How Canada Reassesses its Agri-Food Trade: Approach and Analytics, with an Application

A Policy Concepts Paper

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Introduction

With the advent of across-the-board tariffs on imports by the US, Canada's agri-food sector faces an unprecedented situation. Canada is a structural agri-food net exporter, and in order for its agricultural resources to be fully utilized, it must export. For a host of reasons, including market size, proximity, and scale at which processing and distribution can occur, the US is an essential market for Canadian agri-food products. Canadian agri-food is heavily leveraged into an exporting relationship with the US, and the prospect of a sudden imposition of 25 percent tariffs by the US on imports from Canada represents a major shock.

In mid-March, 2025, the situation remains fluid. On March 5th, the US gave Canada a one month reprieve on 25 percent duties only imposed a day earlier on March 4th, for US imports from Canada compliant with USMCA/CUSMA.[1] On March 6th the US pledged reciprocal tariffs against Canadian dairy and lumber imports. President Trump has mused about tariffs going on agricultural products that are "external" to the US, as of April 2, 2025, and other protectionist measures enacted by the US that impact Canada are an imminent threat.

These US trade issues were complicated and intensified by tariffs of 100 percent on Canadian canola oil, canola meal, and peas, and 25 percent tariffs on Canadian pork announced by China on March 7th.

Canada must adjust quickly and attempt to mitigate the injury from US action. Retaliation with tariffs raised against the US, that can be relaxed when the US drops its tariffs against Canada, are a component of this. The Canadian agri-food trade issues with China are formally separate, yet connected in Canada's broad trade interest involving both the US and China as leading export destinations. The on-again, off-again of tariff measures by the US are themselves highly disruptive, and are coupled with the fear that US tariffs against Canada could continue to escalate and be a lasting or even permanent measure. Facing this situation, Canadian agri-food marketing will need to change.

The purpose of this policy note is to explain the basic mechanics of tariffs, and to illustrate the essential approach to identifying and evaluating export alternatives for Canada, common across agri-food products. For the purposes of illustration, it addresses a key Canadian export-oriented product: bakery products.

Tariff mechanics and essential elements

A tariff is a tax on imports from subject countries. Upon import of the product, the tariff is

[1] There are Canadian agri-food exports formally outside of the USMCA/CUSMA that suddenly face US tariffs, because they are not in compliance with rules of origin in the agreement- but are exported to the US under a zero or very low tariff rate- or are in compliance but have not been filed as such. Mark Rendell in the Globe and Mail, March 7th, 2025 provides a good overview "What gets a reprieve from Trump's tariffs? Understanding the USMCA". https://www.theglobeandmail.com/business/article-what-gets-a-reprieve-from-trumps-tariffs-understanding-the-usmca/

charged by customs at the border, payable by the importer.[2] Consistent with this, the tariff is added to the price of the product after it has been imported as it moves through supply chains, ultimately residing with the final customer/consumer. At the same time, the importer can force back some of the tariff liability on the supplier in the form of a lower border price, and by extension back through the exporting country's supply chain. The ultimate impact of the tariff is thus split between the exporter and the importer, and the nature of this split is determined by the nature of exporter and importer markets, and the associated bargaining power.

This can be characterized by two contrasting scenarios. For a product that is imported and faces extensive competition in the importing country market and in which there are ample substitutes that consumers can switch to, the effect of the tariff is pushed back on the exporter in a lower price and lower volume exported. Alternatively, the situation is different for a product in which there is limited production capacity and responsiveness in the importing market, and the demand in the importing market is robust- as a niche product; a product with a strong brand; no good substitutes, etc. In this case, the effect of the tariff is largely borne in the importing country, and the effects on the exporter, in terms of a lower border price and reduced trade volume, are mitigated.

The analytics to support these scenarios are presented in the Technical Appendix at the end of the paper. It develops these contrasting scenarios that can exist for Canadian products with an established US export market potentially faced with steep tariffs. Some products, especially commodity products readily replaced in the US from increased domestic production or imports from third countries not subject to US tariffs, will suffer losses of market and lower prices as they shoulder the burden of the tariff. Others that occupy a premium space or niche could proceed with little downward adjustment in price or volume- and have a US market that will essentially carry the tariff. Each of these contrasting scenarios are matters of degree and a range of intermediate cases will exist. The nature of these export marketing situations must be revisited and reassessed under steep tariffs to understand the vulnerability faced by products exported by Canada, Canadian companies, and Canadian industries.

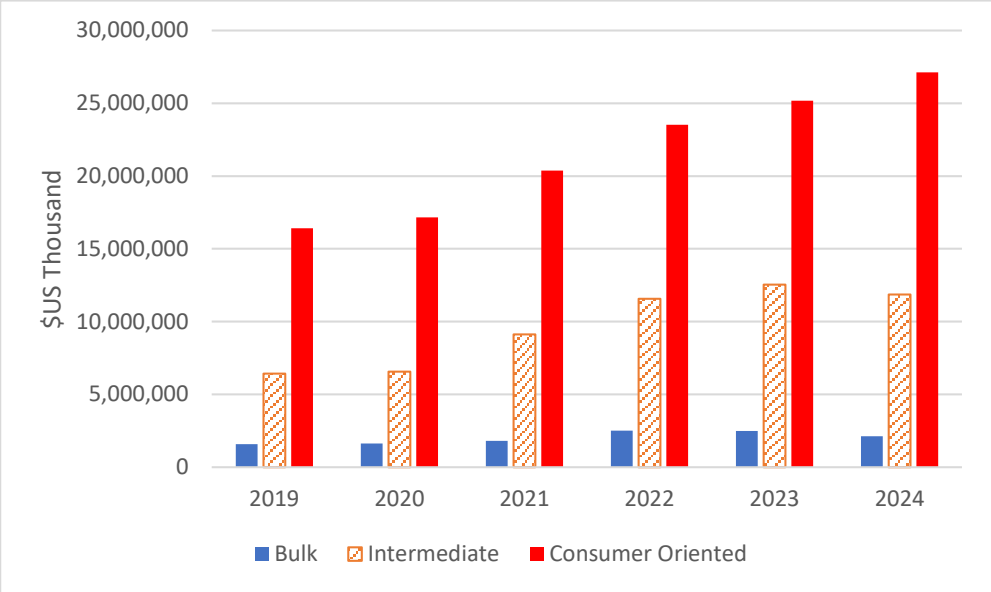
In reality, the situations depicted in the Appendix are even more complex than this since, long before the consumer sees the price effects, there will be all kinds of efforts to push tariffs back through supply chains on raw material cost inputs and labour, pressuring margins. Adjustment to widespread tariffs through a weaker Canadian dollar will exacerbate costs. Competition within the US could also profit by raising their prices and monetizing some benefits from the tariffs.

