

GLOBAL ECONOMICS INSIGHTS & VIEWS

April 10, 2017

Evolving US Trade Policy: What's at Stake for the NAFTA Zone

- The White House is expected to inform Congress in the coming months of its intention to renegotiate the North American Free Trade Agreement (NAFTA) and to seek revisions to other aspects of the United States' (US) trade relationships with Canada and Mexico.
- Canada and Mexico are highly exposed to any changes in US trade policy: both countries send over three-quarters of their exports to the US, which is equivalent to about 20% of Canadian GDP and 26% of Mexican GDP. As a relatively closed economy, the US is less directly dependent on trade with its NAFTA neighbours—total US exports to its NAFTA partners amount to only about one-quarter of global US exports—but its supply chains are highly integrated with Canada and Mexico.
- Specific Canadian and Mexican sectors and regions have concentrated
 economic relationships with the US, which makes them particularly sensitive
 to any changes, even "tweaks", in US trade policy. Senior members of the US
 administration have singled-out softwood lumber, agricultural goods, and
 finished food products, amongst others, as sectors outside NAFTA in which
 they wish to review the US's trading relationship with Canada and Mexico.
- US officials have also indicated an interest in revising NAFTA's rules of origin and dispute settlement mechanisms to make them more favourable to the US.
 While these changes are focused on increasing US content in production, they could also increase the share of content sourced from Canada and Mexico and make NAFTA function more equitably and efficiently for all three countries. Mexican officials have highlighted telecoms, energy, and ecommerce as possible areas for discussion.
- We expect negotiations on NAFTA to reach an orderly conclusion, but if they instead hit an impasse, any unilateral move by the US to impose tariffs on trade with Canada and Mexico would have a material macroeconomic impact on all three countries and potentially serious effects on individual states, provinces, and industrial sectors. We quantify the macroeconomic impact on all three countries using Scotiabank's global model under three possible scenarios featuring progressively higher tariffs and greater trade disruption.
- A border tax adjustment (BTA) appears unlikely to be implemented and is not considered in our simulations.

I. REVISING UNITED STATES TRADE POLICY: POTENTIAL AND PITFALLS FOR ALL THREE NAFTA COUNTRIES

The Trump Administration has raised the possibility of substantial revisions to United States (US) trade policy toward Mexico and "tweaks" in the US's trade relationship with Canada (The White House 2017). In the coming months, the White House will likely indicate to the US Congress its intention to initiate renegotiation of the North American Free Trade Agreement (NAFTA). The US administration may also begin the pursuit of revisions to other specific aspects of

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trade with Canada and Mexico that have been highlighted by senior US officials and the office of the US Trade Representative (USTR) under both the Trump and Obama Presidencies.

This paper identifies some of the major areas of vulnerability for Canada, Mexico, and the US in the event of a substantial revision of US trade policy, including through a renegotiation of NAFTA. The paper then looks at specific elements of NAFTA and other US trade policies that have been cited by both the preceding Obama Administration and the new Trump Administration for renegotiation: rules of origin, the dispute settlement process, and other particular concerns. Finally, while we project that any talks on NAFTA will come to an orderly conclusion, the paper considers the possible economic fallout that could ensue if these negotiations reach an impasse and the

	Partner	Cana	ada	United	States	Mexico		
	•	1993	2015	1993	2015	1993	2015	
Country				(% of total,	ranking)			
	Exports			81% (#1)	77% (#1)	<1% (#9)	1% (#5)	
Canada	Imports			65% (#1)	53% (#1)	2% (#5)	6% (#2)	
	Combined			73% (#1)	64% (#1)	1% (#6)	4% (#3)	
	Exports	22% (#1)	19% (#1)			9% (#3)	16% (#2)	
United States	Imports	19% (#1)	13% (#2)			7% (#3)	13% (#3)	
	Combined	20% (#1)	15% (#2)			8% (#3)	14% (#3)	
	Exports	3% (#2)	3% (#2)	83% (#1)	81% (#1)			
Mexico	Imports	2% (#5)	3% (#6)	71% (#1)	47% (#1)			
	Combined	1% (#4)	4% (#4)	73% (#1)	64% (#1)			

US decides to withdraw from NAFTA. We present simulation results from Scotiabank Economics' global macroeconomic model for three possible scenarios that are broadly consistent with US officials' recent statements on possible unilateral tariff increases in the wake of NAFTA's end. These simulations show that actions by the US to increase restrictions on trade with its NAFTA partners would impose material macroeconomic effects on all three countries, with more serious microeconomic implications for specific states, provinces, and industrial sectors whose production and trade are highly integrated across the NAFTA zone.

As Scotiabank Economics outlined in <u>The NAFTA Success Story</u>, Canada, the US, and Mexico are amongst each other's most important trading partners (table 1). Each of them gains significantly from trilateral free trade under NAFTA; these gains would be materially eroded by a retreat from the substantial economic integration that NAFTA has facilitated.

II. CANADA: DEEP AND WIDE LINKS TO THE UNITED STATES

Canada is highly exposed to any reconfiguration of its trade relationship with the United States. About 20% of Canadian annual output is exported to the US; put differently, about a fifth of Canada's annual national income is generated by supplying goods and services to the US market. The US is the recipient of about 76% of Canada's total annual exports. These exports to the US are dominated by the major sectors listed in table 2, with motor vehicles, oil and gas, and machinery accounting for more than half of Canadian exports to the US. In each of Canada's leading export sectors with the US, the US accounts for at least 62% of the Canadian sector's total global exports.

On a regional basis, Ontario's manufacturing sector is particularly exposed to changes in US trade policy, as are raw and refined resource exports from several other provinces (table 3).

	Share of total Canadian exports to US	Share of exports to US in Canadian GDP	Share of exports to US in sector's total exports
Fotal	76	20	
Motor vehicles and parts	20	4	92
Oil and gas	19	4	98
Machinery and equipment	7	2	74
Plastics	4	1	68
Forest Products	3	1	88
Electronic machinery	3	1	74
Metals and minerals	2	1	62
Aluminium	2	1	88
Other	14	7	

Ontario's US exports account for about a quarter of the province's annual income, making continued, unimpeded integration with US supply chains critical for the province's economic well-being. The oil and gas sectors, including downstream activities, in Newfoundland and Labrador, Alberta, New Brunswick, and Saskatchewan are also heavily dependent on exports to the US, but are less likely to face trade disruption owing to the new US administration's desire to preserve access to secure energy.



