Prehearing Testimony

U.S. Dairy Export Council and the National Milk Producers Federation on the U.S. International Trade Commission Investigation on Nonfat Milk Solids Competitive Conditions for the United States and Major Foreign Suppliers

USITC Investigation 332-607

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Contents

Introduction

The U.S. Dairy Export Council (USDEC) and the National Milk Producers Federation (NMPF) appreciate this opportunity to submit comments to the U.S. International Trade Commission regarding its investigation[1] into the state of global markets for nonfat milk solids and the significant trade distortions that persist as a result of certain countries' policies that drive structural surpluses and distort trade. As detailed in our comments, those policies undercut American competitiveness both in the United States and abroad, harming U.S. dairy farmers, processors, and workers throughout the supply chain.

USDEC is a non-profit, independent membership organization representing the global trade interests of U.S. dairy farmers, dairy processors and cooperatives, dairy ingredient suppliers and export trading companies. Its mission is to enhance U.S. global competitiveness and assist the U.S. industry to increase its global dairy ingredient sales and exports of U.S. dairy products. USDEC and its 120 member companies are supported by staff in the United States and overseas in Mexico, Central and South America, Asia and the Middle East and North Africa.[2]

NMPF develops and carries out policies that advance the well-being of dairy producers and the cooperatives they own. The members of NMPF's cooperatives produce the majority of the U.S. milk supply, making NMPF the voice of dairy producers on Capitol Hill and with government agencies. NMPF provides a forum through which dairy farmers and their cooperatives formulate policy on national issues that affect milk production and marketing. NMPF's contribution to this policy is aimed at improving the economic interests of dairy farmers, thus assuring the nation's consumers an adequate supply of pure, wholesome, and nutritious milk and dairy products.[3]

The U.S. dairy sector depends on reliable and fair trade, including for major milk protein ingredients such as nonfat dry milk, skim milk powder, whey products, lactose, milk protein concentrates and isolates, and casein, all of which are products sold in the United States and international markets. Global trade of these nonfat milk solids products is robust and continues to expand to serve a diverse range of food manufacturing, nutrition, and functional ingredient uses. For the United States, robust access to global markets and a level competitive playing field for these products is critical to supporting farmgate milk prices and meeting growing international demand, particularly for a diverse suite of high protein dairy products. Unfortunately, the U.S. competitiveness is hindered by certain

[1] U.S. International Trade Commission, *Nonfat Dry Milk Solids: Competitive Conditions Affecting the U.S. and Foreign Markets*, Investigation No. 332-607. Available at: https://ids.usitc.gov/case/8281/investigation/8736.
[2] U.S. Dairy Export Council, "About Us," U.S. Dairy Export Council, https://www.usdec.org/about-us.
[3] National Milk Producers Federation, "About Us," National Milk Producers Federation, https://www.nmpf.org/about/about-nmpf/about-us/.

global suppliers' government policies, subsidies and trade-distorting measures. Examples of these policies that impact the global supply of milk protein products include, but are not limited to, Canada's offloading of structural nonfat milk solids surpluses, India's export subsidies for skim milk powder and Turkey's state trading enterprise that engages in nonmarket practices to export whey products. In addition, a variety of barriers impede the importation of milk proteins into various trading partners' markets; those are outlined in NMPF/USDEC's National Trade Estimate comments each year.[4]

Product Backgrounds

Nonfat Dry Milk and Skim Milk Powder

Nonfat dry milk (NFDM) and skim milk powder (SMP) are versatile dairy ingredients made by removing most of the water and virtually all the fat from fresh pasteurized skim milk, resulting in a fine, shelf-stable powder with a mild, slightly sweet dairy flavor. NFDM and SMP are a coproduct of butter production.[5] In the United States, which is the world's largest single-country producer and exporter of this product, more than a million metric tons of SMP and NFDM are produced each year to supply both domestic and global markets. Nonfat dry milk and skim milk powder are very similar but are defined by different regulations: NFDM is defined by the U.S. Food and Drug Administration,[6] while SMP is defined by CODEX Alimentarius.[7] SMP is standardized to 34% milk protein while NFDM has no standard protein level (but most often contains protein levels above 34%), although both contain no more than 5 percent moisture and 1.5 percent milkfat by weight. Depending on how they are made, SMP and NFDM can be classified as low, medium, or high heat, which affects how much undenatured whey protein remains and determines how they function in different applications. This allows manufacturers and food producers to choose the right powder for fluid milk fortification, cheese making, yogurt, ice cream, bakery mixes, and many other foods.

The functional benefits of NFDM and SMP make them essential in a wide range of foods and beverages. The dairy proteins in NFDM and SMP are a rich source of essential amino acids that support muscle growth, tissue repair, and overall physical development. They also play a crucial role in building strong bones and maintaining a healthy immune system,

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[4] U.S. Trade Representative, *Regulations.gov*, Docket No. USTR-2024-0015, Comment ID: USTR-2024-0015-0027, https://www.regulations.gov/comment/USTR-2024-0015-0027

[5] See Figure 1 in annex.

[6] 21 C.F.R. § 131.125, "Nonfat Dry Milk," U.S. Food and Drug Administration, Electronic Code of Federal Regulations, accessed July 2, 2025, https://www.ecfr.gov/current/title-21/chapter-I/subchapter-B/part-131/subpart-B/section-131.125.

[7] CODEX Alimentarius, "Standard for Milk Powders and Cream Powder (CODEX STAN 207-1999)," Food and Agriculture Organization of the United Nations / World Health Organization, accessed July 2, 2025, https://www.fao.org/fao-who-codexalimentarius.

especially during childhood and adolescence. Research indicates that dairy proteins can play an integral role in weight management, post exercise recovery, healthy aging, maintaining muscle and building lean muscle.[8]

Functionally, NFDM and SMP help baked goods develop a rich color and moist texture, enhance flavor, bind water to improve mouthfeel, act as emulsifiers to stabilize mixtures, and add a creamy note without extra fat. Thanks to their nutritional quality and long shelf life, SMP and NFDM are also widely used to extend local milk supplies in regions where fresh milk is scarce and are key ingredients in food assistance programs and nutritional products for all ages, from infant formulas to fortified therapeutic foods. Whether reconstituted for drinking or used to boost protein and minerals in confections, sauces, beverages, or dairy-based desserts, skim milk powder and nonfat dry milk continue to be practical, reliable ingredients that help feed people around the world.[9]

Global production of NFDM and SMP topped 4.7 million metric tons in 2024, with the United States accounting for just over a million metric tons, or 22%, of total global production. Other leading suppliers include the European Union with 1.4 million metric tons (30% of total production), India with 755,000 metric tons (16% of total production) and New Zealand with 425,000 metric tons (9% of total production). The largest consumers include the European Union with 760,000 metric tons, India with 745,000 metric tons, Mexico with 339,000 metric tons and China with 280,000 metric tons. In the case of the former two, that consumption is largely of domestically produced SMP. Domestic consumption in the United States in 2024 was 235,000 metric tons, or 23% of total U.S. production.[10]

NFDM and SMP are the backbone of global dairy protein trade, with total trade exceeding two million metric tons annually. The United States, European Union, and New Zealand supply the majority of this trade, and competition among these major exporters shapes global benchmark prices that directly influence farm-level returns, processing investment, and export channel stability. U.S. NFDM and SMP exports alone consistently surpass 700,000 metric tons annually, supplying essential dairy ingredients to Southeast Asia, Latin America, the Middle East, and other growing markets that rely on stable, transparent pricing from the United States.[11] NMPF and SMP products are traded under Harmonized

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[8] U.S. Dairy Export Council, *Milk Protein: Nutrition & Wellness* (Arlington, VA: U.S. Dairy Export Council, 2025), https://www.thinkusadairy.org/assets/Documents/Customer%20Site/C4-Nutrition%20and%20Trends/C4.2-Health%20and%20Wellness/USDEC_Protein_Brochure_lr.pdf.

[9] U.S. Dairy Export Council, "U.S. Milk Powder: Exceptionally Versatile, Nourishing Choice," ThinkUSAdairy.org, April 2025, https://www.thinkusadairy.org/assets/documents/Customer%20Site/C3-Using%20Dairy/C3.7-Resources%20and%20Insights/Marketing%20Kit/en_2025-US-Milk-Powders.pdf.

[10] U.S. Department of Agriculture, Foreign Agricultural Service, "Dairy: World Markets and Trade," Production, Supply and Distribution Online, December 2024, https://apps.fas.usda.gov/psdonline/circulars/dairy.pdf.

[11] U.S. Department of Agriculture, Global Agricultural Trade System, https://apps.fas.usda.gov/gats/Default.aspx.

Tariff System (HTS) subheading 0402.10.[12] See Data Series 1 in annex for additional information.

Following decades of consistent growth, global trade of NFDM and SMP began to plateau, and even decline, in 2021. This shift reflects a response to the high inflation environment of 2022 as well as decreased purchasing from China, where rising domestic milk production and macroeconomic challenges have reduced demand for imported milk powders. The dramatic contraction in one of the world's most important importers of NFDM and SMP has led to a reshuffling among milk powder suppliers and caused heightened competition in other key markets such as Southeast Asia and the Middle East-North Africa. Given its historical dependence on the Chinese market, New Zealand is among the most affected suppliers and has both sought new destinations for its SMP as well as redeployed production capacity away from whole milk powder, which has been even more dramatically undermined by a slowdown in Chinese buying, toward SMP and other products like cheese. This increased competition has come at the expense of U.S. share in some markets. For example, in 2020, the U.S. held a 44% share of NFDM/SMP trade into Southeast Asia, but by 2024 that share had slipped to just 33%.

Export unit values comparisons among the top ten global suppliers of NFDM and SMP reveal a clear pricing tier. The United States, European Union, and New Zealand maintained comparable export unit values, which in 2024 ranged between $2,700 and $2,850 per metric ton. Canada consistently supplies a lower-cost product, with an average export unit value of $2,664 per metric ton last year. Meanwhile, the cheapest NFDM and SMP exports came from Ukraine, Turkey, and Iran, which recorded the lowest export unit values among major suppliers at $2,406, $2,562, and $2,609 per metric ton, respectively. See Data Series 1 in the annex for additional information.

Whey Proteins and Related Products

Whey is a highly functional coproduct of cheese manufacturing[13] that contains valuable proteins, lactose, and minerals in a liquid form that can be refined into a variety of high-demand ingredients. Once separated from curds during cheesemaking, whey can either remain as a "sweet" whey in liquid form or undergo a filtration and drying process that concentrates its protein content and tailors its composition for specific applications. In

[12] United States International Trade Commission, "Harmonized Tariff Schedule of the United States," HTS Online, https://hts.usitc.gov/.
[13] See Figure 1 in annex.

addition to base dry whey, two prominent further-processed whey products are whey protein concentrate (WPC) and whey protein isolate (WPI)[14]

Sweet whey is the liquid coproduct that remains after the manufacture of cheeses made with rennet, such as cheddar or mozzarella. It is called "sweet" because it has a mild, slightly sweet dairy flavor and a pH typically above 5.6, distinguishing it from acid whey, which results from the production of products like cottage cheese or yogurt and has a lower pH and tangier taste. Sweet whey is rich in lactose, whey proteins (such as beta-lactoglobulin and alpha-lactalbumin), and minerals like calcium and phosphorus.[15]

After being separated from the curd, sweet whey is usually pasteurized and can be further processed into sweet whey powder by removing most of the water through evaporation and drying. Sweet whey powder retains the characteristic dairy sweetness and is widely used as an ingredient in baked goods, confectionery, processed meats, sauces, and snack foods. Its functional properties include adding mild dairy flavor, contributing lactose for browning and sweetness, and providing proteins that help with texture and emulsification in various food applications.[16]

WPC is made by ultrafiltration or other membrane separation techniques that remove portions of lactose and minerals, raising the protein content well above that of standard sweet whey powder. WPC is typically classified by its protein percentage: common grades include WPC34, which contains around 34% protein, WPC80, which has a minimum of 80% protein, and whey protein isolate (WPI) which contains a minimum of 90% protein. Both forms are easily digestible and deliver essential and non-essential amino acids, along with high levels of branched-chain amino acids. Whey proteins are notable for their rich leucine content, which plays a key role in initiating muscle protein synthesis.[17]

WPC and WPI contain varying levels of lactose and fat and are chosen for their functional contributions to foods such as dairy beverages, cultured products, nutritional bars, bakery items, sports nutrition, and infant and pediatric nutrition. These concentrates deliver

[14] U.S. Dairy Export Council, "U.S. Dairy Proteins: Delivering High-Quality Nutrition and Functionality," ThinkUSAdairy.org, 2024, https://www.thinkusadairy.org/assets/documents/en_2024-US-Dairy-Proteins.pdf.
[15] U.S. Dairy Export Council, "Reference Manual for Whey and Lactose," ThinkUSAdairy.org, https://www.thinkusadairy.org/assets/documents/Customer%20Site/C3-Using%20Dairy/C3.7-Resources%20and%20Insights/02-Product%20Resources/ReferenceManualForWheyAndLactose_English1.pdf.
[16] Ibid.
[17] U.S. Dairy Export Council, *Milk Protein: Nutrition & Wellness*. Arlington, VA: U.S. Dairy Export Council, 2025. https://www.thinkusadairy.org/assets/Documents/Customer%20Site/C4-Nutrition%20and%20Trends/C4.2-Health%20and%20Wellness/USDEC_Protein_Brochure_lr.pdf.

solubility, emulsification, gelling, and whipping properties that enhance product texture and nutritional value.[18]

WPI represents a more highly refined form of whey protein, with a minimum protein content of 90% and very low levels of lactose and fat. WPI is produced through further membrane filtration or ion exchange methods, yielding a clean-tasting, neutral powder that is highly soluble and easy to incorporate into beverages, powdered drink mixes, high-protein yogurts, nutrition shakes, and other functional foods. WPI is valued not only for its high protein purity but also for its rapid digestibility and light flavor profile, making it popular in sports nutrition and specialized dietary products where maximum protein delivery with minimal additives is required.[19]

Beyond WPC and WPI, the whey category includes additional products that meet specialized functional and nutritional demands. Whey protein hydrolysates (WPH) are produced by enzymatically breaking down intact whey proteins into smaller peptides, creating ingredients with enhanced digestibility and reduced allergenicity for use in medical nutrition, sports recovery products, and hypoallergenic infant formulas. Milk-derived whey protein, sometimes called native whey, is extracted directly from pasteurized milk rather than cheese whey, resulting in a pure protein fraction with a slightly different composition of bioactive proteins. Other related whey products include reduced-lactose whey, reduced-mineral whey, and whey permeate, each with distinct levels of protein, lactose, and minerals for applications in confections, baked goods, beverages, and functional blends.[20]

The United States is the largest whey protein producer in the world, with 425,000 metric tons of dry whey products for both human and animal consumption processed in 2024, 76,000 metric tons of WPC with a protein content between 25 – 49.9%, 153,000 metric tons of WPC with a protein content between 50 – 89.9%, and 65,000 metric tons of WPI.[21] U.S. whey production has increased significantly as processing technology has provided opportunities for unique whey segmentation into a wide variety of functional products. Fueling this production growth is growing domestic and international demand for U.S. cheeses and high-protein whey derivatives that provide efficient, bioavailable dairy proteins. The demand growth is supported by significant U.S. investment of over $10 billion from 2023 through 2027, much of which is in cheese and whey facilities. Whey products

[18] American Dairy Products Institute, "Whey Protein Concentrate," ADPI Ingredient Resources, https://adpi.org/ingredient-resources/whey-protein-concentrate/.
[19] American Dairy Products Institute, "Whey Protein Isolate," ADPI Ingredient Resources, https://adpi.org/ingredient-resources/whey-protein-isolate/.
[20] Ibid.
[21] U.S. Department of Agriculture, National Agricultural Statistics Service, "Dairy Products 2024 Summary," April 2025, https://downloads.usda.library.cornell.edu/usda-esmis/files/jm214p131/r781zd41r/4b29d481c/daryan25.pdf.

are traded under two HTS chapters based on protein concentration: Subheading 0404.10 for sweet and dry whey, whey permeates and WPC34; and 3502.20 for WPC80 and WPI.[22] Global whey trade under HTS 0404.10 surpassed 1.6 metric tons in 2024.[23] While products like whey permeate and liquid sweet whey are not clearly differentiated by HTS code in the trade data from relatively higher value products like WPC34, aggregate trade volumes show a long-term growth trend. in addition, higher protein concentrated whey products like WPC80 and WPI, which are aggregated in a separate HTS code, have witnessed the most substantial growth. WPC80 and WPI have emerged as key export-driven products, with U.S. exports growing by 17% year-over-year in 2024 while exports of other whey products increased by 4%, signaling growing global demand for high-value, protein-rich formulations.[24] Last year global WPC80 and WPI trade surpassed 171,000 metric tons, with the United States exporting 88,000 metric tons, accounting for half of global trade. Together with the European Union at 46,000 metric tons and New Zealand at 27,000 metric tons, the three largest exporters account for 94% of global HTS 3502.20 exports.[25] See Data Series 2 in the annex and confidential annex for additional information.

Lactose

Lactose is a dairy carbohydrate made by crystallizing the milk sugar found in whey or permeate streams during cheese and whey processing, resulting in a pure, shelf-stable white powder with a mildly sweet dairy flavor.[26] Commercial lactose is typically produced as a coproduct of WPC and whey powder production. Lactose is defined by strict purity standards: U.S. edible lactose must contain not less than 99% lactose on a dry basis and meet tight limits on ash, moisture and microbiological quality.[27] Depending on how it is processed and refined, lactose can be offered in different mesh sizes and crystal forms, which affects its solubility, sweetness perception and flow characteristics. This allows manufacturers and food producers to choose the right grade for infant formula, confectionary, bakery and fermentation uses, as well as pharmaceutical applications.

The functional benefits of lactose make it essential in a wide range of foods, beverages and nutritional products. It contributes mid dairy sweetness without overwhelming other flavors, enhances browning and color development, supports the growth of beneficial

[22] United States International Trade Commission, "Harmonized Tariff Schedule of the United States," https://hts.usitc.gov/.
[23] Trade Data Monitor, LLC, "Trade Data Monitor," https://tradedatamonitor.com/.
[24] U.S. Department of Agriculture, Foreign Agricultural Service, "Dairy: World Markets and Trade," Production, Supply and Distribution Online, December 2024, https://apps.fas.usda.gov/psdonline/circulars/dairy.pdf.
[25] Trade Data Monitor, LLC, "Trade Data Monitor," https://tradedatamonitor.com/.
[26] American Dairy Products Institute, "Lactose," ADPI Ingredient Resources, https://adpi.org/ingredient-resources/lactose/.
[27] U.S. Dairy Export Council, "Reference Manual for Whey and Lactose," ThinkUSAdairy.org, https://www.thinkusadairy.org/assets/documents/Customer%20Site/C3-Using%20Dairy/C3.7-Resources%20and%20Insights/02-Product%20Resources/ReferenceManualForWheyAndLactose_English1.pdf.

cultures in yogurt and cheese production and acts as a natural filler and carrier in dry mixes and tablets. Thanks to its high purity, neutral taste and excellent solubility, lactose is widely used in infant formula production and specialized nutritional applications where consistent quality is critical.[28]

Global production of edible lactose has grown steadily with the expansion of whey and permeate processing, with the United States, the European Union and New Zealand among the largest producers. Domestic consumption in the United States represents a minority share of production, as a large portion of output is destined for export markets. Exported under HTS codes 1702.11 and 1702.19,[29] total lactose trade around the world eclipsed 750,000 metric tons last year, with the United States accounting for a 57% share, or 431,000 metric tons. The European Union exported 256,000 metric tons, New Zealand 25,000 metric tons and Canada 13,000 metric tons. Major importers include China, Japan, and Southeast Asian markets that rely on U.S. lactose for infant formula manufacturing and food processing.[30]

As a coproduct of dairy protein processing, increased lactose output serves as an indicator when whey and milk protein production move up the value chain. Notably, Canadian lactose exports were negligible at less 0.3% of total trade prior to implementation of the U.S.-Mexico-Canada Agreement (USMCA) in 2020. Since implementation, exports have spiked as the result of an apparent attempt to shift Canada's growth in dairy protein processing capacity away from a focus on SMP and low-protein products to higher-value ingredients to circumvent USMCA export disciplines.[31] See Data Series 3 in annex for additional information.