[2] See the overview by Bloomberg https://www.bloomberg.com/news/articles/2025-03-04/how-do-tariffs-work-who-payus-who-collects-impact-and-more?sref=ZcpONEpZ

What Agri-Food Products Does the US Import from Canada?

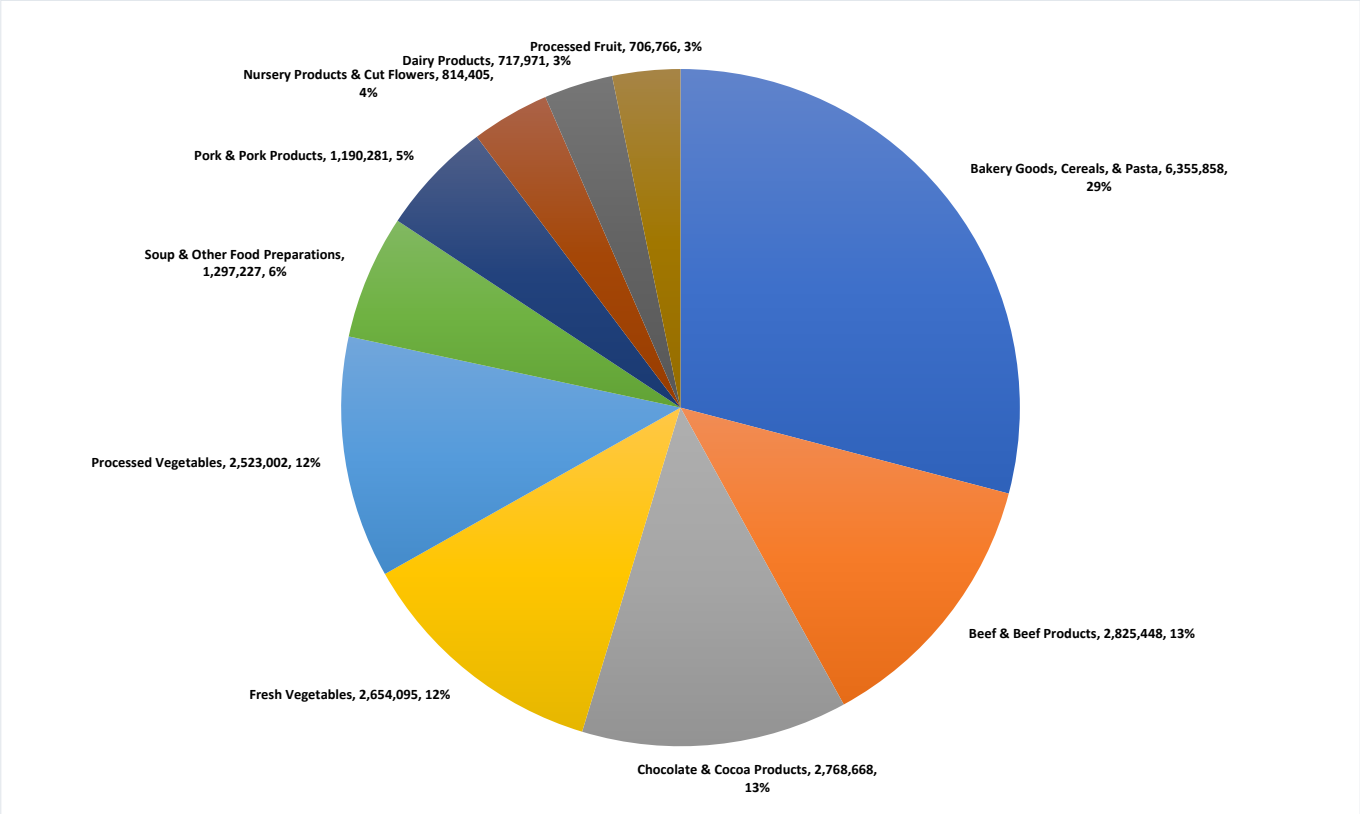
The US imports a broad range of agri-food products from Canada. Figure 1 provides a summary of US agri-food import data based on the BICO aggregation (Bulk, Intermediate, and Consumer Oriented). US imports of bulk products (grains and oilseeds) from Canada have ranged around $US 2 billion. US imports from Canada of intermediate products (primary processed products such as vegetable oils and meals; livestock) have been increasing and are recently valued at around $US 12 billion. Consumer Oriented products imported by the US from Canada have been growing rapidly, and are most recently valued at $US 27 billion. Figure 2 provides a further breakdown of US imports from Canada in the top ten constituents of the Consumer Oriented category, in terms of 2024 value. The bakery, cereals, and pasta category is by far the largest at almost $US 6.4 billion, followed by beef; chocolate and cocoa products; fresh and processed vegetables; soup and food preparations; pork; cut flowers and nursery; dairy products; and processed fruit.

Figure 1 Bulk, Intermediate, and Consumer Oriented Agricultural Products Imported by the US from Canada



Source: USDA FAS-GATS data

Figure 2 Top Ten Consumer Oriented Food Categories Imported from Canada by the US, 2024



Assessment of Mitigation Strategies

With an understanding of what products are vulnerable to tariffs due to their export exposure, a mitigation strategy for an industry or a company against US tariffs entails the following:

1. A refined assessment of price elasticities of demand and the sensitivity of demand to the tariff for Canadian products imported by the US, and identification/evaluation of what product may be capable of mostly carrying the tariff, and others under serious threat.
2. Identification of other markets where products currently imported by the US from Canada are also imported, and could therefore present alternative markets for Canada to redirect product.
3. Identification of the suppliers of the imports in these alternative markets, and what competitive basis and market access Canadian products could have.
4. Determining the extent of US exports to alternative markets, to understand the potential for retaliation against the US to open up opportunities for Canada.

To provide an illustration and some analysis, below we develop points 2, 3, and 4 for selected components of the Bakery Goods, Cereals, & Pasta category.

