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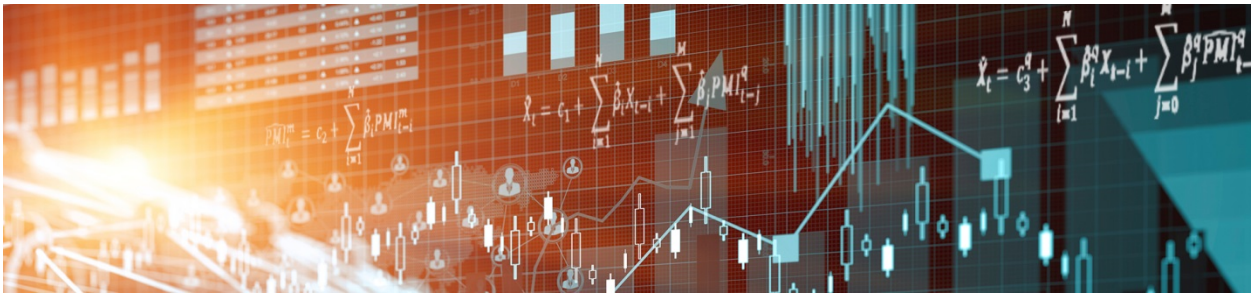
The Impact of a Trade War: Assessment of the Current Tariffs and Alternative Scenarios



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Abstract

This note uses Charbonneau and Landry's (2018) framework to assess the direct impact of the current trade tensions on the Canadian and global economies, as well as possible implications if the conflict escalates further. Overall, my findings show that the estimated impact of current tariffs on real gross domestic product (GDP) remains relatively small, which is in line with the literature on gains from trade, but the impact on trade is much larger. With a modest escalation of trade tensions, monetary policy in Canada could face a situation of rising prices and falling real GDP. This dilemma would be worse if Canada takes an active role in the trade conflict. If trade tensions rise more dramatically, the effect on Canada would depend on Canada's access to the US market. A significant and more broad-based rise in tariffs could lead to large global impacts.

Bank topics: Recent economic and financial developments; Trade integration
JEL codes: F11, F13, F14, F15, F50, F62, F68

Résumé

Dans la présente note, j'utilise le cadre d'analyse de Charbonneau et Landry (2018) pour évaluer l'incidence directe des tensions commerciales actuelles sur les économies canadienne et mondiale, ainsi que les répercussions possibles en cas d'escalade dans un conflit commercial. Dans l'ensemble, mes résultats indiquent que l'incidence estimative des droits de douane existants sur le produit intérieur brut (PIB) réel demeure relativement faible, ce qui concorde avec les résultats de la littérature sur les gains découlant des échanges commerciaux. Toutefois, l'incidence sur le commerce est beaucoup plus grande. Une modeste intensification des tensions commerciales placerait les autorités monétaires canadiennes devant un dilemme en provoquant une hausse des prix et une chute du PIB réel. Ce dilemme serait plus grave si le Canada jouait un rôle actif dans le conflit commercial. Si les tensions commerciales augmentaient de façon plus marquée, les effets sur le Canada dépendraient de son accès au marché américain. Une hausse importante et plus généralisée des droits de douane pourrait avoir des répercussions considérables à l'échelle mondiale.

Sujets : Évolution économique et financière récente; Intégration des échanges
Codes JEL : F11, F13, F14, F15, F50, F62, F68

1. Introduction

Quantifying the impact of tariff changes remains a priority for the Bank of Canada, since each monetary policy decision faces new developments on the highly volatile trade front. In the July 2019 *Monetary Policy Report*, the Bank estimates that, by the end of 2021, the impact of tariffs and related uncertainty will reduce the level of global gross domestic product (GDP) by 0.6 percent. This estimate is based on a combination of model output, econometric analysis, judgement and an assessment of the evolution of trade and investment since the conflict started. In this note, I use the framework developed in Charbonneau and Landry (2018) to assess the direct impact of the trade war to date on the Canadian and global economies. In addition, I investigate the effects of both modest and more dramatic escalations in the trade conflict in alternative scenarios. Finally, I explore the potential importance of other channels through which trade-related gains or losses operate that are missing from the model, such as possible changes in markups or implications for investment.

