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Canada

OFFICE OF THE CHIEF ECONOMIST

Canada-United Kingdom Trade Continuity Agreement

Economic Impact Assessment

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Summary

- The Canada-United Kingdom Trade Continuity Agreement (CANADA-UK TCA) replicates the Canada-European Union Comprehensive Economic and Trade Agreement (CETA) on a bilateral basis. The CANADA-UK TCA, therefore, is meant to maintain the status quo in the Canada-U.K. trade relationship.

- In order to examine the impact of the CANADA-UK TCA, we must analyze the potential economic impact of a situation where no CANADA-UK TCA is in place and the U.K. is no longer part of the CETA.

- The United Kingdom officially left the European Union (EU) on January 31, 2020, and CETA will cease to apply to Canada–U.K. trade on January 1, 2021.

- To avoid a gap in preferential trade access into each other's markets, Canada and the United Kingdom negotiated a trade continuity agreement - the CANADA-UK TCA - that provides Canadian exporters, services providers, and farmers with continued preferential access to the U.K. market carried over from CETA. CETA removed 98% of tariffs on Canadian goods and over time will remove approximately 99% of tariffs, in addition to the other CETA benefits including improved access for services, greater certainty and transparency, protection for investments and intellectual property.

- In the absence of CANADA-UK TCA, bilateral trade between the two countries would be governed by the World Trade Organization (WTO) rules alone, and goods trade between the United Kingdom and Canada would be subject to WTO most-favoured nation (MFN) duties.

- In May 2020, the United Kingdom announced the applied MFN tariffs, which it refers to as the UK Global Tariff (UKGT), that would take effect on January 1, 2021. Under these tariffs, 94.4% of Canada's exports to the United Kingdom would be MFN duty-free. Under the United Kingdom's proposed bound duties -- the highest tariffs that the United Kingdom could apply, which closely resemble the EU's Common External Tariffs (CET), 87.5% of Canada's exports would be MFN duty-free.

- Economic modelling indicates that in the event that bilateral goods trade is reverted to the two countries' respective MFN applied tariffs (UKGT for the UK tariffs), Canada's GDP could decline by $427 million (US$322 million) by 2025, and bilateral trade losses could be $2 billion (US$1.5 billion). Canadian goods exports to the U.K. market that would be most affected include food products, chemical products, apparel, and machinery and equipment.

- By signing and implementing CANADA-UK TCA, Canada avoids the GDP and trade losses. It preserves its preferential access to the UK market including consistent and transparent application of trade rules.

Context

Canada and the United Kingdom have historically enjoyed mutually advantageous commercial relations. The United Kingdom was Canada's third-largest destination for merchandise exports worldwide as a single country in 2019 and a key source of foreign direct investment (FDI) and science and technology partnerships. While the United Kingdom left the EU on January 31, 2020, the Canada-EU Comprehensive Economic and Trade Agreement (CETA) continues to apply to Canada–U.K. trade until December 31, 2020, which marks the end of the Brexit transition period.

To avoid a gap in preferential trade access into each other's markets, and as a continuation of Canadian efforts to mitigate the negative impacts of Brexit on the bilateral trade relationship, Canada and the United Kingdom launched a Trade Dialogue in 2017 aimed at ensuring a transition that is as seamless as possible for trade. Discussions began the following year once Canada had established its negotiating objectives, informed by targeted public consultations with provinces and territories, Canadian businesses, business associations and labour unions. Those consultations included engaging with representatives from implicated stakeholder groups in the agriculture and agri-food, fish and seafood, automotive, pharmaceutical, and consumer products sectors for their view on possible outcomes in a substantive replication of CETA.

Discussions between Canada and the United Kingdom on a trade continuity agreement (CANADA-UK TCA) were based on CETA and were intended to replicate and preserve the current preferential terms of trade between Canada and the United Kingdom under CETA. This was done to avoid disruptions for Canadian stakeholders who want to see Canada-U.K. trade continue on preferential terms as the United Kingdom leaves the EU common market. Underlining its transitional nature, the CANADA-UK TCA will be in place as Canada and the United Kingdom work toward negotiating a new comprehensive free trade agreement.