US Imports of Bakery Goods, Cereals, & Pasta from Canada

Table 1 below provides a summary of US imports from Canada of bakery products in HS 19. To focus the analysis, the products are narrowed down to those exceeding $US 100 million in value in 2024.

The import values in the table for each HS category give the potential value at risk from the US tariffs. For example, in a worst-case scenario, if the tariffs caused US imports of bread, pastry, and cakes from Canada to fall to zero, the loss of value to Canadian exporting firms would be about $US 4.1 billion (based on 2024). This value provides the reference in a search for where else in the world Canadian firms could redirect bread, pastries, and cookies to potentially salvage $US 4.1 billion in sales.

Table 1 US Imports from Canada of Bakery Goods, Cereals, and Pasta

		2022		2023		2024	
		Value ($US Thousand)	Volume, Tonnes	Value ($US Thousand)	Volume, Tonnes	Value ($US Thousand)	Volume, Tonnes
190590	Bread, Pastry & Cakes	3,229,324	685,202	3,735,315	749,189	4,133,409	817,358
190531	Cookies (sweet Biscuits)	535,368	105,802	529,160	98,900	538,970	101,803
190532	Waffles & Wafers	429,352	70,644	457,639	68,492	452,120	61,315
190120	Mixes & Doughs	307,313	117,555	352,112	118,774	347,725	128,159
190410	Cereal, Prep, Roasted	226,796	74,868	243,297	75,505	261,427	79,642
190540	Rusks & Toasted Bread	140,299	29,231	159,886	30,134	174,322	33,287
190490	Cereals (not Corn), Prep, Nesoi	119,455	42,815	114,614	40,556	116,320	38,252
190219	Uncooked Pasta, (not Stuffed)	84,693	35,381	89,358	40,069	82,338	39,687
190520	Gingerbread	106,294	18,822	74,630	12,236	77,658	12,155
190420	Cereal, Prep, Unroasted	52,272	18,672	44,864	15,725	58,805	18,128
190220	Stuffed Pasta	33,219	7,706	36,735	7,632	36,801	7,063
190230	Pasta, Prepared, Nesoi	25,048	4,257	27,864	5,100	35,279	6,411
190510	Crispbread	21,529	1,665	23,371	1,594	22,306	1,646
190211	Uncooked Pasta, (not Stuffed), Cont. Eggs	8,110	3,356	6,917	2,624	9,708	3,490
190240	Couscous	8,869	4,901	9,375	5,638	8,623	5,484
190300	Tapioca & Substitutes	0	0	0	0	41	6
190430	Bulgur Wheat, Prepared	121	140	52	53	7	2.5

Source: USDA-FAS GATS

Importers of Bakery Goods, Cereals, & Pasta Outside the US

To search for potential alternative markets for these products, the top 5 global importers of these products (by value), excluding the US and Canada, were determined from a search of the UN Comtrade database. For each of these importers, the top/most common origin suppliers were identified.

These are presented in Table 2 below, which identifies alternative markets to the US for each of these products. The sub-columns within each of the five alternatives identify the country; the most recent value of their imports (either 2023 or 2024, depending on availability), and a short list of countries that have been the suppliers of these imports- and prospective competitors in these markets.

In each of the product categories analyzed, the top importers outside of the US are overwhelmingly EU countries and the UK. There some notable exceptions- the United Arab Emirates is a significant importer of rusks; Saudi Arabia imports waffles; Mexico is a major importer of mixes and doughs. In many cases, the total value of imports in these markets exceeds the value of US imports from Canada.

A secondary search of existing imports by these countries from Canada reveals existing trade value in breads, pastries and cakes with the UK of $US 43-53 million, just over $US 2 million with the Netherlands, and less than $US 1 million for other major EU markets. Minimal imports of Canadian product were observed across the other product codes to EU countries (< $US 1 million), just over $US 1 million to the UK and China in roasted cereal preparations, and just over $US 10 million in mixes and doughs imported by Mexico from Canada. Canadian product generally constitutes a very small share of these imports.

Competition and Constraints in Key Alternative Markets- The EU and UK

Just as the major alternative markets for imports are in the EU, the suppliers of the imports tend to also be EU countries. This observation also applies to the UK. If Canada were to redirect and reorient product previously imported by the US to the EU and the UK, it would thus face competition from EU countries- perhaps from well-established trade and commercial networks.

Focusing on the EU and UK, for each of the products in both the EU and the UK, Canada faces a zero tariff rate. Canada is broadly cost competitive on a raw product basis with major EU suppliers for the macro-ingredients used in bakery goods, cereals, and pasta. This is illustrated in the prices for wheat, corn, and soybeans presented below in Figures 3, 4, and 5. Canada is broadly cost competitive on wheat pricing with the EU and UK on wheat; Canada is significantly below France and Germany on corn pricing, as well as on soybean pricing. Raw product costs may be tempered by technical requirements on food that extend beyond requirements in the Canadian market; for example, on labeling of foods containing genetically modified ingredients.

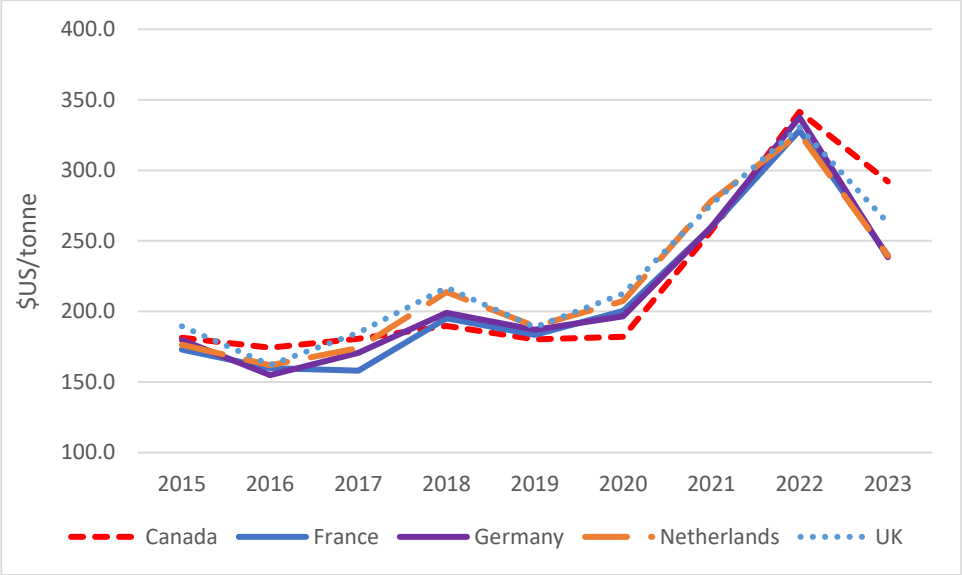
Opportunities in Retaliation

Anticipating that the EU will retaliate against tariffs imposed on it by the US (this has already been announced by the EU), the structure of EU imports from the US could be important to Canada. If the EU retaliates against the US on agri-food products and Canada is in a position to export products to the EU that it has imported from the US, this retaliation could present an opportunity for Canada to redeploy agri-food exports from the US to the EU. Figure 6 below presents the BICO structure of US exports to the EU. US agri-food exports to the EU are largest