An export unit value comparison among the top ten global suppliers of lactose (HTS code 1702.11 only) shows that the United States remains relatively competitively priced. In 2024, U.S. exports averaged $982 per metric ton, which is nearly identical to Canada's $974 per metric ton, positioning both countries in the mid-range of the global price spectrum. See Data Series 3 in annex for additional information.

Milk Protein Concentrates and Isolates

Milk protein concentrates (MPC) and milk protein isolates (MPI) are versatile, high-quality dairy ingredients made by removing most of the water, some or nearly all of the lactose, and adjusting fat levels from fresh pasteurized skim milk. The result is a fine, shelf-stable

[28] Ibid.
[29] United States International Trade Commission, "Harmonized Tariff Schedule of the United States," https://hts.usitc.gov/.
[30] Trade Data Monitor, LLC, "Trade Data Monitor," https://tradedatamonitor.com/.
[31] Ibid.

powder that retains the natural ratio of casein to whey protein found in milk, typically about 80% casein and 20% whey proteins.[32] Unlike NFDM or SMP, which are coproducts of butter production, MPC and MPI are manufactured specifically to concentrate and preserve the complete milk protein fraction.[33] In the United States and other major dairy-producing regions, advanced filtration technologies are used to produce MPCs and MPIs with protein contents ranging from 40% to over 90% by weight, supplying both domestic and international food and nutrition markets.[34] Similar to whey protein products, MPCs and MPIs are defined by their protein level: MPC commonly ranges from 40% to 85% protein, while MPI must contain at least 90% milk protein with minimal lactose and fat.[35]

Depending on their protein level and processing, MPC and MPI offer different functionalities for food and beverage applications. These proteins dissolve well, provide excellent water-binding capacity, and form stable gels and emulsions that help develop desirable textures in cheese, yogurt, cultured dairy drinks, nutritional beverages, and high protein bars. They can help standardize the protein content of fluid milk or add dairy protein enrichment to a wide range of products without significantly altering taste or texture. Because they preserve the casein micelle structure, they contribute to slow digestion and a sustained release of amino acids, making them popular in sports nutrition and medical foods where longer-lasting satiety is desired. Their low lactose content compared to SMP makes them especially useful for high protein formulations that require minimal carbohydrate contribution.[36]

Global production and trade in MPCs and MPIs have grown steadily over the past two decades as demand for high-quality dairy proteins in nutrition and functional food has expanded. While it is a relatively smaller share of global nonfat milk solids trade, MPC and MPI command a premium due to their higher protein levels and specialized applications. MPI trade data is aggregated with other nondairy protein products in HTS subheading 3504.00,[37] which creates a means for certain global suppliers like Canada to obfuscate artificially low-priced exports. Conversely, MPCs are generally traded through tariff code 0404.90, with MPC85+ falling within the Canadian 3504.00 classification.[38] Global MPC

[32] U.S. Dairy Export Council, "U.S. Dairy Proteins: Delivering High-Quality Nutrition and Functionality," https://www.thinkusadairy.org/assets/documents/en_2024-US-Dairy-Proteins.pdf.
[33] U.S. Dairy Export Council, "Milk Protein Concentrate Sell Sheet," https://www.thinkusadairy.org/assets/documents/Customer%20Site/C3-Using%20Dairy/C3.7-Resources%20and%20Insights/03-Application%20and%20Technical%20Materials/Milk%20Protein%20Concentrate%20Sell%20Sheet_%20FINAL.pdf.
[34] American Dairy Products Institute, "Concentrated Milk Proteins," https://adpi.org/ingredient-resources/concentrated-milk-proteins/.
[35] Ibid.
[36] Ibid.
[37] U.S. Customs and Border Protection, Ruling NY N020518, https://rulings.cbp.gov/ruling/N020518.
[38] U.S. Customs and Border Protection, Ruling HQ 965395, https://rulings.cbp.gov/ruling/965395.

trade was 290,000 metric tons in 2024, with New Zealand accounting for over one third of exports with 100,000 metric tons. The European Union exported 89,000 metric tons and the United States exported 42,000 metric tons in the same year.[39] See Data Series 4 in annex for additional information.

Casein and Caseinates

Casein is a family of phosphoproteins that make up approximately 80% of the protein in milk, occurring as colloidal micelles. Caseinates are derived when casein is precipitated, either by acid or rennet, washed, neutralized with an alkali, and then dried into white, water-soluble powders.[40] These ingredients are produced specifically to concentrate milk casein's proteins, separating the fraction from whey, and offering high protein content that is typically greater than 90% on a dry matter basis, low lactose and provides versatile functional properties.

In food applications, caseinates and micellar casein concentrate (MCC) bring emulsifying, water-binding and gel-forming properties. Caseinate powder readily hydrates to form stable emulsions, improve texture in processed meats, dairy beverages, bakery products and creamers, and contribute to mouthfeel and protein fortification without adding flavor. MCC, produced through microfiltration, maintains intact casein micelle structure with protein levels from approximately 42% to 90% and is particularly well suited to high-protein beverages requiring minimal whey content.[41] With rising demand in nutritional applications, coffee whiteners, protein-enhanced formulations, and specialized dairy blends, casein and caseins are an emerging opportunity for many U.S. dairy producers and exporters.[42]

Casein and caseinates are traded under HTS codes 3501.10 and 3501.90, respectively.[43] U.S. producers have recently begun production of casein and caseinate as well as exports, with over 5,000 metric tons and $40 million in 2024 global sales. See Data Series 5 in the annex for additional information.

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[39] Trade Data Monitor, LLC, "Trade Data Monitor," https://tradedatamonitor.com/.
[40] American Dairy Products Institute, "Edible Caseinates," ADPI Ingredient Resources, https://adpi.org/ingredient-resources/edible-caseinates/.
[41] U.S. Dairy Export Council, "Dairy Ingredients Functionality Reference Guide," ThinkUSAdairy.org, https://www.thinkusadairy.org/assets/documents/Customer%20Site/C3-Using%20Dairy/C3.7-Resources%20and%20Insights/03-Application%20and%20Technical%20Materials/Dairy_Ingredients_Funtionality-Reference_Guide.PDF.
[42] Ibid.
[43] United States International Trade Commission, "Harmonized Tariff Schedule of the United States," https://hts.usitc.gov/.

Canada

Out of the leading global suppliers to the world nonfat milk solids markets, Canada's distortionary policies are currently the most impactful and harmful on those markets. Canadian government policies that drive unsustainable surpluses are coupled with extensive industry subsidization and a complex pricing structure that leads to artificially low-priced products pushed out into the international market. The egregiously anticompetitive nature of the Canadian policies harm American suppliers by undercutting U.S. prices globally while simultaneously denying market access into Canada, both of which are clear contraventions of its trade agreements and international trade rules.

There is no justification for this behavior. Canadian dairy producers receive one of the highest farmgate milk prices in the world by a sizable margin, yet Canadian nonfat milk solid derivatives are sold at some of the lowest prices in the world.

A comparison of January 2021 to May 2025 Canadian farmgate milk shows the average Canadian farm milk price is significantly higher than the three largest world exporters: the European Union, New Zealand and the United States. When adjusted to U.S. dollars, the Canadian farm milk price[44] averaged 28% higher than the European Union,[45] 42% higher than New Zealand,[46] and 31% higher than the United States for the 53 months.[47] See Data Series 4 in the annex.

Although it fluctuates, retail dairy prices in Canada are roughly 60% more expensive than[48] U.S. prices. This clearly devised scheme to "export" the problem of domestic structural surpluses distorts global markets, costing American dairy farmers, processors and exporters millions in lost potential sales.

Background

Canada maintains a strict supply management system that limits national milk production by requiring each dairy farm to hold a marketable production quota that sets the maximum volume it may deliver to processors.[49] Milk produced in excess of a farmer's quota receives no market return. This guarantees a relatively high and stable price to Canadian dairy

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[44] Agriculture and Agri-Food Canada, *"D082 Monthly Sales and Revenues by Milk Class – Canada," Canadian Dairy Information Centre,* https://agriculture.canada.ca/en/market-information-system/rp/index-eng.cfm?action=pR&r=235&pdctc=

[45] CLAL.IT, *"EU27: Data pursuant to Regulation (EC) No 479/2010 Article 2,"* https://www.clal.it/en/index.php?section=latte_europa_mmo

[46] CLAL.IT, "New Zealand: Data from UK Milk Development Council – LTO Nederland," https://www.clal.it/en/index.php?section=latte_new_zealand

[47] National Agricultural Statistics Service, USDA, "United States All Milk Price," https://usda.library.cornell.edu/concern/publications/c821gj76b?locale=en

[48] Kenneth W. Bailey, Dairy Economics: Pricing, Policy and Risk Management (Ken Bailey Dairy Consulting, 2024)

[49] Canadian Dairy Commission, Supply Management Overview, available at https://cdc-ccl.ca.

farmers that consistently exceeds comparable milk prices received by U.S. dairy producers and international market averages.[50] This elevated domestic price is funded by Canadian consumers rather than the discipline of market competition.

The national milk quota is set by Canadian authorities to align national production with total commercial domestic demand for butterfat plus a small buffer to account for ordinary fluctuations in consumption. Because market demand for fat in Canada has grown faster than the change in the fat and milk skim solids in farm milk and the quota system is based on milkfat pounds, the quota system results in a chronic surplus of skim solids relative to what the Canadian market requires for nonfat dairy ingredients. The national milk quota is currently set to ensure that enough milkfat is produced to meet butter, cream, cheese, and other high-fat product demand, which inevitably means excess skim solids must be disposed of in a way that does not weaken Canadian dairy farmer profitability, which is determined by assessing dairy farmers' cost of production and supporting an artificially a high milk price rather than relying on market dynamics to drive prices.[51]

Given that the bulk of Canadian milk pricing is not based on competitive dairy product markets, but rather on production cost surveys and changes in the general Consumer Price Index, Canada is forced to rely on a market-distorting pricing system in order to dispose of the excess skim solids in international market while still protecting their farmers from competition or even the potential of market losses.

To manage this surplus, Canada relies on a highly complex structure of separate milk classes. The Canadian Dairy Commission administers at least 31 milk classes for this purpose. The core classes, including most subclasses within Classes 1 through 5, cover fluid milk sold at retail, soft manufactured dairy products such as yogurt and ice cream, cheese production, butter, and milk powders produced for domestic retail or foodservice sale.[52] The Special Milk Permit subclasses under Class 5, have been created specifically to discourage imports by allowing certain Canadian food manufacturers to buy milk at discounted rates, designed to be similar to U.S. market prices for milk, when they produce products like bakery goods, candy, or cheese-containing foods that are not protected by Canadian import barriers.[53] This system was created exclusively to circumvent Canada's commitments in international trade agreements by helping Canadian processors source local milk and dairy products, in turn dramatically hindering the natural commercial

[50] Kenneth W. Bailey, Dairy Economics: Pricing, Policy and Risk Management (Ken Bailey Dairy Consulting, 2024).
[51] Ibid.
[52] Canadian Dairy Commission, Harmonized Milk Classification System https://cdc-ccl.ca/en/node/717.
[53] Canadian Dairy Commission, FAQ about the Special Milk Class Permit Program https://cdc-ccl.ca/en/node/744.

sourcing from the United States that would otherwise occur given the U.S. ability to offer inputs of better commercial value for Canadian consumers.

These special permits result in Canadian milk costs in these classes that may also average below US Federal Order minimum prices, while the farm-cost based regulated prices for all Canadian milk components not subject to Class 4a or Class 5, essentially subsidize these prices paid by processors, and at levels below the surveyed production costs used to price the majority of the Canadian milk supply.

There is no counterpart to this system in the United States. The FMMO system's product pricing for manufacturing milk is market-driven. The system merely ensures that end-product pricing formulas translate the prevailing market-determined dairy product prices into producer milk prices in a transparent and orderly manner. In contrast, product prices under Canada's pricing system are directly set by the Canadian government (through the Canadian Dairy Commission) at high-priced levels for those products largely shielded from competition by Canada's dairy tariffs and at low-priced levels for those products open to more competition from Canada's trade partners. This fundamental difference highlights how Canada's unique approach creates distortions that impact sales opportunities not only within the Canadian market, but also well beyond its borders.

Until the mid-2010s, Canada's surplus skim solids were mostly handled through the capacity of dedicated milk classes that exist solely to dispose of solids surplus: Class 4M that covers milk used to produce animal feed and other low-value products that do not compete in Canada's domestic market and Class 5D which allows milk to be processed into products that are designated as an ingredient in the further processing sector. Both of these surplus disposal classes operate under the Special Milk Class Permit Program administered by the Canadian Dairy Commission and have long served as the main outlets for excess skim solids generated by Canada's rigid quota system.[54]

This arrangement began to unravel as Canadian consumers increased their consumption of butter and cream. Demand for milkfat rose sharply, surpassing the supply allowed under existing production quotas. To satisfy this new demand, Canada began importing butter and cream from the United States in significant quantities. Once those imports grew to substantial levels, Canadian policymakers and industry leaders took steps to push out U.S. exports and reclaim that lucrative market for Canadian producers by raising national milk quotas. While this government policy decision allowed Canadian dairy farmers to supply the growing demand for milkfat, it also produced an even larger surplus of skim solids for which there was no equivalent increase in domestic demand.

[54] Kenneth W. Bailey, Dairy Economics: Pricing, Policy and Risk Management (Ken Bailey Dairy Consulting, 2024).

The existing surplus disposal outlets of Classes 4M and 5D were insufficient to handle the added volume. In response, provincial marketing boards in Canada begin implementing new versions of the class system which impacted the national system. This prompted the Canadian Dairy Commission, a Crown corporation (i.e., a government-owned enterprise), to push for the implementation of a new policy framework known as the National Ingredients Strategy. This introduced two new milk classes, Class 6 and Class 7, in 2016 and 2017, specifically designed to deal with the additional surplus skim solids and to block imports of ultrafiltered milk from the United States. Ultrafiltered milk, a concentrated liquid protein ingredient used heavily in cheese and yogurt production, had entered Canada outside traditional tariff-rate quotas through one of the very few dairy-relevant tariff codes that was liberalized under the U.S.-Canada trade agreement. Canadian processors relied on these U.S. imports because they could not access equivalent Canadian protein at a competitive price.

Classes 6 and 7 changed that dynamic. By pricing skim solids for domestic processors far below the domestic pool price and below prevailing U.S. market prices, Canada made it profitable for its processors to replace U.S.-produced ultrafiltered milk with domestically sourced milk protein. The same low prices created by the Canadian government's pricing policies made it commercially feasible for Canadian manufacturers to push large new volumes of surplus skim solids into export markets as skim milk powder, milk protein concentrates, infant formula, and other dried dairy ingredients that competed directly with U.S. exports.[55]

These policies accomplished exactly what they were designed by the Canadian government to do. They reduced Canada's need to import U.S. butter and cream by allowing for additional milkfat production and drastically cut Canadian imports of U.S.-produced ultrafiltered milk. But the excess skim solids problem was not completely alleviated. Canada also expanded exports of skim milk powder and related dairy protein ingredients to global buyers at prices that undercut competing U.S. products. Canadian skim milk powder exports rose dramatically, climbing from roughly 13,000 metric tons in 2015 to more than 71,000 metric tons by 2017, and remained at elevated levels through 2020.[56]

Canada has built a decades-long record of distorting global trade in nonfat milk solids through mismanagement of its supply management system. As a result of its inability to balance supply and demand, Canada has engineered a chronic surplus of nonfat milk solids. Rather than allowing market forces to correct these imbalances, Canadian

[55] Ibid.
[56] Trade Data Monitor, "Global trade data and analytics," https://tradedatamonitor.com.

authorities have repeatedly introduced new pricing classes and policy tools, such as Classes 4M, 5D, 6, and 7, designed specifically to suppress domestic prices for a certain portion of the skim solids produced and channel excess product into export markets at artificially low rates. These measures enabled Canada to offload its surplus onto global markets in ways that directly undercut competitors, especially U.S. dairy producers, processors and exporters. The U.S. administration recognized these policies for what they are: a sustained and systemic effort to externalize the consequences of oversupply. The issue subsequently became a flashpoint in trade negotiations between the United States and Canada.

Class 4a Pricing

The U.S.-Mexico-Canada Agreement (USMCA) implemented in 2020 was intended to address this harmful surplus clearing practice. This was pursued through a combination of measures, intended to work together to tackle the problem: formally eliminating Classes 6 and 7, requiring Canada to align milk pricing more closely with market realities, and imposing disciplines on Canadian exports of skim milk powder, milk protein concentrates, and infant formula. These export disciplines were executed through an export surcharge that Canada must apply if it exceeds agreed volume levels of those products, to dampen Canada's incentive to dump surplus product onto world markets.[57]

However, Canada's current milk pricing structure continues to replicate many features of the eliminated Classes 6 and 7 through other milk classes such as Class 4a. This pricing framework still allows processors to acquire surplus skim milk solids at discounted prices for use in exported protein products.

Canada's Class 4a is the only Canadian milk price directly connected to U.S. dairy markets. Combined with a higher make allowance and used to determine the producer 4a skim value, this pricing formula makes the Canadian milk cost for dry milk products of all protein levels lower than the U.S. price. This is particularly egregious since Class 4a skims solids is the only Canadian Class price directly based on U.S. markets. It is not influenced by the Canadian milk production cost survey that determines the majority of producer pricing. The inclusion of this U.S.-connection pricing formula in USMCA was intended to put a minimum floor under Canadian pricing. However, Canada's use of generous make allowances, coupled with their exploitation of loopholes in USMCA's dairy protein export disciplines (as detailed below), has undermined the effectiveness of this approach.

[57] Office of the United States Trade Representative, Agriculture: Market Access and Dairy Outcomes of the US–Mexico–Canada Agreement, September 24, 2018, https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/fact-sheets/market-access-and-dairy-outcomes.

The price paid by Canadian dry milk product manufacturing have been significantly below U.S. prices since the 4a formula was changed to reflect U.S. markets. The announced Canadian manufacturing cost allowance for nonfat dry milk currently CAN $9.9491 (approximately USD $7.26) per kilogram, or CAN $0.4161 (approximately USD $0.30) per pound nonfat solids. Since 2021, the average annual production make allowance has ranged from USD $0.29 to $0.33 per pound, depending on U.S.-Canada exchange rates. During the same period, the United States make allowance has been USD $0.1678 cents per pound, resulting in the significantly lower price for milk solids used for dry milk and milk proteins in Canada.

A comparison of the Canada 4a nonfat milk solids price to the United States shows the very consistent and deliberate advantage for Canadian processors since the change in 4a protein and other solids pricing was Canada's solution to the elimination of classes 6 and 7. A comparison of Canadian and U.S. Federal Milk Marketing Order prices for milk used for the same purposes found a consistent and significantly lower price for Canada 4a nonfat milk solids compared to the Federal Order Class IV price.[58] The price advantage for Canadian processors averaged USD 13.6 cents per pound from January 2021 through May 2025.[59] In world markets where a fraction of a penny can result in loss or gain of a sale, this is huge competitive advantage for Canadian processors, due to an unfair advantage gained through their Class 4a pricing formula for milk proteins and other solids. See Data Series 4 in the annex for additional information.

The record demonstrates that, despite the best efforts of the U.S. administration, the intended policy reforms under USMCA have not resolved the surplus skim solids problem that the Class 6 and 7 framework created due to Canada's exploitation of loopholes to continue the same practices Classes 6 and 7 enabled. Instead of abiding by the intent of the agreement to curb exports of artificially low-priced dairy protein products, Canada has shifted the same pricing incentives into other milk classes and product streams that remain largely unregulated by USMCA's export disciplines. These actions can erode the competitiveness of U.S. producers and processors who operate on market terms and rely on transparent, rules-based trade. Moreover, they undercut the intention of USMCA negotiators to discipline Canada's harmful dairy exports.

