NAFTA: The Macroeconomic Consequences of Disruption

- **The ongoing efforts to 'renegotiate and modernize' NAFTA look set to extend beyond the current end-March 2018 deadline: difficult issues remain unsettled and the remainder of 2018 features a packed political calendar that could delay further talks. Our baseline macroeconomic scenario in our Q1-2018 *Global Outlook* anticipates that conclusion of a new version of the pact is likely to be pushed into 2019.**

- **While extended negotiations are preferable to the annulment of the accord, we project that this prolonged period of uncertainty about the future of NAFTA would reduce Canadian and Mexican annual real output growth by about 0.2 ppts during 2018, while US real GDP growth should not be materially dampened this year. Our Q1-2018 *Global Outlook*'s baseline forecasts of 2.3% and 2.4% for Canadian and Mexican growth in 2018 reflect the effects of ongoing NAFTA uncertainty through the remainder of this year. Growth risks are to the upside for both countries if the NAFTA talks conclude on positive terms earlier than end-2018.**

- **Although our central projection is an agreement on a renewed NAFTA by 2019 (75% probability), we build on our April 2017 analysis of the possible macroeconomic consequences stemming from a disruption in NAFTA and consider two alternative scenarios: (1) US withdrawal from NAFTA prompts all three countries to revert to the imposition of Most Favoured Nation (MFN) tariffs on each other (20% probability); and (2) a scenario where US withdrawal from NAFTA presages a wider breakdown in US trade relations with the rest of the world that results in a global hike in tariffs (5% probability).**

- **Growth rates in all three countries would be shaved under the first scenario and cut more substantially under the second. In Canada, our model implies that the probability of a recession rises from 21% under our *Global Outlook* baseline to 34% in 2019 under the first scenario; in the second scenario, this probability spikes to 73%. Interest rates in Canada and Mexico would be lower than the baseline in both scenarios—in contrast to developments in the United Kingdom since the Brexit referendum result.**

- **Canada and Mexico would stand to be relatively more affected than the US by a breakdown in NAFTA; however, specific industries and regions in the US that depend heavily on integrated markets under NAFTA would experience sharper pain from a disruption in continental trade.**

I. BASELINE PROJECTION INCORPORATES A CHILLING EFFECT ON INVESTMENT

We continue to expect that efforts to 'renegotiate and modernize' NAFTA should reach an orderly conclusion, but this process is likely to extend beyond the current end-March 2018 deadline and could go into 2019. The sixth round of NAFTA talks that just ended in Montréal are reported to have led to near closure and/or 'parking' of negotiations on some chapters where the parties'

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initial negotiating conditions were reasonably close together and new engagement on other difficult points. The talks also appear to have broken new ground on auto-sector rules of origin, a possible 'sunset' clause on the agreement, and revisions to the investor-state dispute settlement (ISDS) mechanism under NAFTA's chapter 11—three of five strong 'poison pill' demands from the US side that also include the end of Canada's supply-management systems on dairy, eggs, and poultry, and an 'America-First' approach to access to government procurement opportunities. It's important to remember, however, that no element in a trade agreement is agreed until *everything* is agreed.

Substantial work is still required to reach a consensus on a new NAFTA: as a result, we expect the NAFTA negotiations will likely not be concluded by end-March. Our assumption that the White House should be willing to extend discussions beyond the current deadline rests in part on recent comments by President Trump that indicate he could be "a little bit flexible" on NAFTA because "a lot of things are hard to negotiate prior to an election," with the Presidential election coming in July in Mexico and US midterms in November. This flexibility is further underpinned by our understanding that the President does not have completely unfettered power to withdraw the US from a trade agreement: any attempt to end US involvement in NAFTA would likely encounter Congressional opposition and legal challenges at home and abroad that could be drawn out over years. Additionally, the White House and GOP have clear political incentives to remain at the NAFTA bargaining table given that our analysis implies that several of the states and regions whose economies are amongst the most dependent on trade with Canada and Mexico overlap with key areas of electoral support for the President and the GOP.

An extension of the deadline to renew NAFTA past the current year is both realistic and implies potential costs and benefits. It is realistic because it was always difficult to imagine that a wholesale renegotiation and modernization of NAFTA could be completed in just a few months when most contemporary trade agreements take several years to negotiate. Further time also provides the negotiators with an opportunity to find creative responses to the more extreme demands from the US. But more time also means extended, potentially business-chilling, uncertainty about NAFTA's fate.

