The US is Concerned About Canadian Exports of Skim Milk Products. But First, Let's Have a Look at Them

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The Issue

Trade tensions brought by the US against the rest of the world immediately impact the intimate commercial relationships between the US and Canada. This is hardest felt by Canadian industries targeted by US tariffs- steel and aluminum; automotive; copper; softwood lumber. It also threatens the Canadian dairy industry, through criticisms and menacing comments from the US regarding Canadian dairy and trade policy.

The several similarities between Canadian dairy and trade policies- and some sharp differences- have been previously explored.[1] At the same time, the US International Trade Commission is conducting an investigation into "Nonfat Milk Solids: Competitive Conditions for the United States and Major Foreign Suppliers", at the request of the Office of the US Trade Representative. A public hearing was held in Washington on July 28th, and the discussion at the hearing made clear that Canada will be a focus and target of the US investigation.

It is not the first time an investigation of this kind has occurred, but its timing is suspect, given the nature of the broader US trade agenda and difficult US-Canada negotiations. In particular, Canadian exports of skim milk products have become conflated with some of the other well-worn criticisms of Canadian dairy policy from the US, such as Canada's allocation of dairy import permits and fill rate of dairy tariff-rate quotas.

Washington and the US dairy industry now allege that Canada has been dumping non-fat milk solids on international markets.

But, like the objections raised by the US against Canadian dairy trade policy- which the US itself largely emulates- claims by the US of Canadian transgressions in the export of skim milk products cannot be taken uncritically at face value, and require some additional context.

This policy note delves into the basic data relating to US and Canadian trade in skim milk products. It explores the extent and intensity of US and Canadian exports of skim milk products, trade balance, and pricing conditions. In the USMCA/CUSMA, the US and Canada agreed on managed trade in skim products, with Canadian skim products based upon US prices. The note concludes that US exports are growing even as its prices are falling, and as the largest exporter this is something for the US to reckon with.

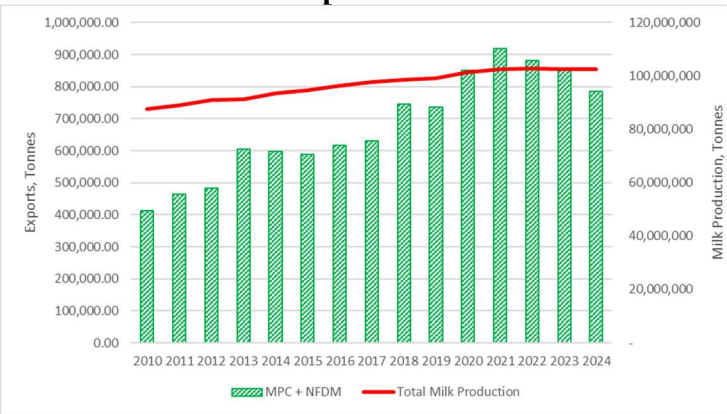
The US and Canada as Milk Producers and Exporters of Non-Fat Milk Solids

Both Canada and the US have exports of dairy products made from skim milk solids- primarily skim milk powder (SMP) in Canada, and in the US non-fat dry milk (NFDM)[2]. Both countries also export milk protein concentrate (MPC). To put these in context,

[1] See *Throwing Stones from a Glass House: Understanding the US Narrative on Canada Dairy Policy*, Independent Agri-Food Policy Note, July 2025 https://www.agrifoodecon.ca/uploads/userfiles/files/canada-us%20dairy%20trade%20policy%20a%20more%20balanced%20view%20july-25.pdf