Table 2 Existing US Imports from Canada and Prospective Alternative markets for Canadian Bakery Products

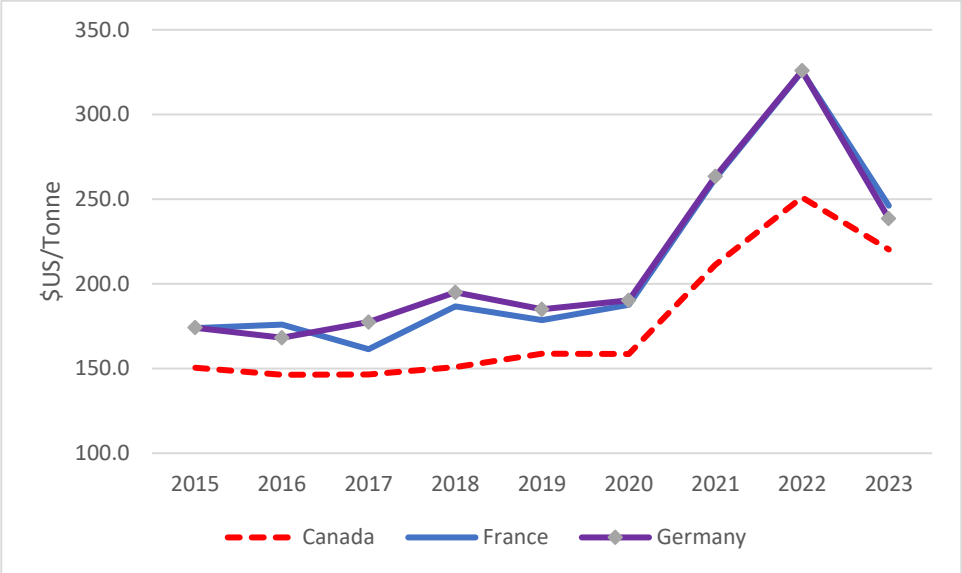
		2024 US imports from Canada	Alternate Market 1			Alternate Market 2				
			Country	Market for Imports	Suppliers	Country	Market for Imports	Suppliers		
190590	Bread, Pastry & Cakes	$4,133,409.00	**UK**	$3,216,940,311	Fr, Ger, Bel, Ire, It	**France**	$2,010,739,067	Ger, It, Bel, Sp, UK		
190531	Cookies (sweet Biscuits)	$538,970.00	**UK**	$765,748,783	NL, Ger, Cz, Bel	**Germany**	$646,409,355	NL, Pol, It, Sp		
190532	Waffles & Wafers	$452,120.00	**UK**	$552,743,938	Pol, It, Ger, Bel	**Germany**	$456,054,776	Pol, Austria, It, Bel, NL		
190120	Mixes & Doughs	$347,725.00	**UK**	$495,470,715	Fr, Ger, Bel, Gr, NL	**Germany**	$450,000,059	Fr, Austria, Bel, NL		
190410	Cereal, Prep, Roasted	$261,427.00	**France**	$366,778,219	Bel, Sp, Ger, UK	**UK**	$348,634,212	Ger, Pol, Fr, NL		
190540	Rusks & Toasted Bread	$174,322.00	**France**	$85,703,616	It, Sp, Swe, NL	**UAE**	$80,849,351	Saudi, India, Oman, UK		
190490	Cereals (not Corn), Prep, Nesoi	$116,320.00	**Germany**	$161,781,356	Pol, Fr, Thai, UK, Sp	**Australia**	$69,202,826	Thai, India, Korea, PRC, UK		
		Alternate Market 3				Alternate Market 4			Alternate Market 5	
		Country	Market for Imports	Suppliers		Country	Market for Imports	Suppliers	Country	Market for Imports	Suppliers
190590	Bread, Pastry & Cakes	**Germany**	$1,718,006,010	Pol, Fr, NL, It, Bel		**Netherlands**	$1,405,501,916	Ger, Bel, Fr, UK	**Belgium**	$1,001,969,770	NL, Fr, Ger, Pol, It
190531	Cookies (sweet Biscuits)	**France**	$619,188,614	Bel, Ger, Sp, Pol, UK		**Netherlands**	$450,971,792	Bel, Ger, Fr, UK	**Belgium**	$350,082,225	NL, Fr, Cz,Ger, Sp
190532	Waffles & Wafers	**France**	$359,560,321	Bel, Pol, It, Ger, NL		**Saudi Arabia**	$264,627,672	UAE, It, Pol, Tur	**China**	$205,472,427	Indo, Ger, Austria,It
190120	Mixes & Doughs	**Italy**	$344,676,761	Fr, Bel, Austria, Ger		**France**	$253,349,297	Bel, Sp, UK, Sw	**Mexico**	$167,535,706	USA, Sp, Fr
190410	Cereal, Prep, Roasted	**Germany**	$344,604,176	Bel, Pol, Fr, UK		**Netherlands**	$258,337,768	Bel, Pol, Ger, Fr	**Italy**	$255,572,625	Sp, Fr, Pol, UK, Ger
190540	Rusks & Toasted Bread	**Germany**	$80,112,128	Pol, Austria, Gr, Bulg		**Spain**	$60,482,615	Port, It, NL, Fr	**Belgium**	$53,419,567	NL, Fr, It, Ger, Pol
190490	Cereals (not Corn), Prep, Nesoi	**France**	$62,701,537	It, Sp, Bel, NL		**UK**	$56,865,337	Sp, Fr, It, Bel	**Belgium**	$37,864,274	Fr, NL, Ger, Dk