Until agreement on a new NAFTA is reached, the possibility of much less desirable outcomes will continue to cloud the outlook for all three member countries and lead to modestly slower growth than would otherwise be the case in 2018. To account for this, our **2018-Q1 *Global Outlook* forecast has scaled back real GDP growth in Canada and Mexico by 0.2 ppts, respectively, to 2.3% and 2.4% in 2018 relative to a situation in which there is no uncertainty about NAFTA's fate**. The *Global Outlook*'s growth projections for the US in 2018 are not materially changed in the aggregate, though this elides over what could be more substantial dents to growth at the state and municipal levels where specific NAFTA-dependent industries are concentrated.

II. US WITHDRAWAL FROM NAFTA: TWO SCENARIOS

In a situation where the US decides to exit NAFTA, we consider two scenarios that could follow in the wake of NAFTA's demise and aggressive US actions:

Scenario 1: NAFTA lapses. The US administration reverts to a 3.8% MFN tariff on trade under WTO provisions with Canada and Mexico, who reciprocate at the same rate. For simplicity, we assume that the three NAFTA nations impose a symmetric MFN tariff rate based on the average MFN rates that would prevail under the current composition of trade in the region (table 1). That said, it is more likely that Canada and Mexico would retain NAFTA as the governing structure for their relatively small bilateral trade and foreign-direct investment flows in the hope that the US would one day return to the NAFTA fold, and to ensure continued protection from discriminatory treatment of their respective investments in each other's economies.

Scenario 2: 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

Table 1

Weighted Average Most Favoured Nation (MFN) Tariff Rate for All Products, 2016

Imports from:	Canada	Mexico	US	World	Avg NAFTA
Canada	-	2.92	3.33	3.20	3.13
Mexico*	5.76	-	4.94	4.45	5.35
US	2.24	3.83	-	2.80	3.04
Avg NAFTA	4.00	3.38	4.14	3.48	**3.84**

Sources: Scotiabank Economics, WorldBank World Integrated Trade Solutions.
*2015 tariff rates.

partners impose 20% tariffs reciprocally. 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 3.8% MFN tariffs. Similarly, Canada and Mexico fall back to reciprocal 3.8% MFN tariffs on their bilateral trade.

These simulations arguably do not reflect the maximum possible impact of any outcome. A move by the US to rescind NAFTA 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.

III. SIMULATIONS RESULTS: OUTCOMES FROM TWO US WITHDRAWALS FROM NAFTA SCENARIOS

This section presents the results of our macroeconomic simulations of the two scenarios for US withdrawal from NAFTA outlined above. The tariff shocks are implemented in the first quarter of 2019 on the presumption that even if the NAFTA talks were to break down in early-2018, the most immediate US withdrawal possible would have to be preceded by a notice period of at least six months under NAFTA’s Article 2205 and at least some legislative action by the US Congress. In both scenarios, the tariff shocks reach their maximum impact on output growth and inflation in 2019 or 2020 (not always simultaneously) as they take several quarters to propagate through the economy. (see box A1 in appendix)

Overall, since the Mexican economy is more reliant on its links to the US, the impact of the otherwise identical trade measures is proportionately more negative in Mexico than in Canada: the peak impact on Mexican output growth is 66% larger than in Canada. Furthermore, stronger confidence and exchange-rate effects on the Mexican economy might constrain Banxico’s latitude to cut the monetary policy rate in response to the US-induced trade shock. Note that unless specified, decreases and increases are indicated relative to the baseline forecast, i.e., the effects of the ‘shocks’ are specified versus the baseline ‘control’ (appendix 2 shows a peak-to-trough analysis of the levels of the key macroeconomic variables).

Scenario 1: NAFTA lapses: 3.8% MFN tariffs imposed across the board by all three countries.

Canada: The three-way imposition of MFN tariffs at a common 3.8% rate shaves 0.3 ppts off the baseline output growth in each of 2019 and 2020 (chart 1 and table 3). Inflation initially rises slightly owing to the pass-through of tariffs on prices and to an immediate depreciation in the Canadian dollar (CAD), but inflation later falls relative to the baseline projection as excess supply widens (chart 4). Instead of increasing its policy rate through all of 2019 and 2020 as in our latest forecast, the Bank of Canada holds the rate steady at around 2.25% from Q2-2019 until resuming its hiking cycle in late-2021.