Substantial stocks of US foreign direct investment in Canada's major export sectors may provide a natural constituency in the United States that could lobby to prevent disruption to trade across the Canada-US border. United States investors have some CAD 400 bn invested in Canada's major production sectors, of which about CAD 92 bn is in manufacturing and about CAD 74 bn has been placed in mining, oil, and gas interests (chart 1). Amongst US manufacturing investments in Canada, about half are in energy refining and transportation goods, including autos (chart 2).

To quantify and compare the Canadian provinces' relative vulnerability to changes in US trade policy, we constructed an index that captures both overall dependence on the US and the extent to which exports to the US are concentrated in particular sectors (chart 3). Our vulnerability index combines measures of the share of exports to the US in provincial GDP (table 3), the share of US exports in total provincial international exports (table 3), and the degree to which exports to the US are concentrated in a small number of products through the calculation of concentration ratios. With respect to non-energy exports, Ontario remains the most vulnerable to a disruption in manufactured goods trade with the US owing to the heavy concentration of its exports in automobiles and related parts (chart 3). The Maritime provinces also appear relatively vulnerable in non-energy trade compared with other provinces owing to the large shares of agriculture, food, and, tires in the case of Nova Scotia, in their exports to the US.

When energy exports are added into the index, the vulnerability readings for Alberta, Newfoundland, and Saskatchewan spike owing to the dominance of their oil and gas exports, but the Trump Administration is unlikely to act to impede this trade. New Brunswick's vulnerability reading also increases substantially with the inclusion of refined oil products in the index's calculation. But again, this 'vulnerability' is more a statistical artefact than a real cause for concern.

Canadian exports to Mexico are relatively insignificant at less than 2% of total Canadian exports or 0.04% of Canadian GDP. These data, however, likely understate the importance of trade with Mexico for Canadian industry within integrated continental supply chains.

Table 3 Canadian Provinces' Sensitivities to Trade with the US, in Percent Exports to US. Imports from US. Principal exports to US Exports to US. share of share of (share of province's share of province's provincial GDP provincial GDP total exports to US) global foreign exports NL 21 4 Oil and gas (86) 59 PΕ 13 0 Agriculture (28) NS 10 3 Tires (32) 68 NB 12 91 33 Oil and gas (60) QC 16 6 Aluminium (10) 71 ON 25 24 Autos and parts (36) 83 MB 14 67 23 Oil and gas (12) SK 22 10 Oil and gas (39) 49 ΑB 86 25 Oil and gas (76) 53 Forestry (29) Sources: Scotiabank Economics, Industry Canada. 2016 data and GDP estimates.

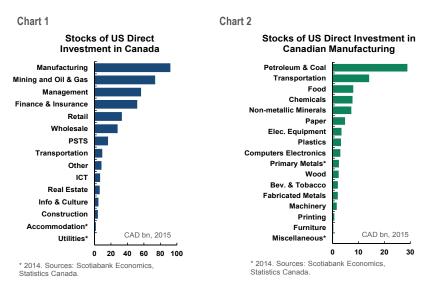
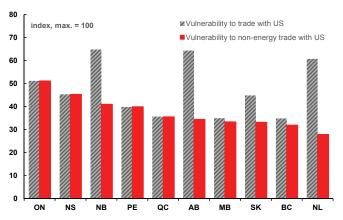


Chart 3 Canadian Provinces' Vulnerability to US Trade Actions



Sources: Scotiabank Economics, Industry Canada, Statistics Canada, Haver. 2016 data.



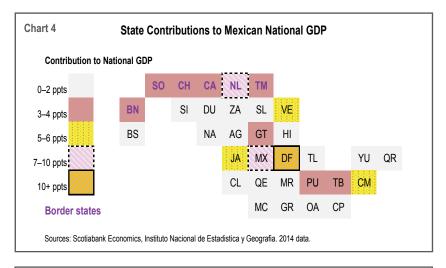
III. MEXICO: TIGHTLY INTEGRATED WITH THE US

Mexico is exposed to trade with the US to a degree similar to Canada. Notably, just under 81% of Mexican exports go to the US; this was equivalent to about 26% of Mexican GDP in 2015 (table 4). Mexico was the United States' 3rd largest supplier of goods imports in 2015, behind China and Canada (table 1). The top three Mexican exports to the US in 2015 (table 4) were motor vehicles and parts (USD 74 bn), electronic equipment (USD 63 bn), and machinery (USD 49bn). Trailing these three sectors, oil and gas was the fourth most important Mexican export sector to the US at USD 14 bn.

Data limitations preclude a precise analysis of the trade links between Mexican states and the US and the related Mexican regional vulnerabilities to changes in US trade policy, however some partial studies provide a suggestive indication of the relatively high dependence of Mexican border states on US trade compared with other Mexican states farther south and further away from the US. Mexican production tends to be clustered around Mexico City and close to the US border (chart 4; see Appendix 1 for a legend of Mexican state two-letter codes) to take advantage of proximity to the US market. Mexican border states account for a disproportionate share of US trade relative to their population and contributions to Mexican GDP, although this varies by product (table 5).

