

Trade tensions and USMCA Trade

Presentation at Federal Reserve Bank of Dallas, Sept 26 2019

Eddy Bekkers



Introduction

- Trade policy events last two years suggest that trade relations will be changing:
 - Withdrawal United States (US) from Transpacific Partnership (TPP), uncertainty about NAFTA and conclusion of new agreement, USMCA
 - US tariff increases on steel and aluminium (232 measures) plus response and possible tariffs on car imports into the United States
 - US tariff increases on imports from China (301 measures), response, and broader implications for relations between two biggest economies in the world
 - Uncertainty Appellate Body World Trade Organization (WTO)
 - Brexit and scepticism about the European Union
- Central question presentation: how would USMCA trade be affected by different trade policy scenarios?
 - Construct three scenarios and determine impact on trade, output, intra-USMCA trade, and foreign value added in intra-USMCA trade
- *Disclaimer in general:* The opinions expressed in this presentation should be attributed only to its author(s). They are not meant to represent the positions or opinions of the WTO and its Members and are without prejudice to Members' rights and obligations under the WTO.

Outline

- 1 Introduction
- 2 Scenarios
- 3 Methodology: model
- 4 Methodology: construction of baseline and experiments
- 5 Results simulations
- 6 Concluding remarks

Three scenarios

- Generate baseline of global economy until 2030, taking into account the projected impact of digital technologies on trade costs
- Construct three scenarios
 - 1 Tariff increases trade tensions 2018-2019. 232 measures (tariffs steel and aluminum) and 301 measures (tariffs China) plus responses
 - 2 As Scenario (1) and increase of tariffs on cars 25% (USMCA exempted)
 - 3 As Scenario (1) and (2) and break-up of USMCA
 - Serves to illustrate importance of USMCA agreement for trade within the region

Methodology: economic model

- WTO Global Trade Model to project long-run impact of trade policy scenarios
 - Recursive dynamic computable general equilibrium (CGE) model, suitable to make detailed projections at the country and sectoral level based on macroeconomic projections
 - Intermediate production and trade linkages between sectors, capital accumulation, and international investment flows.
 - Trade: love of variety between varieties from different regions (Armington preferences)
- Differences with new quantitative trade (NQT) models
 - Baseline calibration equal (to actual shares). Solution method different (inconsequential)
 - NQT models tend to work with Eaton-Kortum comparative advantage model, implying equivalent equilibrium conditions to our model
 - NQT models more parsimonious, typically imposing fixed spending shares (for example between intermediates and value added)
 - Most NQT models are comparative static, except for recent contributions
 - Our model is recursive dynamic, omitting forward looking behavior (mainly relevant for anticipation effects)

Methodology: construction of baseline until 2030

- GTAP10 baseline data (141 regions, 65 sectors) from 2014 (aggregated to 24 regions, 25 sectors, and 5 production factors) are projected to 2030 using:
 - IMF projections on population, employment and economic growth per capita until 2022
 - UN projections on population and labor force growth and OECD SSP2 projections on economic growth per capita from 2023
 - Own WTO-calculations on various types of structural change
 - Differential productivity growth across sectors
 - Adjusting savings rates based on life-cycle determinants
 - Changing preferences of private households away from food and manufacturing towards services
 - Falling trade costs as a result of new digital technologies, the introduction of e-commerce and the implementation of the Trade Facilitation Agreement

Methodology: construction of three scenarios

- ① Trade tensions: 232 and 301 measures plus response
 - Section 232 measures: US tariff increases on imports of aluminum and steel (Mexico, Canada, Australia, Argentina) and responses by the EU, Russia, Turkey, and China
 - Section 301 measures: US tariff increases on Chinese imports plus response
 - 230 billion (mainly intermediates): 30%
 - 280 billion (mainly final goods): 15%
 - Response China: Tariffs on American imports raised to more than 20%
- ② As scenario (1) and increase of tariffs on cars to 25% plus response
 - Mexico and Canada exempted
 - Response: tariff increases proportional to trade affected by car tariffs
- ③ As scenarios (1) and (2) and collapse of USMCA
 - Tariffs increase from preferential level to most favored nation (MFN) level
 - Increase (Iceberg) trade costs related to non-tariff measures
 - Top-down approach from gravity literature: use estimates of ad valorem equivalent trade cost increases associated with break-up deep FTAs at sectoral level (Egger et al., 2015, EP)
 - Mexico and Canada not exempted from car tariffs anymore (plus response)