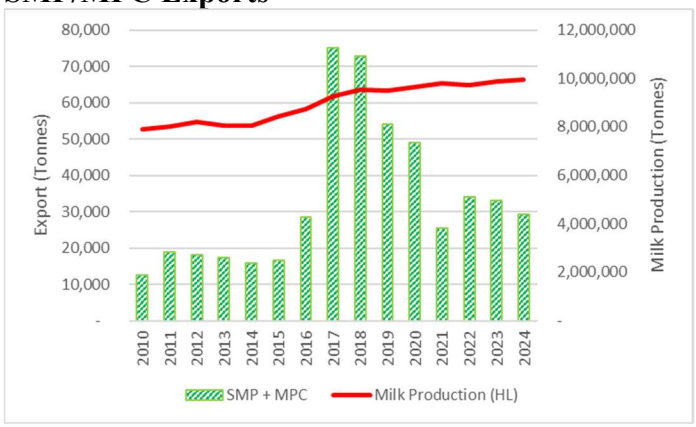
[2] SMP and NFDM are essentially the same product. SMP has a Codex Alimentarius definition; the standard for NFDM is under the US FDA. According to the US Dairy Export Council, "Both contain 5% or less moisture (by weight) and 1.5% or less milkfat (by weight). The difference is that skimmed milk powder has a minimum milk protein content of

Figure 1 US Milk Production and NFDM/MPC Exports



Source: U.S. Census Bureau Trade Data and USDA-NASS

Figure 2 Canadian Milk Production and SMP/MPC Exports



Source: Statistics Canada Canadian International Merchandise Trade Web Application, and Canadian Dairy Information Centre. 1 L milk = 1.03 kg

the US is a much larger dairy industry. Figure 1 presents US milk production (right axis) and exports of NFDM (HS 0402.10) and MPC (HS 0404.90) combined (left axis). US milk production has been increasing since 2010, recently to just over 100 million tonnes. US exports of combined NFDM and MPC have increased sharply since 2010; US exports have essentially doubled since 2010.

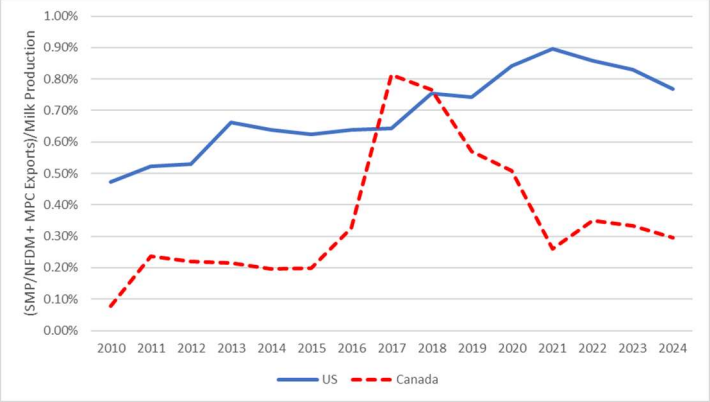
Figure 2 presents Canadian milk production (right axis) and combined exports of SMP and MPC combined (left axis). Canadian milk production has also been increasing, recently to just under 10 million tonnes. But Canadian exports of SMP (HS 0402.10) and MPC (HS 0404.90) have a very different pattern compared with the US. Between 2010 and 2015, Canadian exports were steady at just under 20,000 tonnes. Canadian exports increased from 2016 to 2018, consistent with increased quota and farm milk production, and policy changes in Canada to a non-contingent world price on skim milk solids used to make skim products, including SMP and MPC under milk Class 6 and 7. The Canadian Dairy Commission also ended its Surplus Removal Program, and with it the domestic Class 4m feed use program. Since 2018, Canadian exports of SMP and MPC have been declining. USMCA/CUSMA came into effect in July 2020, under which Canada agreed to limit exports of SMP and MPC combined- initially to 55,000 tonnes, and subsequently 35,000 tonnes- and the Class 4m program was re-established. Most recently, Canadian exports of SMP and MPC combined have ranged around 30,000 tonnes.

The data on milk production and export of skim-based products allows some comparison of relative intensity of skim-based product exports. This is presented in Figure 3. The ratio of exports to milk production generally appears quite small because it is a comparison of product volume to milk volume, rather than between the products and milk in milk equivalent terms- in reality, exports of SMP/NFDM and MPC as a share of milk production are much more significant. However, it does allow a comparison of the relative intensity in exports of skim milk products in the US versus Canada.

The figure shows that the intensity of exports of skim milk products is much higher in the US than it is in Canada, and always has been, apart from the brief period of policy re-sorting in Canada in 2017-18.

34%, whereas nonfat dry milk has no standardized protein level."

