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Caroline Rogers
University of Tennessee, Knoxville, croger43@vols.utk.edu

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The University of Tennessee at Knoxville College of Arts and Sciences and Herbert College of Agriculture

Honors Thesis

Pizza and Poutine: Examining Long-Term Impacts of the U.S.-Canada Dairy Dispute

Caroline Rogers

Thesis Advisors: Rodica Frimu and Jada Thompson

December 2018

Abstract

The United States and Canada have one of the closest diplomatic and economic relationships in the world. Therefore, a recent dispute between the nations over the classification of a milk product, called ultrafiltered milk, could be detrimental to their peaceful relationship. Many papers on trade between the U.S. and Canada exist, but none deal specifically with ultrafiltered milk. In this paper, I will argue that the root cause lies in Canada's Supply Management System, in which the Canadian Dairy Commission (CDC) sets prices, supply, and tariffs on dairy products. In this paper, I begin with the historical context of trade between the U.S. and Canada including the North American Free Trade Agreement. I then describe the increased use of ultrafiltered milk and its classification by the CDC. This classification dropped prices in Canada, which the U.S. argues harmed the global market. I also analyze the public conversation surrounding ultrafiltered milk, using evidence from interviews, speeches, and letters between diplomats. I then examine the impacts to both countries' economies and to their diplomatic relationship, using quantitative and qualitative evidence. Finally, I provide a recommendation to the Canadian government to deregulate their system inspired by New Zealand's deregulation process in 1984. Based on public polling and anecdotal evidence, one can see that Canadian citizens and global trading partners want to see an end to the Supply Management System. My recommendation achieves this goal without major costs as seen in other countries' deregulation initiatives.

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Introduction

When I read about U.S. President Donald Trump's anger at the Canadian government, I was not surprised, as he often uses biting rhetoric against close U.S. allies. However, when I learned that many other U.S. leaders were upset with Canada, and that the dispute began over a little-known diary product, I was curious as to how a seemingly small aspect of trade could cause such a large international debate.

As I began my research, I found that much has been written on individual aspects of the dispute, but no comprehensive scholarly articles have been written on the topic. Papers exist on the historical and current diplomatic relationship between the two countries, but they do not necessarily involve the trade of dairy products. Very little information exists on the demand for ultrafiltered milk or Canada's re-classification of the product. In fact, I found no primary sources on the classification of ultrafiltered milk, partly because it had changed by the time I began research. Many news articles exist quoting parts of the conversation between the U.S. and Canada, but no analysis or overview of the macro-conversation has been written.

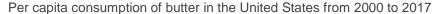
Economic and diplomatic impacts of the dispute were also difficult to uncover, because of its newness and relative obscurity. Finally, many articles and research projects on Canada's Supply Management System exist, but the texts either argue that Canada should completely and quickly deregulate (sometimes these arguments are followed by an analysis of economic impacts), or the texts argue that Canada should not deregulate (again, sometimes accompanied by economic impacts). However, no one recommended to follow New Zealand's system, and no one laid out a detailed timeline for deregulation.

History of a Diplomatic Relationship and Current Feud

The United States and Canada have a long history of close diplomatic relationships dating back to the mid-20th century when the nations came together during World War II ("A brief history"). Soon after, the countries signed The Free Trade Agreement Between Canada and The United States of America in 1987, a treaty commencing the projection of a strong trade relationship. In its preamble, the treaty portrays the future of the relationship between the U.S. and Canada. "This agreement meets the test of fairness and of mutual advantage. It is a win-win agreement. Once in force, this Agreement will chart a new course for the largest and most important trading relationship in the world" ("The Canada – U.S. Free Trade Agreement"). In 1993, this agreement was expanded to include Mexico in the North American Free Trade Agreement (NAFTA), which, along with other international treaties from the World Trade Organization, has been the basis for free and equitable trade in North America ("North American Free Trade Agreement"). Not only do diplomats and business owners feel a sense of closeness between the nations, but citizens feel so as well. The countries share the largest international border on Earth, they equally support students on educational exchange, and roughly 400,000 people cross the border every day ("U.S. Relations with Canada").