Vehicles and auto parts account for just below a fifth of Mexican manufacturing production, and, owing to integrated manufacturing processes, they are the most heavily exported products from the US to Mexico (table 5). Vehicles and parts production and trade is not isolated, however, in the Mexican border states: the interior states of Aguascalientes (AG) and Guanajuato (GT) house nearly 40% of Mexican auto production, but the border states of Coahuila (CA), Sonora (SO), Nuevo Leon (NL), and Baja California (BN) are also significant producers which together account for 28% of Mexico's production volumes. US automakers operate the majority of auto and related plants in the border states, while plants in states surrounding the Federal District (DF) are operated by mainly Asian and European firms. This renders the Mexican border states relatively more vulnerable to changes in US trade policy with respect to the auto sector; in

	Share of total Mexican exports to US	Share of exports to US in Mexican GDP	Share of export to US in sector' total export	
Total	81	26		
Motor vehicles and parts	25	6	82	
Electronic equipment	21	6	78	
Machinery and equipment	17	4	8	
Oil and gas	5	1	6	
Medical equipment	4	1	7:	
Other	9	8		

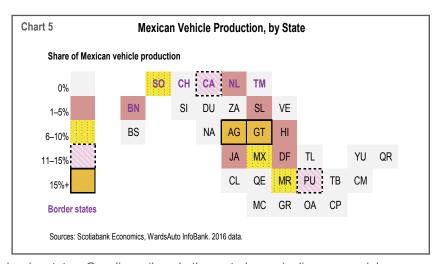


	% of US exports to	% destined to Mexican	Primary Mex.	
	Mexico	border states*	states	
Vehicles and parts	11.7	10 > 50	CA	
Computer accessories	10.8	unknown	unknow	
Industrial Machinery	8.8	> 50	CA, CI	
Petroleum products	8.1	< 10	unknow	
Electrical machinery	8.0	> 50	CH, TM, BN,SC	
Plastics	7.5	> 50	BN, SO, N	
Industrial supplies	4.6	> 50	BN, CH, TM	
Meat and poultry	4.0	unknown	unknow	
Minimum value shipments	2.9	< 10	unknow	
Telecom equipment	2.9	unknown	unknow	
Other	30.7	unknown	unknow	



contrast, Mexico's interior auto-producing states are relatively less exposed to changes in trade policies emanating from Washington.

Mexican border states are most heavily exposed to integrated US-Mexican supply chains in the industrial and electrical machinery, plastics, and industrial supply sectors (table 5). Over half of these products cross the US-Mexico border by truck or rail. Trucking accounts for the vast majority of border crossings for merchandise goods trade with over five million crossings annually, compared with around 10,000 rail crossings. Any policy changes that add to wait times at the border would have a significant negative impact on both goods and



services trade, with an outsized effect on the Mexican border states. Gasoline, oil, and other petroleum pipelines are mainly located in the interior and coastal regions, with only around a sixth of Mexican production located in a border state (Nuevo León, NL). Hidalgo (HI) and Oaxaca (OA) account for roughly half of production.

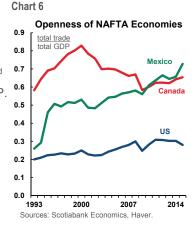
IV. UNITED STATES: US BORDER STATES DEPEND ON TRADE WITH CANADA AND MEXICO

The US economy is far less directly dependent on international trade than the Canadian and Mexican economies (chart 6), and more specifically, it is less reliant on direct trade with Canada and Mexico than its two NAFTA partners. Canada and Mexico are the US's top export destinations, but their markets are much less important to the US than the US market is to them: only about 19% of US exports are sent to Canada and 16% to Mexico (table 1). China is 3rd at nearly 8%. Total exports to Canada and Mexico combined account for less than 3% of US GDP. Autos and parts dominate US shipments abroad under NAFTA at 16% of US exports to Canada and Mexico.

US economic integration with Canada and Mexico is more strongly evident at the state level, where several US border states' economies are strongly tied to NAFTA exports and imports (table 6). Total trade (i.e., exports plus imports) with Canada accounts for over 5% of state GDP in 8 states; exports to Mexico account for over 5% of state GDP in 3 states. Almost all

these states border Canada or Mexico, with the exceptions of Illinois, Kentucky, and Indiana, all three of which have large automobile production and assembly plants. The economy of autoproducing Michigan is most closely tethered to both of the United States' NAFTA partners owing to the comprehensive cross-border connections in the auto sector.

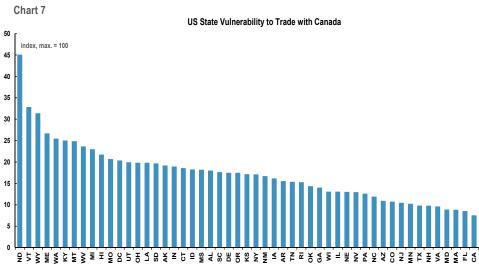
US states are not, in general, as vulnerable to changes in US trade policy as Canadian provinces and Mexican states, but there would be concentrated points of stress if, for instance, NAFTA were torn up. Similar to the index of Canadian provinces' vulnerability to changes in trade rules with the US, we constructed indices of US states' vulnerability to changes in trade with both Canada and Mexico. The indices



	Exports to Canada, % of GDP	Imports from Canada, % of GDP	Exports to Mexico, % of GDP	Imports from Mexico, % of GDP	Top produc
Michigan	4.8	9.9	2.5	10.1	Autos and parts
Vermont	3.8	8.3	0.4	0.1	Electronics
North Dakota	6.4	2.7	0.5	0.2	Oil and gas
New Hampshire	0.7	5.5	0.6	0.6	Aerospace
Illinois	2.0	3.2	1.2	1.5	Oil and gas
Kentucky	3.8	1.8	1.1	2.6	Aerospace
Indiana	3.3	2.1	1.4	1.3	Pharmaceuticals
Maine	2.3	2.9	0.1	0.1	Agriculture
Ohio	3.0	1.8	1.0	1.3	Aerospace
Texas	1.2	0.9	5.7	5.0	Oil and gas
Arizona	0.7	0.4	2.8	2.5	Aerospace



aggregate the states' share of exports to either country in the state's GDP; the share of exports to each country in each state's total global exports; and a measure of the degree to which exports to each country are concentrated in a small number of sectors. On these index measures, no single US state is as vulnerable (charts 7 and 8) to changes in the NAFTA countries' trade policies as the most-exposed Canadian provinces (chart 3). For instance, Michigan is relatively less perilously subject to changes in trade policy with Canada and Mexico than table 6 may imply: despite its economy's concentration in the auto sector, its trade is more internationally diversified in

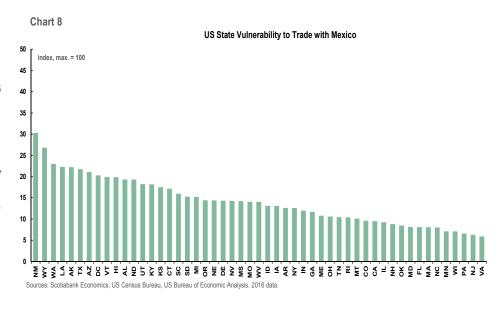


Sources: Scotiabank Economics, US Census Bureau, US Bureau of Economic Analysis. 2016 data.

comparison with that of many other states. Other smaller border-state economies tend to trade a relatively narrow range of products with Canada and Mexico, bumping them up in the relative vulnerability standings (charts 7 and 8).