Figure 3 Comparative Producer Prices for Wheat



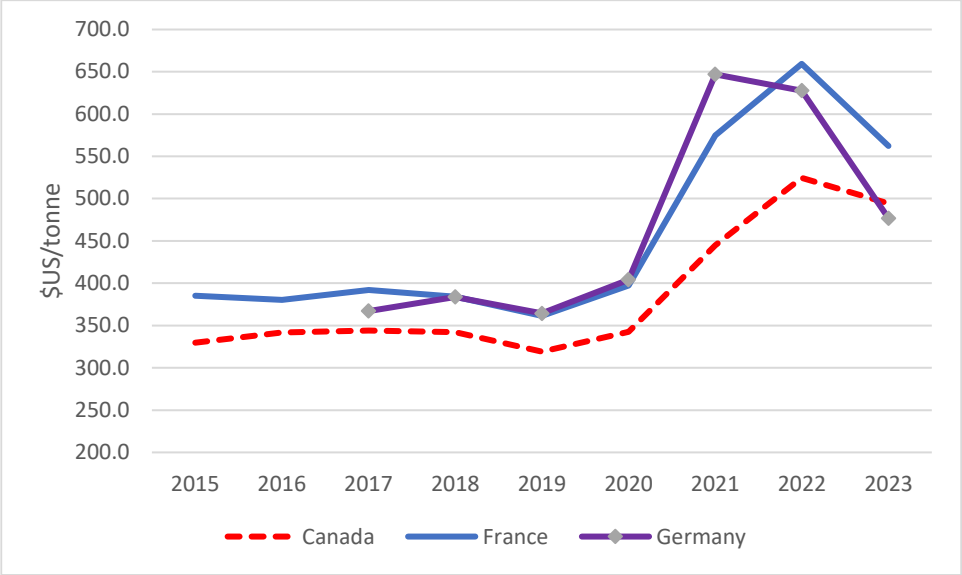
Source: FAOStat

Figure 4 Comparative Producer Prices for Corn



Source: FAOStat

Figure 5 Comparative Producer Prices for Soybeans

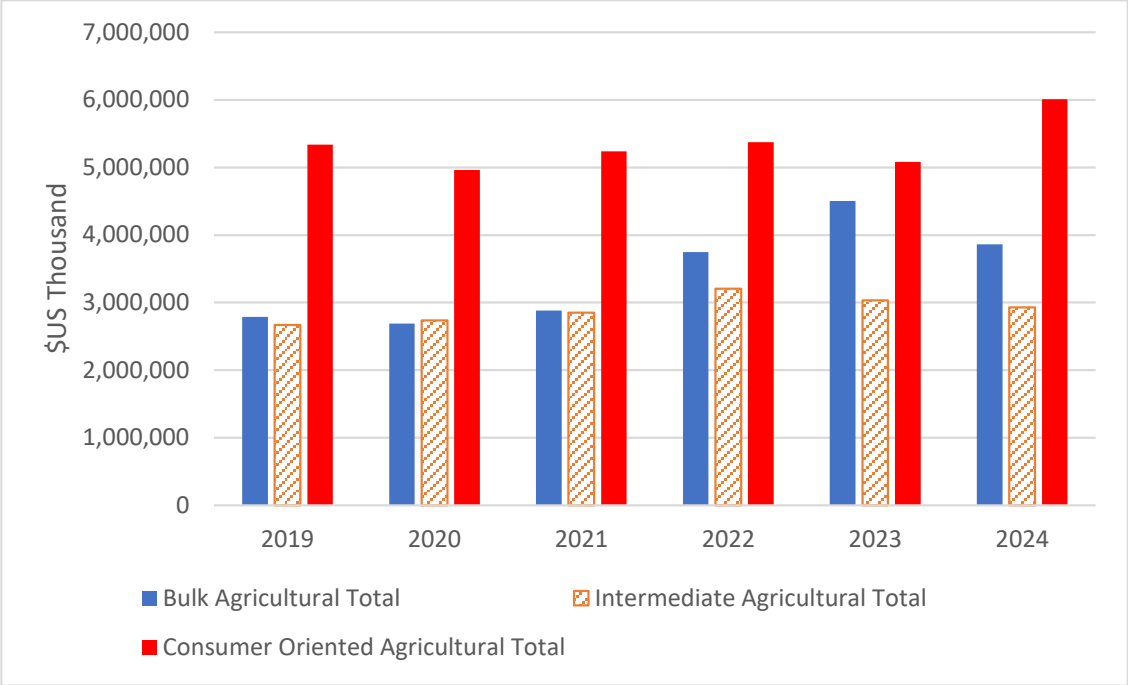


Source: FAOStat

in the consumer-oriented category ($US 6 billion in 2024) followed by bulk ($US 3.9 billion in 2024), and then intermediate ($US 2.9 billion in 2024). However, the US exports to the EU are relatively concentrated. In the CO category, 74 percent of value is in three segments- tree nuts (especially almonds, pistachios, and walnuts); distilled spirits; and soup and food preparations. In the bulk category, 81 percent of value is in soybeans, corn, and tobacco (soybeans alone represented 63 percent in 2024). The intermediate category is more diversified.

US exports to the EU in the bakery, cereals, and pasta segment are comparatively small- about $US 60 million in 2024, and overwhelmingly bread, pastry, and cakes. Canada produces and exports many products in the same category that the EU imports from the US. Canada does not produce and export tree nuts like the US does. Canada's production and potential export of soybeans and corn is small compared to the US, and it lacks the capacity to replace US exports of soybeans or corn to the EU.