As emphasized in Charbonneau and Landry (2018), the trade model used in this note is built to assess the long-run impacts of tariffs on the economy. These are the impacts on trade flows and output levels once a new steady state has been reached by all countries and sectors. Our model does not address the transition to such an equilibrium, and the short-run impacts could be very different from those in the long run. In fact, such transitions are typically costly as global value chains are broken up, forcing companies to turn to higher-cost suppliers, and as workers in negatively affected sectors are laid off and must find new jobs in other sectors. Moreover, uncertainty and confidence effects not captured in these models are also likely to be important in the short run as firms and households adjust to the tariffs. An illustration of the short-run implications of the more dramatic scenario can be found in the July 2019 *Monetary Policy Report*.

Key messages:

- The impact of current tariffs on both Canadian and global real GDP is estimated to be relatively small, but the impact on trade is estimated to be much larger. Nevertheless, trade diversion to Canada remains limited.
- With a modest escalation of trade tensions, monetary policy in Canada could face a situation of rising prices and falling or flat real GDP. This policy dilemma will arise if Canada takes an active role in the trade conflict instead of being a bystander.
- A more dramatic rise in trade tensions could lead to large negative global impacts. How this would affect Canada would depend on Canada's access to the US market.
- The model is missing many channels that could lead to higher estimated impacts on GDP and inflation, but their effect is likely limited, at least for now.

2. The impact of current tariffs in the Charbonneau–Landry framework

2.1 The model in a nutshell

I use the Charbonneau–Landry trade model (CLTM) to assess the impacts of the set of tariffs currently in place, as well as to examine alternative scenarios of an escalation of the trade conflict. The model, based on Caliendo and Parro (2015), is detailed in Charbonneau and Landry (2018), along with an assessment of the impacts of the earlier stages of the trade war. The CLTM has many attractive features that allow us to precisely isolate and quantify the long-run impacts of tariff changes.

First, it is a Ricardian model of trade (e.g., Eaton and Kortum 2002). This implies that differences in technology, across sectors and countries, drive comparative advantage and trade. The strength of comparative advantage as a motivation for trade depends on the global distribution of productivities, as measured in the data by sectoral trade elasticities. For example, a low trade elasticity implies a high productivity dispersion across countries. This means that a retailer's current supplier is likely to remain its lowest-cost supplier when trade costs increase. As such, an increase in tariffs or other trade costs has a small impact on trade flows.

Second, the model has multiple countries and sectors, with interactions across tradable and non-tradable sectors observed in the input-output (IO) tables. Therefore, it allows for trade between countries that are different in terms of resources or technology, including different stages of development. In addition, the model explicitly incorporates trade in intermediate goods, which allows us to capture global value chains and to understand the impact of tariff changes on key systemic sectors of the economy. The presence of intermediate goods implies that the cost of the input bundle depends on wages and on the price of all the composite intermediate goods in the economy. A change in policy that affects the price in any single sector, such as the introduction of tariffs, will therefore indirectly affect all the sectors in the economy via the wage and materials input. The change will in turn affect trade in two ways: it will have a direct effect on trade shares via the trade cost, and an indirect effect through the input bundles since it incorporates all the information contained in IO linkages.[1]

Finally, the model's solution allows us to specifically isolate the long-run impacts of tariff changes from other economic developments. The model is, however, subject to a number of key assumptions. For instance, it assumes constant returns to scale, which implies that the existing technology can be scaled to meet changing demand. The model also features perfect competition, so it does not allow for adjustment in markups following a change in policy. The model includes only one factor of production, labour, which is perfectly mobile across sectors; it therefore cannot directly speak to adjustment costs or investment implications. Finally, the model has fixed trade balance. I will explore the potential importance of these missing channels in the last section.