V. ELEMENTS OF US-CANADA-MEXICO TRADE SUBJECT TO POSSIBLE RENEGOTIATION

Rules of origin and the NAFTA dispute settlement mechanisms have been mentioned by both Cabinet members and White House advisors as areas for potential immediate renegotiation of US trade policy under NAFTA. The US Trade Representative's office under the Obama Administration identified additional specific areas of concern in US trade with Canada and Mexico. Commerce Secretary Ross has also raised the possibility of adding a chapter on the digital economy to NAFTA (Mayeda 2017), echoing Mexican President Peña Nieto (Presidencia de la República 2017). The USTR nominee, Robert Lighthizer, has indicated that addressing the Canada-US softwood lumber dispute is at the "top of his list" of



trade priorities with Canada (Morrow and Dhillon 2017). We look at these specific negotiating flash points in more depth.

A. RULES OF ORIGIN

Under NAFTA, minimum thresholds for local content are spelled-out for manufactured goods to qualify for tariff-free movement between Canada, the US, and Mexico, but in many cases these limits are not currently binding. Rules on natural resources are largely irrelevant. These "rules of origin" specify that 62.5% of the value-added content of assembled vehicles must originate from within the NAFTA countries. For auto parts and all other manufactured goods, the threshold is 60% North American content based on the final value of the product, or 50% NAFTA content using the net cost method. Wholly-sourced products such as natural resources and livestock automatically meet rules of origin requirements by virtue of having been entirely locally sourced.



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Vehicles assembled in the NAFTA countries currently have, on average, about 75% local content—well above the 62.5% threshold—which implies some margin for US efforts to tighten local content requirements and limit the use of non-North American parts in auto production. Nevertheless, US negotiators may pursue agreement on more granular rules that spell out the minimum US content within the total NAFTA-sourced components of goods that pass duty-free within North America; because of the integrated nature of auto supply chains, these changes may also collaterally boost Canadian and Mexican content. Other major manufactured and processed goods face highly specific rules of origin and it is nearly impossible to generalize on the degree to which production content in these industries is close to the 60% NAFTA-content threshold or the extent to which the removal of Mexico from NAFTA would make subsequent Canada-US trade no longer qualified for tariff-free access.

The US International Trade Commission (USITC) indicated in the last days of the Obama administration that Canada, Mexico, and the US were considering liberalizing the rules surrounding 'tariff shifts' to ease the degree of transformation necessary to make a foreign-made component qualify as having local NAFTA origins (i.e., how much value-added is required to make a Chinese component qualify as 'Mexican' in a maquiladora manufacturing process; USITC 2017). There has been no direct indication from the new US administration whether this work on tariff shifts will be continued; it appears at odds with recent statements from the White House.

B. DISPUTE SETTLEMENT MECHANISMS

NAFTA's provisions to address trade and investment disputes between its member countries, their companies, and their citizens, have tended to produce particularly positive results for the US: the US has not lost any cases under the investor-protection provisions of NAFTA (chapter 11), and in the trade arena (chapters 19 & 20) results have been roughly balanced between the three NAFTA countries.

No payouts have been made by American entities in cases under NAFTA's chapter 11 (Sinclair 2015). As of January 2015, of the 77 NAFTA investor-state dispute settlement claims made under chapter 11, 35 claims were directed at Canada, 22 at Mexico, and 20 at the United States. Of these 77 claims, 53 were initiated by US-based entities, 21 by Canadian entities, and only 3 by Mexican bodies. In total, Canada has paid out USD 172 mn; the largest payout was USD 130 mn to forestry company AbitibiBowater from the Government of Canada. Mexico has paid out USD 204 mn, with the largest payout amounting to USD 90.7 mn to food and agriculture company Cargill from the Government of Mexico.

Through January 2015, of the 113 NAFTA chapter 19 cases that had been initiated on antidumping and countervailing duty laws, over two-thirds have been filed against the United States. Trade actions in the ongoing softwood lumber dispute between Canada and the US have been amongst the largest files. The NAFTA panels that hear cases under the dispute settlement mechanisms have ruled in favour of Canada several times over the course of the dispute, although the USITC has repeatedly ignored the rulings of the panels:

"The Commission has made it abundantly clear to this Panel that it is simply unwilling to accept this Panel's review authority under Chapter 19 of the NAFTA and has consistently ignored the authority of this Panel in an effort to preserve its finding of threat of material injury." (NAFTA Binational Panel 2004)

While US officials are clearly interested in revising the NAFTA dispute settlement mechanisms to their country's advantage, changes to the mechanisms could also be neutral or even positive for Canada and Mexico given this history. United States authorities have indicated an initial interest in changing only the composition of the dispute settlement mechanism panels, from bodies of trade-expert appointees to judicial appointees. In principle, this shouldn't meaningfully alter either their deliberations or their decisions, and should not necessarily tilt the panels against either Canadian or Mexican interests.