USMCA Export Discipline Circumvention

In addition to removing Classes 6 and 7 during the USMCA negotiations, the United States aimed to address Canada's longstanding propensity to offload surplus nonfat skim solids

[58] Agriculture and Agri-Food Canada, *"D082 Monthly Sales and Revenues by Milk Class – Canada,"* https://agriculture.canada.ca/en/market-information-system/rp/index-eng.cfm?action=pR&r=235&pdctc=

[59] U.S. Department of Agriculture, Agricultural Marketing Service, *"Announcement of Advanced Prices and Announcement of Class and Component Prices,"* https://www.ams.usda.gov/rules-regulations/mmr/dmr

onto the global market by including disciplines specifically targeting surpluses of SMP and MPC and the potential for Canada to begin producing and exporting large volumes of infant formula.[60] The agreement outlined a pricing structure for the products that were tied to U.S. prices:

> "(USDA nonfat dry milk price minus Canada's applicable assumed processor margin) multiplied by Canada's applicable yield factor (or the approximate ratio of SMP to nonfat solids volume required to manufacture SMP in Canada)."[61]

As noted above, the agreement also established disciplines on Canadian SMP, MPC and infant formula export volumes by applying a surcharge on exports that exceed a set threshold. USTR made clear in announcing these results that Canada had "committed to adopt measures designed to limit the impact of any surplus skim milk production on external markets."[62] If combined exports of SMP (HTS 0402.10) and MPC (HTS 0404.90) exceed 55,000 metric tons in Year 1 or 35,000 metric tons in Year 2, Canada was obligated to apply an export charge of CAD $0.54 (approximately USD $0.40) per kilogram on global exports of these products for the remainder of the "dairy year," or August 1 to July 31. Similarly, if exports of infant formula (HTS 1901.10) exceed 13,333 metric tons in Year 1 or 40,000 metric tons in Year 2, an export charge of CAD $4.25 per kilogram would have been required to be applied on volumes exceeding these limits. After Year 2, the thresholds for SMP, MPC, and infant formula automatically increased at a rate of 1.2% per year on a dairy year basis.[63]

Although the export thresholds have so far limited exports of products specifically named in the agreement—SMP, MPC and infant formula (the latter has been negligible due to a halted production expansion plan to date, but production plans may resume in the near future)—the disciplines have not succeeded in curtailing the impact of Canada's surplus nonfat milk solids on dairy markets because Canada continues to produce and export other products that clear their structural surplus through alternative tariff codes.

Canadian exports of MPC85, MPIs, lactose, and certain skim milk powder blends produced under the new Class 4a have increased significantly since the 2020 USMCA implementation. The exports circumvent the USMCA's dairy protein export surcharge system while still threatening the same negative impacts on the competitiveness of U.S.

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[60] Office of the United States Trade Representative, United States–Mexico–Canada Agreement, Agriculture Chapter (Chapter 3), https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/03_Agriculture.pdf.
[61] Ibid.
[62] Office of the United States Trade Representative, USMCA Fact Sheet: Market Access and Dairy Outcomes, September 30, 2018, https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/fact-sheets/market-access-and-dairy-outcomes.
[63] Office of the United States Trade Representative, United States–Mexico–Canada Agreement, Agriculture Chapter (Chapter 3), https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/03_Agriculture.pdf.

dairy protein producers, with several of the products increasingly being exported directly to the United States. Export data highlights areas of concern across several tariff classifications that can include nonfat milk solids, including HTS 1806 for SMP blended with cocoa and potentially an additional fat source, HTS 1901.90 for dairy skim blends and fat-filled milk powder, HTS 2106.10 for protein and textured protein substances, and HTS 3504.00 for peptones and other protein substances, under which high derivative MPCs and MPIs could be classified. Canadian exports of HTS 1702.11 and 1702.19 for lactose and lactose syrup have also skyrocketed post USMCA implementation, which suggests increased use of ultrafiltration and reverse osmosis technology to produce highly concentrated dairy proteins.

Analysis of the data indicates that Canadian cocoa products, including cocoa powders and chocolates traded under HTS 1806 that incorporate NFDM and SMP have increased 20% since USMCA's implementation, with 88% ending up in the United States. Even more striking is a dramatic increase in Canadian exports of HTS 1901.90, which includes dairy skim blends and fat-filled milk powders. Exports the year prior to USMCA implementation were 77,000 metric tons but have since more than doubled to 166,000 metric tons in 2024. Of that total, over 147,000 metric tons was exported into the United States, posing direct, artificially low-priced competition with U.S. suppliers. Smaller volumes were exported to the Philippines, Mexico, Chile and Malaysia where U.S. exporters similarly face a pricing disadvantage. The incorporation of maltodextrin or increasing fat content to create a fat-filled milk powder provides a means of minimally processing NFDM and SMP in a manner that would reclassify the HTS code away from the USMCA disciplined tariff code of HTS 0402.10.

Similarly, Canadian exports categorized as "protein and textured protein products" under HTS 2106.10 are likely incorporating dairy proteins. Annual exports were less than 5,000 metric tons annually prior to 2020 but spiked to a peak of over 40,000 metric tons immediately following USMCA implementation. While exports have been declining, it is still a tariff line that warrants further scrutiny. Most notable may be the growing production and export of MPC 85+ and MPIs under HTS 3504.00. Canada has doubled its exports of the high-value protein products since USMCA implementation, which is substantiated by targeted government subsidies provided for specialized processing facilities. Of the 26,000 metric tons that Canada exported under the tariff code in 2024, nearly 15,000 metric tons entered the United States, posing direct competition to U.S. suppliers seeking to market their products domestically. Other Canadian export destinations of note include the European Union, China, South Korea and Japan, all export destinations where Canadian policies undercut U.S. exports. See Data Series 7 for additional information.

While the scope of the ITC investigation is limited to the United States' relative competitiveness in the global nonfat skim solids market, Canada's blatant attempts to circumvent its USMCA obligations on limiting its nonfat milk solids exports must be addressed during the upcoming 2026 USMCA review process.

Should additional export disciplines be implemented to tamp down artificially low-priced MPI, SMP blend, cocoa powder and "other" protein categories in HTS Chapters 21 and 35, the U.S. government should be cognizant of the products and tariff categories through which Canada is most likely to reroute nonfat skim solids, including HTS 1704.90 for protein bars/confectionary without cocoa, HTS 1806.32 protein products containing cocoa, HTS 2106 protein products and blends, HTS 2202.99 milk-based drinks, HTS 3501 caseins and caseinates and HTS 3502.20 high value whey proteins. An approach that focuses on constraining the total milk protein solids exported by Canada may be a more all-encompassing approach rather than the rifle-shot focus on specific tariff codes.

Although USMCA introduced export disciplines targeting Canada's surplus NFDM/SMP and MPC, these measures have proven insufficient due to Canada's bad faith actions following USMCA negotiations. Canada has continued to circumvent the agreement by rerouting surplus nonfat milk solids through alternative tariff codes and lightly processed products, effectively maintaining its long-standing practice of distorting dairy trade. As a result, Canadian exports of dairy protein blends, high-protein derivatives, and other products that incorporate nonfat milk solids have skyrocketed, often under HTS classifications not subject to USMCA export charges.

USMCA Market Access Evasion

As an alternative to its current practices—implemented through the Canadian government-set pricing systems—Canada has the ability to reach a more equitable fat and nonfat milk solids balance by supplementing its supply managed milk production with imports to meet growing demand in Canada for butter, cheese, cream and other fat products. This would limit the need for increased fat production at the expense of massive nonfat milk solids surpluses. However, Canada has persistently refused to mitigate its dairy product imbalance with imported products, including by flouting its trade commitments under USMCA and the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP).[64] Attempting to access the Canadian market through out-of-quota routes is an exercise in

[64] Ministry of Foreign Affairs and Trade (New Zealand), *Current disputes*, Trade Law and Dispute Settlement, https://www.mfat.govt.nz/en/trade/trade-law-and-dispute-settlement/current-wto-disputes.

futility, with tariffs at prohibitive levels. For example, the above-quota tariff on butter (HTS 0405.20) is set at a Most Favored Nation level of "298.5% but not less than CAD $4.00/kg."[65]

USMCA secured expanded tariff-rate quota (TRQ) access for U.S. dairy products into Canada across 14 categories: milk, cream, skim milk powder, butter and cream powder, industrial cheeses, cheeses of all types, milk powders, concentrated or condensed milk, yogurt and buttermilk, powdered buttermilk, whey powder, products consisting of natural milk constituents, ice cream and ice cream mixes, and other dairy. However, Canada has repeatedly failed to deliver on the full market-opening intent of its commitments. Rather than allowing fair and transparent competition, Canada's TRQ administration limits genuine opportunities for U.S. dairy exporters.[66]

These tactics were the focus of the first formal USMCA dairy dispute brought by the United States, which challenged Canada's practice of reserving up to 85% of its TRQ volumes exclusively for domestic processors. In January 2022, a dispute settlement panel ruled in favor of the United States, confirming that Canada's allocation practices violated the clear terms of the agreement and were inconsistent with its commitment in Article 3.A.2.11(b) of the USMCA not to "limit access to an allocation to processors."[67] Despite this clear ruling, Canada's response was to adjust its policies only superficially, including by only removing explicit delineations between processor and distributor allocations but maintaining a "market share" allocation component. Despite the ruling, Canada continued to prohibit allocations to retailers, restaurants, hotels, and grocers while dramatically limiting access for importers/distributors.

Canada's continued evasion of its USMCA dairy market access commitments prompted the United States to request a second dispute settlement panel in May 2023, arguing that Canada's revised TRQ administration system still blocks fair access by excluding key sectors of the Canadian food and agricultural sectors industry (e.g., retailers) and by maintaining allocation rules that deter full quota utilization. A flagrantly misguided second panel ruling in November 2023 permitted Canada to continue circumventing the intent of USMCA.[68] The result of this unsubstantiated decision is continued inaccessibility to most

[65] Canada Border Services Agency, Customs Tariff: 2025 Menu https://www.cbsa-asfc.gc.ca/trade-commerce/tariff-tarif/2025/menu-eng.html.
[66] Global Affairs Canada, Key dates and access quantities 2025–2026: TRQs for supply-managed products https://www.international.gc.ca/trade-commerce/controls-controles/trq-dates-ct.aspx?lang=eng
[67] Office of the United States Trade Representative, *Canada – Dairy TRQ Final Panel Report* (Panel Report, USMCA dispute settlement, 4 January 2022) https://ustr.gov/sites/default/files/enforcement/USMCA/Canada%20Dairy%20TRQ%20Final%20Panel%20Report.pdf.
[68] Office of the United States Trade Representative, Final Report of the Panel as Issued (Panel Report, 20 December 2021) https://ustr.gov/sites/default/files/Final%20Report%20of%20the%20Panel%20as%20issued.pdf.

of the Canadian USMCA market access volumes, as shown most clearly by unfilled quotas despite strong Canadian demand for dairy products.

The result of this protectionism is borne out in the data. The TRQs outlined below are differentiated between a "dairy year" basis that runs from August 1 to July 31 and a calendar year basis.[69] Canada's USMCA TRQ-CA2 for cream (HTS 0401.40.20 and 0401.50.20) had a dairy year 2023 – 2024 fill rate of 51%; TRQ-CA5 for cheeses for industrial use (HTS 0406.10.20, 0406.20.12, 0406.20.92, 0406.30.20, 0406.40.20, 0406.90.12, 0406.90.22, 0406.90.32, 0406.90.42, 0406.90.52, 0406.90.62, 0406.90.72, 0406.90.82, 0406.90.92, 0406.90.94, 0406.90.96 and 0406.90.99) only had a fill rate of 59% in calendar year 2024; and TRQ-CA7 for yogurt and buttermilk (HTS 0403.10.20 and 0403.90.92) topped out calendar year 2024 with a meager fill rate of 12%.[70]

Coupling the distortionary Canadian pricing structure for nonfat milk solids with the limiting TRQ administration methods leads to even lower fill rates for protein products. For example, Canada's USMCA TRQ-CA3 for SMP (HTS 0402.10.20) had a fill rate of only 3% for the "dairy year" spanning from August 2023 – 2024. Similarly, TRQ-CA8 for whey powder (HTS 0404.10.22) only had a dairy year 2023 – 2024 fill rate of just 21%, TRQ-CA12 for "products of natural milk constituents," or MPCs, had a 2024 calendar year fill rate of 8%.[71] See Data Series 8 for more information.

The issue is not limited to just U.S. access into the Canadian market. In May 2022 New Zealand formally initiated CPTPP dispute settlement proceedings challenging Canada's dairy TRQs administration. Several other CPTPP parties, including Australia, Japan, Mexico, Peru, and Singapore, joined the proceedings as third parties. Similar to the outcome of the first USMCA ruling, the panel found the Canadian TRQ administration inconsistent with its CPTPP obligations by granting priority access to their own domestic dairy processors.[72] In a similar pattern of behavior as with the USMCA dispute ruling, New Zealand was compelled to initiate additional mandatory negotiations in October 2024 due to Canada's failure to comply with the initial CPTPP ruling.[73]

Canada's failure to uphold its dairy market access commitments and administer its TRQs in an equitable manner in keeping with the market-opening intent of USMCA not only

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[69] Office of the United States Trade Representative, USMCA Chapter 3: Agriculture https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/03_Agriculture.pdf.
[70] Global Affairs Canada, Utilization data – Supply-managed tariff rate quotas (TRQs) https://www.international.gc.ca/trade-commerce/controls-controles/utilization-utilisation.aspx?lang=eng.
[71] Ibid.
[72] Ministry of Foreign Affairs and Trade (New Zealand), Final Report of the Panel https://www.mfat.govt.nz/assets/Trade-General/WTO-Disputes/Canada-Dairy/Final-Report-of-the-Panel.pdf.
[73] New Zealand escalates dairy trade dispute with Canada (Reuters, 18 October 2024) https://www.reuters.com/markets/commodities/new-zealand-escalates-dairy-trade-dispute-with-canada-2024-10-18/

serves as a barrier to market entry for nonfat milk solids but also exacerbates the structural surplus issue. In lieu of balancing supply and demand with fat product imports from fairly negotiated trade agreements, Canadian producers are further incentivized to increase milk production and boost fat components in their milk. Due to the fat and nonfat skim solids components in milk both increasing in relative tandem, production of the latter continues to soar.

Addressing Canada's failure to adhere to both its market access and export discipline commitments is necessary to solve the nonfat milk solids surplus exports issue. In turn, addressing Canada's government-created structural surplus of nonfat milk solids would incentivize greater use of USMCA's TRQs, including for nonfat milk solids products. While outside the scope of this investigation, NMPF and USDEC call for a comprehensive response to both issues during the upcoming 2026 USMCA review process.

Canadian Industry Subsidization

Publicly available federal and provincial government records demonstrate that Canadian dairy processors continue to receive substantial direct support to expand nonfat milk solids processing capacity and related product lines. This government support means the problems we have outlined in this statement will continue to mount until the U.S. government successfully secures a change in the Canadian government's dairy policies.

These government outlays to Canadian dairy processors include funding made available through an extensive series of subsidy programs, including the Supply Management Processing Investment Fund, Dairy Innovation and Investment Fund, Dairy Processing Investment Fund and Matching Investment Fund that collectively provides billions of dollars in direct support for dairy processing infrastructure subsidies. This is in addition to the support from the Dairy Direct Payment Program and Dairy Farm Investment Fund that serve as direct payments to producers. Notably, companies such as Vitalus Nutrition Inc. and Gay Lea Co-operative Ltd. that produce and export nonfat skim solids have secured tens of millions of dollars in recent years through a combination of targeted federal investment programs, provincial economic development grants, and cost-sharing initiatives administered through the Canadian Dairy Commission and provincial milk boards. This public funding aligns with a broader policy framework designed to help Canada manage its structural surplus of skim solids by expanding domestic processing capacity and bolstering export-oriented dairy ingredient production.

<u>Supply Management Processing Investment Fund</u>

Canada maintains a Supply Management Processing Investment Fund (SMPIF), which is a federal initiative administered by Agriculture and Agri-Food Canada that provides targeted

financial assistance to dairy, poultry, and egg processors across Canada. The program offers non-repayable contributions to support investments in new equipment and technologies that help processors of supply-managed commodities "adapt to market changes resulting from the implementation of the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Canada-United States-Mexico Agreement (CUSMA)."[74] Program eligibility extends from April 1, 2022, to March 31, 2028, with CAD $397.5 million (approximately USD $293 million) in available funding. For dairy processors in particular, SMPIF has become a tool to modernize facilities and expand capacity to handle products made from surplus nonfat milk solids.[75]

Dairy Innovation and Investment Fund

The Dairy Innovation and Investment Fund (DIIF), launched by Agriculture and Agri-Food Canada in 2023 and managed by the Canadian Dairy Commission, is a CAD $333 million (approximately USD $245 million) federal initiative that provides non-repayable contributions of up to CAD $75 million (approximately USD $55 million) per project to eligible dairy processors.[76] The program runs from April 1, 2023, through March 31, 2033. The fund is intended to help processors invest in specialized facilities, equipment, and technology that expand capacity to "manage the structural surplus of solids non-fat in Canada."[77]

To qualify, investments must result in a net increase in nonfat milk solids processing capacity that aligns with the program's stated objective of helping the sector manage Canada's structural skim solids surplus and maximize the full value of raw milk. In the case of new facility construction, a project must result in a net increase in solids-not-fat processing capacity of at least 50 million liters of skim milk per year across the organization's operations in Canada.[78] The DIIF contribution is eligible to up to 33% of project costs, and total government funding from all federal, provincial, territorial, and municipal sources combined can cover up to 85% of eligible project costs. Approved funds are allocated regionally, with CAD $74 million (approximately USD $54 million) available for British Columbia, Alberta, Saskatchewan, and Manitoba, CAD $127 million (approximately

[74] Agriculture and Agri-Food Canada, "Supply Management Processing Investment Fund," https://agriculture.canada.ca/en/programs/supply-management-processing-investment-fund.
[75] Ibid.
[76] Agriculture and Agri-Food Canada, "Minister MacAulay Launches New Program to Support the Canadian Dairy Sector," September 1, 2023, https://www.canada.ca/en/agriculture-agri-food/news/2023/09/minister-macaulay-launches-new-program-to-support-the-canadian-dairy-sector.html.
[77] Agriculture and Agri-Food Canada, "Dairy Innovation and Investment Fund," September 1, 2023, https://www.canada.ca/en/agriculture-agri-food/news/2023/09/dairy-innovation-and-investment-fund.html.
[78] Canadian Dairy Commission, "Dairy Innovation and Investment Fund: Applicant Guide," https://cdc-ccl.ca/en/dairy-innovation-and-investment-fund-applicant-guide.

USD $54 million) for Ontario, CAD $109 million (approximately USD $80 million) for Quebec, and CAD $18 million (approximately USD $13 million) for the remaining Atlantic provinces.[79]

Market Growth Program

The Market Growth Program (MGP), administered by the Canadian Dairy Commission on behalf of the Canadian Milk Supply Management Committee, is designed to encourage sustainable and innovative investments in Canadian dairy processing with a strategic focus on advancing the use of nonfat milk solids and reducing the structural skim solids surplus. Among its funding streams, the Pre-Production Funding Stream supports processors in planning expansions that increase nonfat milk solids processing capacity or develop new nonfat milk solids-based products. This stream provides a total of CAD $5 million (approximately USD $3.7 million) per two-year cycle. Applicants may receive up to CAD $500,000 (approximately USD $370 million) in a cycle and can cover up to 50% of the cost of pre-investment studies, including engineering, environmental, or economic feasibility assessments that support plant expansions or equipment upgrades. The Pre-Production Funding Stream cites that "priority will be given to studies related to investments that have the best potential to help manage the structural surplus of solids non-fat."[80]

Dairy Processing Investment Fund

The Dairy Processing Investment Fund (DPIF) was a federal program that operated from 2017 to 2021 with a total budget of CAD $100 million (approximately USD $74 million) to help Canadian dairy processors modernize and expand capacity. Through this fund, processors could receive non-repayable contributions of up to CAD $10 million (approximately USD $7.4 million) per project to invest in new equipment, technology, and facility upgrades aimed at improving productivity and handling larger volumes of Canadian milk, including surplus nonfat milk solids. The program was developed in response to new trade commitments that increased foreign access to Canada's dairy market and was intended to help the domestic industry stay competitive by enhancing processing capacity for skim solids and other value-added dairy ingredients.[81]

[79] Ibid.
[80] Canadian Dairy Commission, "Market Growth Program – Pre-Production Funding Stream," https://cdc-ccl.ca/en/market-growth-program-pre-production-funding-stream.
[81] Agriculture and Agri-Food Canada, "Dairy Processing Investment Fund Overview," https://www.canada.ca/en/agriculture-agri-food/news/2023/09/dairy-processing-investment-fund.html.