[1] See the Appendix for a simplified schematic of how a change in tariffs affects the model.

2.2 Short-run price impacts

To begin, I derive, in the context of the CLTM, short-term estimates of Canadian and global inflation resulting from the recently imposed tariffs.[2] For this exercise, I assume that all of the adjustments come through prices in the short run. Specifically, I assume (i) no sectoral changes in demand or supply and (ii) a full pass-through from the tariffs to producer prices. Both assumptions are reasonable in the short term. First, quantity responses should be limited in the short term, notably due to the existence of contracts between importers and their foreign suppliers. Second, the literature has documented that, so far, the pass-through of tariffs on prices has been complete.[3] Note that the model is static and therefore does not address the dynamics of a transition to a new steady state. However, by making the two assumptions, I estimate what the model would give as an impact were trade and production fixed, which I interpret as a short-run effect.

To perform this exercise, I use the framework on which the CLTM is built. In particular, I use the trade data and IO tables imbedded in the model, which helps to capture the full extent of the global supply chains.

Table 1: Short-run price-level shock (percentage points)
Tariffs as of June 1, 2019

	Direct	Input-output diffusion	Global supply chain	Total
Canada	N/A	N/A	0.08	0.08
United States	0.16	0.35	0.01	0.52
China	0.06	0.06	0.01	0.13
World	0.04	0.08	0.01	0.13

I provide price-level shocks and decompose these estimates into three components.[4] First, I look at the direct impact of the tariffs on the targeted goods using expenditure-weighted tariffs at the sectoral level: for example, the impact of an increase of 25 percent in steel prices given the share of steel in final demand. Second, I look at the diffusion of inflation within each country using IO data: for example, the impact of the increase in steel prices on all the sectors where steel is used as an intermediate input. Finally, I look at the impact from the global supply chains using trade shares: for example, the impact of the increase in prices for the imported steel and other goods that use steel as an intermediate input. **Table 1** shows price-

[2] See Fajgelbaum et al. (2019) for summary statistics on the tariffs and Appendix C of Charbonneau and Landry (2018) for links to the lists of tariffs.
[3] See Amiti, Redding and Weinstein (2019) and Fajgelbaum et al. (2019).
[4] Throughout this note I use GDP deflators as a measure of prices. This is the price that consumers face in the model. I do not have consumer price index (CPI) implications. We can calculate a personal consumption expenditure (PCE) equivalent using private consumption weights from the IO tables. Those estimates tend to follow the GDP deflator closely but are generally a little smaller.

level estimates and the decomposition of final demand into the direct, diffusion and round-about impacts of the tariffs as of June 1, 2019.[5]

For most countries imposing a tariff, the IO diffusion is an important channel. Naturally, IO diffusion has a larger impact the larger the share of intermediate goods targeted by the tariffs. For the tariffs in place as of June 1, this channel is twice as large for US prices as the direct impact. The global supply chain has a significant impact on domestic prices for small open economies such as Canada's but a very limited effect on large countries like the United States and China. These results give us an idea of the relative importance of the main channels at play when looking at the long-run model outcomes.

2.3 Long-run impacts

I now turn to the long-run impacts of the current set of tariffs in place. **Table 2** shows the estimated impact of the tariffs as of June 1, 2019. The short-run price-level impact is calculated as detailed above, while the long-run impacts are the model outcomes (i.e., when trade and production adjust and the economy reaches a new steady state).