C. OTHER AREAS OF CONCERN

The US Trade Representative's office (USTR 2015) has identified the following areas of concern for trade with Canada and may pursue actions to address them. Claims made by the USTR in reports issued under the Obama Administration include:

- Restrictions on US seed exports: labelling requirements are thought to act as a barrier to access to the Canadian market;
- Cheese compositional standards: Canadian regulations limit the amount of dry milk proteins that can be used in cheese making, limiting US access to the Canadian market;



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- Agricultural supply management: tariff-rate quotas on dairy, chicken, turkey, and eggs are high (e.g., 245% for cheese, 298% for butter), but the opening of dairy management to liberalization under the recently-concluded Canada-Europe Trade Agreement (CETA) makes it likely that similar liberalization could be pursued by the US;
- **Restrictions on US grains:** provisions under the *Canada Grain Act* don't allow US producers to receive a 'premium' grade in Canada, and thus limit market access:
- Personal-duty exemption: the Canadian cross-border duty exemption is less generous than that of the US;
- Government procurement: some provincial public bodies maintain a local content requirement in procurement which poses
 hurdles for US companies in the renewable energy sector in Canada, similar to the 'Buy America' provisions in US
 government infrastructure projects;
- Intellectual property rights protections: enforcement of intellectual property rights is a continuing cross-border concern, especially in the pharmaceuticals and digital media space; and
- Cross-border data transfer: Canadian national security regulations preclude US-based 'cloud' computing businesses from bidding on contracts to update cross-border data infrastructure.

Softwood lumber, which is not covered under NAFTA, but rather under a side agreement that expired in October 2015, is likely to be subjected to specific action by the new US administration to enact voluntary export restraints and possibly tariffs on Canadian exports. The USTR nominee Robert Lighthizer has promised either a new deal to limit Canadian imports or litigation to stop them (O'Kane 2017).

The Obama-era USTR's office also raised the following areas of concern regarding trade with Mexico (USTR 2014):

- Nutritional supplements: US producers have complained that Mexico imposes its value-added tax on imports of US
 nutritional supplements at the time of entry, but exempts similar domestic products at the point of sale;
- Meat: US chicken producers have also challenged Mexican anti-dumping tariffs on fresh, chilled and frozen products;
- Steel: imported steel has been subject to licensing delays that hold up imports from the US at the Mexican border;
- **Mexican customs procedures:** US exporters complain that Mexican customs administrative procedures feature insufficient notification of procedural changes, inconsistent regulatory requirements, and uneven enforcement of standards and rules;
- **Government procurement:** tenders are limited to dedicated Mexican government websites and foreign providers may not bid in all processes;
- Intellectual property protections: Mexico is on the USTR's intellectual property rights watch list;
- Information and communications technology: Barriers to broadcasting and telecommunications trade remain in place; and
- Energy sector: The liberalization of oil and gas to foreign investment and participation is still ongoing. If this opening stalls, it may become a focus of US trade-policy actions.

A draft of possible NAFTA negotiation objectives signed by acting USTR Stephen Vaughan was leaked on March 30, 2017 and it indicates that the US may also seek action on tax harmonization, further expansions to intellectual-property protections, ecommerce, and cross-border business practices (Ehrenfreud and Paletta 2017).

More generally, the White House has consistently expressed an interest in enforcing 'Buy American' provisions in government procurement and regulated projects that could lead to new frictions in the US's bilateral relationships with Canada and Mexico. Keystone XL's pipes are the only explicit exemption to President Trump's 'Buy American' Executive Order that has been mentioned by the White House: this carve-out has been wholly justified on the basis that the pipeline was approved and begun prior to the Executive Order coming into force (Henry 2017).





All of these areas of concern could occasion specific 'tweaks' by the US to its trade policies that would likely be injurious for specific sectors and regions in Canada and Mexico. Regardless of whether these concerns fall under the provisions of NAFTA or otherwise, the Trump Administration has indicated a possible willingness to withdraw from World Trade Organization (WTO) dispute settlement processes, if necessary, and take unilateral action.

VI. TRADE-POLICY RENEGOTIATION SCENARIOS: SIMULATIONS OF THEIR MACRO IMPACT

Our core assumption is that any re-opening of NAFTA will reach an orderly conclusion. In the event that negotiations on the issues mentioned above fail or reach an impasse, we assume that the US withdraws from NAFTA in Q1-2018 and also abrogates the precursor Canada-US Free Trade Agreement (CUSFTA). We consider three basic scenarios that could follow in the wake of NAFTA's demise and aggressive US action regarding the issues identified above. We attach the highest probability to Scenario 1 in the event of an impasse in US trade negotiations; by contrast Scenarios 2 and 3 are low-probability 'worst-case' situations:

- Scenario 1: NAFTA lapses. The US administration reverts to a 3.5% Most-Favoured Nation (MFN) tariff on trade with Canada
 and Mexico under WTO provisions. For simplicity, we assume that Canada and Mexico reciprocate and revert to identical tariffs
 on NAFTA trade, notwithstanding pre-existing small differences in their trade-weighted MFN tariffs (Appendix 2);
- Scenario 2: NAFTA replaced with North American acrimony. The US administration imposes a 20% tariff on both
 Canadian and Mexican trade; both countries retaliate with identical tariffs on US trade, and a mutual 3.5% MFN tariff on
 Canada-Mexico bilateral trade is implemented. These 20% tariffs would not be WTO-consistent and could imply that the US is
 willing to follow through on its threat to abandon the WTO; and
- Scenario 3: Washington's protectionism leads to a global trade war with the US. NAFTA is cast aside as part of a broader US push toward protectionism. The US and Mexico impose 20% tariffs on each other; similarly, the US and all of its trade partners impose reciprocal 20% tariffs on each other. In relative terms, the Trump Administration makes good on its indication to simply 'tweak' its trade relationship with Canada: the US and Canada impose reciprocal 3.5% MFN tariffs on each other. Similarly, Canada and Mexico fall back to reciprocal 3.5% MFN tariffs on their bilateral trade.

Table 7 outlines Scotiabank Economics' April 6, 2017 <u>Global Outlook</u> baseline reference projections. Tables 9 through 11 detail the macroeconomic effects on Canada, Mexico, and the US from the trade actions outlined in each scenario, expressed in terms of the **deviations** from the *Global Outlook* projections that these tariff actions induce; table 8 provides the corresponding GDP growth-rate forecasts and more fulsome tables in Appendix 3 provide the scenario forecasts for all of the key macroeconomic variables. Charts 11 through 19 illustrate dynamic simulations of each scenario.