The CANADA-UK TCA:

- substantively replicates the main benefits of CETA to ensure continuity in Canada's trade with the United Kingdom as it exits the EU;
- provides Canadian businesses, exporters and investors with continued preferential access to the U.K. market while upholding all of CETA's high standards for consumers, workers and the environment;
- includes a commitment to subsequent negotiations with the goal of reaching a new bilateral free trade agreement that can best reflect the Canada-U.K. bilateral relationship and interests.

This study will analyse the potential economic impact of a lack of the Trade Continuity Agreement between Canada and the United Kingdom when the United Kingdom would

no longer be a legal party to Canada-EU treaties, including CETA as of January 1, 2021. In the absence of a transitional agreement or a trade agreement between Canada and the United Kingdom, bilateral trade between the two countries would be governed by WTO rules alone, and the goods trade between Canada and the United Kingdom would be subject to WTO most-favoured nation (MFN) duties. Neither Canada nor the United Kingdom would continue to benefit from the preferential market access currently provided for under CETA.

In May 2020, the United Kingdom announced the applied MFN tariff schedule referred to as the UK Global Tariff (UKGT), which would take effect after the post-Brexit transition period. The United Kingdom's bound tariff rates—the highest tariffs that the United Kingdom could apply—have not yet been certified at the WTO. The proposed bound tariffs are almost identical to the EU's Common External Tariffs (CET).

The analysis that follows explores the economic implications of the two scenarios where Canada-U.K. trade reverts to MFN conditions: the U.K. applied tariffs (UKGT) and the U.K. bound tariffs (EU CET). The benefits from increased certainty for the services sectors under CETA would also be removed.

CANADA-UK TCA highlights

Continued opportunities for goods exporters

The CANADA-UK TCA provides Canadian exporters with continued preferential access to the U.K. market and includes immediate elimination of 98% of tariffs on Canadian exports to the United Kingdom (carried over from CETA) and the elimination of an additional 1% of tariffs on Canadian exports to the U.K. by January 1, 2024, bringing the total elimination to 99% of tariffs on Canadian exports.

The CANADA-UK TCA fully protects Canada's dairy, poultry and egg sectors and provides no incremental market access for any supply managed products.

Continued opportunities for services exporters

For Canadian service suppliers, the CANADA-UK TCA maintains market access into the United Kingdom that is among the best it has ever granted to a trading partner.

Continued balanced approach to investment protection

The CANADA-UK TCA provides important investor protections while preserving the Government of Canada's right to regulate in the public interest.

Continued access to U.K. government procurement market

Under the CANADA-UK TCA, Canadian suppliers will have guaranteed access to the U.K. government's procurement market, which is estimated to be worth approximately Can$118 billion.

Continued high standards

The CANADA-UK TCA upholds and replicates CETA's high-standard provisions on labour, the environment and dispute settlement.

Commitment to subsequent negotiations

Canada and the U.K. have agreed to enter into subsequent negotiations within a year of the CANADA-UK TCA's entry into force, with the goal of reaching a new comprehensive bilateral free trade agreement within three years.

Model and data

The analysis is based on simulations using Global Affairs Canada's in-house dynamic computable general equilibrium (CGE) model of global trade. This model follows the structure of the Global Trade Analysis Project (GTAP) model developed and supported by Purdue University.[1]

The data used for this modelling exercise is based on the GTAP database pre-release version 11, which benchmarks all bilateral trade flows, trade protection and domestic support to 2017.[2] The model has been updated to include all bilateral trade flows and macroeconomic indicators to 2019. The underlying data values are expressed in U.S. dollars at 2019 prices.

It is important to understand the impacts of free trade agreements on the domestic labour market. The Global Affairs Canada's in-house model contains a labour market module that allows for the assessment on the impact of trade agreement on unemployment, people not in the labour force, occupations, gender, and youth, as well as mobility between occupations, and between employment and unemployment and not in the labour force. For a more detailed explanation of the labour market module, see Annex 2.

Although the CGE model has advantages, it also has limitations. For example, the model can only reflect the expansion of trade in products already traded in a given bilateral trading relationship (i.e. the intensive margin of trade); it cannot predict the creation of trade in new product areas (i.e. the extensive margin of trade). Further, the model only allows for analysis of gains from trade liberalization in goods and services and investment, but does not include gains from liberalization and enhanced economic cooperation in other areas. The modelling results could therefore underestimate the gains from liberalization as a whole. All of this should be taken into account when assessing the results.