Figure 3 Ratio of Exports of SMP/NFDM + MPC to Milk Production



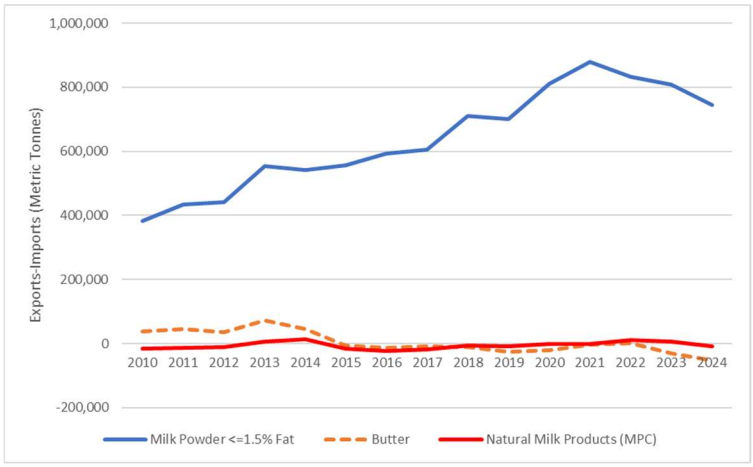
Canada's intensity of skimmed milk exports has been in decline since 2017; the US intensity has increased more uniformly since 2010, with only a recent pause. Relative to its milk production base, the US exports well over double what Canada does.

Market and Trade Balance

Milk is an amalgam of butterfat and skim milk solids (protein, lactose, and minerals). Butterfat and skim solids are joint products that occur in essentially fixed proportions in cow's milk, and butter and skim products such as SMP are joint products in dairy manufacturing. In most developed country markets, including Canada and the US, the butterfat market balance is tight, and there tends to be slack in the supply of skimmed milk solids.

Figure 4 explores this based on trade balance for the US, measured in volumes. The US is trade deficit in butter, most recently at about 50,000 tonnes. It went into a deficit position in 2015, and the trade deficit has broadly continued since then. At the same time, the US is heavily trade surplus in SMP/NFDM. The surplus has doubled since 2010, even after accounting for a softening in the trade surplus since 2021. The

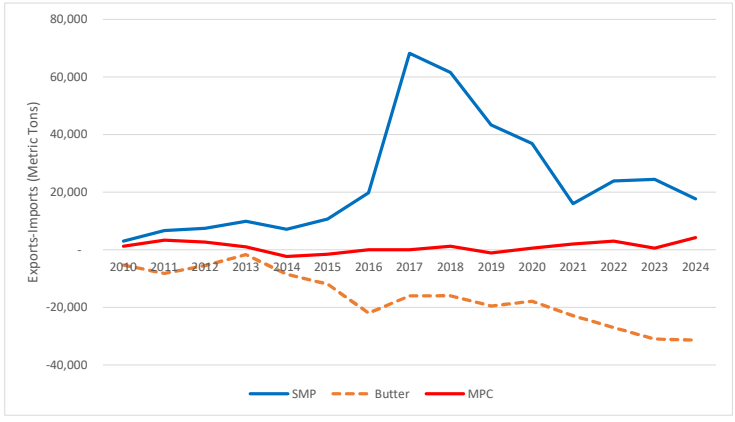
Figure 4 US Trade Balance: Butter, SMP/NFDM, and MPC



Source: U.S. Census Bureau Trade Data. HS 0402.10, HS 0405.10, and HS 0404.90

US is close to trade balance in MPC, recently ranging ±10,000 tonnes. Canada's trade balance looks somewhat different. Canada has a deepening trade deficit in butter, consistent with growing domestic demand and increased penetration of imports under trade agreements. It is trade surplus in SMP, but decreasingly so, recently at around 20,000 tonnes. It is also trade surplus in MPC but the surplus is small, at around 5,000 tonnes.