Matching Investment Fund

The Matching Investment Fund (MIF) is administered by the Canadian Dairy Commission and provides non-repayable contributions for product development projects on a matching investment basis. The program is designed to help eligible companies and Food Technology Centers develop new or innovative dairy products, reformulate existing products, and pursue activities that encourage knowledge transfer, technology transfer, and new uses for nonfat milk solids ingredients. The MIF supports a range of eligible activities, including access to specialist consultation services covering management, market research, dairy and food science, technical services, and food processing. It also covers costs associated with product analysis, trials, and technology transfer work, such as pilot or industrial-scale testing, retrofitting of equipment, preparation of product samples, and packaging techniques. Applicants may access consultation and product development services separately or together, depending on the needs of each project. Both streams are intended to stimulate demand for Canadian dairy products and ingredients by encouraging innovation and technology adoption in the sector. Applications to the MIF are currently paused while the program undergoes a review and update.[82]

Specific Examples

Taken together, Canada's Class 4a pricing scheme, which is structurally incapable of coming close to parity with U.S. prices, and the Canadian government's extensive list of subsidies for high-value nonfat milk solids not currently restricted under USMCA, make it clear that Canada is building a system designed to shield its farmers from competition. This system subsidizes manufacturers, allowing them to enter international markets with a government-created cost advantage. Newly announced subsidies for additional nonfat milk solids processing suggest that this issue will only worsen. A few examples are provided below.

Vitalus Nutrition Inc. is a British Columbia–based dairy processor that is currently expanding its Abbotsford facility to substantially increase capacity for processing nonfat milk solids for both domestic use and export markets. Publicly available information indicates that Vitalus Nutrition Inc. has received at least CAD $30 million (approximately USD $21.9 million) in combined federal and provincial government support over the past two years. In 2021, Vitalus began a major expansion of its Abbotsford facility by installing state-of-the-art equipment to increase capacity. This expansion is expected to increase Vitalus' milk processing capacity from 130 million liters per year to 565 million liters per year over a ramp-up period. The project aims to strengthen local producers' ability to meet

[82] Canadian Dairy Commission, "Matching Investment Fund," https://cdc-ccl.ca/en/node/748.

domestic demand for dairy products such as butter, which is often shipped from Eastern Canada, and well as the explicit goal to increase exports of specialty dairy ingredients for nutritional applications.[83]

In 2024, the Government of British Columbia announced up to CAD $25 million (approximately USD $18.4 million) in support for the Vitalus project under its "Clean and Competitive: A Blueprint for B.C.'s Industrial Future" plan. [84] Vitalus also received a CAD $5 million (approximately USD $3.7 million) allocation under the federal SMPIF in 2024 to support installation of new processing and packaging equipment.[85] The expanded facility is scheduled to be operational by 2027.

Gay Lea Cooperative Ltd. is a cooperative owned and operated by dairy farmers in Ontario and Manitoba, but has production in Quebec, Ontario, Manitoba, Alberta and British Columbia. Similarly, Gay Lea Co-operative Ltd. has received at least CAD $18.6 million (approximately USD $13.7 million) since 2019 through various federal and provincial grants. Notably, Gay Lea has undergone a significant transformation during this period, growing from a smaller cooperative to a restructured organization with expanded facilities and a larger membership base. Teeswater and Hamilton, Ontario plant expansions included CAD $10 million (approximately USD $7 million) from the Federal Economic Development Agency for Southern Ontario and CAD $6.9 million (approximately USD $5 million) from the DPIF.[86]

Earlier in 2016, Gay Lea had a joint venture with Vitalus Nutrition Inc. through which they created Manitoba Dairy Ingredients Holdings Corp., a dairy processing facility in Winnipeg, at a cost of CAD $100 million (approximately USD $74 million). While not explicitly cited, one report notes that the expansion relied in part on government funding to support its expansion in the 2000s.[87] The facility produces "high quality, innovative, customized dairy proteins" including MPC85 and MPI.[88]

Canada's government-backed expansion of nonfat milk solids processing is not merely incidental. It is strategic, systemic, and escalating. Through billions in subsidies and a

[83] The Abbotsford News, "Major Expansion Approved for Vitalus Nutrition in Abbotsford," October 21, 2021, https://www.abbynews.com/news/major-expansion-approved-for-vitalus-nutrition-in-abbotsford-1826831.
[84] Government of British Columbia, "New Blueprint to Support B.C.'s Industrial Transformation," News Release No. 2024JEDI0020-000621, April 17, 2024, https://news.gov.bc.ca/releases/2024JEDI0020-000621.
[85] Agriculture and Agri-Food Canada, "Database: Supply Management Processing Investment Fund Projects," January 31, 2024, https://www.canada.ca/en/agriculture-agri-food/news/2024/01/database-supply-management-processing-investment-fund-projects.html.
[86] Cooperatives First, Scaling Up Case Study: Dairy Cooperative Expansion, March 2020, https://cooperativesfirst.com/wp-content/uploads/2020/03/Scaling-up-case-study.pdf.
[87] Ibid.
[88] Gay Lea Co-operative, "Holding Corporation to Transform West Canadian Milk into Quality Dairy Components," https://www.gaylea.com/news/about-us/holding-corp-transform-west-cdn-milk-to-quality-dairy-components.

pricing scheme divorced from market forces, Canada is entrenching its structural surplus and enabling processors to undercut global competitors, especially those in the United States.

Future Canadian Challenges

Canada's impact on global nonfat milk solids markets stems from its long history of deliberate, government-driven distortion. For years, it has manipulated dairy pricing through schemes like the defunct Classes 6 and 7 and now relies on Class 4a, which results in artificially low-cost nonfat milk solids destined for export while preserving some of the highest farmgate milk prices globally. Despite commitments under USMCA, Canada has sidestepped export disciplines by shifting surplus into further processed products under alternate tariff codes and has blocked U.S. access through protectionist TRQ administration. At the same time, federal and provincial governments continue to pour billions into subsidies that expand processing and export capacity for nonfat milk solids.

In lieu of course correction, Canada's structural nonfat milk solids surplus problem will only continue to accelerate. Strong incentives for dairy producers to increase butterfat components to maximize profit under the constraints of the production quota system and meet projected increasing demand in Canada for butterfat products will contribute to a growth of nonfat milk solids without sufficient parallel domestic demand growth. The refusal of the Canadian government to balance its milkfat deficit with imports by failing to fulfill its USMCA market access commitments and new legislation[89] that prohibits the Canadian government from expanding its dairy import TRQs in future trade negotiations means that the problem will worsen at the expense of American dairy exporters. Canada also has the means of domestically managing its market imbalance by building demand for dairy proteins or simply disposing of excess nonfat milk solids instead of continually offloading product onto the global market.

Canada's policies that drive its nonfat milk solids surplus undercut U.S. producers' pricing, undermine fair trade, and violate Canada's trade obligations. Unless it is confronted in the 2026 USMCA review, the issue will continue to grow at the expense of U.S. dairy farmers and processors.

European Union

USDEC and NMPF reserve the right to provide additional information in post-hearing submissions regarding the European Union's long-time subsidization of casein production

[89] Senator Amina Gerba, "Bill C-282 will protect Canada's supply management policy," *SenCAplus*, Senate of Canada, https://sencanada.ca/en/sencaplus/opinion/bill-c-282-will-protect-canadas-supply-management-policy-senator-gerba/.

which inundated global markets and undercut U.S. producers. The European Union has built a casein production system that was substantially subsidized by European taxpayers under the Common Agriculture Policy. U.S. exporters are still dealing with the resulting consequences of the European Union's anticompetitive policies that have propped up its domestic casein manufacturers. USDEC and NMPF encourage ITC to investigate the extent to which the European Union has benefited from that government-initiated attempt to shift the playing field to favor their producers at the expense of U.S. suppliers.

India

India is the largest dairy producing country in the world, with over 130 million cows on what are predominantly small farms. With attempts toward self-sufficiency, the country maintains high barriers to entry, such as total applied tariffs of over 68% on NFDM and SMP,[90] in an effort to insulate the Indian dairy sector. However, there are times when Indian milk production exceeds local consumption, driving down local prices. The Indian government will then intercede by announcing export subsidies for NFDM/SMP.

India's reliance on these subsidies for SMP exports has come under close scrutiny and criticism in global forums. The government of Gujarat, in particular, introduced a scheme in November 2020 aimed at bolstering SMP exports. Under this initiative, the Gujarat government allocated INR 150 crores (approximately USD $17.4 million) in subsidies for a six-month period, from November 2020 to April 2021. The subsidy offered INR 50 (approximately USD $0.58) per kilogram of SMP exported by milk cooperatives if the Free on Board (FOB) price of the powder was INR 180 (approximately USD $2.09) per kilogram. The total amount of SMP eligible for export under this plan was capped at 50,000 metric tons. Despite repeated inquiries through the WTO Committee on Agriculture's monitoring system (AG-IMS ID 96013), India failed to provide full transparency regarding the implementation and consistency of this measure with its export subsidy commitments under Article 9 of the Agreement on Agriculture. Multiple WTO members, including the United States, the European Union, New Zealand, Ukraine, and Australia, have raised concerns about this program's compliance with India's obligations and its potential to depress global SMP prices.[91]

This export subsidy scheme is not unique to Gujarat, as India has historically used similar measures to facilitate the export of SMP when there is excess production. While the government's subsidies help to alleviate surplus milk and stabilize domestic prices, they also have ramifications for the global dairy market. Most of India's subsidized SMP exports

[90] U.S. Dairy Export Council. *Official Website*. https://usdec.org/
[91] World Trade Organization. *AG-IMS: Agriculture Information Management System*. https://agims.wto.org/

are directed toward neighboring countries like Bangladesh, Malaysia, and the United Arab Emirates. Although these nations are not major recipients of Indian SMP, the periodic offloading of significant volumes of subsidized milk powder can depress global SMP prices. For example, Indian SMP exports to Bangladesh spiked from just over 4,200 metric tons in 2020 to over 24,700 metric tons in 2021, followed by 23,300 metric tons in 2022. The exports then virtually ceased the following year as India reported only 800 metric tons of exports to Bangladesh in 2023. This is particularly problematic for other dairy-exporting countries, including the United States, that rely on commercial SMP markets and are negatively impacted when excess global suppliers result in a drop in the prices of SMP in key international markets. See Data Series 9 in the annex for additional information.

Given these developments, it is imperative for the ITC to recognize the role of Indian SMP export subsidies as a source of market distortion. India's use of export subsidies is incompatible with the principles of fair trade. The use of state funds to offload excess SMP artificially inflates Indian production incentives while displacing commercial exports from price-responsive producers like the United States. Without stronger enforcement of trade rules and a pressure for transparency, India's subsidized SMP exports will continue to disrupt global competitiveness and can ultimately threaten long-term U.S. market share in critical export destinations.

Turkey

Turkey's growing presence in the global whey product market is closely tied to the activities of a government-run state trading enterprise known as Turkey Et ve Süt Kurumu (translated as the Meat and Milk Board of Turkey, or ESK/MMB).[92] Originally established in 1952 as the Meat and Fish Institution, the agency has since expanded its mandate to encompass broad oversight of the livestock and dairy sectors. A key responsibility of ESK/MMB appears to be to stabilize milk prices. During periods of surplus production, the agency intervenes by purchasing milk from local producers and processes it into powder through its own facilities. ESK/MMB then sells the resulting dairy products into export markets. This practice represents a textbook case of distortionary state intervention, especially when state-run, subsidized processing and export operations allow Turkey to undercut commercial competitors on the global market.

In recent years, ESK/MMB has become more active in the dairy market space, gaining additional authority including the ability to import cattle. This expansion of capacity, combined with rising domestic milk production, has led to an oversupply of dairy products. The Turkish government has responded by ramping up exports through its state trading

[92] Turkey Et ve Süt Kurumu (Meat and Milk Board of Turkey). https://www.esk.gov.tr/en

enterprise infrastructure. This not only insulates domestic producers from market forces but also enables Turkey to dispose of excess product abroad, rather than allowing domestic prices or market mechanisms to perform their natural balancing function. Such behavior compromises the integrity of global dairy markets and disadvantages private-sector exporters who operate without state backing.

The implications for the whey sector are particularly concerning. With Turkey becoming a larger producer and exporter of cheeses, including nearly 48,000 metric tons of cheese in 2024, whey volumes have grown in tandem.[93] ESK/MMB is able to process, bulk pack, label, and export this whey, reportedly with minimal commercial discipline or regard for market pricing signals. This has allowed Turkey to insert itself into key whey markets such as Egypt, where it has gained a foothold not on the basis of product quality or efficiency, but by offloading subsidized supply. Industry contacts suggest that Turkish whey often suffers from inferior quality, negatively impacting the taste and functionality of finished food products.

Trade data reinforces concerns about Turkey's distortionary role in the global whey market. According to monthly export unit values from 2022 through April 2025, Turkish low-protein whey prices have consistently trailed global and U.S. benchmarks.[94] In April 2025, for example, Turkey's average export unit value for low-protein (mostly sweet) whey was just $886 per metric ton, compared to $1,592 for the global average and $1,011 for U.S. dry whey. Turkish exports are almost all sweet whey product yet appear to be priced as levels comparable to whey permeate. These figures reflect a clear pattern: the Turkish government is using its state trading enterprise infrastructure not only to absorb surplus production but also to push excess product into international markets at prices that private-sector competitors cannot match, thereby distorting trade flows and undercutting more commercially disciplined exporters. See Data Series 10 in the annex for more information.

The consequences of this distortion extend beyond economics to longer-term structural issues as Turkey's model encourages volume-driven exports supported by government intervention. Meanwhile, countries like the United States, where producers and exporters are subject to full market exposure, are forced to compete against artificially supported product. USDEC and NMPF ask ITC to closely examine Turkey's nonfat milk solids exports, particularly those for whey products, to determine the full extent to which the state trading enterprise results in market-distorting prices.

[93] Trade Data Monitor. *Official Website*. https://tradedatamonitor.com/
[94] Ibid.

Export Barriers

As noted above, we have primarily focused on government policies that inappropriately support the exports of other producers and exporters of nonfat milk solids. Another government intervention that impacts global nonfat milk solids markets is naturally import barriers, whether WTO-compliant or not.

Certainly, tariffs constrain access for various nonfat milk solids imports into various markets. In addition to Canada, we note the following as key markets of interest for U.S. dairy exporters where WTO Most Favored Nation tariffs play a role in hindering the sale of U.S. nonfat milk solids products: Argentina, Brazil, Ecuador, European Union, the Gulf Cooperation Council, India, Indonesia, Japan, Kenya, Malaysia, Philippines, South Africa, South Korea, Taiwan, Thailand, United Kingdom and Vietnam. Tariff levels vary by market and by product across these areas yet in each, yet in each the elimination of the trading partner's tariffs on nonfat milk solid products imports would improve U.S. competitive opportunities for the export of those products. In some cases, the trading partners has already eliminated tariffs on competitors' nonfat milk solids products such as in Vietnam (European Union and New Zealand), Taiwan (New Zealand) and the United Kingdom (European Union, and as of 2028 New Zealand as well).

Beyond tariff constraints, nontariff trade barriers play a role in limiting access for U.S. nonfat milk solids exports into several of these markets as well. USDEC and NMPF have outlined the bulk of those barriers in our comprehensive National Trade Estimate comments submitted to USTR in October 2024.[95] The following markets' nontariff trade barriers for nonfat milk solids are particularly onerous: European Union, India, Indonesia, Kenya, United Kingdom.

In addition to foreign government barriers that disadvantage U.S. dairy exporters, new domestic policy actions, specifically USTR's Section 301 remedies on Chinese-built, owned, and operated oceangoing vessels, present an emerging risk to U.S. dairy export competitiveness.[96] These measures introduce phased fees based on vessel net tonnage or container volume and are applied per rotation or string of U.S. port calls. While USDEC and NMPF appreciate the Trump Administration's modifications from the initially proposed fees, including an adjustment from a per-port to a per-voyage basis, the fees will still have meaningful implications for U.S. dairy shippers. For Chinese-operated or owned vessels, the fee is based on the net tonnage of the vessel and will be set at $50 per net ton starting

[95] U.S. Trade Representative, *Regulations.gov*, Docket No. USTR-2024-0015, Comment ID: USTR-2024-0015-0027, https://www.regulations.gov/comment/USTR-2024-0015-0027.

[96] Office of the United States Trade Representative, "Section 301 Investigation: China's Targeting of the Maritime, Logistics, and Shipbuilding Sectors for Dominance." https://ustr.gov/trade-topics/enforcement/section-301-investigations/section-301-chinas-targeting-maritime-logistics-and-shipbuilding-sectors-dominance

in 2025 and increase incrementally by $30 per net ton over a three-year phase-in. For Chinese-built vessels, the fee is assessed at $18 per net ton and incrementally increasing annually by $5 per net ton over the next three years. While the Administration carved out important exemptions, including for vessels engaged in short sea shipping, the broad scope and long-term escalation of these fees will still materially affect the cost structure for many U.S. exporters.[97]

For the U.S. dairy industry, where nonfat milk solids export margins are often very thin, even modest increases in shipping costs can erode price competitiveness in critical growth markets. As mentioned, U.S. exporters already contend with tariff disadvantages compared to major competitors like the European Union and New Zealand. Additional transport surcharges risk further tilting the playing field. Moreover, reduced vessel availability, longer transit times, and new port congestion could disrupt the consistent, reliable delivery that foreign buyers expect. Policy decisions affecting shipping operations and costs must reflect the importance of maintaining access to affordable, dependable export logistics.[98]

USDEC and NMPF encourage ITC to evaluate the effect of the Section 301 measures on U.S. nonfat milk solids competitiveness in global markets. Any remedies aimed at promoting domestic maritime strength must avoid imposing disproportionate harm on U.S. dairy exporters, who depend on efficient international shipping access to remain viable in an increasingly competitive global marketplace.

Conclusion

The competitiveness of the U.S. dairy industry depends on fair and rules-based global markets. However, certain trading partners, including Canada, India and Turkey, maintain policies that distort nonfat milk solids production and subsequently trade in those products. Canada's long list of trade-distorting measures, including its Class 4a pricing regime that is clearly devised to offload its structural surpluses at below world prices, blatant attempts to circumvent its trade commitments related to both market access and its dairy protein export disciplines, and direct subsidization of its nonfat milk solids processing sector culminate in low prices that undercut U.S. producers both at home and abroad. These practices undermine the intent of USMCA and are overdue for course correction. As the United States prepares for the 2026 USMCA review process, it is

[97] Ibid.

[98] U.S. Dairy Export Council and National Milk Producers Federation*, "Comments on USTR Section 301: China Shipbuilding Remedies" (March 24, 2025),* https://www.nmpf.org/wp-content/uploads/2025/04/Comments-USDEC-NMPF-on-USTR-Section-301-China-Shipbuilding-Remedies-3.24.2025.pdf

imperative that Canada is held accountable for its distortionary practices and fulfills its trade agreement obligations.

Similarly, the price manipulation that results from India's SMP subsidization and Turkey's state trading enterprise for whey products warrant additional attention. These government-driven practices pose a threat to fair competition and harm the United States' ability to compete internationally. In addition, as noted above, a deeper investigation into the lingering impacts of earlier-stage EU subsidization of its casein industry is also warranted.

As ITC advances this investigation, USDEC and NMPF encourage a thorough analysis of all global suppliers that seek to gain an unfair advantage in exporting their nonfat skim solids.

We appreciate the Commission's careful examination of these complex issues and stand ready to provide further data, technical detail, and additional context to support the investigation. Thank you for considering these comments on behalf of the U.S. dairy sector.