Table 2: Impacts of the tariffs as of June 1, 2019 (level shock in percentage)

	Short-run prices	Long-run prices	Long-run real GDP	Long-run exports
Canada	0.1	0.3	0.0	1.0
Mexico	0.1	0.5	0.1	2.7
United States	0.5	0.4	-0.2	-7.7
China	0.1	-0.4	-0.2	-5.9
World	0.1	0.0	-0.1	-1.2

Overall, I find small impacts on real GDP but much larger impacts on exports. This is generally the case because both imports and domestic production adjust, mitigating the direct effect of the change in exports. The impact on Canadian real GDP is negligible, as the small diversion of trade away from China and towards Canada is offset by the slightly weaker US demand.[6] However, despite no direct imposition of tariffs, Canada imports inflation from its trading partners. In fact, the prices rise further in the long run because an increase in demand for Canadian products pushes up prices. Nevertheless, the model suggests that given current tariffs, the impact on Canadian inflation would be limited. For the United States, prices rise in the short run, but the shock to the level is maintained in the long run. In contrast, prices in China fall in the long run, reflecting the drop in aggregate demand. These opposing effects leave world prices roughly unchanged. The impact on world GDP is small because losses in China and the United States are

[5] That is, including China–US bilateral tariffs, steel and aluminum tariffs excluding Canada and Mexico, and other countries' retaliatory tariffs. Note that I abstract from the softwood lumber dispute since these tariffs are temporary in nature. I also abstract from the trade restrictions on solar panels and washing machines.

[6] The steel and aluminum tariffs and Canadian retaliatory tariffs had an impact of -0.1 percent, which has now been removed.

partially offset by gains in Europe and emerging Asia. Global exports are significantly affected, falling 1.2 percent, or by about US$232 billion.

Since the scope of the current trade tensions remains limited, the global impacts are still relatively small. In the next section, I consider what they might become if the conflict escalated.

3. Alternative scenarios

In this section, I investigate what it would take for this framework to generate large impacts. I do not focus purely on the impact on real GDP, but rather on a combination of price and GDP that could lead to a difficult trade-off for monetary policy.

The framework can generate inflation in two opposing ways. First, a country can see inflation because it imposes tariffs on its trading partners. In that case, the impacts on prices can be large in the short run, but prices are unlikely to rise further in the long run. Second, a country can see inflation because of increased demand for its products while it remains a bystander in the conflict. This would have little impact on prices in the short run, but prices could rise significantly in the long run. This case would present no trade-offs for monetary policy. I look at these two cases in turn using illustrative scenarios. Finally, I also consider a scenario with a more dramatic escalation in the trade conflict to assess how large the aggregate impacts can get in this framework.

I start by considering a trade conflict between the parties to the Canada-United States-Mexico Agreement (CUSMA) and China, where all three CUSMA countries impose a 25 percent tariff on all imported goods from China, and China retaliates symmetrically. **Table 3** shows the impacts on the prices, real GDP and exports.[7]

Table 3: Impacts of CUSMA-versus-China scenario (level shock in percentage)

	Short-run prices	Long-run prices	Long-run real GDP	Long-run exports
Canada	1.2	0.7	-0.4	-2.2
Mexico	1.6	1.1	-0.5	-0.5
United States	0.9	0.8	-0.3	-8.7
China	0.3	-0.8	-0.3	-9.5
World	0.3	0.1	-0.1	-1.8

The direct impact of tariffs causes a large shock to the Canadian price level in the short run. However, this shock is not maintained in the long run as the country's exports become less competitive. Both real GDP and exports fall. The impact on world GDP remains limited, although global trade falls by almost 2 percent.

The size of the short-run price impact could push monetary policy in Canada and the United States to react even though GDP would be expected to fall. However, anticipating that the shock on prices is temporary,

[7] As in Charbonneau and Landry (2018), all the impacts of the alternative scenarios are given relative to the baseline (i.e., prior to the trade war). They therefore include the impacts of the tariffs as of June 1, 2019, given in **Table 2**.

at least partially, and assuming that inflation expectations are well anchored, monetary authorities would need to evaluate the appropriate policy response. Nevertheless, both Canada and the United States would face rising prices and a falling GDP.

I now consider a scenario of the United States versus the world, excluding North America, in which the United States imposes a 25 percent tariff on all imported goods except those from CUSMA countries, and all countries except Canada and Mexico put a 25 percent tariff on US goods. **Table 4** shows the impact on the prices, real GDP and exports.