Mexico: In 2019, real GDP growth is projected to come in 0.5 ppts lower than in the baseline, with a nearly unchanged growth path for the remaining years of the forecast horizon (chart 2 and table 4), as the price of US imports of Mexican goods increases relative to the baseline (chart 5), though is partly offset by the early depreciation in the Mexican peso (MXN). Compared with the baseline, inflation barely budges over the five-year projection horizon and Banxico doesn’t notably alter its pre-planned easing path.

US: Canada and Mexico are the two top destinations for US exports, which would now face a 3.8% tariff. As a result of the tariff’s impact on demand for US goods, the US economy would expand at a slightly slower pace in 2019 and 2020 than in the baseline: 0.1 ppts slower than in our *Global Outlook* projections in each year (chart 3 and table 5). Consumer prices (chart 6) and the Fed target rate would be essentially unaffected.

Scenario 2: Washington’s protectionism leads to a global trade war with the US: 20% tariff applied to US trade with rest of the world except intra Canada-US and intra Canada-Mexico, both at 3.8%.

Canada: Despite the 3.8% tariffs on Canada-US trade that are identical to those imposed in the first scenario, the walling-off of the US in international trade markets heavily dampens US growth, which indirectly translates into reduced demand for Canadian products from its largest buyer. The Canadian economy would experience a decrease of 1.3 ppts in output growth and 0.5 ppts in inflation at the 2020 nadir versus the baseline case (chart 7 and table 3). The economy would contract on a quarterly basis from Q3-2019 to Q1-2020, and the Bank of Canada would move the overnight rate target as low as 1.0%. In the latter years of our five-year projection horizon, economic growth would rebound and exceed the baseline scenario by 1.0 ppts at 2.5% in 2021 owing to spillovers from a bounce-back in US growth, lower interest rates and a weaker Canadian dollar.

Mexico: Similarly to Canada, the slump in US growth lowers demand for Mexican goods. In addition, a prohibitively high 20% tariff imposed by the US on Mexico magnifies the impact of slower US growth on Mexico relative to Canada. Real GDP growth is 3.2 ppts lower and inflation is 0.6 ppts higher than in the baseline case in 2019, as the pass-through of tariffs to import prices and a depreciating Mexican peso together boost inflation (charts 8 and 11) . Banxico responds aggressively with up to 225 bps worth of rate cuts by end-2019 versus only 75 bps of cuts in the baseline. Banxico later pulls back on monetary easing in 2021 when the economy grows by 4.7% as it rebounds from the tariff shock.

US: The US economy is in recession for all of 2019, growing at a mere 0.4% for the year and at 0.7% in 2020, 1.4 ppts and 0.9 ppts below our Q1-2018 *Global Outlook* baseline, respectively (chart 9). Inflation would fall below 2.0% in 2020 and 2021 (chart 12). The Fed would respond to the economic downturn with a cumulative 75 bps reduction in rates between Q1-2019 and Q4-2020, from 2.25% to 1.50% versus 2.75% by end-2020 in our baseline projections.

IV. A GLOBAL TRADE WAR COULD LEAD TO A RECESSION IN CANADA

In this section we compute the probability of a recession in Canada, as proxied by two or more consecutive quarters of negative growth, under each of the scenarios for US withdrawal from NAFTA that we sketched above. Using the Scotiabank Global Macroeconomic Model, we generate a range of outcomes around each NAFTA scenario by simulating the distribution of GDP growth and other variables in Canada and the US over the 2019–20 horizon, computing the proportion of outcomes that end in recession each year (see table 2)[1].

Table 2

Recession Probabilties for Canada Under NAFTA Scenarios (%)

Scenario	2018	2019	2020
Base Case	12	21	23
Scenario 1: 3.8% tariff	12	34	23
Scenario 2: 20% US global, ex Cda.	12	73	32

Source: Scotiabank Economics.

Scenario 1, with an across-the-board 3.8% tariff between all three countries, raises the probability of a recession by 13 ppts from the baseline's 21% probability to around 34% in 2019. In 2019 growth in Canada falls as low as 1.4% for the year versus 1.7% in the baseline, and quarter-on-quarter growth falls to as low as 0.9%.

Scenario 2 would see Canada hit a recession in most simulations, with a 73% chance of a recession. In fact, in scenario 2, the simulated quarterly pattern points to a decline in output in three consecutive quarters as our central tendency in the simulation.