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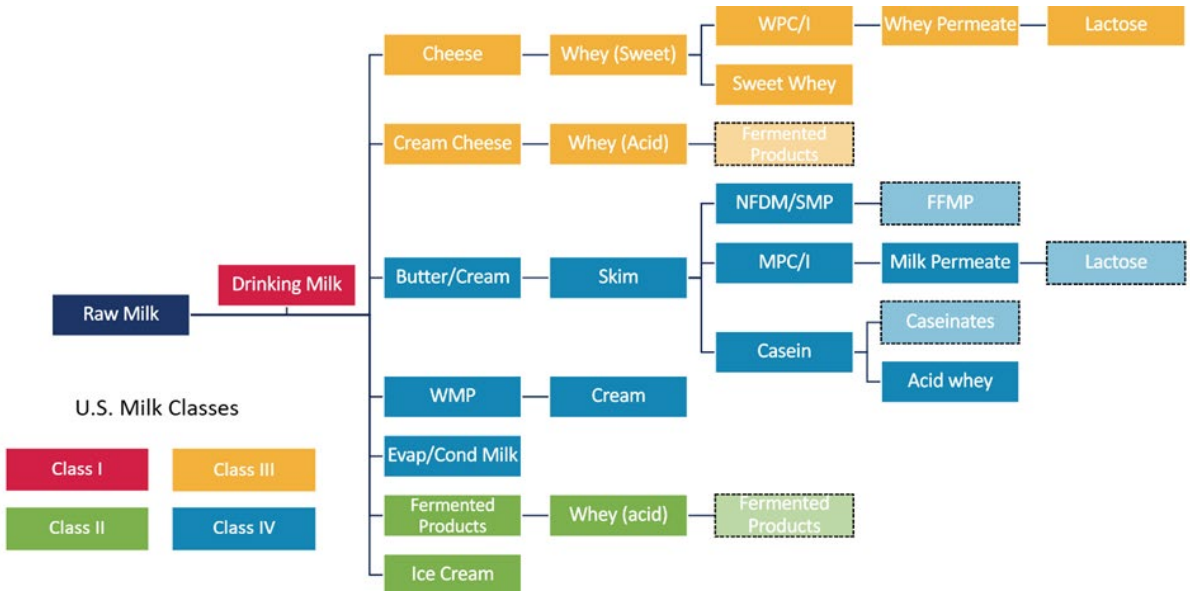
Annex

Figure 1: Dairy Processing Streams



Source: U.S. Dairy Export Council

Data Series 1: Nonfat Dry Milk and Skim Milk Powder Trade

Nonfat Dry Milk & Skim Milk Powder (HTS 0402.10) Exports by Volume (Metric Tons)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	810,190	878,594	833,502	808,706	744,088	-8%
European Union 27	831,062	788,054	707,169	775,470	717,507	-14%
New Zealand	352,480	326,459	357,133	451,212	441,343	25%
Australia	128,552	156,413	153,929	133,438	169,616	32%
Iran	24,377	47,017	94,887	105,342	132,745	445%
United Kingdom	72,021	51,522	46,682	70,879	50,454	-30%
Turkey	20,188	60,831	44,815	5,670	22,181	10%
Ukraine	16,218	13,185	21,501	20,378	21,377	32%
Canada	39,512	18,748	26,086	26,690	19,838	-50%
Argentina	27,661	20,840	27,697	18,346	19,713	-29%
Rest of World	200,387	254,602	124,055	88,479	118,960	-41%

Source: U.S. Dairy Export Council, Trade Data Monitor

Nonfat Dry Milk & Skim Milk Powder (HTS 0402.10) Exports by Value (USD Millions)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	2,005	2,455	3,094	2,321	2,042	2%
European Union 27	2,274	2,425	2,759	2,315	2,042	-10%
New Zealand	1,015	1,064	1,414	1,339	1,211	19%
Australia	379	588	744	568	552	45%
Iran	53	79	247	279	346	551%
United Kingdom	180	156	180	204	148	-18%
Argentina	72	61	103	62	61	-15%
Turkey	46	167	158	15	57	24%
Uruguay	46	55	100	44	55	19%
Canada	93	51	93	73	53	-43%
Rest of World	486	689	411	288	361	-26%

Source: U.S. Dairy Export Council, Trade Data Monitor

U.S. Nonfat Dry Milk & Skim Milk Powder (HTS 0402.10) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Mexico	287,099	337,575	359,719	417,022	389,886	36%
Philippines	115,669	112,475	115,542	86,339	87,312	-25%
Indonesia	97,383	76,621	80,120	64,508	49,281	-49%
Malaysia	41,081	36,088	44,949	28,301	31,682	-23%
Vietnam	52,453	71,912	39,636	36,887	28,055	-47%
Colombia	28,828	24,333	21,139	22,616	19,201	-33%
Peru	15,780	15,261	16,093	15,452	18,189	15%
Thailand	10,021	10,323	12,620	14,859	13,483	35%
China	26,681	52,822	51,208	21,090	11,717	-56%
Dominican Republic	7,493	11,902	12,110	10,164	10,300	37%
Rest of World	127,705	129,285	80,360	91,472	84,982	-33%

Source: U.S. Dairy Export Council, U.S. Census Data

U.S. Nonfat Dry Milk & Skim Milk Powder (HTS 0402.10) Exports by Value (USD Millions)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Mexico	708	961	1,325	1,171	1,069	51%
Philippines	283	306	433	252	237	-16%
Indonesia	246	213	300	196	132	-46%
Malaysia	109	99	162	87	88	-19%
Vietnam	132	198	150	99	75	-43%
Colombia	70	70	75	63	52	-25%
Peru	40	42	61	46	51	28%
Thailand	27	29	47	45	36	37%
China	61	145	192	62	33	-45%
Dominican Republic	20	32	46	30	28	44%
Rest of World	311	359	305	270	239	-23%

Source: U.S. Dairy Export Council, U.S. Census Data

NFDM & SMP (HTS 0402.10) Export Unit Value (USD/Metric Ton) by Top Ten Suppliers					
Destination	**2020**	**2021**	**2022**	**2023**	**2024**
Ukraine	2,197	2,722	3,336	2,375	2,406
Türkiye	2,261	2,740	3,528	2,591	2,561
Iran	2,181	1,679	2,606	2,647	2,609
Canada	2,350	2,721	3,553	2,723	2,664
United States	2,475	2,794	3,712	2,871	2,745
New Zealand	2,879	3,260	3,959	2,967	2,745
European Union 27	2,736	3,077	3,902	2,985	2,846
United Kingdom	2,501	3,027	3,846	2,872	2,924
Argentina	2,616	2,949	3,722	3,376	3,104
Australia	2,952	3,758	4,834	4,260	3,252

Source: U.S. Dairy Export Council, Trade Data Monitor

Data Series 2: Whey Proteins and Related Products Trade

Whey and Modified Whey (HTS 0404.10) Exports by Value (USD Millions)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
European Union 27	1,097	1,215	1,310	1,107	1,182	8%
United States	577	696	820	565	612	6%
United Kingdom	94	76	103	108	132	39%
Argentina	79	97	113	123	105	33%
Türkiye	51	81	56	30	68	34%
Australia	59	60	67	82	48	-18%
New Zealand	28	39	51	37	44	57%
Canada	48	51	65	45	42	-11%
Chile	12	16	24	18	17	39%
Uruguay	16	14	17	14	15	-6%
Rest of World	167	203	95	65	71	-57%

Source: U.S. Dairy Export Council, Trade Data Monitor

U.S. Whey and Modified Whey (HTS 0404.10) Exports by Value (USD Millions)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
China	200	267	299	203	214	7%
Canada	39	45	63	51	65	66%
Mexico	46	66	79	52	60	29%
Indonesia	35	39	55	51	59	69%
Japan	39	41	54	29	39	0%
Philippines	33	36	42	31	27	-19%
Vietnam	22	34	30	21	24	9%
South Korea	14	21	26	12	18	27%
Thailand	13	16	15	13	15	15%
Switzerland	0	0	0	5	7	N/A
Rest of World	136	131	156	96	86	-37%

Source: U.S. Dairy Export Council, U.S. Census Data

Whey Protein Concentrate & Isolate (HTS 3502.20) Exports by Volume (Metric Tons)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	57,986	64,070	64,232	75,795	88,315	52%
European Union 27	56,765	50,169	48,385	49,656	55,795	-2%
New Zealand	20,774	26,773	21,911	23,191	26,724	29%
United Kingdom	5,861	18,838	16,423	16,934	15,650	167%
Australia	5,242	5,765	4,558	2,831	5,712	9%
Norway	2,572	2,572	2,363	2,640	2,683	4%
Canada	443	94	328	258	419	-5%
Singapore	291	410	581	642	399	37%
Türkiye	2	65	25	5	367	N/A
Iceland	346	252	378	324	342	-1%
Rest of World	967	1,140	449	619	428	-56%

Source: U.S. Dairy Export Council, Trade Data Monitor

Whey Protein Concentrate & Isolate (HTS 3502.20) Exports by Value (USD Millions)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	356	485	767	621	805	126%
European Union 27	315	421	571	389	610	94%
New Zealand	190	237	290	230	268	41%
United Kingdom	40	127	147	98	136	241%
Australia	59	58	121	93	115	97%
Norway	11	13	19	16	14	22%
Switzerland	2	2	2	5	6	181%
Singapore	1	4	9	9	4	225%
Türkiye	0	0	0	0	3	N/A
Iceland	1	1	3	2	3	157%
Rest of World	4	6	7	6	4	5%

Source: U.S. Dairy Export Council, Trade Data Monitor

U.S. Whey Protein Concentrate & Isolate (HTS 3502.20) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
China	13,934	14,780	9,688	14,208	30,407	118%
Japan	7,078	10,309	13,638	15,120	12,579	78%
Canada	7,786	8,295	8,532	10,906	10,957	41%
Brazil	2,180	2,516	3,975	8,462	7,954	265%
India	3,136	2,580	2,933	4,001	3,861	23%
South Korea	2,835	4,038	4,763	2,454	3,112	10%
Netherlands	4,037	2,107	2,537	1,990	2,647	-34%
Singapore	1,367	1,756	2,282	1,769	1,743	28%
Taiwan	1,005	973	1,030	1,330	1,589	58%
Colombia	796	1,608	1,002	737	1,453	83%
Rest of World	44,154	48,962	50,380	60,977	76,302	73%

Source: U.S. Dairy Export Council, U.S. Census Data

U.S. Whey Protein Concentrate & Isolate (HTS 3502.20) Exports by Value (USD Millions)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
China	84	83	100	104	157	86%
Canada	62	83	117	104	135	117%
Japan	43	82	154	102	119	179%
Brazil	13	21	47	54	83	532%
Netherlands	24	33	45	40	53	117%
South Korea	15	34	58	31	37	141%
India	14	19	30	24	35	146%
Spain	1	1	12	15	20	N/A
Singapore	11	14	25	20	18	58%
Belgium	1	4	9	10	16	N/A
Rest of World	86	112	172	116	134	55%

Source: U.S. Dairy Export Council, U.S. Census Data

Data Series 3: Lactose Trade

Lactose (HTS 1702.11 & 1702.19) Exports by Volume (Metric Tons)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	376,938	389,600	451,158	469,939	431,015	14%
European Union 27	288,693	276,496	243,526	241,655	263,122	-9%
New Zealand	26,170	24,400	27,974	27,929	24,878	-5%
United Kingdom	21,999	22,157	23,214	23,640	21,980	0%
Canada	8,484	13,171	12,600	12,392	12,825	51%
Australia	8,149	5,313	3,354	10,609	8,221	1%
Türkiye	6,832	8,232	6,238	8,810	6,834	0%
India	3,938	11,906	1,394	3,139	3,210	-18%
South Africa	537	504	1,167	1,720	3,048	468%
China	366	67	749	1,526	865	136%
Rest of World	9,724	5,085	3,949	3,168	3,866	-60%

Source: U.S. Dairy Export Council, Trade Data Monitor

Lactose (HTS 1702.11 & 1702.19) Exports by Value (USD Millions)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
European Union 27	417	458	485	473	444	6%
United States	393	476	580	489	421	7%
New Zealand	41	46	56	37	30	-26%
Canada	9	16	16	13	13	47%
Israel	9	11	10	11	11	31%
United Kingdom	16	17	18	12	11	-30%
India	7	9	4	10	8	9%
Türkiye	7	10	9	11	7	8%
Australia	9	9	5	8	5	-40%
South Africa	1	1	1	2	4	N/A
Rest of World	9	9	11	13	11	28%

Source: U.S. Dairy Export Council, Trade Data Monitor

Lactose (HTS 1702.11) Export Unit Value (USD/Metric Ton) by Top Ten Suppliers					
Destination	**2020**	**2021**	**2022**	**2023**	**2024**
Australia	1,093	1,395	1,525	695	624
United Kingdom	901	1,179	1,352	773	710
Canada	968	1,212	1,303	1,049	974
United States	1,050	1,240	1,299	1,055	982
Türkiye	978	1,170	1,353	1,248	1,023
Thailand	2,891	2,969	2,824	3,267	1,152
New Zealand	1,548	1,870	1,989	1,341	1,207
South Africa	1,421	2,322	911	1,005	1,479
European Union 27	1,470	1,679	2,026	1,989	1,711
India	1,766	2,053	3,667	3,128	2,443

Source: U.S. Dairy Export Council, Trade Data Monitor

U.S. Lactose (HTS 1702.11 & 1702.19) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
China	68,044	86,992	118,356	145,058	109,508	61%
New Zealand	45,963	45,585	56,582	58,516	56,576	23%
Mexico	36,733	35,889	34,727	43,193	46,972	28%
Japan	41,734	41,821	53,443	47,231	42,616	2%
Indonesia	23,482	21,351	26,292	18,631	21,070	-10%
South Korea	17,327	19,029	15,952	13,190	15,388	-11%
Thailand	14,377	15,607	14,394	18,162	14,886	4%
Vietnam	17,901	24,726	19,155	18,813	14,694	-18%
Singapore	16,040	17,519	14,528	13,903	14,569	-9%
Uruguay	5,583	7,554	6,683	7,853	13,778	147%
Rest of World	89,757	73,527	91,049	85,388	80,955	-10%

Source: U.S. Dairy Export Council, U.S. Census Data

U.S. Lactose (HTS 1702.11 & 1702.19) Exports by Value (USD Millions)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
China	72	104	147	127	96	33%
New Zealand	48	56	78	66	57	19%
Mexico	36	42	43	44	45	25%
Japan	41	46	62	43	35	-15%
Indonesia	24	28	35	23	20	-15%
India	17	11	8	15	15	-10%
Thailand	14	20	19	23	15	2%
Uruguay	6	9	8	8	15	136%
Singapore	14	21	18	18	14	-5%
South Korea	18	21	19	11	13	-26%
Rest of World	102	118	144	113	97	-5%

Source: U.S. Dairy Export Council, U.S. Census Data

Data Series 4: Milk Protein Concentrates Trade

Milk Protein Concentrates (HTS 0404.90) Exports by Volume (Metric Tons)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
European Union 27	117,760	114,557	118,040	97,505	105,485	-10%
New Zealand	70,442	82,819	67,399	72,698	100,821	43%
United States	41,663	40,869	47,549	42,877	42,062	1%
Costa Rica	17,238	14,556	13,653	14,549	15,739	-9%
Canada	9,560	6,751	8,082	6,297	9,457	-1%
Singapore	7,852	7,034	9,737	6,432	8,249	5%
Argentina	-	-	1,934	645	4,836	N/A
South Africa	4,909	4,379	3,747	2,817	4,220	-14%
Saudi Arabia	2,443	19	51	147	3,043	25%
Kazakhstan	760	922	1,822	2,304	2,599	242%
Rest of World	78,580	79,549	43,661	16,999	9,494	-88%

Source: U.S. Dairy Export Council, U.S. Census Data

Milk Protein Concentrates (HTS 0404.90) Exports by Value (USD Millions)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
New Zealand	430	522	562	590	639	49%
European Union 27	288	311	393	282	271	-6%
United States	163	167	262	234	226	39%
Canada	49	49	70	58	81	64%
Costa Rica	19	17	14	18	22	15%
Singapore	18	18	37	17	18	1%
South Korea	16	12	18	19	15	-4%
Argentina	-	-	4	2	8	N/A
Japan	2	5	8	8	6	166%
South Africa	3	3	3	2	3	-10%
Rest of World	66	58	31	20	18	-73%

Source: U.S. Dairy Export Council, U.S. Census Data

U.S. Milk Protein Concentrates (HTS 0404.90) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Mexico	6,378	11,525	14,427	15,304	18,616	192%
Canada	7,326	3,947	3,156	4,139	3,620	-51%
Egypt	4,486	3,071	5,786	5,473	2,059	-54%
Brazil	1,737	1,223	816	1,971	1,850	7%
China	1,975	1,324	1,880	1,784	1,804	-9%
Indonesia	374	641	2,129	248	1,500	301%
Bahrain	247	371	96	1,034	1,305	428%
Dominican Republic	746	2,087	1,882	1,399	1,282	72%
Peru	220	362	685	653	959	336%
Vietnam	479	1,122	1,352	793	905	89%
Rest of World	17,693	15,194	15,340	10,076	8,162	-54%

Source: U.S. Dairy Export Council, U.S. Census Data

U.S. Milk Protein Concentrates (HTS 0404.90) Exports by Value (USD Millions)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Mexico	32	57	95	85	106	226%
Canada	12	10	12	16	14	16%
Egypt	20	16	38	32	13	-36%
Brazil	11	7	6	13	12	11%
Bahrain	1	2	1	6	9	N/A
China	7	5	7	7	8	23%
Dominican Republic	4	10	12	8	8	83%
Peru	1	3	6	5	6	293%
Indonesia	2	2	6	1	6	249%
Japan	8	3	8	6	6	-32%
Rest of World	64	52	73	55	40	-37%

Source: U.S. Dairy Export Council, U.S. Census Data

Data Series 5: Casein and Caseinates Trade

Casein and Caseinates (HTS 3501) Exports by Volume (Metric Tons)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
European Union 27	86,829	99,073	89,149	82,468	86,074	-1%
New Zealand	85,955	97,006	93,144	83,884	85,346	-1%
United States	3,131	2,836	3,715	3,001	8,362	167%
Ukraine	5,733	5,454	7,954	6,205	6,831	19%
India	1,754	7,385	9,352	4,088	2,798	60%
Singapore	203	468	220	475	754	271%
China	1,178	407	480	308	402	-66%
Canada	3,508	880	712	921	256	-93%
South Africa	415	472	398	270	136	-67%
United Kingdom	371	430	208	404	109	-71%
Rest of World	3,342	3,173	1,265	691	702	-79%

Source: U.S. Dairy Export Council, Trade Data Monitor

Casein and Caseinates (HTS 3501) Exports by Value (USD Millions)						
Exporter	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
New Zealand	679	890	1,174	1,027	808	19%
European Union 27	675	875	1,066	914	696	3%
United States	24	26	43	36	69	187%
Ukraine	38	50	80	40	41	9%
India	12	62	101	44	20	64%
Australia	5	10	7	6	8	54%
Singapore	2	3	2	4	4	150%
China	7	4	5	4	4	-48%
South Africa	1	1	1	2	1	29%
South Korea	0	0	0	0	1	N/A
Rest of World	25	26	11	7	4	-84%

Source: U.S. Dairy Export Council, Trade Data Monitor

U.S. Casein and Caseinates (HTS 3501) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Netherlands	399	736	605	491	1,989	398%
Mexico	113	198	201	178	1,900	1581%
Canada	605	595	759	969	1,274	111%
Pakistan	-	-	-	3	708	N/A
Australia	346	114	27	113	426	23%
UAE	-	-	4	-	324	N/A
Indonesia	1	-	9	188	324	N/A
Egypt	-	3	28	77	296	N/A
China	156	131	112	334	296	90%
South Africa	-	18	8	16	129	N/A
Rest of World	1,510	1,039	1,959	632	693	-54%

Source: U.S. Dairy Export Council, U.S. Census Data

U.S. Casein and Caseinates (HTS 3501) Exports by Value (USD Millions)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Netherlands	3	8	8	6	16	441%
Mexico	1	1	2	2	13	N/A
Canada	5	5	7	10	11	140%
South Korea	5	6	15	6	5	8%
Pakistan	-	-	-	-	5	N/A
Australia	3	1	-	1	4	44%
China	1	1	1	5	3	145%
UAE	-	-	-	-	2	N/A
Indonesia	-	-	-	2	2	N/A
Egypt	-	-	-	-	2	N/A
Rest of World	7	4	9	4	7	-1%