Therefore, many citizens and politicians from both countries were taken by surprise when U.S. President Donald Trump began placing tariffs on Canada in 2017 to "punish" them for what some perceive as unfair trading practices (Baker & Austen). To understand today's feud, we have to look back at where it all began, with butter. From the 1960's to the early 2000's, butter and other high-fat dairy products were considered unhealthy foods that should be avoided (Moran), but with the publication of news stories like *Time Magazine's* June 2014 cover story titled "Eat Butter: Scientists Labeled Fat the Enemy. Why They Were Wrong" (Walsh) and *The*

New York Times' March 2014 article titled "Butter is Back" (Bittman), consumers in the U.S. and around the world began purchasing more fatty dairy products. The following tables show increased butter consumption in the U.S. (Fig. 1) and in the global market (Fig. 2).



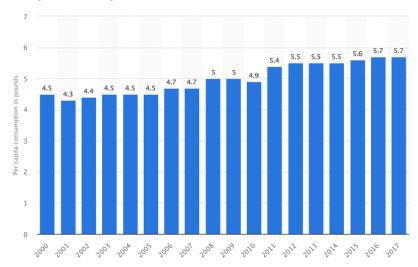


Fig 1. Graph illustration of per capita butter consumption from Statista; "Per capita consumption of butter in the United States from 2000 to 2017 (in pounds)"; *Statista*, 2018, https://www.statista.com/statistics/184011/per-capita-consumption-of-butter-in-the-us-since-2000/

Melting Butter Mountains

The rise and fall of global inventories

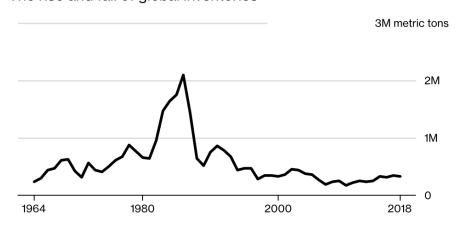


Fig 2. Graph illustration of global butter consumption; "Melting Butter Mountains: The rise and fall of global inventories"; *U.S. Department of Agriculture Foreign Agricultural Service*, 2018, https://www.bloomberg.com/news/articles/2018-02-22/fat-is-back-and-premium-butter-makers-are-taking-the-cream

Demand for a New Dairy Product

What happens when consumers demand more of a product? Producers increase supply. A byproduct of the increased production of butter is a milk protein referred to in the U.S. as "ultrafiltered" milk (the product is called "diafiltered" milk in Canada). According to Kelsey Johnson of iPolitics, in her article titled, "Dairy 101: The Canada-U.S. milk spat explained":

When raw milk is processed for butterfat (necessary for making butter) it is separated into two parts: butterfat and what's called 'non-fat solids,' commonly referred to as milk ingredients. [Ultrafiltered] milk is non-fat solids that have been processed one step further.

Because U.S. dairy farmers began producing more butter and high-fat dairy products, they had excess of this byproduct, and they began selling ultrafiltered milk to Canada. NAFTA does not cover "dairy ingredients", so the U.S. was able to sell ultrafiltered milk duty and quota free (McKenna). Producers mainly sold ultrafiltered milk as an industrial product, but some companies, like Coca-Cola, sold ultrafiltered milk directly to consumers (Whitehead).

The deal worked for many years, because U.S. producers could do something useful with their stock of ultrafiltered milk, and Canadians with a need for milk protein, like cheese producers, could buy the product at a low price (McKenna). The problem with this system was two-fold. Firstly, increased butter consumption was a world-wide phenomenon, so Canadian dairy producers also had a large stock of non-fat solids like ultrafiltered milk. Unlike Canadian cheese producers, Americans were not allowed to use ultrafiltered milk in their production before 2017 ("Ultrafiltered Milk in the Production"), meaning that Canadian producers with an oversupply of ultrafiltered milk had nowhere to sell this byproduct other than to Canadian cheese producers. However, global prices were lower than the prices set in Canada, so Canadian cheese

producers were better off buying ultrafiltered milk from the U.S. and other countries. Johnson, in her article titled, "MacAulay apologizes to farmers over diafiltered milk dispute", explains how Canadian agencies have different policies regarding ultrafiltered milk:

The Canadian Border Services Agency considers [ultra]filtered milk a protein ingredient, while the Canadian Food Inspection Agency says [ultra]filtered milk is milk. According to federal law, all cheese sold in Canada must be made with a minimum percentage of actual milk.