In both scenarios, the Bank of Canada cuts interest rates to counter a slowing in growth: the scenarios' effect on GDP is more persistent than the effect on inflation. It is conceivable that the CAD would react more than assumed in either of our scenarios, much as the British pound (GBP) did following the Brexit vote. A large depreciation of the CAD could lead to rising inflationary pressures, which could require tighter monetary policy in Canada even as growth slows. By our estimates, it would take a depreciation of at least 10% from the path generated in scenario 1 for the Bank of Canada to tighten interest rates as opposed to cutting them.

[1] The process is laid out in a recent note on our five-year long-run forecast. We start with the simulation results of a given NAFTA scenario. For each of 2019 and 2020 we simulate a four-quarter sequence of "typical" shocks observed over the last twenty five years in Canada and the US, assuming that the preceding year evolves as in the NAFTA scenario. This provides a range of probable outcomes around each of the NAFTA scenarios. The proportion of these outcomes that generates two or more consecutive quarters of negative real GDP growth is the computed probability of recession shown in table 2.

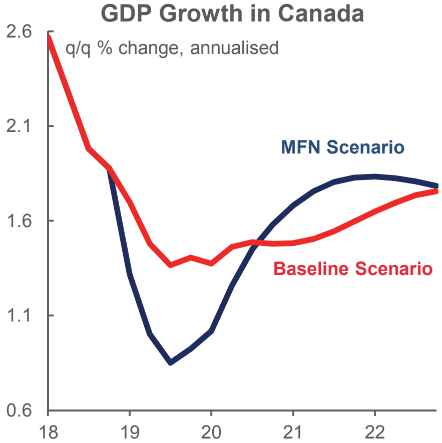
V. CONCLUDING REMARKS

The efforts to renegotiate NAFTA appear set to extend beyond the end-March deadline, which could take the conclusion of the process into 2019. Consequently, our baseline Q1-2018 *Global Outlook* projections incorporate a mild chill on business activity during 2018: we expect that the future of NAFTA will be put into question several times in 2018 alongside electoral campaigns in the three member countries, but should eventually reach a successful end.

In the unlikely event that the NAFTA talks do not reach a consensus, we look at what we consider the two most likely scenarios for US withdrawal from the pact. We estimate that a switch to MFN tariff rates would dampen economic growth by 0.3 and 0.5 ppts in 2019 in Canada and Mexico, respectively, relative to our Q1-2018 *Global Outlook* baseline. The US is broadly unaffected under this scenario, though the aggregate results of the simulation mask industry- or region-specific distress. In this scenario, the probability of a recession in Canada rises to 34% from our current baseline probability of 21%. In the second scenario—a much more disruptive US withdrawal from NAFTA accompanied by a broader disruption in global trade—the Canadian economy would stand a strong chance of falling into a recession. Overall, we continue to think these scenarios are unlikely to come to pass, but an updated assessment of their possible impact is a useful complement to our baseline *Global Outlook* projections.

Chart 1

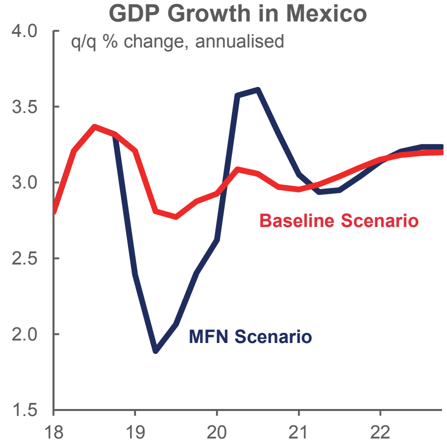
Baseline vs. MFN Scenario: GDP Growth in Canada



Source: Scotiabank Economics.

Chart 2

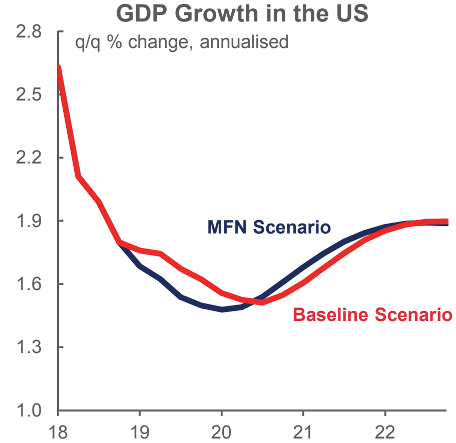
Baseline vs. MFN Scenario: GDP Growth in Mexico



Source: Scotiabank Economics.