Our simulations are generated using Scotiabank Economics' global macroeconomic model. The simulations work in the following ways:

The imposition of the tariffs increases the prices
 of imports, which passed directly through to the
 inflation rate. This channel is the direct effect of the tariffs on inflation;

Scotiabank Economics Global Forecasts, April 6th, 2017 Q2-17 01-17 Q3-17 04-17 Q1-18 Q2-18 Q3-18 Q4-18 Canada GDP, q/q annualized % change 2.0 2.1 2.1 2.0 2.0 1.9 1.9 Core CPI Common, y/y % change eop 1.5 1.5 1.5 1.6 1.6 1.6 1.6 0.50 1.00 Monetary policy rate, % eop 0.50 0.50 0.75 0.75 CADUSD exchange rate 0.77 GDP, y/y % change 1.2 0.9 1.6 1.9 1.9 2.2 2.4 Core CPI, y/y % change eop 38 3.5 33 3 1 31 Monetary policy rate, % eop 6.75 7.00 7.50 7.50 7.50 6.50 7.25 7.50 USDMXN exchange rate 18 72 20 11 20.61 21 27 21 49 21.32 21.39 21 68 24 23 GDP, q/q annualized % change 2.5 25 24 24 23 Core PCE, y/y % change eop 1.9 2.0 2.2 2.3 2.4 2.4 2.5 Monetary policy rate, % eop 1.00 1.25 1.25 1.50 1.50 1.75 1.75 2.00 Source: Scotiabank Economics

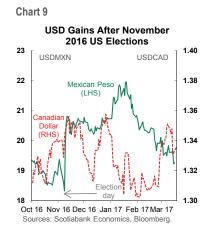
• The resulting fall in demand for the products of export-oriented firms induces a reduction in investment and increased layoffs. The level of employment gradually drops, which reduces disposable income and, therefore, consumption and aggregate demand. The reduction in aggregate demand eventually offsets the direct effect of the tariffs on inflation, which brings inflation back to the monetary policy target;

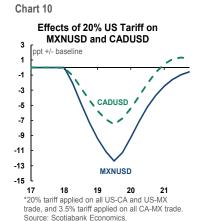


- Monetary policy faces a dilemma in this context from, on the one hand, the increase in the inflation rate and, on the other hand, the rise in excess supply. The persistence of the output gap dominates the behaviour of monetary policy and the monetary policy rate is brought down;
- The imposition of tariffs has a negative effect on potential GDP via three channels:
 - Export-producing firms reduce their investment and the aggregate capital stock falls;
 - The price of imported capital goods rises, which increases the cost of capital; and
 - The imposition of tariffs interferes with the optimal allocation of resources toward the sectors for which each country has a comparative advantage. This sub-optimal allocation of resources has a negative effect on productivity, also known as a dead-weight loss.
- With time, the economy adjusts, capital and labour are reoriented toward different sectors, and the economy ends up at an
 equilibrium that is less optimal. Part of the decrease in potential GDP will be permanent or persistent, depending on the life of
 the tariffs.

These simulations arguably do not reflect the maximum possible impact of any of the three scenarios. Even under Scenario 1, a move by the US to rescind both NAFTA and the CUSFTA and impose tariffs that are not compliant with the WTO could be interpreted as the beginning of significant turmoil and even the early stages of the dismantling of the post-World War II global trading system. Other countries would likely react pre-emptively with their own defensive trade measures and the ensuing uncertainty would be a major brake on global growth. These second-round effects are not included in these simulations. Similarly, these macro simulations do not fully consider the impact of possible adjustments to the NAFTA rules of origin or dispute-settlement provisions. Sector-specific effects could be large in all three countries even if the macroeconomic impact of such 'tweaks' is small: for instance, some US agricultural exports, such as corn, would likely be cut substantially under revised trade arrangements with Mexico.

The simulations' exchange-rate developments are admittedly modest compared with recent movements in the Mexican peso (MXN) and Canadian dollar (CAD) that have been driven by the mere prospect of changes in US trade policy. The simulations reflect changes in exchange rates related to fundamental macroeconomic developments. In practice, exchange rates often move on sentiment and the possibility of future developments, and overshoot fundamentals in the process: the USDMXN exchange rate moved 15% from the US election day to the inauguration, but has since returned closer to pre-election levels alongside an increase in the price of oil (chart 9). In contrast, even the most extreme





	2016	2017	2018	2019	2020	202 ⁻
anada: GDP, annual % change						
Baseline, Global Outlook, April 6th, 2017	1.4	2.3	2.0	1.9	1.7	1.0
Scenario 1: 3.5% MFN tariff	1.4	2.3	1.8	1.6	1.9	1.0
Scenario 2: 20% tariff	1.4	2.3	0.6	0.1	2.7	2.5
Scenario 3: 20% US global*	1.4	2.3	1.2	0.7	3.1	2.0
exico: GDP, annual % change						
Baseline, Global Outlook, April 6th, 2017	2.1	1.4	2.1	3.7	2.5	2.4
Scenario 1: 3.5% MFN tariff	2.1	1.4	1.6	3.6	2.6	2.4
Scenario 2: 20% tariff	2.1	1.4	-0.4	3.1	3.3	2.5
Scenario 3: 20% US global*	2.1	1.4	-1.1	2.8	4.3	2.3
S: GDP, annual % change						
Baseline, Global Outlook, April 6th, 2017	1.6	2.3	2.4	2.0	1.5	1.6
Scenario 1: 3.5% MFN tariff	1.6	2.3	2.3	2.0	1.6	1.6
Scenario 2: 20% tariff	1.6	2.3	2.0	1.8	1.9	1.6
Scenario 3: 20% US global*	1.6	2.3	1.0	1.1	2.6	1.7

Source: Scotiabank Economics. Note: data are seasonally adjusted; 2019–21 from *Global Outlook* database.

*20% tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.



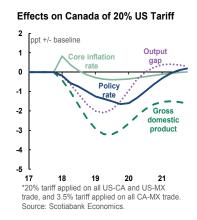
Tariff	Real	Output	Core CPI	Monetary	CADUSD
(w/ retaliation)	GDP	gap	Common	policy	
	(level)	(level)	(rate)	rate	
Scenario 1: 3.5% tariff	-0.55 ppt	-0.34 ppt	+0.17 ppt	-37 bp	-1.48 ppt
Scenario 2: 20% tariff	-3.21 ppt	-2.09 ppt	+0.83 ppt	-165 bp	-7.50 ppt
Scenario 3: 20% US Global*	-2.07 ppt	-1.73 ppt	+0.35 ppt	-150 bp	-4.10 ppt

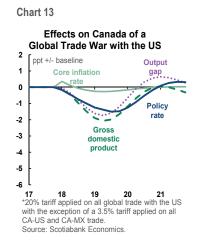
Note: ppt = percentage points, bp = basis points. Source: Scotiabank Economics.