Source: U.S. Dairy Export Council, U.S. Census Data

Data Series 6: Canada Class Pricing

World Farm Milk Prices at Market Composition
January 2021 - May 2025

	Price per 100 Lbs, US Dollars				Difference from Canada			% Difference from Canada		
MO & YR	Canada	EU-27	New Zealand	US	EU-27	New Zealand	US	EU-27	New Zealand	US
Jan-21	$29.47	$19.30	$17.87	$17.10	-$10.17	-$11.60	-$12.37	-35%	-39%	-42%
Feb-21	$29.70	$19.18	$18.98	$16.70	-$10.52	-$10.72	-$13.00	-35%	-36%	-44%
Mar-21	$30.04	$18.99	$18.70	$17.30	-$11.06	-$11.35	-$12.74	-37%	-38%	-42%
Apr-21	$29.69	$19.28	$18.55	$18.30	-$10.41	-$11.14	-$11.39	-35%	-38%	-38%
May-21	$30.76	$19.68	$18.80	$19.10	-$11.08	-$11.95	-$11.66	-36%	-39%	-38%
Jun-21	$30.61	$19.55	$19.60	$18.20	-$11.06	-$11.01	-$12.41	-36%	-36%	-41%
Jul-21	$29.85	$19.30	$19.25	$17.80	-$10.55	-$10.60	-$12.05	-35%	-36%	-40%
Aug-21	$29.68	$19.43	$19.25	$17.60	-$10.24	-$10.43	-$12.08	-35%	-35%	-41%
Sep-21	$29.96	$19.90	$20.70	$18.30	-$10.06	-$9.26	-$11.66	-34%	-31%	-39%
Oct-21	$30.67	$20.35	$21.43	$19.60	-$10.32	-$9.24	-$11.07	-34%	-30%	-36%
Nov-21	$31.12	$20.73	$21.05	$20.70	-$10.39	-$10.06	-$10.42	-33%	-32%	-33%
Dec-21	$30.60	$21.14	$21.52	$21.70	-$9.46	-$9.07	-$8.90	-31%	-30%	-29%
Jan-22	$31.04	$21.46	$22.31	$23.90	-$9.58	-$8.73	-$7.14	-31%	-28%	-23%
Feb-22	$33.51	$21.88	$22.10	$24.50	-$11.63	-$11.41	-$9.01	-35%	-34%	-27%
Mar-22	$33.84	$21.95	$22.73	$25.60	-$11.89	-$11.11	-$8.24	-35%	-33%	-24%
Apr-22	$33.84	$22.65	$21.66	$27.00	-$11.19	-$12.19	-$6.84	-33%	-36%	-20%
May-22	$33.07	$23.00	$20.50	$27.20	-$10.07	-$12.57	-$5.87	-30%	-38%	-18%
Jun-22	$32.94	$23.68	$20.80	$26.70	-$9.27	-$12.14	-$6.24	-28%	-37%	-19%
Jul-22	$32.54	$23.56	$19.76	$25.50	-$8.98	-$12.78	-$7.04	-28%	-39%	-22%
Aug-22	$32.36	$24.06	$19.98	$24.10	-$8.30	-$12.39	-$8.26	-26%	-38%	-26%
Sep-22	$32.32	$24.48	$18.87	$24.10	-$7.84	-$13.45	-$8.22	-24%	-42%	-25%
Oct-22	$32.04	$25.31	$18.19	$25.60	-$6.73	-$13.85	-$6.44	-21%	-43%	-20%
Nov-22	$32.95	$26.71	$18.80	$25.40	-$6.24	-$14.14	-$7.55	-19%	-43%	-23%
Dec-22	$32.87	$27.98	$19.71	$24.50	-$4.89	-$13.16	-$8.37	-15%	-40%	-25%
Jan-23	$32.52	$27.25	$18.76	$22.90	-$5.27	-$13.76	-$9.62	-16%	-42%	-30%
Feb-23	$32.84	$25.89	$18.43	$21.40	-$6.95	-$14.42	-$11.44	-21%	-44%	-35%
Mar-23	$31.94	$24.42	$17.76	$21.00	-$7.52	-$14.18	-$10.94	-24%	-44%	-34%
Apr-23	$32.04	$23.63	$17.55	$20.60	-$8.42	-$14.49	-$11.44	-26%	-45%	-36%
May-23	$32.25	$22.42	$17.56	$19.10	-$9.82	-$14.68	-$13.15	-30%	-46%	-41%
Jun-23	$32.29	$21.78	$16.92	$17.80	-$10.51	-$15.37	-$14.49	-33%	-48%	-45%
Jul-23	$31.93	$21.95	$14.50	$17.30	-$9.98	-$17.43	-$14.63	-31%	-55%	-46%
Aug-23	$31.41	$21.54	$13.95	$19.60	-$9.87	-$17.46	-$11.81	-31%	-56%	-38%
Sep-23	$31.34	$21.01	$14.82	$20.90	-$10.33	-$16.52	-$10.44	-33%	-53%	-33%
Oct-23	$31.91	$21.28	$14.73	$21.50	-$10.63	-$17.18	-$10.41	-33%	-54%	-33%
Nov-23	$32.54	$22.30	$15.52	$21.60	-$10.24	-$17.01	-$10.94	-31%	-52%	-34%
Dec-23	$33.65	$23.05	$16.09	$20.40	-$10.60	-$17.56	-$13.25	-32%	-52%	-39%
Jan-24	$33.15	$22.96	$16.58	$19.90	-$10.18	-$16.56	-$13.25	-31%	-50%	-40%
Feb-24	$32.80	$22.71	$16.46	$20.40	-$10.09	-$16.34	-$12.40	-31%	-50%	-38%
Mar-24	$32.46	$22.90	$16.35	$20.60	-$9.57	-$16.12	-$11.86	-29%	-50%	-37%
Apr-24	$32.02	$22.42	$16.02	$20.40	-$9.60	-$16.00	-$11.62	-30%	-50%	-36%
May-24	$32.24	$22.54	$16.31	$22.00	-$9.70	-$15.93	-$10.24	-30%	-49%	-32%
Jun-24	$31.89	$22.52	$16.93	$22.80	-$9.38	-$14.96	-$9.09	-29%	-47%	-29%
Jul-24	$31.85	$22.90	$17.67	$22.80	-$8.95	-$14.18	-$9.05	-28%	-45%	-28%
Aug-24	$32.17	$23.76	$18.88	$23.60	-$8.41	-$13.29	-$8.57	-26%	-41%	-27%
Sep-24	$33.14	$24.99	$19.31	$25.50	-$8.15	-$13.83	-$7.64	-25%	-42%	-23%
Oct-24	$33.18	$25.55	$19.90	$25.10	-$7.63	-$13.28	-$8.08	-23%	-40%	-24%
Nov-24	$33.18	$25.78	$20.37	$24.20	-$7.39	-$12.81	-$8.98	-22%	-39%	-27%
Dec-24	$32.80	$25.92	$19.82	$23.30	-$6.89	-$12.99	-$9.50	-21%	-40%	-29%
Jan-25	$32.29	$25.14	$19.42	$24.10	-$7.15	-$12.87	-$8.19	-22%	-40%	-25%
Feb-25	$32.42	$25.38	$19.58	$23.60	-$7.04	-$12.84	-$8.82	-22%	-40%	-27%
Mar-25	$31.97	$26.09	$19.75	$22.00	-$5.88	-$12.22	-$9.97	-18%	-38%	-31%
Apr-25	$32.53	$27.01	$20.12	$21.00	-$5.52	-$12.41	-$11.53	-17%	-38%	-35%
May-25	$32.19	$27.12	$20.46	$21.30	-$5.07	-$11.73	-$10.89	-16%	-36%	-34%
2021	$30.18	$19.74	$19.64	$18.53	-$10.44	-$10.54	-$11.65	-35%	-35%	-39%
2022	$32.78	$23.89	$20.45	$25.34	-$8.88	-$12.33	-$7.44	-27%	-38%	-23%
2023	$32.22	$23.04	$16.38	$20.34	-$9.18	-$15.84	-$11.88	-28%	-49%	-37%
2024	$32.57	$23.75	$17.88	$22.55	-$8.83	-$14.69	-$10.02	-27%	-45%	-31%
2025 YTD	$32.28	$26.15	$19.87	$22.40	-$6.13	-$12.41	-$9.88	-19%	-38%	-31%
1/21-5/25 Avg.	**$31.97**	**$22.94**	**$18.71**	**$21.76**	**-$9.03**	**-$13.26**	**-$10.21**	**-28%**	**-41%**	**-32%**

NOTE: Prices do not include VAT or other taxes paid. Prices are at actual milk component tests for each market

Sources:
Canada: D082 Monthly Sales and Revenues by Milk Class - Canada,
https://agriculture.canada.ca/en/market-information-system/rp/index-eng.cfm?action=pR&r=235&pdctc=
EU27: CLAL.IT Data pursuant to Regulation (EC) No 479/2010 Article 2
https://www.clal.it/en/index.php?section=latte_europa_mmo
New Zealand: CLAL. IT Data from UK Milk Development Council - LTO Nederland
https://www.clal.it/en/index.php?section=latte_new_zealand
US: United States All Milk Price, National Agricultural Statistics Service, USDA.
https://usda.library.cornell.edu/concern/publications/c821gj76b?locale=en

Announced Canadian Milk Component Prices for all Milk Classes						
Milkfat:						
1a	$2.9861	$3.3150	$3.3639	$3.3507	$3.2519	$3.2537
1b	$2.9809	$3.3131	$3.3629	$3.3501	$3.2513	$3.2517
2a	$3.4482	$3.7572	$3.7900	$3.7705	$3.6580	$3.6883
2b	$3.4397	$3.7517	$3.7835	$3.7651	$3.6506	$3.6817
3a	$3.4495	$3.7583	$3.7912	$3.7719	$3.6593	$3.6896
3c	$3.4422	$3.7507	$3.7837	$3.7646	$3.6523	$3.6822
3d	$3.4209	$3.7309	$3.7648	$3.7458	$3.6341	$3.6626
4a	$3.4384	$3.7472	$3.7803	$3.7609	$3.6489	$3.6786
4b	$3.4789	$3.6982	$3.7737	$3.4939	$3.5822	$3.6084
5a	$1.7818	$3.0555	$2.9694	$3.3072	$2.8852	$2.7885
5b	$1.8198	$3.0513	$2.9102	$3.2993	$2.9377	$2.7860
Protein						
1a	$3.0368	$3.0175	$2.9826	$2.9581	$2.8589	$2.9856
1b	$3.0029	$3.0231	$3.0033	$2.9780	$2.8752	$2.9899
2a	$1.9336	$1.9546	$1.9701	$1.9749	$1.9231	$1.9550
2b	$1.9799	$1.9490	$1.8327	$1.7791	$1.6646	$1.8644
3a	$4.7763	$4.8682	$4.9097	$4.9287	$4.7975	$4.8638
3c	$4.5769	$4.6691	$4.7174	$4.7334	$4.6168	$4.6688
3d	$2.9562	$3.0987	$3.2505	$3.2140	$3.1054	$3.1275
4a	$0.9358	$1.3632	$0.8760	$0.9367	$0.9655	$1.0220
4b	$0.8281	$1.2653	$0.7139	$0.9606	$1.4694	$0.9917
5a	$3.0541	$2.7087	$2.1063	$1.7530	$2.3353	$2.3989
5b	$1.0172	$1.4801	$1.0269	$0.9982	$1.1294	$1.1305
Other Solids						
1a	$3.0370	$3.0178	$2.9829	$2.9585	$2.8592	$2.9858
1b	$3.0023	$3.0226	$3.0027	$2.9776	$2.8747	$2.9893
2a	$1.9335	$1.9546	$1.9701	$1.9749	$1.9231	$1.9550
2b	$1.9801	$1.9488	$1.8329	$1.7802	$1.6659	$1.8648
3a	$0.3267	$0.3147	$0.3035	$0.2989	$0.2889	$0.3089
3c	$0.3275	$0.3157	$0.3043	$0.2997	$0.2897	$0.3097
3d	$0.3229	$0.3111	$0.3000	$0.2954	$0.2855	$0.3053
4a	$0.9358	$1.3632	$0.8760	$0.9367	$0.9655	$1.0220
4b	$0.8102	$1.2216	$0.6392	$0.9085	$1.3518	$0.9380
5a	$0.3507	$0.4397	$0.1794	$0.2619	$0.4498	$0.3213
5b	$1.0171	$1.4799	$1.0268	$0.9981	$1.1292	$1.1303
Nonfat Milk Solids						
(Combined Protein						
1a	$3.0369	$3.0177	$2.9828	$2.9584	$2.8591	$2.9857
1b	$3.0025	$3.0228	$3.0029	$2.9777	$2.8749	$2.9895
2a	$1.9336	$1.9546	$1.9701	$1.9749	$1.9231	$1.9550
2b	$1.9800	$1.9488	$1.8328	$1.7798	$1.6654	$1.8646
3a	$1.8997	$1.9300	$1.9442	$1.9515	$1.9115	$1.9295
3c	$1.8298	$1.8600	$1.8763	$1.8823	$1.8469	$1.8607
3d	$1.2538	$1.3000	$1.3509	$1.3373	$1.3003	$1.3095
4a	$0.9358	$1.3632	$0.8760	$0.9367	$0.9655	$1.0220
4b	$0.8165	$1.2371	$0.6658	$0.9271	$1.3940	$0.9571
5a	$1.3064	$1.2432	$0.8660	$0.7949	$1.1281	$1.0598
5b	$1.0171	$1.4799	$1.0268	$0.9981	$1.1293	$1.1304
Source:	Pricing Announcements | Canadian Dairy Commission					
	https://cdc-ccl.ca/en/pricing-announcements					

Federal Milk Marketing Order Announced Prices						
	2021	**2022**	**2023**	**2024**	**2025YTD**	**Jan 2021 -**
Fat						
Weighted Avg Class I	$1.8473	$3.1952	$2.9991	$3.3234	$2.8261	$2.8398
Class II	$1.8974	$3.2707	$2.9685	$3.2955	$2.7454	$2.8474
Class III	$1.8904	$3.2637	$2.9615	$3.2885	$2.7384	$2.8404
Class IV	$1.8904	$3.2637	$2.9615	$3.2885	$2.7384	$2.8404
Protein						
Class I	$1.4111	$1.6386	$1.2233	$1.2217	$1.3736	$1.3737
Class II	$1.1280	$1.5912	$1.1177	$1.1292	$1.2131	$1.2388
Class III	$2.7630	$2.7238	$1.9051	$1.8961	$2.3940	$2.3288
Class IV	$1.0905	$1.5021	$1.0076	$1.0635	$1.0817	$1.1580
Other Solids						
Class I	$1.4111	$1.6386	$1.2233	$1.2217	$1.3736	$1.3737
Class II	$1.1280	$1.5912	$1.1177	$1.1292	$1.2131	$1.2388
Class III	$0.3866	$0.4188	$0.1676	$0.3010	$0.4028	$0.3265
Class IV	$1.0905	$1.5021	$1.0076	$1.0635	$1.0817	$1.1580
US Wtd Avg Class I Skim Price	$13.4733	$15.6658	$11.7558	$11.7650	$13.3380	$13.1813
Source:	USDA: Announcement of Advanced Prices and Announcement of Class and Component Prices					
	https://www.ams.usda.gov/rules-regulations/mmr/dmr					

Canadian vs. US Milk Prices by Component and Class

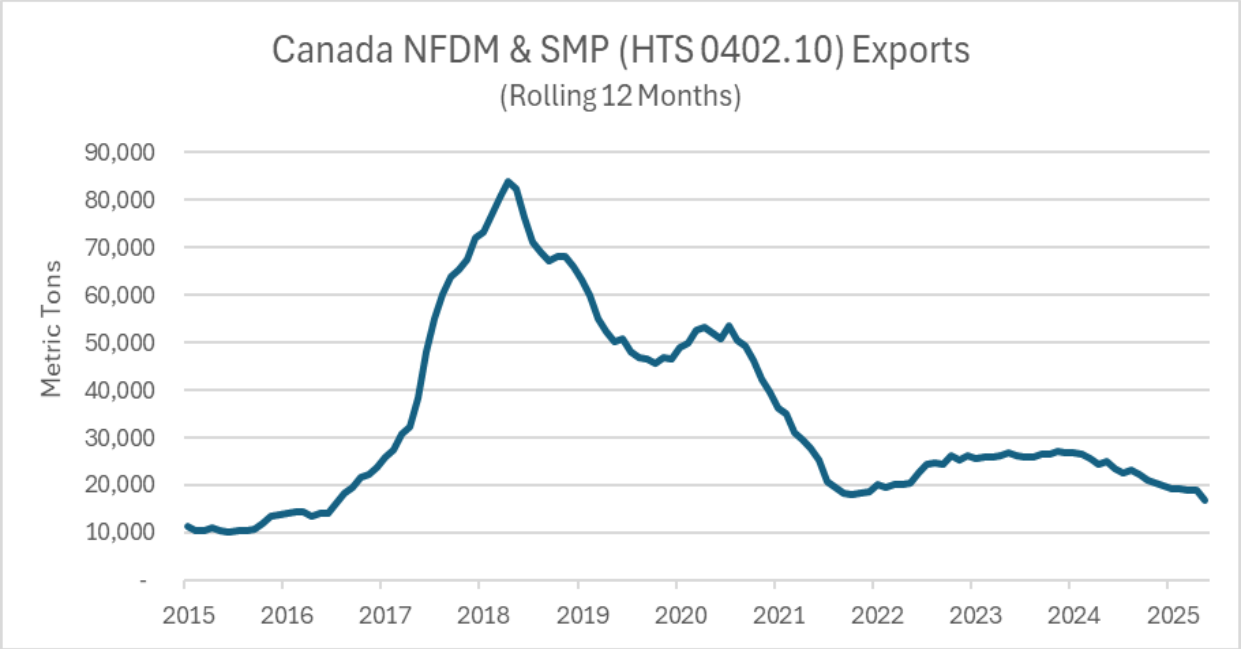
Difference between Canadian and US Price for Milk for Comparable Use