Chart 3

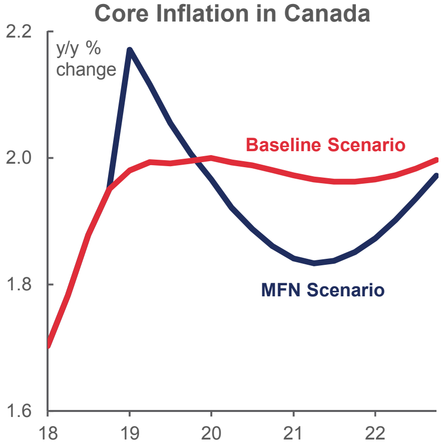
Baseline vs. MFN Scenario: GDP Growth in the US



Source: Scotiabank Economics.

Chart 4

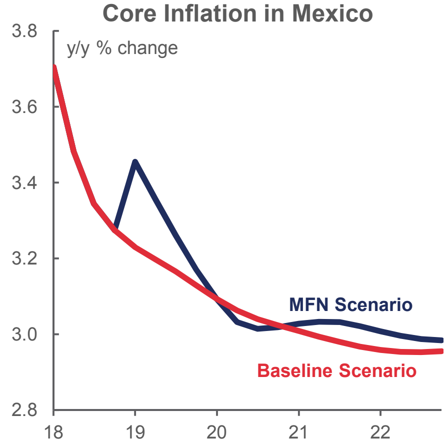
Baseline vs. MFN Scenario: Core Inflation in Canada



Source: Scotiabank Economics.

Chart 5

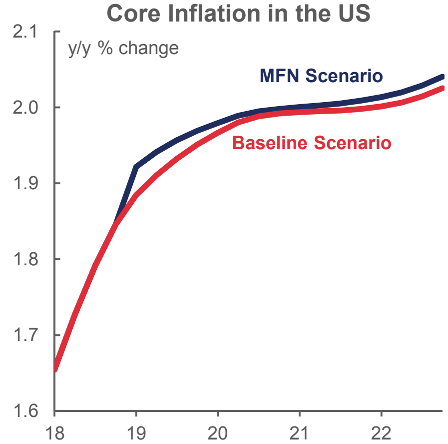
Baseline vs. MFN Scenario: Core Inflation in Mexico



Source: Scotiabank Economics.

Chart 6

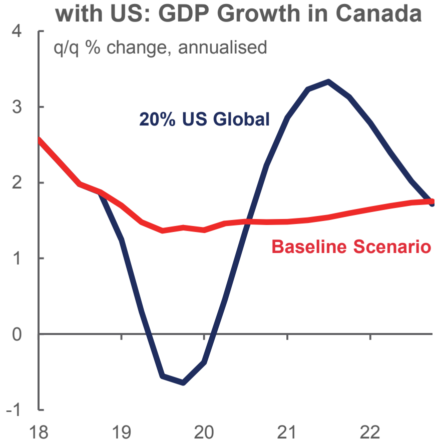
Baseline vs. MFN Scenario: Core Inflation in the US



Source: Scotiabank Economics.

Chart 7

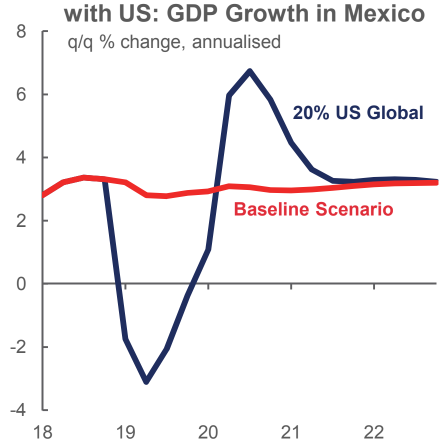
Baseline vs. Global Trade War with US: GDP Growth in Canada



Source: Scotiabank Economics.

Chart 8

Baseline vs. Global Trade War with US: GDP Growth in Mexico



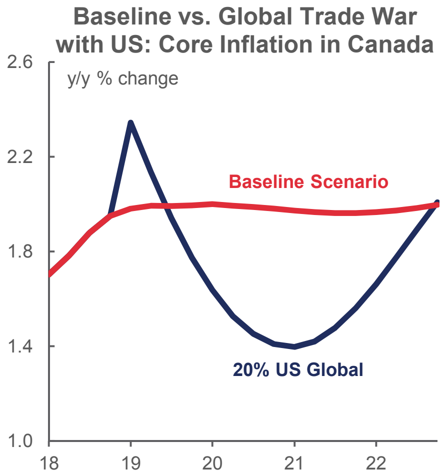
Source: Scotiabank Economics.