Another problem with Canada's supply is that the country has a supply management system in which the government subsidizes farm production, but caps the supply so that farmers produce enough goods for Canadians to consume while having leftovers to export around the world. This means that Canada's supply never truly matches what the domestic and world markets demand, because it is created by the government. The system was created in the 1970's as a way to protect farmers from market fluctuations that were putting some out of business in the decades before ("Supply Management"), but now it disproportionally benefits Canadian farmers while harming other stakeholders. For example, "in 2015, the average Canadian dairy farm had a net worth of about \$4-million" while the import tariff on butter was around 300%, and the average Canadian household spent almost \$600 more on dairy products than their American counterparts for the same amount ("Globe Editorial"). Additionally, the CDC restricts imports by setting a quota for imports and placing high tariffs on any imports above the quota. Typically, this leads to international goods being expensive to Canadians. As it applies to ultrafiltered milk, Canadian dairy farmers were producing too much butter for the global market, but their prices on ultrafiltered milk were higher than others'.

New Class of Milk Proteins in Canada

In 2016, Canada lowered prices on ultrafiltered milk to compete with the global market, sparking a world-wide debate (McKenna). The price drop came from a change in the Canadian Dairy Commission's (CDC) classification of dairy products. In March of 2017, the CDC created a new identity for milk ingredients called "Class 7". This class includes "ingredients like protein concentrates, skim milk, and whole milk powder" (Johnson). Previously, the CDC priced ultrafiltered milk to match the perceived domestic demand, but international prices were lower than the set price in Canada. This class acted like their existing "Special Milk Class" which allows the CDC to set prices based on the global market rather than their traditional supply management system ("Special Milk"). "Ronald C. Robbins, owner of North Harbor Dairy in Hounsfield, said Canada established Class 7 pricing for milk powder in 2016, which established "substantial" tariffs on exports of it and allowed Canadian producers to sell it cheaper than other countries" (Wolf, "Schumer: Eliminate").

In October of 2018, the Canadian government actually agreed to overturn Class 7 after talks with the Trump administration. The change comes as a part of the new United States-Mexico-Canada Agreement (USMCA), a pending free trade agreement similar to NAFTA (Kirby). Before the overturn, the Canadian government publicly debated with the U.S. about the price change and received pressure from other world leaders.

U.S. Reactions to Price Change

Canada's price change on solid milk products sent shockwaves around the world, starting a tense debate between Canada and the U.S., New Zealand, and Australia. As one of Canada's closest trading partners and diplomatic allies, the U.S. was especially startled by the changes, with members from the Democratic and Republican parties weighing in to critique Canada. U.S. Senate minority leader Chuck Schumer said in a statement, "With Speaker Ryan's and Senator Baldwin's help, we now have a real opportunity to churn the tide and hopefully fix the unfair Canadian dairy trade barriers that have plagued dairy farmers and producers from the Finger Lakes to Central New York to Wisconsin" (Wolf, "Schumer calls").

The U.S. argument is essentially that Canada is flooding the world market with low-price milk and driving down prices all over the world. Prices are dropping so drastically that certain dairy producers are unable to stay in business (O'Leary). In a joint letter to President Trump, the International Dairy Foods Association, the National Milk Producers Federation, the U.S. Dairy Export Council, and the National Association of State Departments of Agriculture asked him to urge Canada to reverse the new pricing change. They said in the letter:

U.S. dairy exports support approximately 110,000 jobs across America, many of which are in farming and food manufacturing, as well as in supporting rural manufacturing and skilled farm service workers... However, for trade to yield its full potential and provide the maximum impact possible in supporting American jobs, our trading partners must hold up their end of the bargain as well. ("Dairy, ag groups")

Trade with Canada has been a growing issue because of Canada's "closed market." This means Canada tries to be as self-sufficient as possible, relying on domestic production and limiting imports. "Our farmers don't have access to the Canadian markets the way that they have

access to us. Class 7 has to go. It can't be renamed something or called something else," said U.S. Agriculture Secretary Sonny Purdue in a statement calling for Canada to change their practices (Lawder).

President Trump has been one of the loudest American voices in the conversation about Canadian dairy. He continuously asserts that the U.S. has a large trade deficit with Canada, so the U.S. should take action to protect farmers (Robertson). Other sources conflict with his numbers, but this is one of the important talking points against Canadian trade policies. In a speech in Wisconsin on his "Buy American Hire American" executive order President Trump said he plans on getting back at Canada. "We're also going to stand up for our dairy farmers in Wisconsin... What happened to you is very, very unfair. It's another typical one-sided deal against the United States" ("Remarks"). Again, in other generally disapproving terms, Trump says, "Canada, what they've done to our dairy farm workers, it's a disgrace. Farmers in Wisconsin and New York state are being put out of business" (Diamond). Though many Americans agree with President Trump about the dispute with Canada, many others, including U.S. citizens and leaders around the world, worry that his rhetoric is too confrontational against one of the U.S.'s strongest allies. At the G7 summit in June of 2018, French President Emmanuel Macron reacted to President Trump's attacks on Canada, saying, "International cooperation cannot depend on fits of anger or little words. Let us be serious and worthy of our people" (Hart).