Baseline: macroeconomic projections

Table: Macroeconomic projections: annual projected growth 2018-2030

	GDP per capita	Population	Labor force
Argentina	1.53	0.78	0.70
Asia LDC	4.98	0.86	1.19
Brazil	1.31	0.60	0.40
Canada	0.93	0.94	0.55
China	5.14	0.16	-0.21
European Union 28	1.59	0.19	0.16
Indonesia	4.41	0.84	0.95
India	5.20	1.09	1.08
Japan	1.27	-0.34	-0.11
Korea	2.51	0.19	-0.38
Latin America	1.91	0.81	0.81
Mexico	2.03	0.85	1.05
Other Asian countries	1.78	1.42	1.31
Russia	2.26	-0.12	-0.49
Southeast Asia	3.47	0.94	1.04
Sub-Saharan Africa LDC	2.98	2.28	3.02
Turkey	2.29	0.97	1.26
United States	1.30	0.69	0.56

Policy experiments: tariff changes

Table: Tariffs between US and China in baseline and scenarios 1 and 2

Country	Partner	Average tariffs		Bil. tariffs USA-CHN	
		Initial	Scenario	Initial	Scenario
Scenario 1: trade tensions					
USA	Imposed	1.36	5.82	2.62	20.63
USA	Faced	3.07	5.55	5.92	19.05
China	Imposed	3.68	4.72	5.92	19.05
China	Faced	4.39	7.62	2.62	20.63
Scenario 2: trade tensions and cars					
USA	Imposed	1.36	7.11	2.62	20.63
USA	Faced	3.07	7.72	5.92	19.05
China	Imposed	3.68	4.72	5.92	19.05
China	Faced	4.39	7.62	2.62	20.63

Policy experiments: tariff changes

Table: Tariffs USMCA partners in baseline and scenario 3

Country	Partner	Average tariffs		On USMCA partners	
		Initial	Scenario	Initial	Scenario
USA	Faced	3.07	10.75	0.01	11.65
USA	Imposed	1.36	8.76	0.03	7.28
Canada	Faced	1.14	5.91	0.05	6.94
Canada	Imposed	1.04	5.63	0.01	8.81
Mexico	Faced	0.76	5.99	0.00	7.07
Mexico	Imposed	1.30	7.59	0.00	13.03

Results of simulations

- To show how the global economy in general and countries in the USMCA region in particular would be affected, we display changes in the following outcome variables focusing on the effects in the USA, China, Mexico and Canada:
 - Real exports and real GDP in different regions
 - Weight in global trade: share in global trade of different regions (excluding intra-regional)
 - Changes in US trade with different regions
 - Changes in US trade with different regions for motor vehicles
 - Sectoral production effects in the US
 - Share of USMCA trade in total trade
 - By region
 - By sector
 - The share of re-imported value added within USMCA

Trade effects: selected countries and global average

Table: Percentage change real exports by 2030 (cumulative scenarios)

	Trade tensions	Autos	Break-up USMCA
Canada	1.17%	4.05%	-9.39%
China	-3.30%	-3.21%	-3.20%
EU	0.06%	-0.20%	0.21%
Japan	0.12%	-0.73%	-0.52%
Mexico	1.74%	3.11%	-7.35%
USA	-6.27%	-9.14%	-14.76%
Global	-0.88%	-1.13%	-1.87%

- US exports are projected to fall significantly in the different scenarios both because of responses trading partners and reallocation to import competing sectors
- Canada and Mexico are projected to expand trade in the first two scenarios because of trade diversion
- Globally trade is projected to fall by around 1% in the first two scenarios and close to 2% with a break-up of USMCA

