, which are the latest years for which data were available. The base year data on the U.S. foreign affiliate sales in Mexico in the GTAP-FDI model are shown in table J.2.

⁸⁸⁹ The FDI model uses an elasticity of supply of 0.5 for the United States and 0.0 for other regions.

⁸⁹⁰ The 19 regions are Peru, Chile, South Korea, Mexico, the United States, Canada, Thailand, Vietnam, Malaysia, Brunei, Australia, New Zealand, China, Hong Kong, Japan, Singapore, Indonesia, the EU28, and the rest of the world.

Table J.2 U.S. foreign affiliate sales in Mexico, 2016

	Sales (billion \$)	Share of total (%)
Agriculture, forestry, fishing and hunting	0.8	0.4
Other mining	(a)	(a)
Oil and gas extraction	0.3	0.1
Food manufacturing	12.1	5.2
Beverages and tobacco products	3.0	1.3
Textiles, apparel, and leather products	1.0	0.4
Wood products	(b)	0.0
Printing and related support activities	0.3	0.1
Petroleum and coal products	(a)	(a)
Chemicals, plastics, and rubber products	15.5	6.7
Nonmetallic mineral products	1.8	0.8
Primary metals	2.6	1.1
Fabricated metal products	2.1	0.9
Transportation equipment	64.6	27.9
Computer and electronic products	4.9	2.1
Machinery, electrical equipment, and appliances	11.3	4.9
Furniture and related products	0.2	0.1
Miscellaneous manufacturing	(a)	(a)
Utilities	(a)	(a)
Construction	0.4	0.2
Wholesale and retail trade, accommodation, and food services	62.9	27.1
Wholesale trade	29.7	12.8
Retail trade	32.6	14.1
Accommodation and food services	0.6	0.3
Transportation and warehousing	4.4	1.9
Information services	3.1	1.3
Finance and insurance	17.9	7.7
Real estate and renting and leasing	1.3	0.6
Other services	3.3	1.4
Total	231.5	100.0

Note: Baseline data are from the GTAP-Foreign Direct Investment (FDI) model, pulled from the U.S. Bureau of Economic Analysis (BEA).

^a Data have been suppressed to avoid disclosure of the data of individual companies. For the purpose of constructing the baseline of the GTAP-FDI model, data from a previous year, when available from the BEA, are used instead.

^b Less than \$50 million.

The investment provisions under USMCA represent commitments to maintaining current foreign equity requirements in the member countries. Furthermore, the investment provisions also include the scale-back of ISDS between the United States and Mexico, as well as the elimination of ISDS between Canada and Mexico, after a three-year phaseout period.

To estimate the effects of commitments made under USMCA on investment as well as the effect of changes in ISDS provisions, this analysis ran one simulation using the GTAP-FDI model. In the simulation, Mexico, Canada, and the United States were host countries for FDI. The host country's foreign affiliate sales to all the other 18 owner regions that were endogenous in the model were made exogenous, while the sectoral productivity parameters that were exogenous in the model were made endogenous.

To quantify the commitments on investment, the host country's foreign affiliate sales for all owner countries were shocked by the amounts given by the gravity-inspired econometric approach described in the previous section. At the same time, to quantify the effects of changes in ISDS, U.S. foreign affiliate

sales to Mexico were shocked by the amount taken from Egger and Merlo (2007) for all the sectors except the five exempted sectors (oil and natural gas, power generation, telecommunications, transportation services, and infrastructure).⁸⁹¹ U.S. investors in these five sectors that are “a party to a covered government contract” would continue to receive protection under ISDS, similar to the level of protection that they receive under NAFTA. Meanwhile, Canadian foreign affiliate sales to Mexico for all sectors were also shocked by the amount taken from Egger and Merlo (2007).⁸⁹² With a decline of U.S. foreign affiliate sales in Mexico as a result of the changes in ISDS provisions, overall output in different sectors in Mexico would also decline, leading to a decrease in overall productivity in Mexico. The GTAP-FDI model then calculated the productivity change and the change in capital expenditure in each sector in each host country. Finally, the estimated productivity gains and change in capital expenditure for the three member countries were incorporated into the main economy-wide simulation.

⁸⁹¹ Egger and Merlo, “The Impact of Bilateral Investment,” 2007.

⁸⁹² As is indicated in chapter 8, Egger and Merlo “the Impact of Bilateral Investment,” 2007, found that the ratification of bilateral investment treaties (BITs) is correlated with a 4.8 percent increase in outward FDI stock. Meanwhile, Oldenski, “What Do the Data Say?” 2015, argues that since investor-state dispute settlement (ISDS) is a key part of BITs which makes these treaties enforceable, ISDS is also likely to promote foreign direct investment (FDI), particularly to developing countries. Therefore, to account for the change in ISDS provisions under the USMCA, the FDI model shocks a reduction of U.S. foreign affiliate sales to Mexico in all sectors except the aforementioned five sectors by 4.8 percent, combined with a reduction of Canadian foreign affiliate sales to Mexico in all sectors by 4.8 percent. One caveat here is that BITs include other enforcing mechanisms such as state-to-state dispute settlement (SSDS); moreover, transforming the 4.8 percent change in outward FDI stock into a 4.8 percent change in foreign affiliate sales assumes a full expansion of the production function. Therefore, the results from the FDI model should be interpreted as an upper band estimate.

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