There has been much conversation about the pricing system between American politicians and farmers, but New York Governor Andrew Cuomo contacted Prime Minister Trudeau directly. In a letter, Cuomo urged him:

...to insure that any new Canadian program does not follow the flawed approach of seeking to solve the challenges of Canada's dairy industry by creating barriers that

hamper the exports of products from New York's dairy industry... Should Canada move forward with this decision, New York will explore all options available to ensure fair access to this vital export market (Cuomo).

This is not the first time the U.S. has reported grievances with Canadian dairy practices. In 1999, the U.S. and New Zealand submitted a joint report to the World Trade Organization (WTO) complaining that Canada's "Special Milk Class" changed the prices and created export subsidies for certain industrial milk products, which harmed the world market and violated the WTO's Agreement on Agriculture and the General Agreement on Tariffs and Trade (GATT). The "Special Milk Classes Scheme" (Panel on Canada) was similar to the current dispute, which is partly why Americans are so angered by Canada's practices. They see the ultrafiltered milk dispute as another one of Canada's "schemes". During the 1999 dispute, the Canadian government responded that the price change was not unfair to the market, and the government today makes the same arguments in the ultrafiltered milk dispute.

Canadian Perspective

In response to Governor Cuomo, Canadian Ambassador David MacNaughton wrote, "Canada does not accept the contention that Canada's dairy policies are the cause of financial loss for dairy farmers in the United States. The facts do not bear this out" (MacNaughton). MacNaughton's words reflect the Canadian argument at large. He and Prime Minister Trudeau have continuously stated that any economic hardship to U.S. farmers is caused by global overproduction. MacNaughton ends his letter with, "The Canada-U.S. partnership is a model to the world. Let's keep it that way by working together, as we have so often in our history, to make it even better" (MacNaughton). In an interview with Bloomberg, Prime Minister Trudeau says

Canada is not the problem in this dispute, and the Canadian government is simply trying to protect its farmers while remaining a competitor in the global market. He says, "Every country protects, for good reason, its agricultural industries. And you know, we have a supply management system that works very well here in Canada... we're going to engage in a thoughtful, fact-based conversation on how to move forward" (Micklethwait).

Another main argument from Canada is that the U.S. has a trade surplus over Canada. In 2017, Canada reported a \$97.6 billion goods deficit with the U.S. The Office of the U.S. Trade Representative reported an \$8.4 billion goods and services surplus over Canada that same year ("Canada"). MacNaughton also challenges the idea of Canada's protectionist market by stating that the U.S. market is even harder to enter. He says Canada imports 6.3% of its cheese compared to the U.S.'s 3%, and Canada imports 10% of its butter compared to the U.S.'s 3% (MacNaughton). Prime Minister Trudeau also criticizes the U.S. for protectionist practices and says, "if you end up going down a highly protectionistic route, if you end up creating barriers and tariff walls, you end up slowing down economic growth, and everyone ends up suffering" (Micklethwait).

At the end of the day, both President Trump and Prime Minister Trudeau are caught in a struggle between doing what is best for their countries and being part of international trade agreements. Neither of them are able to close off their countries to the rest of the world, but they also have duties to protect their citizens and markets over everyone else. Prime Minister Trudeau explains that he wants to engage in a fact-based conversation with the U.S. to determine the best outcome for both sides:

... the way we approach our very constructive relationship with the United States on trade and on other things is to base it around the facts of the issues and a shared desire to see citizens on both of our sides of the border succeed (Micklethwait).

Economic Impacts

As discussed by politicians from the U.S. and Canada, the economic impacts of tariffs on dairy products are the motivating factors of the entire dispute. Different numbers are presented from either side of the border, but I will attempt to clarify the dispute through an economic analysis. First, the issue of a U.S. trade surplus over Canada is an integral factor. President Trump stated that Canada has a surplus over the U.S., but every source, including the Office of the U.S. Trade Representative reports a U.S. surplus over Canada. The following graph (Fig. 3) was created by the U.S. Bureau of Economic Analysis, and it shows a U.S. surplus over Canada growing every year since 2005.