Figure 6 US Exports of Bulk, Intermediate, and Consumer Oriented Products to the EU



Source: USDA-FAS GATS

On March 12, 2025, the EU released a list of products that is make target for retaliation to US tariffs against EU steel and aluminum.[3] The list includes 31 pages of agri-food products. Several product categories within the bread, cereals, and pastry grouping (HS 190590) are included:

- matzos (19059010);
- communion wafers, empty cachets for pharmaceutical use, sealing wafers, rice paper and similar products (19059020);
- bread, not containing added honey, eggs, cheese or fruit, whether or not containing in the dry state <= 5% by weight of either sugars or fats (19059030);
- biscuits (excl. sweet biscuits) (19059045);
- extruded or expanded products, savoury or salted (excl. crispbread, rusks, toasted bread, similar toasted products and waffles and wafers) (19059055)
- fruit tarts, currant bread, panettone, meringues, christmas stollen, croissants and other bakers' wares containing by weight >=5% of sucrose, invert sugar or isoglucose (excl. crispbread, gingerbread and the like, sweet biscuits, waffles and wafers, and rusks) (19059070)
- pizzas, quiches and other bakers' wares containing by weight <5% of sucrose, invert sugar or isoglucose (excl. crispbread, gingerbread and the like, sweet biscuits, waffles

[3] See https://circabc.europa.eu/ui/group/e9d50ad8-e41f-4379-839a-fdfe08f0aa96/library/9f483239-477f-4f14-8e2a-a09e1edb1f3d/details?download=true

and wafers, rusks and similar toasted products, bread, communion wafers, empty cachets for pharmaceutical use, sealing wafers, rice paper and similar products) (19059080)

Remarkably, US soybeans are also on the EU retaliation list.

Table 3 below presents the top five US export customers for the bakery products analyzed. The preponderance of US exports is to Canada and Mexico. Canada is the leading market for the US, which underscores the prospect of US import replacement for the Canadian industry. Mexico has been identified as a target for US tariffs, and retaliation against the US by Mexico on the products listed in the table could present significant opportunities for Canada. Most of the remaining US exports are regional in Central America (and are small), are with the UK, or the Middle East. These countries appear to be less of a target for tariffs by the US, at least for now.

Synthesis

Canada's bakery, cereals, and pasta trade is heavily oriented toward the US, and as such must be vulnerable to US tariffs. This vulnerability is structural, but will also be determined by individual product price elasticities of demand and the product's ability to carry the tariff-through customer loyalty associated with brands, niches, and lack of competition in the US market. A detailed analysis requires a realistic product by product assessment of price elasticities and their determinants- competitors, brands, substitutes, niches, etc. It is also a situation that can be influenced through marketing, promotion, product investments, and a variety of other means. But there will likely be a range of product outcomes resulting from the tariffs- with some products perhaps experiencing little impact, others devastated by complete loss of US market, and many products somewhere in between. As a result, analyses of prospective alternative markets for Canadian products previously imported by the US are both important and urgent.

For the constituents of bakery, cereals, and pasta products considered here, the major alternative markets that Canada could redirect existing US exports to are, overwhelmingly the UK and EU, with some specific prospects in Mexico, the Middle East, and China. For the UK and EU, successful redirection of Canadian product will require competing with existing suppliers, which are overwhelmingly EU countries and the UK. Canada has tariff-free access and a general raw product cost advantage. However, Canada has a very small market presence in the EU and the UK, which hints that it will take work to develop a customer network, and that there may be costs hidden in technical requirements not faced in domestic marketing or exporting to the US.

If the US expands its tariff war to the EU, as it has said that it will, the EU has committed to retaliate. In principle, this offers an opportunity for Canada to step into EU markets that the US has served, but where the US product withdraws under pressure of EU retaliatory tariffs. However, the US essentially exports tree nuts, liquor, soybeans, corn, tobacco and a smattering of intermediate products to the EU. Its exports to the EU in the bakery, cereal, and pasta category are small in comparison with Canada's exports to the US, even so EU retaliation against the US on these products presents the prospect of limited potential for Canada.

Table 3 Leading Destination Markets for US Exports of Selected Bakery, Cereal, and Pasta Products ($US Thousand)

	Breads, Cakes, and Pastries		Cookies (sweet Biscuits)		Waffles & Wafers		Mixes & Doughs		Cereal, Prep, Roasted		Rusks & Toasted Bread		Cereals (not Corn), Prep, Nesoi	
	190590		190531		190532		190120		190410		190540		190490	
	Country	2024 Export Value	Country	2024 Export Value	Country	2024 Export Value	Country	2024 Export Value	Country	2024 Export Value	Country	2024 Export Value	Country	2024 Export Value
1	Canada	1,293,601	Canada	130,867	Canada	71,591	Canada	244,320	Canada	431,372	Canada	35,499	Canada	63,121
2	Mexico	249,241	Mexico	56,553	Mexico	18,029	Mexico	163,130	Mexico	54,300	Mexico	10,232	Mexico	10,032
3	Australia	39,499	UK	5,373	Australia	3,174	Korea	23,569	Honduras	7,370	Ecuador	2,265	Philippines	1,688
4	Japan	39,151	Australia	3,131	Saudi Arabia	2,494	Japan	15,319	UK	6,965	Saudi Arabia	1,929	Panama	1,556
5	UK	38,332	Japan	3,245	UAE	2,264	Guatemala	12,404	DR	5,339	Singapore	1,396	Guatemala	1,191

These observations reveal areas in which Canadian government policies could be helpful. Governments can support efforts of Canadian companies exporting to the US and facing tariffs by supporting measures that help their products carry the tariff, through marketing and promotion programs in the US. As we have observed elsewhere[4], Canadian firms that produce bakery products are leveraged into US sales, have grown quickly, and may have invested accordingly; governments can offer relief through tax and financial measures.

Technical issues related to trade, especially in new markets where regulatory requirements are less familiar (as in the EU in bakery, cereal, and pasta products), and especially for small and medium-sized companies, are an area where governments can provide technical assistance and advocacy for Canadian companies in export markets.

More direct opportunities exist in import replacement, as Canada is the largest importer from the US. Another significant opportunity to redirect product is to Mexico, as it is the second largest importer of these products from the US, is expected to be subject to US tariffs, and has said that it will retaliate.

There are also gaps in analysis here. The public trade database used here is at the six-digit level; a more refined analysis would use eight-digit or ten-digit HS data. It also assumes that countries, and companies located in countries, engage in trade. However, surely some of the international bakery products trade is conducted by multinational firms that fill customer orders based on their internal sourcing networks, and the origin of the product is really incidental to that. The publicly available data based on countries obscures this. Finally, as Canada must explore new agri-food markets under the US-driven global realignment in trade, others will be going through the same process. Just as Canada enters new markets it may encounter new competitors that threaten its prospects. The best defense we have is a commitment to renewed competitiveness and agri-food innovation.

Conclusion

Canada's trade relationship with the US is fluid. Canada was given a reprieve to 25 percent tariffs on goods exported to the US, and 10 percent on energy exports; but on March 5th, a one month exemption was announced for some Canadian exports to the US, and discussions are occurring on further exemptions to US tariffs that include agricultural products. The situation represents a fundamental change through an unprovoked and egregious violation of USMCA/CUSMA, and it demands a shift in direction and decisive action.