Table 4: Impacts of the US-versus-the world (excluding CUSMA) scenario (level shock in percentage)

	Short-run prices	Long-run prices	Long-run real GDP	Long-run exports
Canada	0.4	1.4	0.1	5.1
Mexico	0.9	2.4	0.4	9.7
United States	2.7	2.2	-0.9	-32.0
China	0.3	-0.7	-0.4	-7.0
World	1.0	0.1	-0.3	-4.1

Globally, this scenario has much larger implications. World real GDP falls by 0.3 percent, mostly driven by the 0.9 percent decline in US real GDP. The largest movements are once again on the trade side, where the United States loses one-third of its exports and world exports fall by over 4 percent, or US$800 billion. Prices in the United States rise sharply in the short run, and the level shock is mostly maintained in the long run. The effects on the United States are similar to those of the previous scenario, albeit amplified. This similarity highlights the effects implied by the model when a country imposes tariffs on others.

The impacts on Canada and Mexico, which are bystanders in this case, are very different. Their exports become relatively more attractive as they substitute for American goods on the world markets. Consequently, they see a much larger impact on prices in the long run relative to the short run, which is an amplified version of the current state of things. Exports from both countries increase significantly; but as Canada and Mexico also pay higher prices and suffer from the weakness in the United States, the positive impact on real GDP remains limited. Mexico benefits more than Canada for two reasons. First, in sectors such as computers and electronics, Mexico's exports are a better substitute than Canada's for emerging Asia's, and so the former's exports to the United States increase sharply. Second, the drop in US and Chinese demand has a large impact on the world trade of commodities, which is a bigger drag for Canadian exports.

In this second scenario, both prices and output would be rising in Canada, suggesting no trade-off for the Bank of Canada to evaluate. These first two scenarios highlight the very different implications for a country like Canada of standing by while the trade war evolves or jumping in with tariffs of its own.

Finally, I consider a more dramatic scenario, in which the United States imposes a 25 percent tariff on all imported goods, and every country in the world (including Canada) retaliates symmetrically. **Table 5** shows the impacts on the prices, real GDP and exports.

Table 5: Impacts of the United States-versus-the-world scenario (level shock in percentage)

	Short-run prices	Long-run prices	Long-run real GDP	Long-run exports
Canada	4.5	-3.3	-3.1	-32.5
Mexico	5.2	-2.0	-2.8	-28.7
United States	3.7	8.2	-1.1	-69.1
China	0.4	-2.0	-0.2	-4.7
World	1.3	-0.1	-0.5	-9.7

This scenario has very large impacts in North America, which are driven by a collapse in trade. Prices rise considerably in all three countries in the short run; but while they continue to rise in the United States in the long run, they fall sharply in Canada and Mexico. This can be attributed to the fall in demand in the latter two countries and the contraction in their GDP. The effect on the global economy is somewhat larger than in the previous scenario. However, the US results show that despite losing almost two-thirds of its trade, the United States suffers only a limited fall in GDP. This is consistent with what the literature has found as gains from trade for this relatively closed nation. It contrasts with the magnitude for small open economies such as Canada and Mexico. Though both countries would considerably increase their exports to all other regions in this scenario, their dependence on and proximity to the United States leave them exposed.

It is important to mention that such large changes in trade policy start to test the boundaries of this model. Perhaps most notably, the main version of the model has fixed trade balances. This is obviously an issue when considering a trade war of this magnitude. Relaxing that assumption (at the cost of fixing income in order to close the model) suggests that in this scenario, trade balances would play a large role. In fact, the model suggests a drop of one-third in the US trade deficit, which helps absorb part of the price increase.[8] In that case, the long-run price-level shock is three times smaller. The impact on real GDP is largely unchanged. This limitation must be kept in mind when exploring the consequences of radical shifts in trade policy.

Estimates of the gains from trade provided in the literature can help put into perspective the size of the impacts discussed above. Costinot and Rodriguez-Clare (2014) provide estimates of the welfare gains from trade (i.e., relative to autarky) for a variety of popular trade models. For Canada, these estimates range from 29.5 percent to 39.8 percent for models with multiple sectors and trade in intermediates.[9] For the

[8] When trade deficits are fixed, domestic prices in the United States have to rise to maintain the incentives to buy foreign goods and maintain the trade balance constant.