Chart 9

Baseline vs. Global Trade War with US: GDP Growth in the US

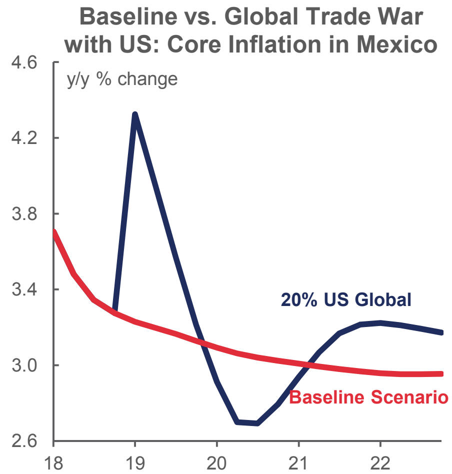
Source: Scotiabank Economics.

Chart 10



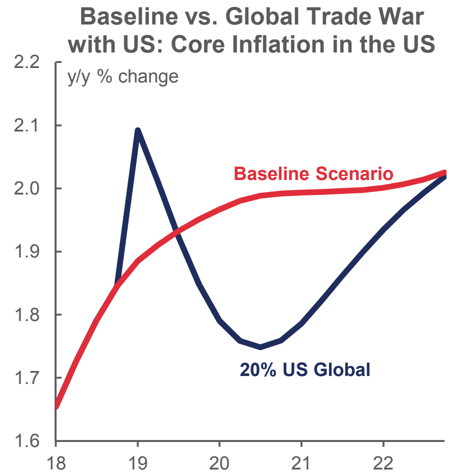
Source: Scotiabank Economics.

Chart 11



Source: Scotiabank Economics.

Chart 12



Source: Scotiabank Economics.

Table 3

Canada Scenario Forecasts Based off of Scotiabank Economics Global Forecasts, January 12th, 2018

	2017	2018	2019	2020	2021	2022
Baseline						
GDP, y/y % change period avg.	2.9	2.3	1.7	1.4	1.5	1.6
Core CPI, y/y % change avg.	1.5	1.8	2.0	2.0	2.0	2.0
Monetary policy rate, % eop	1.00	1.75	2.50	2.46	2.42	2.45
CADUSD, eop	1.28	1.25	1.25	1.24	1.23	1.23
Scenario 1: 3.8% tariff						
GDP, y/y % change period avg.	2.9	2.3	1.4	1.1	1.6	1.8
Core CPI, y/y % change avg.	1.5	1.8	2.1	1.9	1.8	1.9
Monetary policy rate, % eop	1.00	1.75	2.39	2.18	2.15	2.34
CADUSD, eop	1.28	1.25	1.26	1.26	1.24	1.23
Scenario 2: 20% US global*						
GDP, y/y % change period avg.	2.9	2.3	1.0	0.1	2.5	2.7
Core CPI, y/y % change avg.	1.5	1.8	2.1	1.5	1.5	1.8
Monetary policy rate, % eop	1.00	1.75	1.83	1.12	1.36	2.20
CADUSD, eop	1.28	1.25	1.27	1.30	1.25	1.21

Source: Scotiabank Economics.
*20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.

Table 4

Mexico Scenario Forecasts Based off of Scotiabank Economics Global Forecasts, January 12th, 2018

	2017	2018	2019	2020	2021	2022
Baseline						
GDP, y/y % change period avg.	2.1	2.4	2.8	2.9	3.0	3.1
Core CPI, y/y % change avg.	4.7	3.5	3.2	3.1	3.0	3.0
Monetary policy rate, % eop	7.25	7.75	7.00	6.71	6.61	6.64
MXNUSD, eop	19.10	19.48	19.73	19.98	20.24	20.50
Scenario 1: 3.8% tariff						
GDP, y/y % change period avg.	2.1	2.4	2.3	2.8	3.2	3.1
Core CPI, y/y % change avg.	4.7	3.5	3.3	3.0	3.0	3.0
Monetary policy rate, % eop	7.25	7.75	6.83	6.80	6.78	6.70
MXNUSD, eop	19.10	19.48	20.01	20.42	20.38	20.52
Scenario 2: 20% US global*						
GDP, y/y % change period avg.	2.1	2.4	-0.4	2.0	4.7	3.3
Core CPI, y/y % change avg.	4.7	3.5	3.8	2.8	3.1	3.2
Monetary policy rate, % eop	7.25	7.75	5.60	6.80	7.58	7.11
MXNUSD, eop	19.10	19.48	21.61	22.90	21.00	20.40

Source: Scotiabank Economics.