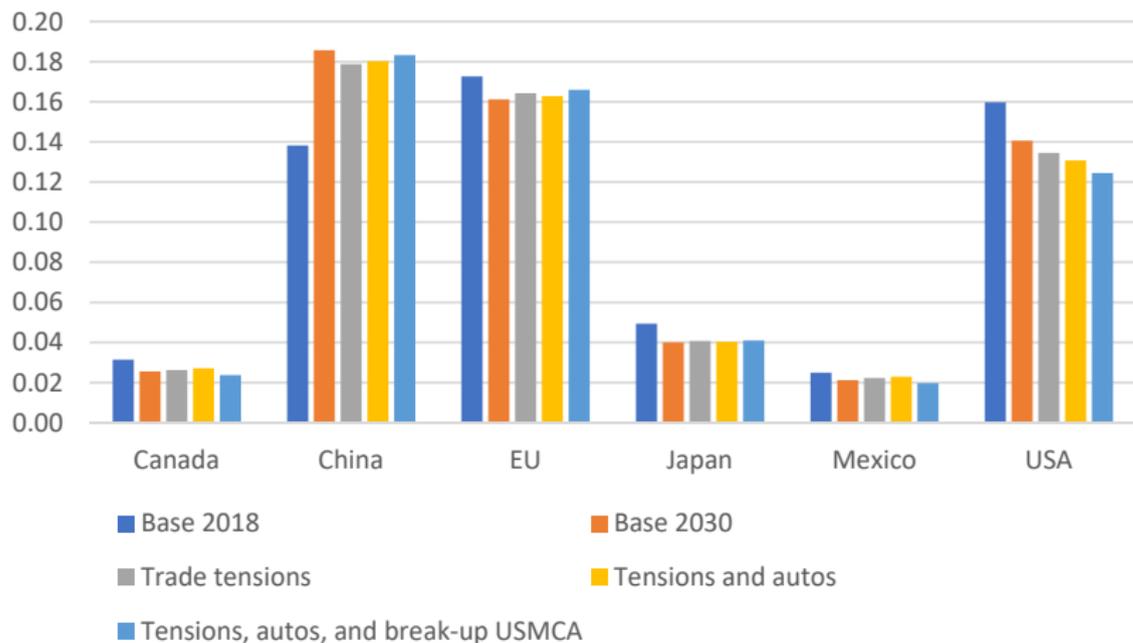
GDP effects: selected countries and global average

Table: Percentage change real GDP by 2030 (cumulative scenarios)

	Trade tensions	Autos	Break-up USMCA
Canada	0.40%	0.71%	-1.83%
China	-0.74%	-0.61%	-0.38%
EU	0.25%	0.26%	0.53%
Japan	0.21%	0.05%	0.28%
Mexico	1.38%	2.30%	-3.14%
USA	-0.44%	-0.72%	-1.10%
Global	-0.14%	-0.09%	-0.05%

- China and the US projected to lose because of trade tensions and Mexico and Canada to gain because of trade diversion and redirection of investment flows
- Global effects are limited: no investment and trade policy uncertainty effects modelled

Share in global trade of different regions



Trade effects: USA

Table: Percentage change trade USA by 2030 (cumulative scenarios)

	Trade tensions	Autos	Break-up USMCA
Total Exports	-6%	-9%	-15%
Total Imports	-5%	-9%	-14%
Imports from China	-56%	-57%	-58%
Exports to China	-38%	-35%	-31%
Imports from Mexico	7%	10%	-11%
Exports to Mexico	3%	9%	-46%
Imports from Canada	6%	11%	-18%
Exports to Canada	2%	8%	-34%

- Bilateral trade between the US and China is projected to fall very substantially, diverting trade to other trading partners such as Canada and Mexico

Trade effects: Motor vehicles

Table: Percentage change trade USA motor vehicles by 2030 (cumulative scenarios)

		Trade tensions	Autos	Break-up USMCA
Bilateral exports to	Canada	1%	13%	-44%
	China	-63%	-62%	-62%
	EU	-2%	-40%	-40%
	Japan	-1%	-64%	-63%
	Mexico	0%	10%	-59%
Total exports		-13%	-13%	-42%
Bilateral imports from	Canada	0%	34%	-56%
	China	-68%	-56%	-23%
	EU	3%	-57%	-25%
	Japan	3%	-56%	-25%
	Mexico	-5%	25%	-49%
Total imports		-3%	-13%	-39%