[9] Note that welfare gains will be equivalent to GDP when no tariffs are involved (e.g., autarky to free trade). When a country imposes a tariff, welfare losses will be smaller than GDP losses due to tariff revenues.

United States, the equivalent range is from 8 percent to 10.3 percent. Autarky being an extreme case, Costinot and Rodriguez-Clare (2014) also provide estimates for a uniform worldwide 40 percent tariff. They find that this would represent a welfare loss of about 4 percent in Canada and 1 percent in the United States.[10]

These estimates are in line with what I find. They may seem small, but they highlight the nonlinearity of tariff impacts and emphasize the need for a significant escalation before large impacts can be felt. High tariffs do not necessarily stop trade. Most of a country's gains from trade are realized from trading the few things they can produce only at a very high cost, which are likely to continue being traded even under very high tariffs. Overall, the size of the potential losses due to tariffs is proportional to a country's share of trade relative to GDP. For countries like the United States, this is very limited. And if the United States were to impose 25 percent tariffs, they would erase one-tenth of all their gains from trade.

These models, however, could be missing the most important channels through which gains from trade, or losses associated with a trade war, operate. I consider what those channels might be in the next section.

4. Channels not in the model

4.1 Gains in productivity

One of the key assumptions in the CLTM is that technology remains unchanged.[11] However, gains in productivity are an important source of gains from trade. This has been documented in the literature in the context of the Free Trade Agreement (FTA) by Trefler (2004) and Lileeva and Trefler (2010). Lileeva and Trefler (2010) find that the FTA increased Canadian manufacturing productivity by between 13.2 percent and 14 percent.

These gains in productivity reflect the exit of less productive firms and the expansion of highly productive firms in the context of increased competition, but also investment in advanced manufacturing technologies and product innovation by new exporters. These types of productivity gains represent a one-time shift from access to a larger market and do not support productivity growth on an ongoing basis. Though they are very large and not captured in our model, their reversal in the face of higher tariffs is more uncertain than the losses associated with a less efficient allocation of world production.

Realistically, the gains stemming from productivity growth and innovation are unlikely to reverse as long as Canada continues to have access to the large and sophisticated US market. As for the United States, its domestic market is large enough that tariffs do not play a big role on this front.[12] For China, the situation is more unclear, though its market is also likely to be large and sophisticated enough to continue innovating on its own. In any case, the spillovers to Canada are likely to be very limited due to the nature

[10] The average for the world is about 3 percent.

[11] Country-sector productivity is fixed, but the model captures total factor productivity losses from a less efficient allocation of production.

[12] Starting with Krugman (1980), there has been much literature on the role of economies of scale in trade. More recently, Antweiler and Trefler (2002) explore empirically the role of scale economies, and Melitz and Ottaviano (2008) give a modelling framework with modern trade models.

of trade between the two countries (i.e., Canada mostly exports agricultural products to China, a sector in which productivity gains of this type are usually small).

4.2 Changes in markups

The CLTM assumes perfect competition. Therefore, another potential missing channel of gains from trade is through changes in markups, or the pro-competitive effect of trade. If lower (higher) trade barriers increase (reduce) competition, firms may decrease (raise) their markups in response, providing an additional source of welfare gain (loss). Perhaps surprisingly, the trade literature suggests that this channel would not lead to larger gains from trade. Arkolakis et al. (2019) and Feenstra and Weinstein (2017) estimate gains from trade allowing for variable markups and find that they are similar to those estimated using models with fixed markups.[13] This implies that this class of model would likely yield trade war effects similar to those given above.