Scenarios

The following modelling exercise examines two post-Brexit scenarios between Canada and the United Kingdom without a trade continuity agreement in place.

> Scenario One (UKGT Scenario): trade in goods between Canada and the United Kingdom would be subject to the two countries' respective WTO MFN applied duties. In this exercise, the United Kingdom would set tariffs for its imports from Canada equal to its applied UKGT schedule. Canada would apply its MFN tariffs to its imports from the United Kingdom. For the services sectors, both Canadian

[1] Global Trade Analysis Project, Department of Agricultural Economics, Purdue University

[2] Latest available information

and U.K. services providers would lose the certainty currently provided for under CETA.

Scenario Two (EU ECT Scenario): instead of applying the UKGT duties to imports from Canada, the United Kingdom would set its MFN tariffs equal to its presumptive bound tariff rates, which are similar to the EU's applied CET. Canada would apply its MFN tariffs to its imports from the United Kingdom. Here too, both Canadian and U.K. services sectors would lose certainty currently provided for under CETA.

Both outcomes illustrate the consequences to Canada of losing preferential trading access to the U.K. market that it currently enjoys under CETA.

Trade relationship between Canada, the United Kingdom, and the rest of the EU

The EU is the world's second-largest economy and Canada's third-largest trading partner after the United States and China.[3] It is the world's second-largest importing market for goods (worth $2.9 trillion[4] in 2019), with annual imports larger than Canada's GDP. The implementation of CETA marked the beginning of a preferential trading relationship between Canada and the EU. The agreement immediately removed 98% of tariffs on Canadian goods and over time will remove approximately 99% of tariffs. This is in addition to the other benefits of CETA, including improved access for services, greater certainty and transparency, protection for investments and intellectual property, and opportunities in the EU procurement markets.

The United Kingdom represented a large and important part of the EU. The U.K.'s GDP represented 18.1% of the EU's total GDP in 2019—the second-largest GDP in the bloc after Germany. Merchandise trade between Canada and the United Kingdom represented 30.1% of total Canadian trade with the EU between 2017 and 2019.

Bilateral merchandise trade between Canada and the United Kingdom averaged $27.1 billion between 2017 and 2019, making the United Kingdom Canada's fifth-largest trading partner in the world. Canada's trade with the United Kingdom was greater than its trade with Germany, which was valued at $23.9 billion. A large share of trade between Canada and the United Kingdom is in precious metals such as gold. If gold is removed from total trade, bilateral trade between the two countries remains significant, at $14.7 billion, close to the $14.8 billion in trade between Canada and South Korea.

[3] For this section and the subsequent two sections, the EU comprises 27 member countries.

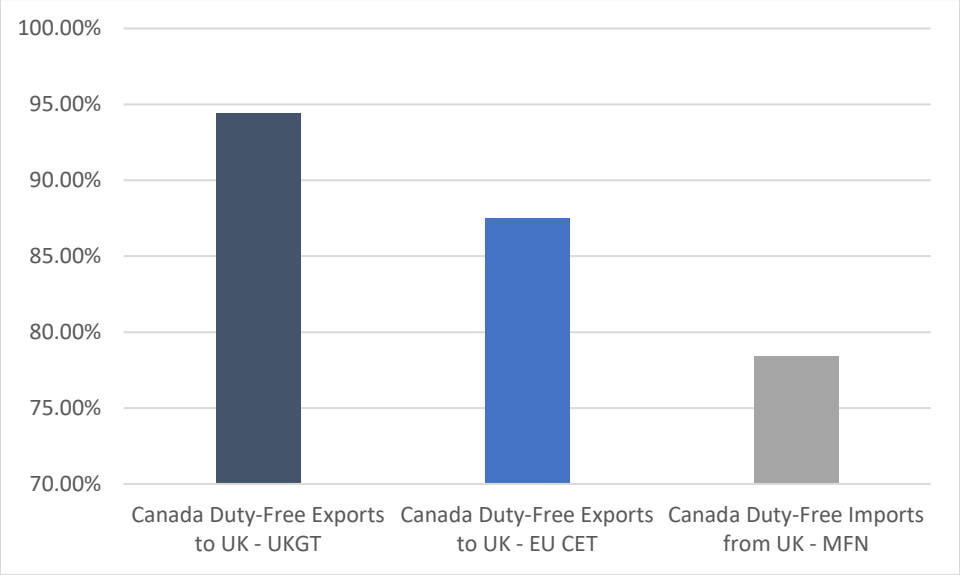
[4] All figures in Canadian dollars unless otherwise indicated.