But with Canada's agri-food trade heavily oriented toward exports to the US, many Canadian food companies and agricultural industries must now go through a search for alternative markets

[4] See "If Canadian Food Companies are at Risk From US Tariffs, Canadian Agriculture is at Risk. We Need to Focus Support on Food Processors" Agri-Food Economic Systems Policy Advisory Note, February 2025 https://www.agrifoodecon.ca/uploads/userfiles/files/us%20tariffs%20and%20downstream%20agri-food%20segments%20feb-25.pdf

to the US, evaluation and prioritization of target markets, and engage in the hard work of establishing new networks of customers in markets they have not previously served. It is a dynamic situation, and the resorting of trade implied is complex.

This paper has attempted to describe and apply, at a high level, the essential steps involved in identifying and assessing alternative markets to the US. This process is common across agricultural and food products/industries, and makes use of extensive market and trade data. Especially when it is done at a detailed level, it is arduous work. And it is work that Canadian firms and industries must do as they recognize that the US is not the trading partner it once was, and we should not assume that the situation will return to resemble the 1990-2024 period characterizing Canada-US trade any time soon, if ever.

Technical Appendix- Economic Analyses of Tariffs

The economics of tariffs have important similarities to the economics of a tax, but involve an international market that a domestic tax does not. A tariff is a tax on imports from subject countries. Upon import of the product, the tariff is charged by customs at the border, payable by the importer.[5] Consistent with this, the tariff is added to the price of the product as it moves through supply chains, ultimately residing with the final customer/consumer. The ultimate impact of the tariff is split between the exporter and the importer, and the nature of this split is determined by the nature of exporter and importer markets.

In this regard, there are two alternative scenarios. For a product that is imported but faces extensive domestic competition from like product, the effect of the tariff is largely pushed back on the exporter in the form of a lower price and reduced trade volumes, and the corresponding increase in price in the importing country due to the tariff may be small. Conversely, if the imported product has a robust demand- perhaps as a niche, or a strong brand, no good substitutes, and a lack of capacity for competing supplies- the effect of the tariff will be felt more strongly in the importing market- with less of a reduction in trade volume, and most of the price effect due to the tariff carried in a higher price in the importing market.

The first scenario is developed in Figure 1 below. The left panel represents the market conditions in an exporting country; the right panel represents these conditions in an importing country. The middle panel represents the conditions in the international market as the countries trade with each other. Initially, if there is no trade between countries, the markets must clear independently in each country. In the exporting country, prices are low (P_E); the importing country prices are high (P_I). The availability of product for consumption is limited to each country's own supply, Q_E and Q_I, respectively.

If the two countries trade, the exporting country can sell its surplus to the importing country. For the exporting country, as the prices offered in the international market increase, the volume it is prepared to export increases. Conversely, the importing country is willing to purchase increasing volumes with decreasing international prices. This forms the basis for the international market- the excess supply curve of the exporting country, and the excess demand curve of the importing country. Where these intersect, it establishes an equilibrium of international trade volume and price.

If the countries trade without any constraints, the interaction in the international market determines price, and the volume traded internationally. In Figure 1, the price is given by P_{FT} and the internationally traded volume is given by Q_{FT}. In the exporting country market, free trade increases the price to P_{FT} from P_E, increases supply to Q_{FT}^S and decreases demand to Q_{FT}^D. The difference between supply and demand in the exporting country is the internationally

[5] See the overview by Bloomberg https://www.bloomberg.com/news/articles/2025-03-04/how-do-tariffs-work-who-payus-who-collects-impact-and-more?sref=ZcpONEpZ

exported volume. In the importing country, the price decreases from P_I to P_{FT}. The supply decreases to Q_{FT}^S and the demand increases to Q_{FT}^D. The difference between demand and supply in the importing country is the internationally imported volume.

Matters change if the importing country moves away from a free trade situation with the exporting country to one in which trade is constrained by a tariff. The effect of the tariff, illustrated in dashed lines, is to make the exporting country's product more expensive than domestic or other source product in the importing country market. As a consequence, consumers in the importing country tend to shun the exporter's product, and the demand for the exporter's product shifts down by the amount of the tariff, T. Given this shift, the quantity traded in the international market falls to Q_T. In the exporting country, the price falls to P_T^E, and it triggers adjustments within the exporting country market, with demand increasing to Q_T^D and supply decreasing to Q_T^S. In the importing country, the price increases to P_T^I, which is equal to the exporting country price plus the tariff. At this higher price, demand in the importing country decreases to Q_T^D and the supply in the importing country increases to Q_T^S.

In this scenario, the exports from the exporting country face significant competition and substitution in the importing country. This is indicated by the demand and supply curves in the importing being relatively flat (price elastic). As a result, when the tariff is introduced, besides a significant reduction in traded volume, the price effect of the tariff is borne more by the exporter than the importer. One way to see this is that, using P_{FT} as a reference, P_T^E decreases more than P_T^I increases, and $T= P_T^I - P_T^E$. The implication is that, in this scenario, the exporter bears more of the brunt of the tariff than the importer.

Figure 2 presents an alternative scenario. The setup is identical to that in Figure 1, with respect to prices and volumes if markets in the importing and exporting countries must clear internally. What is different is the nature of the importing market- in which both the demand and supply are more inelastic. This is consistent with few substitutes in the import market, and more limited capacity for supply. The essential analytics of the free trade and tariff situations are as in Figure 1; however, Figure 2 illustrates a difference in the incidence of the tariff. In Figure 2, compared with the free trade price $P_{FT,}$ with the tariff in place the price in the exporting country P_T^E falls only a small amount, and is not much different from the free trade price P_{FT}. With the tariff versus free trade, the decrease in international trade volume with the tariff $Q_{FT} - Q_T$ is small. In the importing country, the price increase $P_T^I - P_{FT}$ is larger. Since $T= P_T^I - P_T^E$, the implication is that in this scenario the importer bears more of the effect of the tariff than the exporter.

The principal factors that differentiate the scenarios in Figure 1 and Figure 2 are factors in the importing country. Compared with Scenario 1, in Scenario 2 the supply is less flexible (steeper in slope) indicating tightness in capacity and muted supply response to prices. The demand is more inelastic, indicating the consumers are loathe to cut back consumption, even in the presence of significant price increases- perhaps due to the product occupying a unique market niche; lack of substitutes; strong brands, etc. Thus, exports can more readily "carry" the effect of a tariff the

more inelastic the demand in the importing country, and the more inflexible the importing country's supply.