- Total US trade of motor vehicles is not affected a lot in the first two scenarios, because most trade in this sector is within USMCA

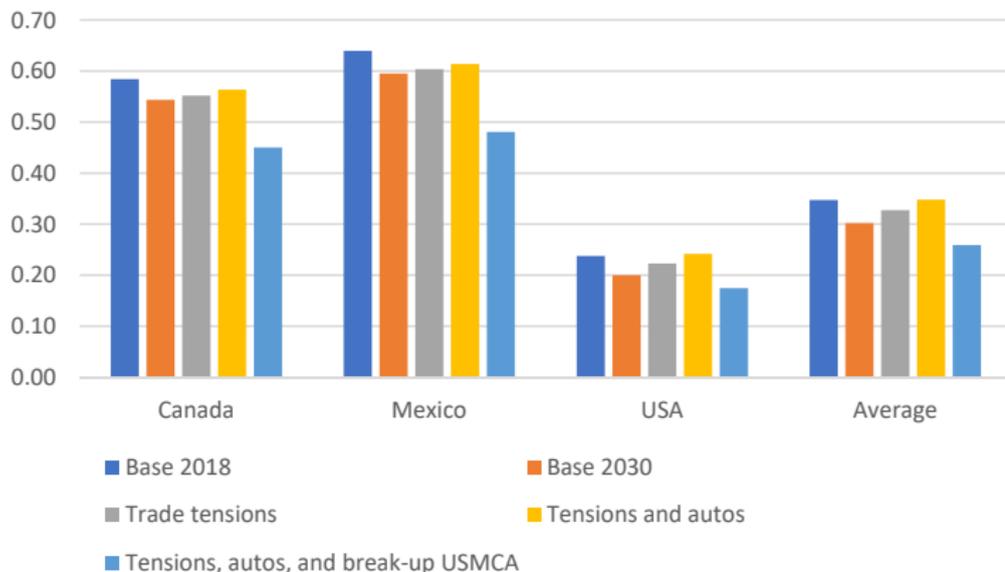
Sectoral production effects USA

Table: Percentage change real output USA by 2030 (cumulative scenarios)

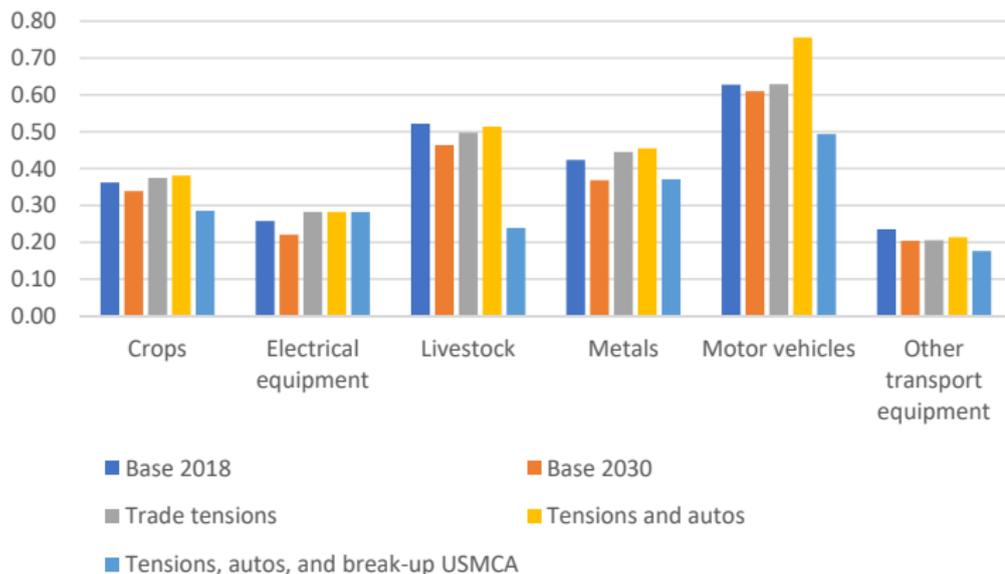
	Trade tensions	Autos	Break-up USMCA
Crops	-5.39%	-6.22%	-7.02%
Computer and electronic equipment	2.87%	2.91%	0.49%
Electrical Equipment	2.53%	0.82%	1.50%
Livestock	0.12%	-0.25%	-2.93%
Metals	1.15%	1.42%	0.28%
Motor vehicles	-3.84%	2.23%	4.87%
Other transport equipment	-1.13%	-3.95%	-2.07%