Canada's merchandise exports to the United Kingdom and the rest of the EU

Within Europe, the United Kingdom represents a major market for Canada's exports: Canadian exports to the United Kingdom are worth $18.0 billion compared to $26.9 billion in exports to the rest of the EU.

In the absence of CETA preferences, trade between Canada and the United Kingdom would revert to MFN tariffs. Under the UKGT, only about 5.6% of Canadian exports to the United Kingdom would be charged tariffs. This means that 94.4% of Canada's exports to the United Kingdom would enter duty-free. Under the UK bound tariff rates, 87.5% of Canada's exports would be duty-free. Most of this duty-free trade is in gold, which represents 64% of Canada's total exports to the United Kingdom. Excluding gold from total trade, approximately 84% of total Canadian exports would be duty-free under the UKGT compared to 64.9% under the EU CET.

Chart 1: Share of duty-free trade in Canada-U.K. trade under MFN scenarios (%)



Data: Department of Finance Canada, the UK Department of International Trade, and Global Trade Atlas
Source: Office of the Chief Economist, Global Affairs Canada

Table 1 lists the top 10 U.K. tariffs that would apply to Canada's exports to the United Kingdom under the scenario where the United Kingdom applies the UKGT.

Table 1: Top 10 trade-weighted tariffs on Canada's exports under UKGT

Sector	Trade-weighted tariff (%) [5]	Average 2017-2019 exports, $ million
Dairy products	24.1	0.6
Wheat[6]	17.3	141.5
Other food products	12.1	250.6
Other meat products (pork, poultry)	10.2	0.3
Wearing apparel	10.1	23.5
Fish and seafood	8.0	30.5
Sugar	8.0	21.0
Leather products	7.8	3.8
Textiles	6.6	22.0
Motor vehicles and parts	5.3	105.0

Data: Global Trade Atlas
Source: Office of the Chief Economist, Global Affairs Canada

Under this scenario, Canada's exporters could face annual tariffs totaling $89 million based on average trade between 2017 and 2019. This would represent an average applied MFN rate of 8.1% on dutiable trade.

Table 2 lists the top 10 trade-weighted tariffs that would apply to Canada's exports to the United Kingdom under the scenario where the United Kingdom adopts the EU CET.

[5] Trade weighted tariffs are the average of effectively applied tariffs weighted by the import shares.

[6] The UKGT differentiates between duty-free treatment for high-quality non-durum wheat and a 79 GBP/tonne tariff on lesser quality non-durum wheat. Treatment is similar under the EU CET. Data is not available to separate Canada's wheat exports by quality. As a result, this analysis assumes that half of all non-durum wheat is subject to the tariff. This may overestimate or underestimate the impact for this sector.

Table 2: Top 10 trade-weighted U.K. bound tariffs for Canada's exports

Sector	Trade-weighted tariff (%)	Average 2017-2019 exports, $ million
Dairy products	25.5	0.6
Wheat	18.3	141.5
Other food products	13.1	250.6
Other meat products (pork, poultry)	10.8	0.3
Wearing apparel	10.3	23.5
Leather products	9.0	3.8
Fish and seafood	8.0	30.5
Sugar	8.0	21.0
Textiles	7.9	22.0
Other cereal grains	5.9	74.0

Data: Global Trade Atlas
Source: Office of the Chief Economist, Global Affairs Canada

Under scenario 2, Canada's exporters could face annual tariffs totaling $138 million based on average trade between 2017 and 2019. This represents an average applied MFN rate of 5.7% on dutiable trade.

Canada's merchandise imports from the United Kingdom and the rest of the EU

Canada's trading relationship with the United Kingdom is less notable in terms of imports. Canada's imports from the United Kingdom averaged $9.1 billion from 2017 to 2019 compared to $63.4 billion in imports from the rest of the EU over the same period.