Chart 12

Chart 11 Effects on Canada of a 3.5% Tariff **Between All NAFTA Partners** opt +/- baseline Output 0.25 Core inflation gap 0.00 Policy -0.25 rate Gross -0.50 domestic product -0.75 -1.00 -1.25 -1.50 17 18 19 20 21 *Tariff of 3.5% applied on all goods trade between the US, Canada, and Mexico.

Source: Scotiabank Economics





exchange-rate moves under our simulations are not much larger than these pre-emptive moves: in Scenario 2's NAFTA breakdown, the CAD depreciates only 7.5% and the MXN depreciates 12.4% (chart 10); in the Scenario 3's global trade war, the CAD fares relatively well because the MFN relationship with the US is maintained (table 9), but the MXN depreciates 16% (table 10). Rhetoric from the White House on immigration, a border wall, and protectionism will likely result in even larger short-run MXN swings that are unrelated to macroeconomic fundamentals, and will not be fully reflected in our simulations. Canadian currency movements are more tightly tied to US-Canada interest-rate differentials and the price of oil, and the simulations likely better reflect expected movements in the CAD under each scenario, though even here investor sentiment could drive CAD movements temporarily further than the simulations anticipate.

The impact of the otherwise identical trade measures is proportionately more negative in Mexico than in Canada (tables 9 and 10) and smaller in the US (table 11). This is due to two key things: (i) stronger confidence and exchange-rate effects on the Mexican economy that constrain the Mexican central bank's latitude to cut the monetary policy rate in response to the US-induced trade shock; and (ii) trade accounts for a smaller share of the US economy than in the other two countries (see chart 6).

It is also notable that Canada fares better in some respects under a generalized global trade war with the US than under a more contained, acrimonious ending to NAFTA. The result is wholly driven by the assumption under Scenario 3 that Canada maintains trade with the US on MFN terms even as the world raises tariffs with the US to 20%, whereas under the more regionally contained, but acrimonious breakdown of NAFTA in Scenario 2, tariffs on US-Canada trade are raised to 20% in both directions.

Compared with other recent studies on the potential impact of changes in US trade policy on North America, this paper's approach and findings differ in a few key ways. First, our scenarios do not assume the imposition of a border tax adjustment (BTA) by the US government, as most other recent analyses do, but rather the imposition of US tariffs that spark reciprocal action by US trade partners. In our view, a BTA is unlikely to be implemented any time soon in the US: a BTA would be complicated to legislate and draft language for a bill does not appear to have been prepared; a BTA is a difficult sell to US legislators as it requires

^{* 20%} tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.



Table 10	Peak-to-Trough Impact	on Mexico Relative to	Scotiabank Economics	' April 6th Forecasts
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Tariff (w/ retaliation)	Real GDP (level)	Output gap (level)	Core CPI (rate)	Monetary policy rate	MXNUSD
Scenario 1: 3.5% tariff	-0.71 ppt	-0.52 ppt	+0.21 ppt	-17 bp	-2.17 ppt
Scenario 2: 20% tariff	-3.97 ppt	-2.90 ppt	+1.10 ppt	-93 bp	-12.40 ppt
Scenario 3: 20% US Global*	-5.12 ppt	-4.10 ppt	+1.10 ppt	-151 bp	-16.00 ppt

Note: ppt = percentage points, bp = basis points. Source: Scotiabank Economics.

Chart 14

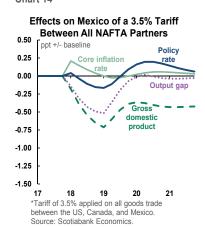
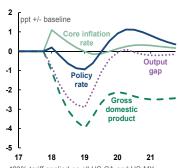


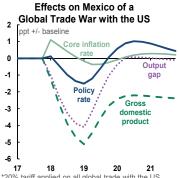
Chart 15



Effects on Mexico of 20% US Tariff

*20% tariff applied on all US-CA and US-MX trade, and 3.5% tariff applied on all CA-MX trade Source: Scotiabank Economics.

Chart 16



*20% tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade. Source: Scotiabank Economics.

Table 11 Peak-to-Trough Impact on US Relative to Scotiabank Economics' April 6th Forecasts

Tariff (w/ retaliation)	Real GDP (level)	Output gap (level)	Core PCE (rate)	Monetary policy rate	USDCAD
Scenario 1: 3.5% tariff	-0.12 ppt	-0.09 ppt	+0.024 ppt	-6 bp	+1.48 ppt
Scenario 2: 20% tariff	-0.70 ppt	-0.50 ppt	+0.14 ppt	-34 bp	+7.50 ppt
Scenario 3: 20% US Global*	-2.48 ppt	-1.76 ppt	+0.25 ppt	-156 bp	+4.10 ppt

Note: ppt = percentage points, bp = basis points. Source: Scotiabank Economics.

Chart 17

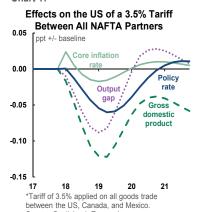


Chart 18

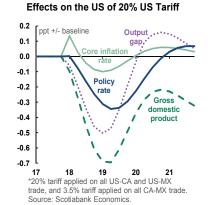


Chart 19



*20% tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.
Source: Scotlabank Economics.

^{* 20%} tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.

^{* 20%} tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.



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a suite of other measures to complement it; and a BTA would be costly and involved to administer. The papers that simulate the impact of US implementation of a BTA generally also consider complementary cuts in US corporate tax rates that increase US competitiveness versus Mexico and Canada. This type of scenario generally produces greater negative effects on Canadian growth and inflation than either of our Scenarios 1 or 2. The recent papers that do look at the imposition of US tariffs rather than a BTA do not run general equilibrium macroeconomic simulations as we do here, but have tended instead to employ more limited, partial analysis built to assess the impact of tariffs through price elasticities. These studies find more negative effects on Canadian growth than in our Scenarios 1 or 2, but these basic frameworks do not take stock of the effect of a depreciated CAD to boost Canadian exports.