*20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.

Table 5

US Scenario Forecasts Based off of Scotiabank Economics Global Forecasts, January 12th, 2018

	2017	2018	2019	2020	2021	2022
Baseline						
GDP, y/y % change period avg.	2.3	2.5	1.8	1.6	1.6	1.8
Core CPI, y/y % change avg.	1.5	1.8	1.9	2.0	2.0	2.0
Monetary policy rate, % eop	1.50	2.25	2.75	2.70	2.58	2.57
Scenario 1: 3.8% tariff						
GDP, y/y % change period avg.	2.3	2.5	1.7	1.5	1.7	1.9
Core CPI, y/y % change avg.	1.5	1.8	1.9	2.0	2.0	2.0
Monetary policy rate, % eop	1.50	2.25	2.74	2.67	2.58	2.59
Scenario 2: 20% US global*						
GDP, y/y % change period avg.	2.3	2.5	0.4	0.7	2.5	2.1
Core CPI, y/y % change avg.	1.5	1.8	2.0	1.8	1.8	2.0
Monetary policy rate, % eop	1.50	2.25	2.03	1.50	1.94	2.39

Source: Scotiabank Economics.

*20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.

APPENDIX 1: NUMERICAL PEAK-TO-TROUGH IMPACT OF NAFTA SHOCKS

Table A1

Peak-to-Trough Impact on Canada Relative to Baseline Forecasts

Tariff (w/ retaliation)	Real GDP (level)	Output gap (level)	Avg. of 3 core CPIs (rate)	Monetary policy rate	CADUSD
Scenario 1: 3.8% tariff	-0.60 ppt	-0.37 ppt	+0.19 ppt	-30 bp	-1.69 ppt
Scenario 2: 20% US Global*	-2.08 ppt	-1.72 ppt	+0.36 ppt	-137 bp	-4.90 ppt

Note: ppt = percentage points, bp = basis points. Source: Scotiabank Economics.
* 20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.

Table A2

Peak-to-Trough Impact on Mexico Relative to Baseline Forecasts

Tariff (w/ retaliation)	Real GDP (level)	Output gap (level)	Core CPI (rate)	Monetary policy rate	MXNUSD
Scenario 1: 3.8% tariff	-0.78 ppt	-0.57 ppt	+0.23 ppt	-18 bp	-2.43 ppt
Scenario 2: 20% US Global*	-5.04 ppt	-4.02 ppt	+1.10 ppt	-154 bp	-16.21 ppt

Note: ppt = percentage points, bp = basis points. Source: Scotiabank Economics.
* 20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.

Table A3

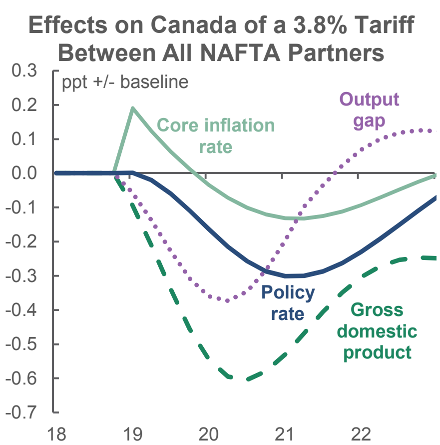
Peak-to-Trough Impact on US Relative to Baseline Forecasts

Tariff (w/ retaliation)	Real GDP (level)	Output gap (level)	Core PCE (rate)	Monetary policy rate
Scenario 1: 3.8% tariff	-0.14 ppt	-0.10 ppt	+0.04 ppt	-4 bp
Scenario 2: 20% US Global*	-2.37 ppt	-1.66 ppt	+0.21 ppt	-121 bp

Note: ppt = percentage points, bp = basis points. Source: Scotiabank Economics.
* 20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.