4.3 Investment

The model has only one factor of production, labour, yet we expect much of the impact of tariffs to come through investment. We can use the IO tables and the output per sector generated in the model to tease out possible implications for investment. For instance, assuming that the capital-to-output ratio is constant in the long run, we can infer the impact on the capital stock and assume a path for investment, accounting for depreciation. Given that with the tariffs currently in place the output movements are small, the adjustment in capital stock would also be small, and consequently no drastic changes would be needed in investment. However, this may understate the impact on investment, since the sectors most affected by the tariffs tend to be more capital intensive. In Canada, the difference can be attributed mainly to machinery and equipment manufacturing. With the tariffs on China, the model suggests that Canada's exports in that sector would be relatively more competitive, and therefore production in that sector would increase. Though this sector is a small part of total output, it represents a larger share in investment. In the United States, the difference is due to the motor vehicles sector.

4.4 Varieties

In the model, goods are sourced from the lowest-cost producer without distinction. However, since the seminal work of Krugman (1979), importing new varieties has been identified as an important source of gains from trade. Broda and Weinstein (2006) estimated the value to US consumers of those gains between 1972 and 2001 to be equivalent to 2.6 percent of GDP. More recently, Feenstra and Weinstein (2017) found that of the 1 percent welfare gain in the United States from trade between 1992 and 2005, half was attributable to product variety. Protectionism could reverse some of these gains, which would amplify the negative impact on GDP and could dampen positive impacts (e.g., if trade is diverted to North America and North American varieties are closer substitutes).

[13] Feenstra and Weinstein (2017) find that variable markups are important and change the interpretation of the gains from trade, but not their overall magnitude.

The gains and losses of varieties also have important implications for prices. Broda and Weinstein (2006) estimate that the upward bias in the conventional import price index was 1.2 percentage points (pps) per year between 1972 and 2001. Amiti, Redding and Weinstein (2019) estimate the impact of the loss of variety on prices in the United States resulting from the Trump administration tariffs up to October 2018.[14] They find that this channel adds 0.5 pps to the full pass-through of tariffs.[15] Accounting for the loss of variety would therefore increase the GDP losses due to the tariffs, and it would increase prices.

4.5 Trade policy uncertainty

Finally, as mentioned in prior issues of the *Monetary Policy Report*, elevated trade policy uncertainty (TPU) weighs on exports and investment. This important channel is not present in the CLTM, or any similar trade model, and would amplify some of the effects. Overall, TPU appears to have reduced US investment in 2018 by about 1 percent.[16] If added to the model output, this would double the impact on US GDP. If the current trade policy rhetoric represents a permanent increase in the level of TPU, the effects could be larger. Indeed, the literature that focuses on the long-run effects of the reduction in TPU in the 2000s estimates that this channel could have been responsible for one-third to one-half of the export growth following China's accession to the World Trade Organization.[17]

Table 6 summarizes the potential impacts of the channels detailed above. Additional channels exist that are not discussed here, such as the role played by inflation expectations. This channel is likely to be a key factor in avoiding the cascading effects of a trade war.