VII. CONCLUDING REMARKS

Regardless of whether changes in US trade policy are mere tweaks or involve a wholesale renegotiation or withdrawal from NAFTA, the effects on Canada, Mexico, and the US would be substantial in the years ahead. Even small changes in the US's trade relationships with its NAFTA partners could have an outsized impact on specific regions and industrial sectors in all three countries that are particularly dependent on NAFTA trade. Some sectors with substantial American investment in Canada or Mexico, highly integrated production chains with the US, and strategic interest for the White House, such as energy and natural resources, may be partially shielded from broader US protectionist efforts, but these sectors would still be hurt by the global slowdown in growth that US protectionism would likely set off. Maintaining the gains that NAFTA has secured remains squarely in the joint interests of Canada, the US, and Mexico.



APPENDIX 1





APPENDIX 2

Table A2

WTO Most Favoured Nation Tariff Schedules, 2015

	Canada	US	Mexico
Total			
Simple avg. MFN tariff level (%)	4.2	3.5	7.1
Trade-weighted avg. MFN tariff (%)	3.2	2.2	4.7
Agricultural products			
MFN tariff level (%)	16.7	5.2	15.6
Trade-weighted avg. MFN tariff (%)	13.5	3.8	23.6
Non-agricultural products			
MFN tariff level (%)	2.2	3.2	5.7
Trade-weighted avg. MFN tariff (%)	2.2	2.1	3.3

Sources: Scotiabank Economics, WTO. Trade-weighted data from 2014.

APPENDIX 3

Table A3.1

Canada Scenario Forecasts

	2016	2017	2018	2019	2020	2021
Baseline, Global Outlook , April 6th, 2017						
GDP, annual % change	1.4	2.3	2.0	1.9	1.7	1.6
Core CPI Common, y/y % change eop	1.4	1.6	1.6	1.7	1.8	1.9
Monetary policy rate, % eop	0.50	0.50	1.00	1.75	2.25	2.50
Scenario 1: 3.5% MFN tariff						
GDP, annual % change	1.4	2.3	1.8	1.6	1.9	1.6
Core CPI Common, y/y % change eop	1.4	1.6	1.6	1.6	1.8	1.9
Monetary policy rate, % eop	0.50	0.50	0.78	1.40	2.16	2.54
Scenario 2: 20% tariff						
GDP, annual % change	1.4	2.3	0.6	0.1	2.7	2.2
Core CPI Common, y/y % change eop	1.4	1.6	1.5	1.3	1.6	1.9
Monetary policy rate, % eop	0.50	0.50	0.00	0.10	1.62	2.69
Scenario 3: 20% US global*						
GDP, annual % change	1.4	2.3	1.2	0.7	3.1	2.0
Core CPI Common, y/y % change eop	1.4	1.6	1.4	1.5	1.8	1.9
Monetary policy rate, % eop	0.50	0.50	0.00	0.28	2.07	2.81

Source: Scotiabank Economics.

^{*20%} tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.



APPENDIX 3 (continued)

Table A3.2

Mexico Scenario Forecasts

	2016	2017	2018	2019	2020	2021
Baseline, Global Outlook, April 6th, 2017						
GDP, annual % change	2.1	1.4	2.1	3.7	2.5	2.4
Core CPI, y/y % change eop	3.3	3.5	3.1	3.1	3.1	3.1
Monetary policy rate, % eop	5.75	7.25	7.50	7.75	7.75	7.75
Scenario 1: 3.5% MFN tariff						
GDP, annual % change	2.1	1.4	1.6	3.6	2.6	2.4
Core CPI, y/y % change eop	3.3	3.5	3.1	3.1	3.2	3.1
Monetary policy rate, % eop	5.75	7.25	7.35	7.84	7.92	7.81
Scenario 2: 20% tariff						
GDP, annual % change	2.1	1.4	-0.4	3.1	3.3	2.2
Core CPI, y/y % change eop	3.3	3.5	3.3	3.1	3.5	3.2
Monetary policy rate, % eop	5.75	7.25	6.62	8.27	8.74	8.10
Scenario 3: 20% US global*						
GDP, annual % change	2.1	1.4	-1.1	2.8	4.3	2.3
Core CPI, y/y % change eop	3.3	3.5	3.2	2.9	3.4	3.3
Monetary policy rate, % eop	5.75	7.25	6.14	7.81	8.74	8.19

Source: Scotiabank Economics.

Table A3.3

US Scenario Forecasts

	2016	2017	2018	2019	2020	2021
Baseline, Global Outlook, April 6th, 2017						
GDP, annual % change	1.6	2.3	2.4	2.0	1.5	1.6
Core PCE, y/y % change eop	1.7	2.3	2.5	2.4	2.2	2.1
Monetary policy rate, % eop	0.75	1.50	2.00	3.00	3.00	3.00
Scenario 1: 3.5% MFN tariff						
GDP, annual % change	1.6	2.3	2.3	2.0	1.6	1.6
Core PCE, y/y % change eop	1.7	2.3	2.5	2.4	2.2	2.1
Monetary policy rate, % eop	0.75	1.50	1.96	2.95	3.00	3.01
Scenario 2: 20% tariff						
GDP, annual % change	1.6	2.3	2.0	1.8	1.9	1.6
Core PCE, y/y % change eop	1.7	2.3	2.4	2.4	2.2	2.1
Monetary policy rate, % eop	0.75	1.50	1.75	2.71	2.99	3.07
Scenario 3: 20% US global*						
GDP, annual % change	1.6	2.3	1.0	1.1	2.6	1.7
Core PCE, y/y % change eop	1.7	2.3	2.0	2.1	2.3	2.1
Monetary policy rate, % eop	0.75	1.50	0.81	1.58	2.56	2.98

Source: Scotiabank Economics.

^{*20%} tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.

^{*20%} tariff applied on all global trade with the US with the exception of a 3.5% tariff applied on all CA-US and CA-MX trade.



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