	2021	2022	2023	2024	2025YTD	Jan 2021 - May 2025
Milkfat:						
1a	$1.1388	$0.1198	$0.3648	$0.0273	$0.4258	$0.4139
1b	$1.1336	$0.1180	$0.3639	$0.0267	$0.4252	$0.4119
2a	$1.5509	$0.4865	$0.8215	$0.4751	$0.9126	$0.8409
2b	$1.5423	$0.4810	$0.8150	$0.4696	$0.9052	$0.8344
3a	$1.5591	$0.4946	$0.8297	$0.4834	$0.9209	$0.8492
3c	$1.5518	$0.4870	$0.8222	$0.4761	$0.9139	$0.8418
3d	$1.5305	$0.4672	$0.8033	$0.4574	$0.8957	$0.8223
4a	$1.5480	$0.4836	$0.8189	$0.4725	$0.9105	$0.8382
4b	$1.5885	$0.4345	$0.8123	$0.2054	$0.8438	$0.7681
5a	($0.1086)	($0.2081)	$0.0079	$0.0187	$0.1468	($0.0518)
5b	$0.6919	$1.4601	$1.7925	$2.1701	$1.7246	$1.5471
Protein						
1a	$1.6257	$1.3789	$1.7593	$1.7364	$1.4853	$1.6119
1b	$1.5918	$1.3845	$1.7800	$1.7563	$1.5016	$1.6162
2a	$0.8056	$0.3634	$0.8524	$0.8458	$0.7100	$0.7162
2b	$0.8520	$0.3578	$0.7151	$0.6499	$0.4515	$0.6255
3a	$2.0133	$2.1444	$3.0046	$3.0326	$2.4035	$2.5350
3c	$1.8139	$1.9453	$2.8123	$2.8373	$2.2228	$2.3400
3d	$0.1933	$0.3749	$1.3453	$1.3179	$0.7114	$0.7987
4a	($0.1547)	($0.1389)	($0.1317)	($0.1268)	($0.1162)	($0.1360)
4b	($0.2623)	($0.2368)	($0.2938)	($0.1029)	$0.3876	($0.1663)
5a	$0.2912	($0.0150)	$0.2012	($0.1431)	($0.0587)	$0.0701
5b	($0.0733)	($0.0220)	$0.0193	($0.0653)	$0.0477	($0.0275)
Other Solids						
1a	$1.6259	$1.3792	$1.7596	$1.7368	$1.4855	$1.6122
1b	$1.5913	$1.3840	$1.7793	$1.7559	$1.5010	$1.6157
2a	$0.8056	$0.3634	$0.8524	$0.8457	$0.7100	$0.7161
2b	$0.8521	$0.3576	$0.7152	$0.6511	$0.4527	$0.6260
3a	($0.0599)	($0.1041)	$0.1359	($0.0020)	($0.1139)	($0.0176)
3c	($0.0591)	($0.1032)	$0.1367	($0.0012)	($0.1131)	($0.0167)
3d	($0.0637)	($0.1077)	$0.1324	($0.0055)	($0.1173)	($0.0212)
4a	($0.1547)	($0.1389)	($0.1317)	($0.1268)	($0.1162)	($0.1360)
4b	($0.2802)	($0.2805)	($0.3684)	($0.1550)	$0.2701	($0.2200)
5a	($0.0359)	$0.0208	$0.0118	($0.0390)	$0.0470	($0.0051)
5b	($0.0733)	($0.0222)	$0.0191	($0.0654)	$0.0474	($0.0276)
Nonfat Milk Solids (Combined Protein and Other Solids)						
1a	$1.6258	$1.3791	$1.7595	$1.7367	$1.4854	$1.6121
1b	$1.5915	$1.3841	$1.7796	$1.7560	$1.5012	$1.6159
2a	$0.8056	$0.3634	$0.8524	$0.8457	$0.7100	$0.7161
2b	$0.8521	$0.3576	$0.7152	$0.6507	$0.4523	$0.6258
3a	$0.6727	$0.6939	$1.1579	$1.0821	$0.7921	$0.8913
3c	$0.6028	$0.6238	$1.0899	$1.0129	$0.7276	$0.8225
3d	$0.0268	$0.0639	$0.5646	$0.4678	$0.1810	$0.2714
4a	($0.1547)	($0.1389)	($0.1317)	($0.1268)	($0.1162)	($0.1360)
4b	($0.2739)	($0.2650)	($0.3418)	($0.1364)	$0.3123	($0.2008)
5a	$0.0794	$0.0071	$0.0797	($0.0745)	$0.0087	$0.0216
5b	($0.0733)	($0.0222)	$0.0192	($0.0654)	$0.0475	($0.0276)

Calculations based on Dairy Canada and USDA Announced Milk Prices

Sources: Canada: D082 Monthly Sales and Revenues by Milk Class - Canada,
https://agriculture.canada.ca/en/market-information-system/rp/index-eng.cfm?action=pR&r=235&pdctc=
USDA: Announcement of Advanced Prices and Announcement of Class and Component Prices
https://www.ams.usda.gov/rules-regulations/mmr/dmr

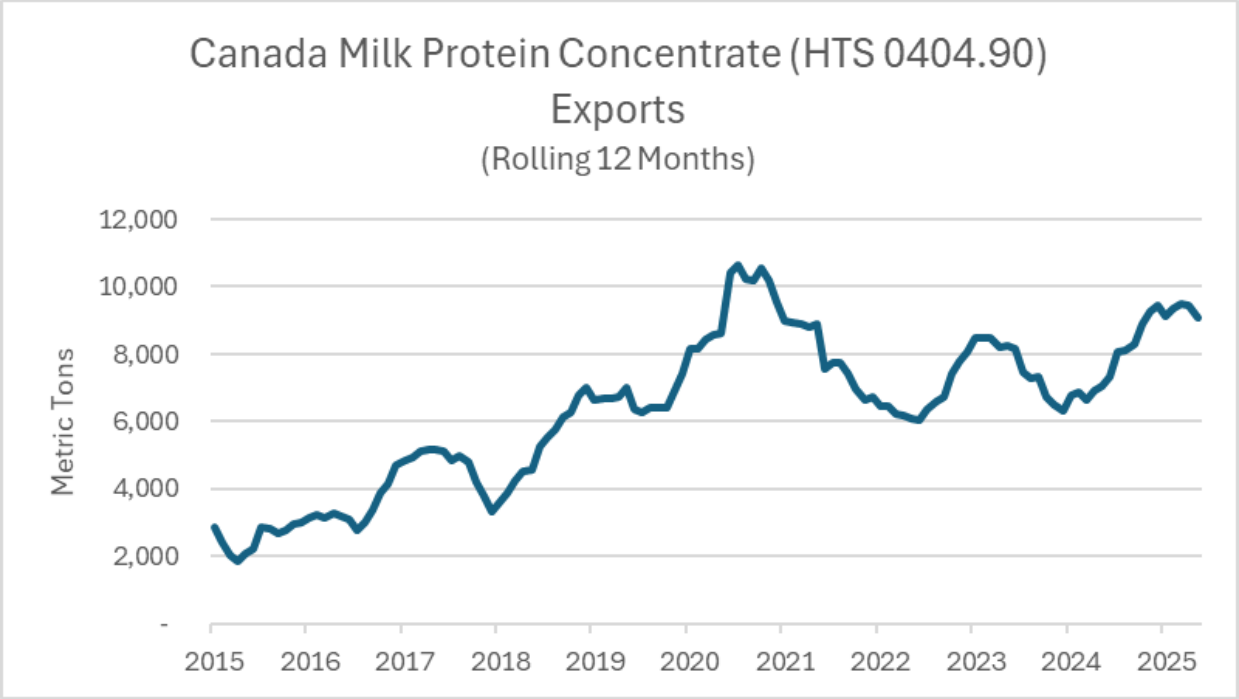
Data Series 7: Canada USMCA Export Discipline Circumvention



Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Nonfat Dry Milk & Skim Milk Powder (HTS 0402.10) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Algeria	7,497	4,766	6,708	7,131	6,016	-20%
Egypt	8,739	3,901	9,644	6,699	4,396	-50%
Cuba	-	-	361	504	1,845	N/A
UAE	2,600	1,697	1,190	3,423	1,426	-45%
Jamaica	1,109	2,013	1,338	998	1,141	3%
Mexico	841	200	1,089	1,532	954	13%
Vietnam	6,141	567	6	325	825	-87%
Philippines	1,630	1,528	1,121	927	643	-61%
Jordan	766	295	325	1,186	600	-22%
Tunisia	400	-	-	200	450	13%
Rest of World	9,787	3,782	4,305	3,763	1,541	-84%

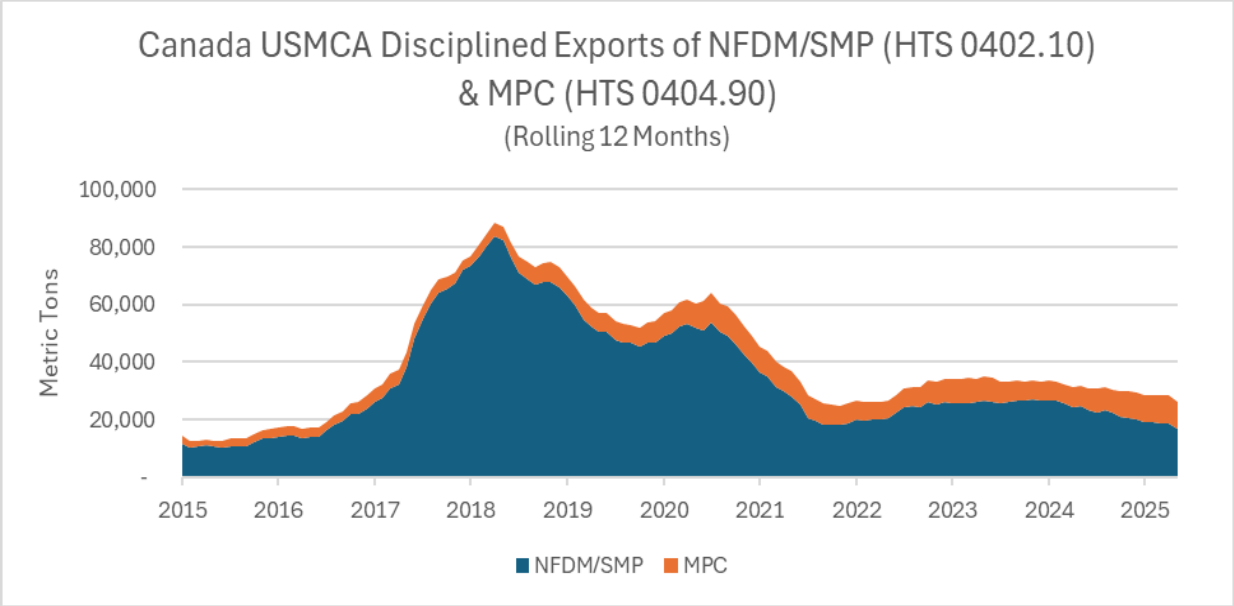
Source: U.S. Dairy Export Council, Trade Data Monitor



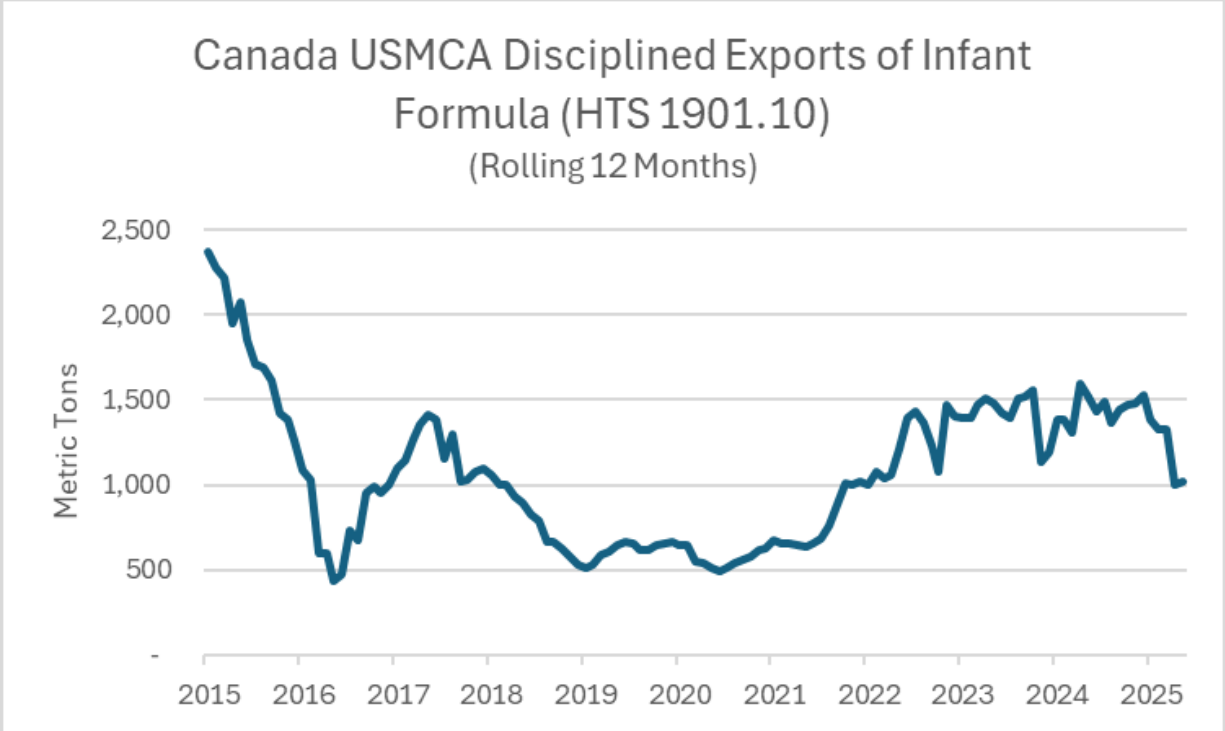
Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Milk Protein Concentrate (HTS 0404.90) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Egypt	6,489	3,374	3,541	1,917	2,569	-60%
United States	993	867	1,447	1,270	2,058	107%
UAE	88	22	390	367	1,149	1206%
Greece	144	159	97	939	1,124	681%
Netherlands	-	-	331	6	582	N/A
Philippines	10	588	216	367	496	4860%
Germany	21	426	300	108	423	1914%
Mexico	-	6	3	99	250	N/A
Japan	261	287	203	141	238	-9%
Brazil	566	261	179	355	220	-61%
Rest of World	986	760	1,375	728	348	-65%

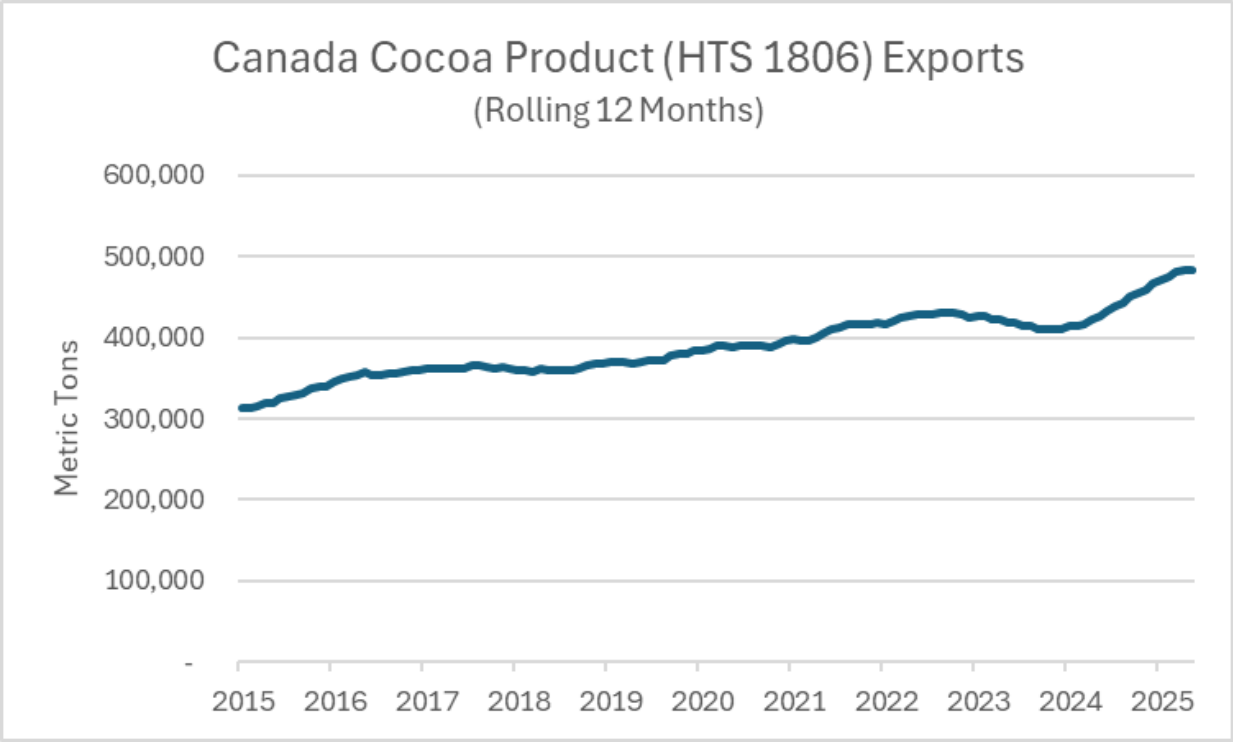
Source: U.S. Dairy Export Council, Trade Data Monitor



Source: U.S. Dairy Export Council, Trade Data Monitor



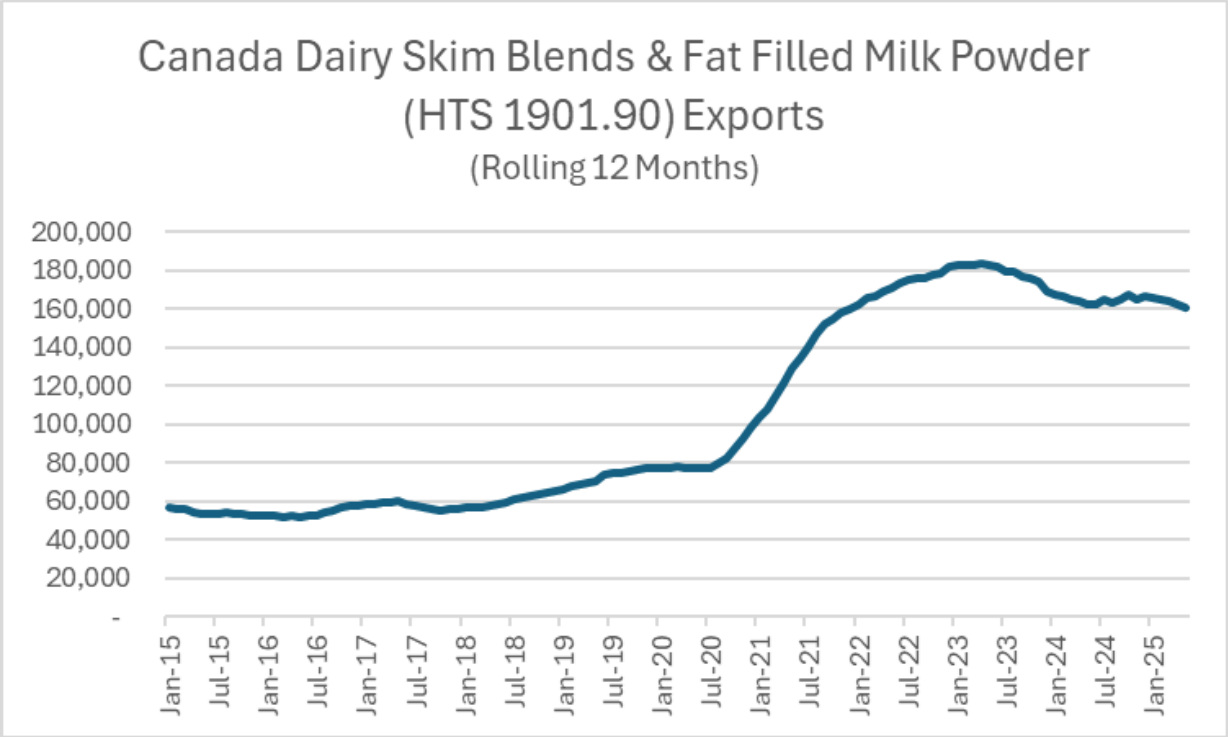
Source: U.S. Dairy Export Council, Trade Data Monitor



Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Cocoa Product (HTS 1806) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	374,008	396,281	410,810	397,438	448,454	20%
Mexico	15,131	15,478	8,358	8,120	11,618	-23%
Australia	1,545	1,710	1,120	1,130	1,866	21%
Chile	481	894	607	986	700	46%
Japan	755	481	439	405	557	-26%
United Kingdom	530	741	625	459	516	-3%
South Korea	509	296	818	492	419	-18%
China	330	381	286	203	362	10%
Costa Rica	219	232	274	254	276	26%
Netherlands	106	121	147	223	222	109%
Rest of World	1,464	1,615	1,626	1,402	1,409	-4%