Canada's MFN rates on imports tend to be lower on average than those under both the UKGT and the EU CET. As Chart 1 shows, approximately 78.4% of Canada's imports from the United Kingdom are MFN duty-free. Canada's imports of motor vehicles and parts from the United Kingdom are valued at approximately $1.5 billion, making it the sector with the highest import value of total imports and associated tariffs. Most of these imports are finished motor vehicles that face a relatively large tariff of 6.1%. This sector would likely see the largest impact in terms of a decline in imports due to the loss of CETA preferences.

Table 3: Top 10 Trade-weighted tariffs on U.K. exports to Canada

Sector	Trade-weighted tariff (%)	Average 2017-2019 exports, $ million
Wearing apparel	17.0	33.8
Leather products	10.7	11.0
Dairy products	7.3	25.1
Motor vehicles and parts	6.0	1,400.1
Textiles	5.5	45.6
Bovine meat products	5.2	10.0
Vegetable oils and fats	4.9	3.7
Other food products	4.5	208.4
Other mineral products	2.9	48.0
Sugar	2.7	0.1

Data: Global Trade Atlas
Source: Office of the Chief Economist, Global Affairs Canada

Under both the UKGT and the EU CET scenarios, U.K. exports to Canada could face an average applied MFN tariff of 6% on dutiable products.

Services trade between Canada and the United Kingdom

With respect to trade in services, Canada exported an average of $7.0 billion in services to the United Kingdom from 2017 to 2019. Over the same period, the United Kingdom exported $8.0 billion in services to Canada.

At the end of the current transitional period, the United Kingdom would no longer be a party to CETA. As a result, CETA's binding commitments in the services sectors would no longer apply to Canada-U.K. services trade. While in practice this might not result in immediate changes to the bilateral trading relationship, the absence of legal commitments binding either country to their current regime for services could create uncertainty.

The OECD Services Trade Restrictiveness Index (STRI) is used to measure the level of restrictions based on the current regime that includes CETA. The same index is also used to estimate the pre-CETA level of services commitments under the General Agreement on Trade in Services (GATS). This yields the GATS Trade Restrictiveness Index (GTRI).

The difference between their commitments made under the previous regime (represented by the GTRI) and their commitments made under the newest regime (represented by the STRI) is referred to as "water". When parties agree to bind to the current regime they minimize the difference between the GTRI (the situation before CETA) and the STRI (the situation that includes CETA). Minimizing the difference by binding to the current regime is referred to as shrinking the "water." Shrinking the

"water" provides more certainty for services exporters and thereby encourages increased trade in services.

Without a trade continuity agreement, the United Kingdom departing CETA has the opposite effect of trade liberalization. In this case the difference between the GTRI and STRI would increase (the inverse of shrinking the "water"), presumably creating uncertainty and discouraging trade in services. Either party in this scenario would be free to roll back their current regime to the previous binding commitments under the GATS.

The following modelling exercise uses this inverse of the "shrinking water" approach to estimate the effect of increase in uncertainty and trade costs in the event of a return to a non-preferential trading relationship between Canada and the United Kingdom.

Table 4 shows the estimated changes in ad-valorem equivalent costs of increased uncertainty for affected services sectors. These costs apply in both the UKGT and the EU CET scenarios.

Table 4: Estimated ad-valorem equivalent costs of increased uncertainty

Sector	Canada's imports from United Kingdom (%)	United Kingdom's imports from Canada (%)
Construction	4.24	1.27
Transport	3.00	4.38
Water transport	6.51	2.57
Communication	0.55	3.55
Financial services	0.86	0.00
Business services	8.78	0.00
Recreational and other services	0.06	0.08

Source: Office of the Chief Economist, Global Affairs Canada

Modelling results

The modelling results suggest that the absence of a preferential trading relationship between Canada and the United Kingdom would have a slight negative impact on the economies. This is because even without such an agreement 94.4% of Canada's exports to the United Kingdom would be MFN duty-free under the UKGT scenario or 87.5% MFN duty-free under the EU CET scenario.