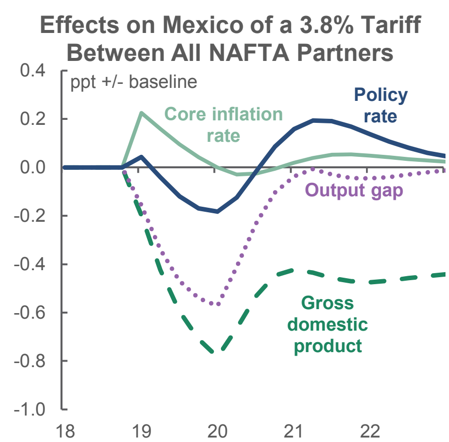
APPENDIX 2: GRAPHICAL PEAK-TO-TROUGH IMPACT OF NAFTA SHOCKS

Chart A1



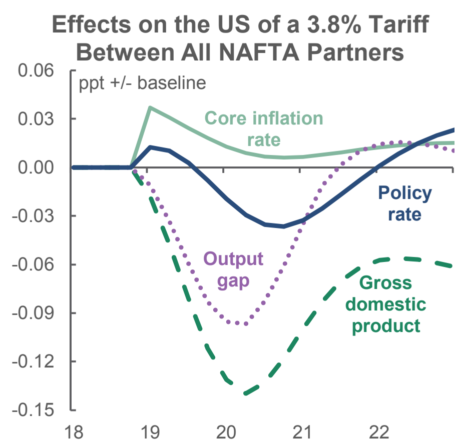
*Tariff of 3.8% applied on all goods trade between the US, Canada, and Mexico.
Source: Scotiabank Economics.

Chart A2



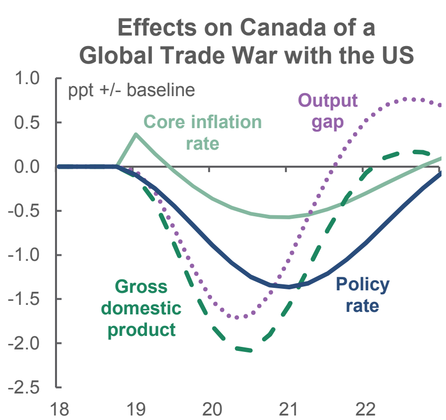
*Tariff of 3.8% applied on all goods trade between the US, Canada, and Mexico.
Source: Scotiabank Economics.

Chart A3



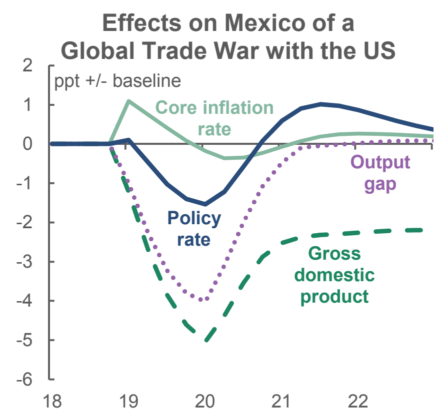
*Tariff of 3.8% applied on all goods trade between the US, Canada, and Mexico.
Source: Scotiabank Economics.

Chart A4



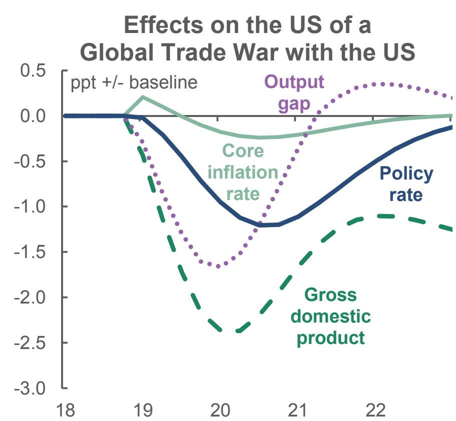
*20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.
Source: Scotiabank Economics.

Chart A5



*20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.
Source: Scotiabank Economics.

Chart A6



*20% tariff applied on all global trade with the US with the exception of a 3.8% tariff applied on all CA-US and CA-MX trade.
Source: Scotiabank Economics.

BOX A1: TARIFF SHOCKS SIMULATIONS

Our simulations are generated using Scotiabank Economics' global macroeconomic model.

The simulations work in the following ways:

- The imposition of tariffs increases the prices of imports, passing through directly to the inflation rate.
- 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 from the increase in the inflation rate and the rise in excess supply; the former suggesting an increase in the policy rate, the latter a decrease. 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 in 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 lands at an equilibrium that is less optimal. Part of the decrease in potential GDP will be permanent or persistent, depending on the lifespan of the tariffs.

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