Figure 5 Canadian Trade Balance: Butter, SMP, and MPC



Source: Statistics Canada. Canadian International Merchandise Trade Web Application

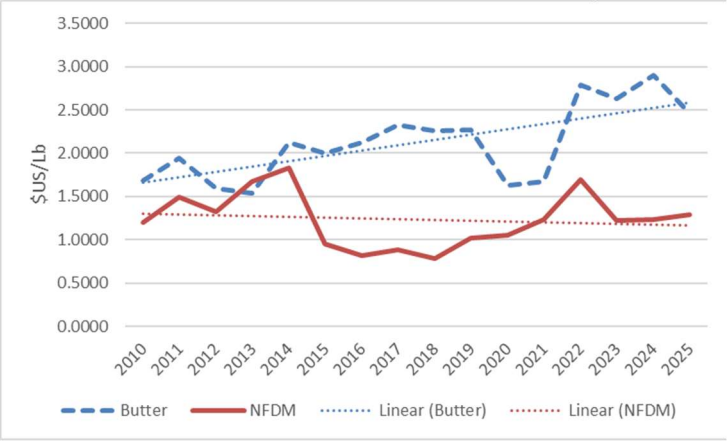
Pricing of Skim Products and Components in Milk

Figure 6 below presents a summary of market prices for US butter and NFDM, in $US/lb. Comparable market price information is not available in Canada. The figure shows an evident uptrend in US butter prices, and simultaneously a downtrend in US NFDM prices.

Both the US and Canada use a classified end-use, multiple component pricing system for milk at the farm. Under the US Federal Milk Marketing Order system, milk used to make NFDM and MPC is in Class IV. In Canada, milk used to make SMP and MPC is priced in Class 4a. In each case, it is the skim component prices that are relevant for NFDM, SMP, and MPC.

Under US Federal Milk Marketing Orders, the Class IV skim component price is obtained from a formula relating to the NFDM price, based on the USDA National Dairy Products Sales Report.

Figure 6 Two-Week Product Price Average—Butter and NFDM, Tabulated Monthly



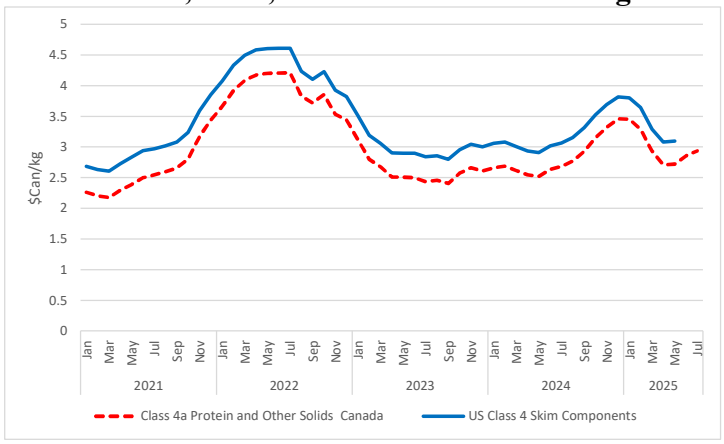
Source: USDA-AMS National Dairy Product Sales Report

Under the text of USMCA/CUSMA, Canada agreed that "the prices for non-fat solids used to manufacture milk protein concentrates, skim milk powder, and infant formula are no lower than the applicable price determined by the following formula:
(The USDA nonfat dry milk price minus Canada's applicable assumed processor margin) multiplied by Canada's applicable yield factor."

The US and Canadian prices are presented in Figure 7 below, converted to Canadian dollars per kilogram, so they are directly comparable. The period of the data is since 2021, as 2021 was the first full year in which Canadian pricing was bound by USMCA/CUSMA. The figure shows a very high correlation between US and Canadian component prices, consistent with both prices ultimately determined by the US NFDM price. Compared with Figure 6, there is less of a downtrend in the US NFDM price, which is consistent with a weakening Canadian dollar over much of the period.

Both the Canadian and US skim component prices are generated by a formula; this has resulted in a somewhat lower skim component price in Canada versus the US. The Canadian processor margin is higher than that in the US, so the effect of the lower skim component price for Canada given by the formula is directionally offset by higher Canadian processing costs.