As a result of reverting to pre-CETA MFN tariffs, Canada's GDP could decline slightly by between US$322.0 million to US$349.3 million (0.016% to 0.018%) by 2025, while the United Kingdom could see a decline of between US$511.5 million to US$525.5 million (0.017%) over the same period.

Table 5: GDP impact without TCA by 2025

	UKGT scenario		EU CET scenario	
	Value US$ million	%	Value US$ million	%
Canada	-322.0	-0.016	-349.3	-0.018
United Kingdom	-511.5	-0.017	-525.5	-0.017

Source: Office of the Chief Economist, Global Affairs Canada

An extended period where MFN tariffs apply to trade between Canada and the United Kingdom could result in declines in bilateral trade. By 2025, total bilateral trade between the two countries could decline by between US$1.5 billion (under the UKGT scenario) and US$1.6 billion (under the EU CET scenario) in the absence of a trade continuity agreement (TCA).

Table 6: Trade impacts without TCA by 2025

	UKGT scenario		EU CET scenario	
	Value US$ million	%	Value US$ million	%
Canada's imports from the United Kingdom	-1,123.3	-7.0	-1,126.2	-7.0
Canada's exports to the United Kingdom	-367.0	-1.9	-502.4	-2.6

Source: Office of the Chief Economist, Global Affairs Canada

In the UKGT scenario, Canada's exports to the UK could decline by US$367.0 million or 1.9%. This decline is relatively small because most of Canada's exports to the United Kingdom would maintain duty-free status under the UKGT. Goods that would be most affected would be food products, chemical, rubber and plastic products, apparel, auto parts, machinery and equipment.

Under the EU CET scenario, Canada's export losses could increase to US$502 million.

From Canada's imports perspective, because a larger proportion of Canada's imports from the United Kingdom would be dutiable, Canada's annual imports from the United Kingdom could decline by US$1.1 billion or 7%, with the majority of the losses in the services and motor vehicles and parts sectors. In the EU CET scenario, the impact on Canada's imports from the United Kingdom would remain the same as in the UKGT scenario as the tariffs faced by the United Kingdom would be the same. For more detailed trade data, see Annex 1.

Without a TCA with the United Kingdom, Canada could lose between 2,187 and 2,430 jobs. Both scenarios are expected to have a small negative impact on employment in Canada. As the employment impact on Canada is distributed across the agriculture,

manufacturing and services sectors, the impact would be roughly equal for males and females.

Table 7: Employment Impact in Canada without TCA by 2025

	UKGT scenario	EU CET scenario
Male	-1,146	-1,271
Female	-1,041	-1,159
Total	**-2,187**	**-2,430**

Source: Office of the Chief Economist, Global Affairs Canada

Conclusion

In the event that the Canada-U.K. trading relationship reverts to pre-CETA MFN conditions, the effect on the Canadian economy would be limited. This is because the majority of trade between Canada and the United Kingdom is already MFN duty-free. Nevertheless, a lack of a transitional agreement could potentially cause total bilateral trade between Canada and the United Kingdom to decline by up to US$1.6 billion, Canada's GDP to decline by up to US$349 million, and Canada could lose up to 2,430 jobs. A trade continuity agreement could help Canada avoid these losses and preserve its trade gains under CETA with the United Kingdom.

Annex 1: Detailed trade tables

Table 8: Top trade losses, UKGT scenario (US$ million)

Sector	Exports to U.K.	Sector	Imports from U.K.
Services	-82.2	**Services**	-491.2
Wheat	-77.3	**Motor vehicles and parts**	-415.6
Other food products	-63.6	**Chemical, rubber, plastic products**	-64.9
Chemical, rubber, plastic products	-41.5	**Other food products**	-30.2
Wearing apparel	-22.3	**Wearing apparel**	-29.8
Motor vehicles and parts	-19.6	**Electronic equipment**	-17.7
Other machinery and equipment	-14.4	**Metal products**	-14.8
Other manufactured goods	-13.9	**Other manufactured goods**	-9.7
Sugar	-5.8	**Other transport equipment**	-9.6
Wood products	-5.0	**Textiles**	-8.9
Total	**-367.0**	**Total**	**-1,123.3**

Source: Office of the Chief Economist, Global Affairs Canada

Table 9: Top trade losses, EU CET scenario (US$ million)