Figure 1

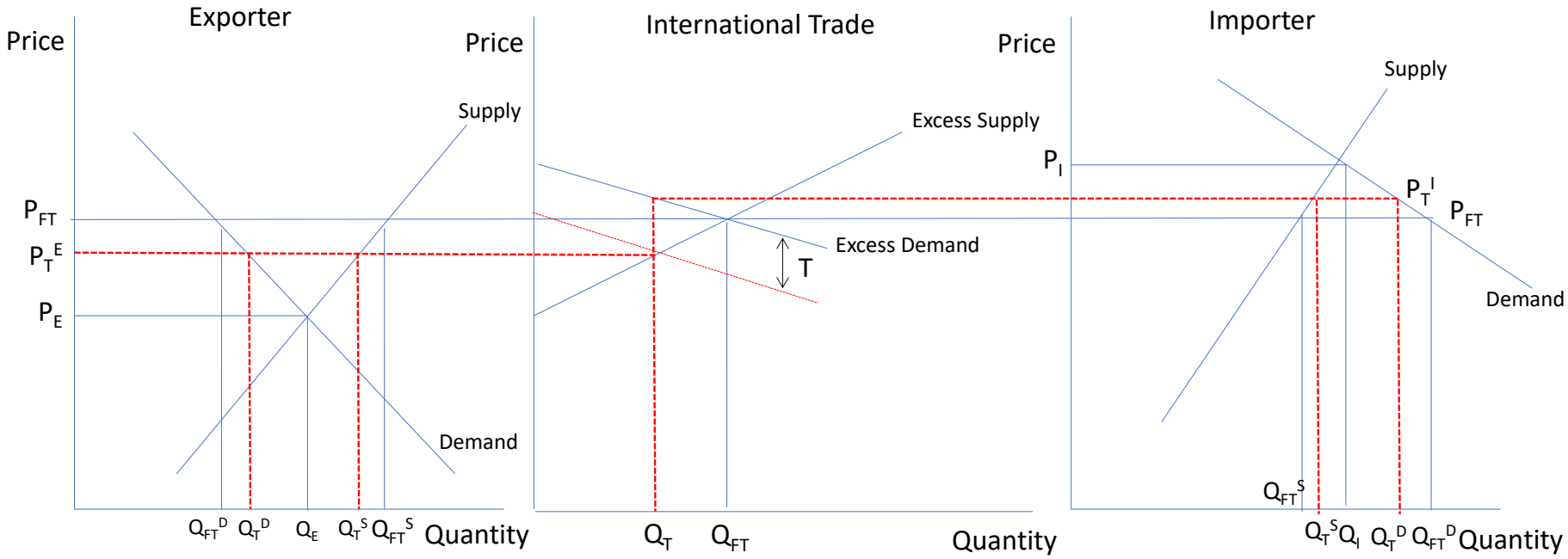

Exporter
Price
Supply
P_{FT}
P_T^E
P_E
Demand
Q_{FT}^D Q_T^D Q_E Q_T^S Q_{FT}^S Quantity
International Trade
Price
Excess Supply
Excess Demand
T
Q_T Q_{FT}
Quantity
Importer
Price
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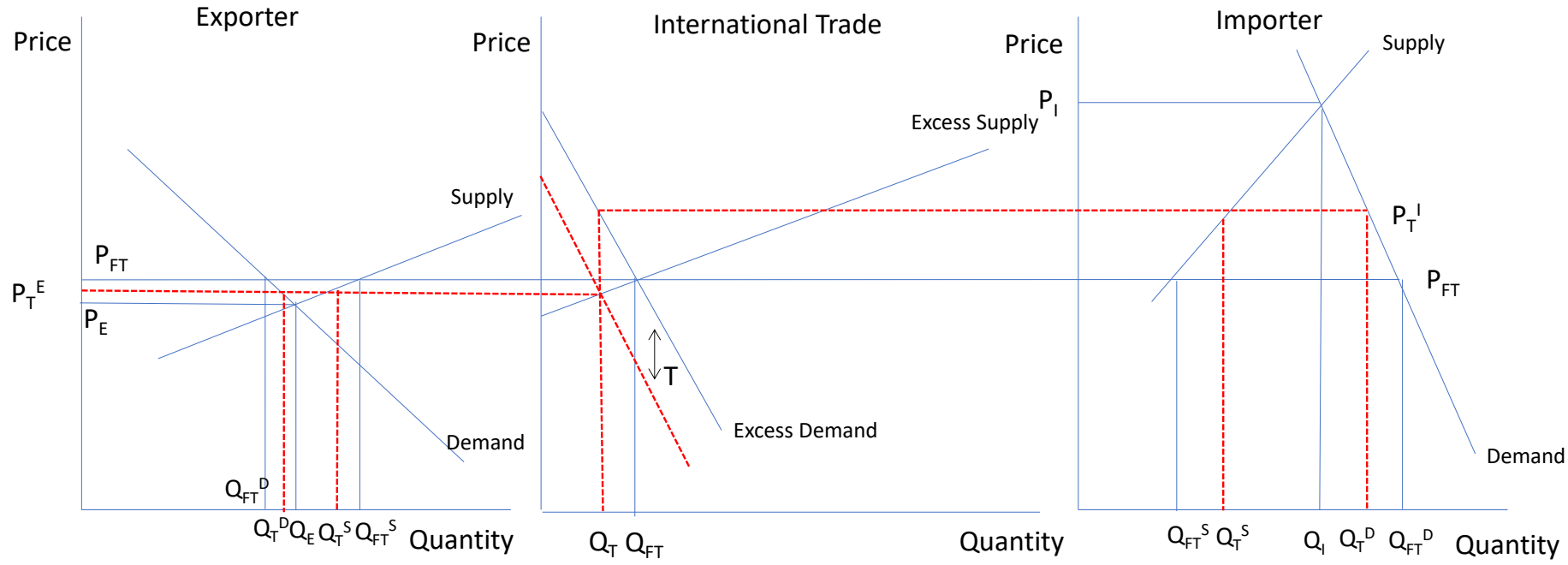
Figure 2


Exporter
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Quantity