- Production in computer and electrical equipment and metals projected to rise under trade tensions and motor vehicles production to fall
 - In the autos and USMCA break-up scenario motor vehicles production would rise
- Big loser in all scenarios is the agricultural sector
 - Share of production in manufacturing rises slightly (by half percentage point), but negative impact of structural change on the manufacturing share is much bigger

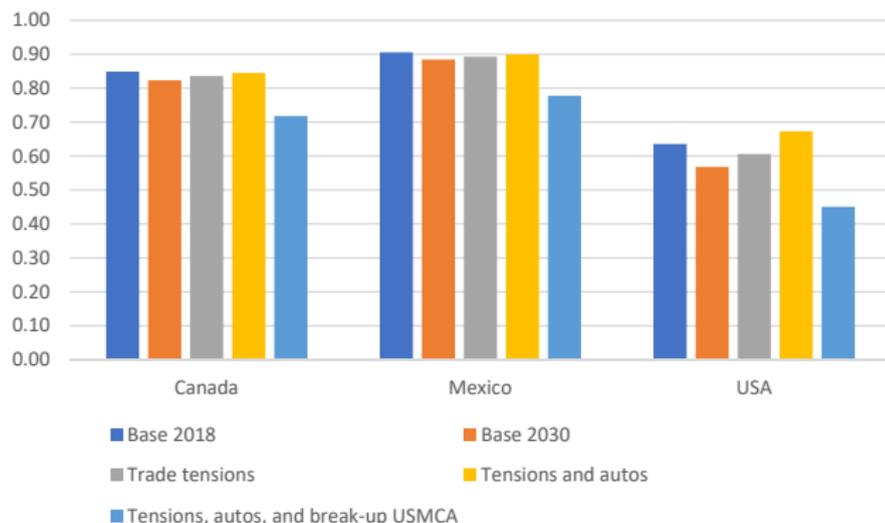
Share of intra-USMCA trade (exports plus imports)



Share of trade (exports plus imports) within USMCA



Share of re-imported value added through USMCA



- The share displayed is defined as the amount of value added of each of the countries re-imported from USMCA partners divided by the total amount of re-imported value added of each of the countries. Based on Wang-Wei-Zhu decomposition

Interpretation results intra-USMCA trade

- Share of intra-USMCA trade projected to fall in baseline, because of higher growth rates of other trading partners (emerging economies)
- Trade tensions and potential car tariffs (with USMCA exempted) would raise intra-USMCA trade, although on average not back to the initial level in 2018
 - For Canada and Mexico the share would stay lower, whereas the share would return to the initial level for the US
- A break-up of USMCA, together with 25% tariffs on autos plus response would reduce the intra-USMCA share substantially
- The share of re-imported value added which is re-imported through USMCA follows the share of intra-USMCA trade:
 - The share is projected to fall in the baseline from 2018 to 2030
 - The share exceeds the initial level for the US in Scenario 2 with tariffs on autos

Concluding remarks

- Global trade is projected to fall by about 1%, because of the tariff increases under Sections 232 and 301 and the responses by trading partners (trade tensions scenario). A break-up of USMCA would reduce global trade by about 2%
 - Investment and trade policy uncertainty effects not taken into account
- Bilateral trade between China and the US is projected to fall substantially under Scenario 1 (trade tensions) by about 50% with trade diverting to other trading partners and also USMCA partners benefiting
- The trade tensions are projected to raise output in most manufacturing sectors, although this is not sufficient to counter the effects of structural change (differential productivity growth and shifting preferences). Agricultural output is projected to fall substantially
- The share of intra-USMCA trade is projected to fall in the baseline to 2030. Although increasing in the trade tension and car tariff scenarios, the share does not return to the initial level of 2018
 - The share of re-imported value added within USMCA follows the patterns for intra-USMCA trade