Sector	Exports to U.K.	Sector	Imports from U.K.
Services	-81.5	**Services**	-492.1
Wheat	-79.4	**Motor vehicles and parts**	-415.7
Other food products	-67.3	**Chemical, rubber, plastic products**	-65.0
Other machinery and equipment	-57.1	**Other food products**	-30.2
Other transport equipment	-55.9	**Wearing apparel**	-29.8
Chemical, rubber, plastic products	-51.3	**Electronic equipment**	-17.8
Wearing apparel	-22.5	**Metal products**	-14.8
Motor vehicles and parts	-21.4	**Other transport equipment**	-11.0
Other manufactured goods	-20.1	**Other manufactured goods**	-9.7
Electronic equipment	-6.2	**Textiles**	-8.9
Total	**-502.4**	**Total**	**-1,126.2**

Source: Office of the Chief Economist, Global Affairs Canada

Annex 2: Labour market module

This section provides a non-technical overview of the modelling methodology recently developed to enable analysts to better understand the impact of trade policy change on the Canadian labour market. For further information, contact the Office of the Chief Economist.

The new module addresses a number of shortfalls in the traditional modelling approach by incorporating data related to unemployment, labour force participation, occupations, gender, and youth.

Labour market impacts

Traditional CGE models assume full employment and thus do not analyze potential unemployment that might arise while the economy adjusts to structural changes induced by trade agreements.

In reality, labour markets never reach full employ. There is always a high degree of job turnover in an economy: for example, workers may leave one job for another to take advantage of a better offer, or take a new job after being laid off from a previous one. Accordingly, there is a certain amount of observed frictional unemployment at all stages of the business cycle. The introduction of frictional unemployment into a quantitative framework for analysis therefore enriches the understanding of the labour market. It highlights the importance of frictional costs in job seeking, for example, which could induce some workers to drop out of the labour force even in the presence of an overall rising economy.

Similarly, trade liberalization can generate both smooth job transitions and involuntary unemployment as some firms expand and create new higher-paying jobs, while others are forced to cut back output and reduce their workforces in response to loss of market share due to imports.

Further, trade liberalization is also likely to have an impact on labour force participation: higher real wages and associated job creation may encourage those who are not in the labour force to seek work.

Workers across occupations

Trade liberalization does not uniformly benefit all workers and all occupations, but instead results in job gains in some sectors and job losses in others. As a result, there has been increased emphasis on labour market adjustments that facilitate mobility across occupations, particularly given that trade liberalization could shift economic opportunity across firms and industries. Mobility across occupations is generally more difficult than mobility across industries within the same occupations. For instance, it is

easier for a plumber in the construction industry to find a job as a plumber in the retail industry than for a plumber to change occupation and become an electrical engineer.

Under traditional economic modelling, differences in the professional composition of the labour force demanded by different sectors are not considered, and the potential consequences of a misalignment between skills available and skills in demand cannot be evaluated. Introducing a more detailed breakdown of occupations in the labour market is an important step to improving the ability to anticipate and to respond to the pressures on labour markets resulting from trade liberalization.

Gender

Providing equality of opportunity for women and men in the workplace is beneficial for productivity. The Government of Canada has made gender equality and women's economic empowerment a top priority. The lack of gender-disaggregated data in the traditional CGE framework has limited the ability to do an in-depth gender analysis. The introduction of a gender breakdown by occupation and sector thus greatly improves the ability to quantify potential impacts of a trade agreement from a gender perspective.

Youth

It is also important to consider the effects of trade on youth, a traditionally under-represented group in international trade and in Canada's economy more broadly. Youth engagement in trade as entrepreneurs, particularly in technology-enabled sectors, contributes to the ability of the economy to respond to new trade opportunities. Given that young people are more likely to experience all types of unemployment (i.e. frictional and involuntary) particularly during periods of economic downturn, the creation of new economic opportunities through trade liberalization could be especially beneficial for young people integrating (or re-integrating) into the workforce. Introducing an age disaggregation into the quantitative analytical framework allows for analysis of the impact of trade agreements on the distribution of opportunities across ages, which in turn may inform domestic policy in terms of training programs and other support for young entrepreneurs.