Table 6: Impact of other channels on Canadian welfare

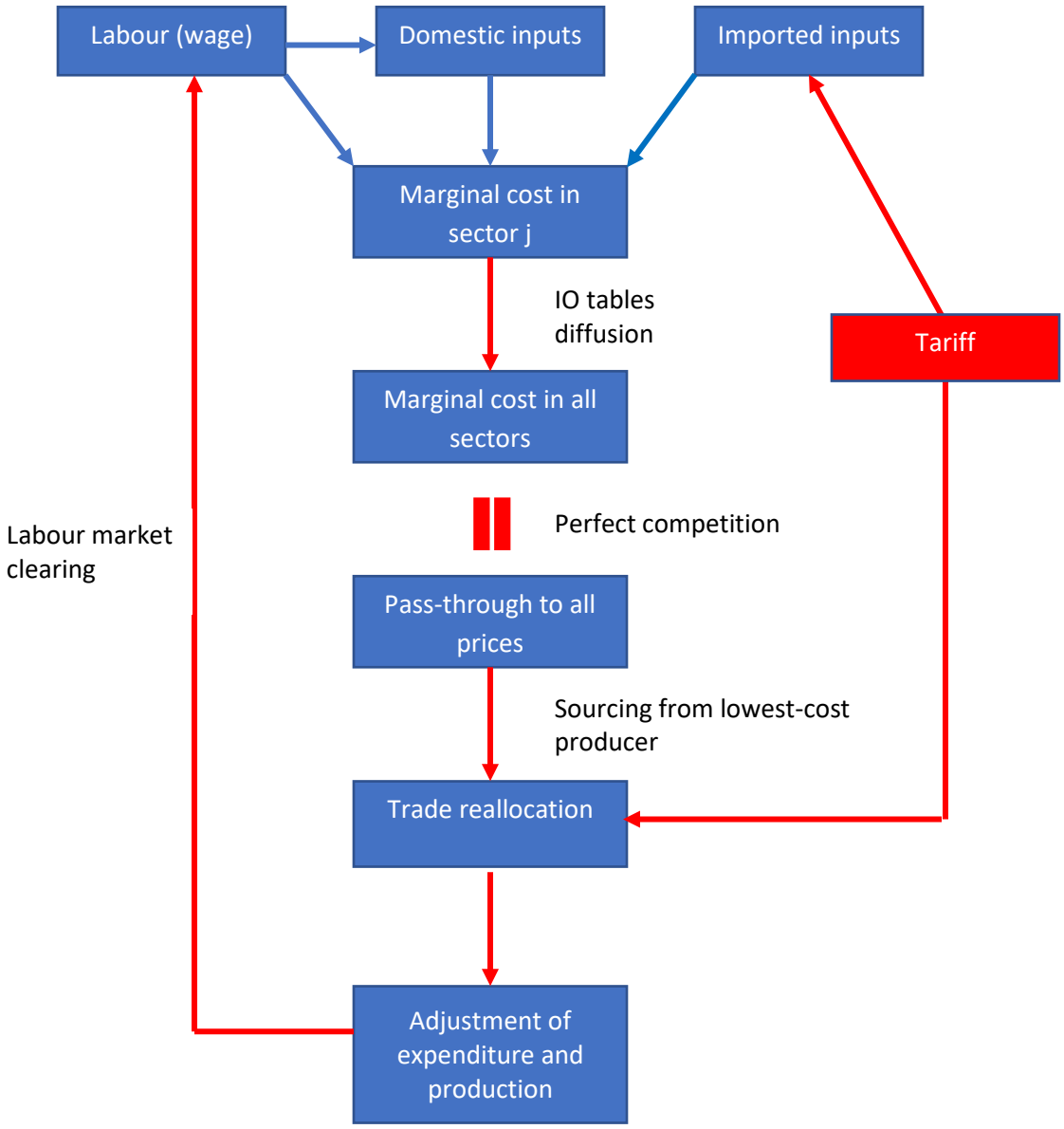
	Impact of current tariffs	Impact of full trade war	Notes
Productivity	0	Large negative	Large impact if Canada loses access to US market
Markups	0	0	No evidence in literature
Investment	Small negative	Large negative	Large impact if affected sectors are more capital intensive
Varieties	Small negative	Medium negative	Large impact in terms of welfare
Uncertainty	Small negative	Large negative	Evidence still subject of debate

Overall, despite a long list of channels not included in the CLTM, I believe the impact of the current set of tariffs is unlikely to be much larger than what the model suggests. The analysis above also makes clear

[14] This means up to the 10 percent tariff on US$250 billion of Chinese imports.
[15] They find that for a 10 percent tariff, the domestic price rises by 10.4 percent: 9.95 pps on the goods that continue to be imported and an additional 0.5 pps attributed to varieties that are no longer imported.
[16] See for example Caldara et al. (2019) and Baker et al. (2019).
[17] See for example Handley and Limão (2017) and Handley (2014).

which channels could become important if the situation were to escalate, though I also believe the model would still provide a good overall view.

Appendix: Overview of tariff impact in the model



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