Figure 7 Skim Component Prices for Milk used in NFDM, SMP, and MPC Manufacturing



Source: Canadian Dairy Commission; USDA-AMS; Bank of Canada Currency Exchange Rate

Observations

The US has a much larger dairy industry than Canada's; more than proportional to population levels- US milk production is just over 10 times larger than Canada's. But US exports of NFDM and MPC are much more than 10 times that of Canada.

In both absolute terms and relative to total milk production, US exports of NFDM and MPC are increasing. Canada's combined exports of SMP and MPC are decreasing, in either absolute or relative terms.

Butterfat and skim solid components are contained in roughly fixed proportions in cows' milk; butter and skim products are joint products in dairy manufacturing. Both the US and Canada are trade deficit in butter, but this has been accompanied by very different trade balances in skim products. In managing its butter market, the US has created large and growing surpluses of NFDM/SMP. But in a supply managed system, imports of butter (and butterfat dense products) are accompanied by a corresponding reduction in farm production quota, which decreases production of butterfat as well the associated skim solids in the milk. Canada's butter market has seen increased imports and with decreasing levels of SMP trade surpluses and only minor increases in the MPC trade surplus.

US prices for butter, where it is deficit, are increasing. But US NFDM prices are falling, even as its exports and trade surplus are growing. Canadian milk component prices for milk used to make SMP and MPC are essentially determined by US NFDM prices- as per the requirements of Canada's trade obligations under USMCA/CUSMA. US skim component prices for milk used to make NFDM and MPC have been broadly decreasing.

Conclusion

Listening to the US narrative, one could get the impression that Canadian dairy and trade policy consists of an ongoing set of transgressions by Canada, at the expense of the US and the ethos of free and rules-based trade, and the alleged problems with Canadian exports of skim milk products are only the most recent instance. It presents the worry that some Canadian opinion leaders, from provincial premiers to newspaper op-ed writers, will take this at face value.

Canada's milk marketing system and dairy trade must operate within the international rules-based trade system, and Canada's associated obligations- including commitments within plurilateral agreements. In USMCA/CUSMA, Canada agreed to limits on exports of SMP and MPC (also infant formula) or be subject to a large tax. The data illustrate that Canada is in compliance with these; moreover, Canadian exports of SMP and MPC combined are in decline. Minimum pricing of skim milk used to make SMP and MPC was also prescribed in USMCA/CUSMA, and that pricing is in use today.

The US situation is quite different. The US is typically the largest exporter of dried skim milk (NFDM/SMP), and it is much more leveraged into these exports than Canada is. Its exports are increasing, even though the prices of NFDM and the skim milk used in its manufacture are falling. Because Canada's pricing is determined in the US- at the request of the US- its price of skim milk used in making SMP and MPC follow in lock step with the US. But Canadian exports of SMP/MPC are not increasing the way the US exports are- and they can't, again at the insistence of the US, and codified in USMCA/CUSMA.

It is no surprise that milk used to manufacture skim products is relatively low priced. In the US, Class IV milk has long been regarded as a residual use category, and is typically is the lowest priced class, and much lower than the blended producer milk price. The same is true in Canada- especially now that

Class 4a pricing is tied to US NFDM pricing, as required under USMCA/CUSMA.

A critical question for the US should be how its exports are increasing while its prices are broadly falling. It is as though basic economics has been turned on its head; or, conversely, it is dumping; and/or it is due to a subsidy- perhaps through the US Federal Order milk revenue pooling system, as discussed in a previous policy note- that allows this to occur.

Canadians and Canadian trade negotiators should not accept the US narrative that Canada is simply a bad actor as it pertains to dairy and trade policy, and be prepared accordingly to make concessions on the dairy file.

Rather, we should recognize that the US is mobilizing an investigation in which Canada will be targeted on exports of skim milk products. This legal process cannot be separated from the political process leading up to USMCA/CUSMA renegotiation, in which Canadian dairy will surely come under pressure. In fact, if there is a problem with competitive conditions in international markets for skim milk solids, a good place to look would be the largest exporter- and that is the US.

Canada needs a more pragmatic approach, in which we listen and genuinely consider the US requests of Canada, but in the context that the US is a heavily protected and regulated dairy market, much larger than Canada as both a producer and exporter, that deploys many of the same policy instruments that they complain to Canada about.