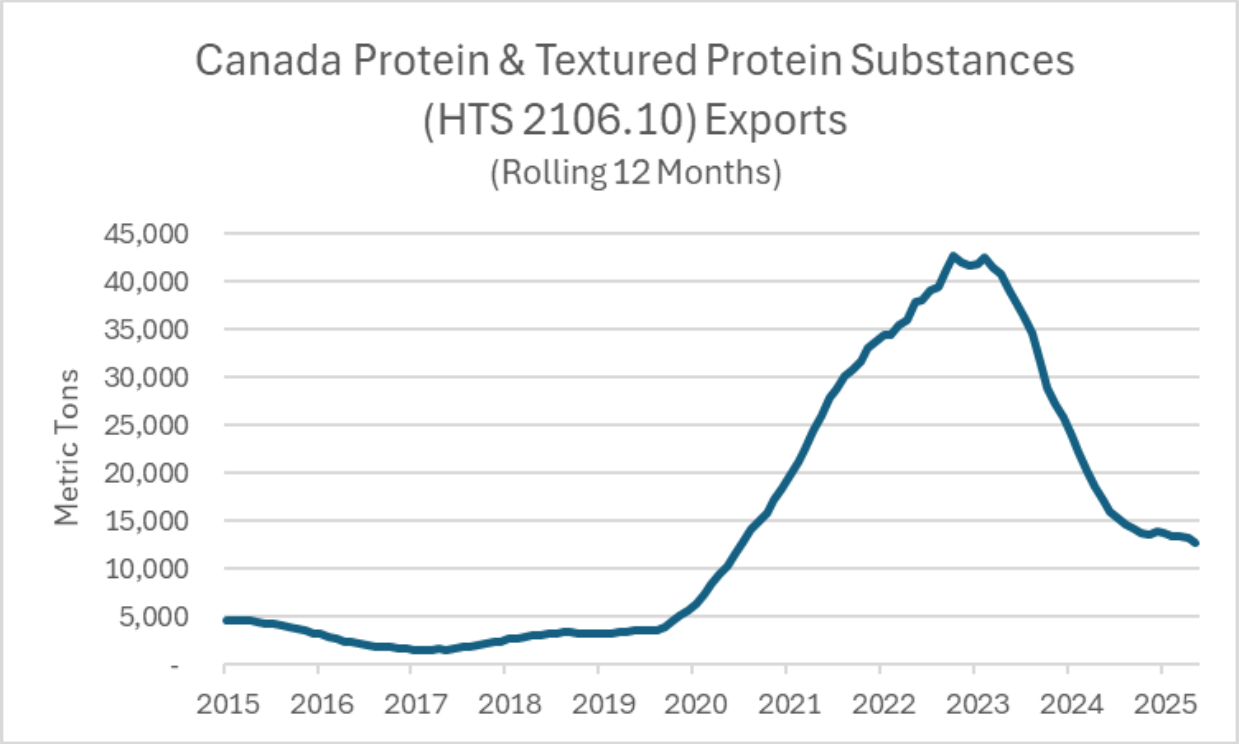
Source: U.S. Dairy Export Council, Trade Data Monitor



Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Dairy Skim Blends & FFMP (HTS 1901.90) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	85,915	129,875	146,709	141,646	147,178	71%
Philippines	813	4,407	4,695	2,878	4,193	416%
Mexico	2,003	4,202	2,768	2,454	3,481	74%
Chile	3,242	2,196	2,142	3,301	2,825	-13%
Malaysia	-	2,808	2,000	3,898	1,978	N/A
Guatemala	993	771	1,045	1,290	1,528	54%
UAE	154	383	677	1,034	1,491	868%
Australia	1,591	1,250	1,177	1,299	627	-61%
Netherlands	53	451	677	503	525	891%
Iraq	350	1,450	1,625	750	525	50%
Rest of World	2,963	12,310	17,999	9,944	2,364	-20%

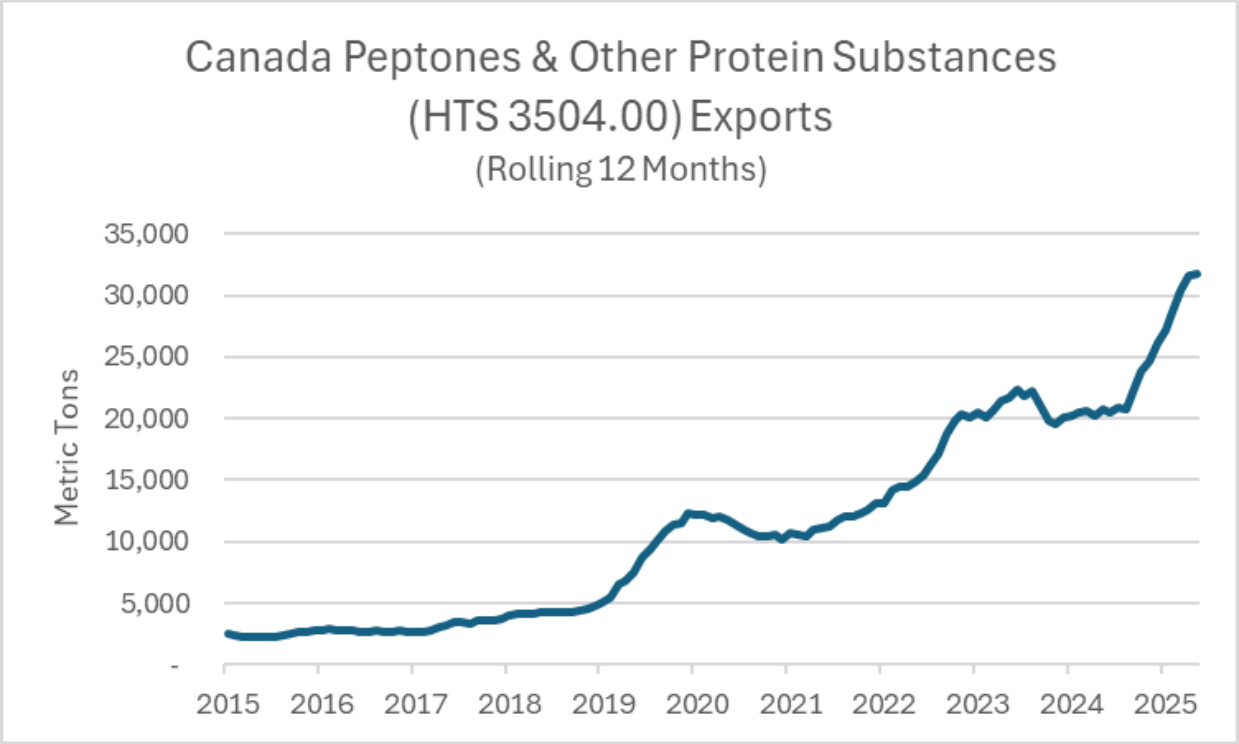
Source: U.S. Dairy Export Council, Trade Data Monitor



Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Protein & Textured Protein Substances (HTS 2106.10) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	17,160	31,832	40,177	24,098	12,573	-27%
United Kingdom	228	320	449	340	410	80%
Netherlands	53	225	242	636	244	360%
Vietnam	7	-	20	63	168	N/A
UAE	46	125	75	41	89	93%
France	8	6	4	45	65	N/A
Romania	-	-	-	-	43	N/A
Czech Republic	48	43	33	58	40	-17%
Japan	1	-	41	68	38	N/A
Hong Kong	92	94	89	41	35	-62%
Rest of World	749	1,032	601	480	182	-76%

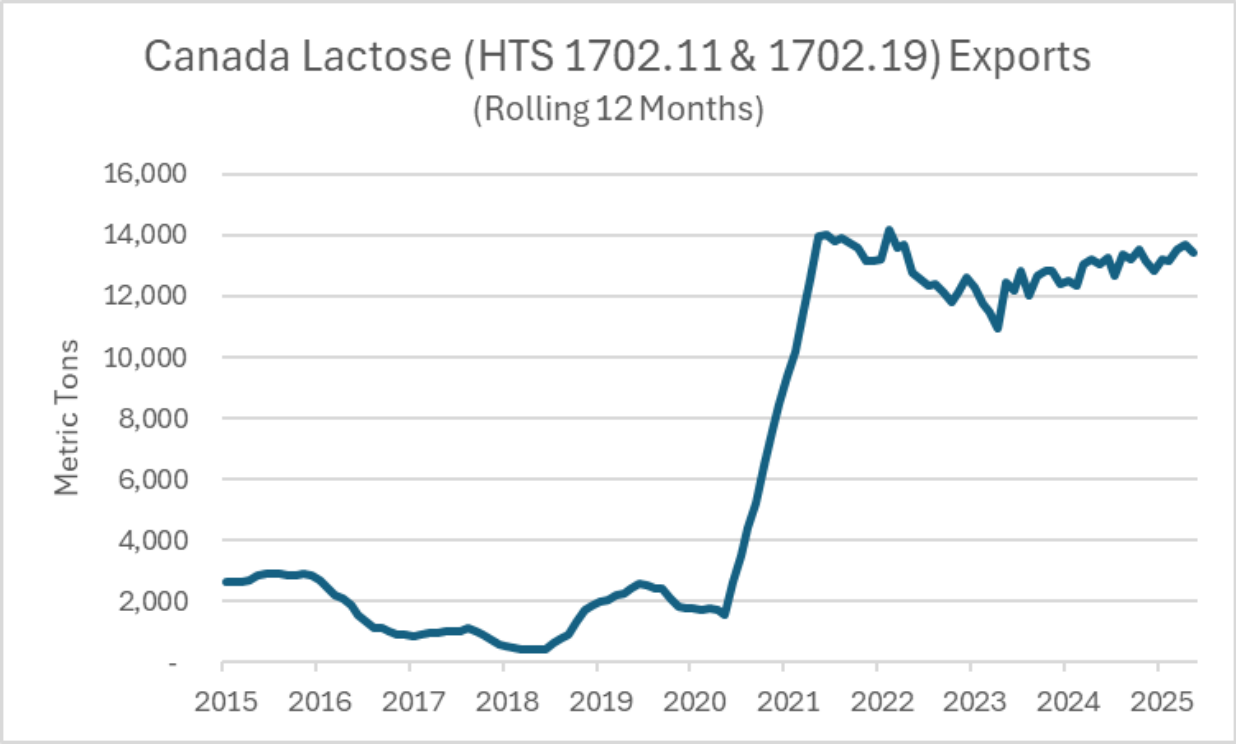
Source: U.S. Dairy Export Council, Trade Data Monitor



Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Peptones & Other Protein Substances (HTS 3504.00) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
United States	6,790	9,019	14,512	13,822	14,914	120%
Germany	626	1,203	1,242	1,215	3,388	441%
Spain	30	70	369	626	1,728	N/A
Greece	232	279	70	190	1,209	421%
China	68	222	252	550	600	782%
Netherlands	299	28	214	92	545	82%
Iceland	161	253	239	434	510	217%
South Korea	564	317	287	435	489	-13%
Japan	157	242	360	566	416	165%
France	264	190	200	133	387	47%
Rest of World	982	1,332	2,392	1,971	1,917	95%

Source: U.S. Dairy Export Council, Trade Data Monitor

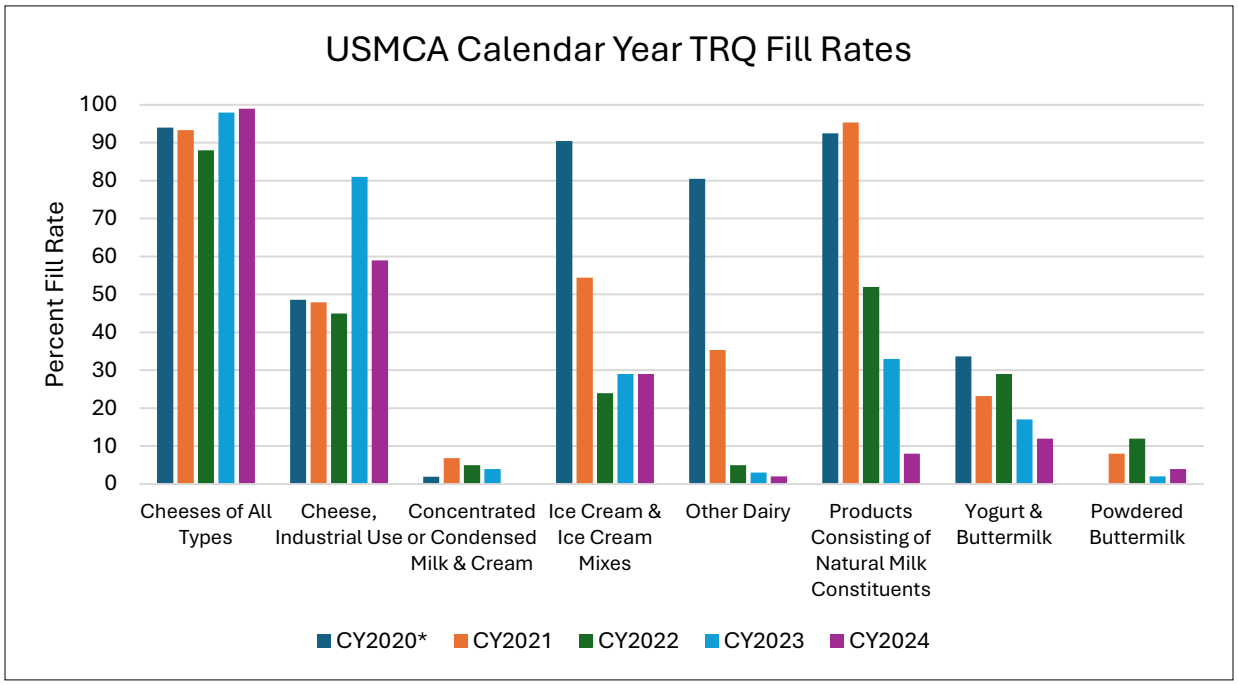


Source: U.S. Dairy Export Council, Trade Data Monitor

Canada Lactose (HTS 1702.11 & 1702.19) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
India	2,134	4,803	4,308	4,336	5,042	136%
Japan	2,223	4,091	4,613	3,948	3,996	80%
South Africa	1,050	2,150	2,025	1,815	2,500	138%
Colombia	300	900	650	953	553	84%
Taiwan	196	345	248	396	260	33%
Nigeria	280	296	102	126	220	-21%
United States	832	48	82	111	120	-86%
South Korea	180	20	126	296	50	-72%
Sri Lanka	100	25	25	50	25	-75%
Chile	-	3	25	25	25	N/A
Rest of World	1,188	489	396	336	34	-97%

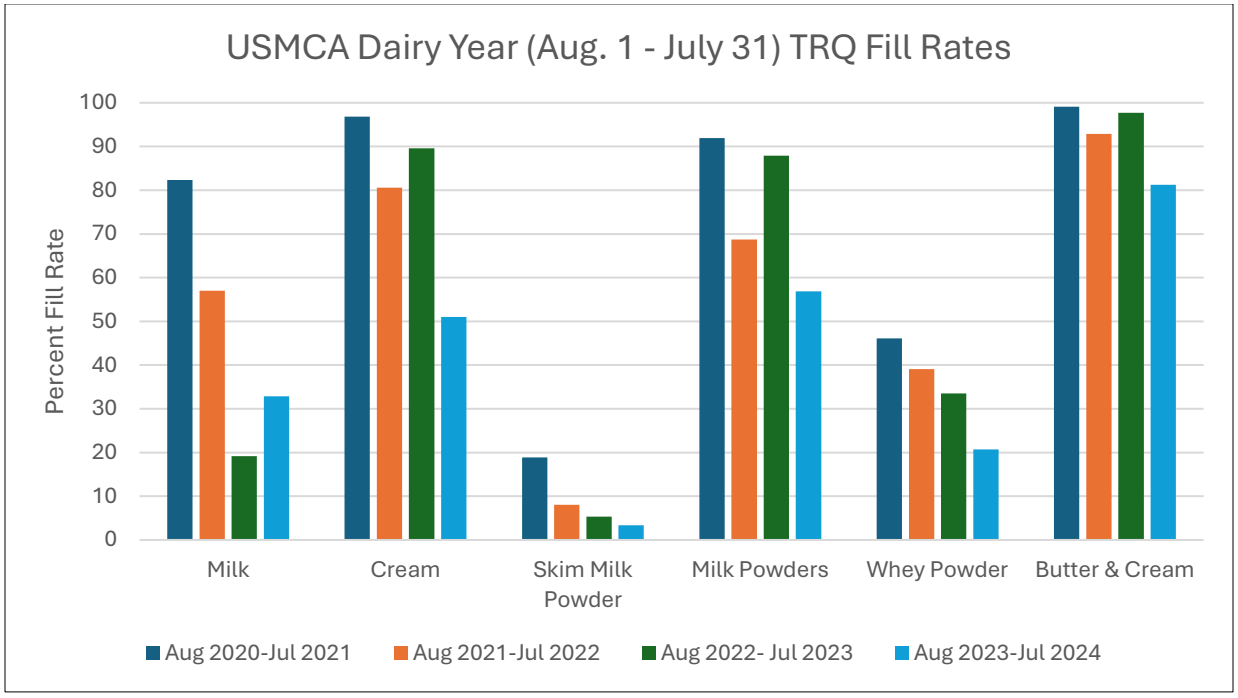
Source: U.S. Dairy Export Council, Trade Data Monitor

Data Series 8: Canada USMCA Market Access Evasion



Source: Global Affairs Canada, U.S. Dairy Export Council

**July – December 2020*



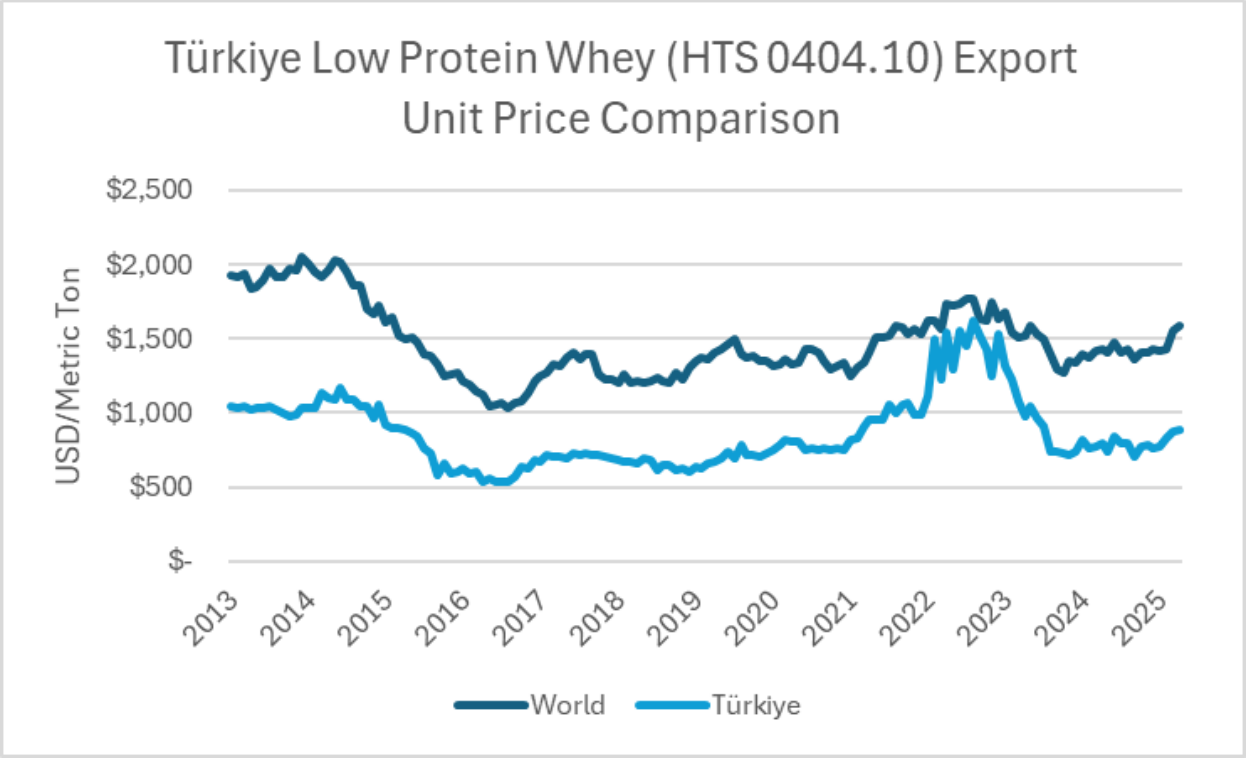
Source: Global Affairs Canada, U.S. Dairy Export Council

Data Series 9: India SMP Trade

India NFDM & SMP (HTS 0402.10) Exports by Volume (Metric Tons)						
Destination	**2020**	**2021**	**2022**	**2023**	**2024**	**%Δ 2020-24**
Bangladesh	4,225	24,767	23,365	831	8,322	97%
UAE	58	5,449	1,336	212	304	424%
Sri Lanka	-	-	879	93	125	N/A
Iraq	-	-	-	-	100	N/A
Bhutan	260	170	107	136	79	-70%
Yemen	-	225	400	25	50	N/A
Angola	1	5	-	13	46	N/A
United States	21	21	41	2	45	114%
Nigeria	-	2	185	2	35	N/A
Maldives	12	1	1	13	32	167%
Rest of World	590	14,259	1,877	153	157	-73%

Source: U.S. Dairy Export Council, Trade Data Monitor

Data Series 10: Turkey Whey Product Trade



Source: U.S. Dairy Export Council, Trade Data Monitor