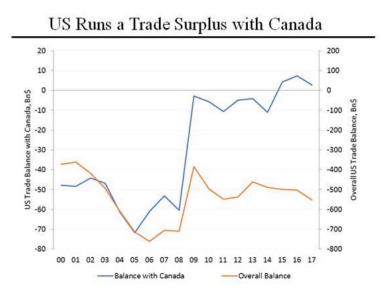


Fig. 3. US Trade Surplus graph from Steven Rattner; "US Runs a Trade Surplus with Canada"; *U.S. Bureau of Economic Analysis*, 2018, https://stevenrattner.com/2018/06/morning-joe-charts-trumps-misleading-claims-on-us-canadian-trade/

Second, both sides are concerned with the impact to farmers. How many farmers have lost their jobs due to the ultrafiltered milk trade, and how much money have operations lost? This issue did not directly impact the entire U.S., but for certain states like Wisconsin, Canada's milk price change was detrimental. In April of 2017, Grassland Dairy Products, Inc. announced it would stop buying ultrafiltered milk from 75 dairy farms in Wisconsin (O'Leary). This number shows the affect of one single company pulling business from the U.S. The impact of all Canadian companies combined led Wisconsin to lose 500, or about 5% of, total dairy farms (Barrett, "Family farms"). Additionally, Wisconsin had one of the highest Chapter 12 farm bankruptcy rates in the country in 2017, and the U.S. as a whole experienced the most Chapter 12 bankruptcy filings since 2012 (Newton). President Trump has claimed that the new agreement, the USMCA, and the decision to overturn Class 7 will benefit Wisconsin and New York dairy farmers, adding over \$500 million dollars to the U.S. dairy industry (Barrett, "Canada-US").

Third, both sides are concerned about long-term economic growth through trade with one another. According to the World Economic Forum, international competition may negatively shock a country's job growth in the short term, but will benefit job growth in the long-term. The following table (Fig. 4) from Bank Group Research shows a correlation between Total Factor Productivity (TFP), which is a way of describing increased international trade, and employment. This means that both the U.S. and Canada should stay away from protectionist trade policies if they want to create long-term growth for both parties (Tilmes).

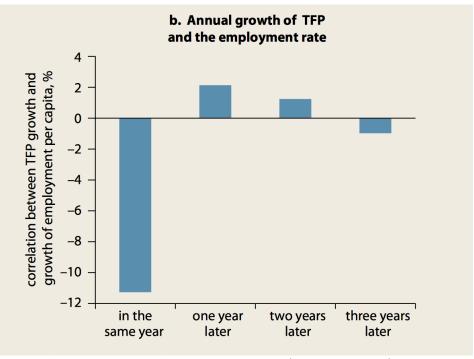


Fig. 4. "World Development Report"; Bank Group Research, 2013, https://www.weforum.org/agenda/2015/11/does-competition-create-or-kill-jobs/

Finally, both sides are concerned with the impact to the consumer from Canada's original price change and the USMCA. These are difficult to measure directly, but to see the impact of Canada's price change, we can look at retail prices on dairy in both countries before, during, and after the dispute. To see the impact of the USMCA, we have to listen to economists about what will happen in the future. Starting with retail prices, the U.S. Bureau of Labor Statistics shows that U.S. milk (Fig. 5) and cheese (Fig. 6) prices went up in 2014, but dropped in 2015. Milk prices continued to drop through 2018, but cheese prices rose again in 2017.

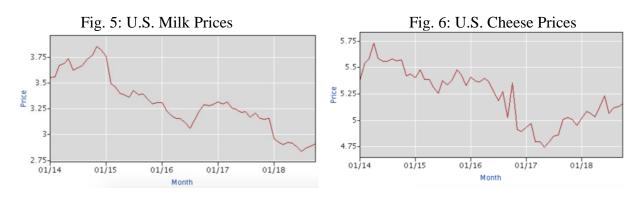


Fig. 5 & 6. "Average Retail Food and Energy Prices"; *U.S. Bureau of Labor Statistics*, 22, Nov. 2018, https://www.bls.gov/regions/mid-atlantic/data/averageretailfoodandenergyprices_usandnortheast_table.htm

Canadian cheese prices stayed stagnant from 2014 to 2017 when they began to fall.

Cheese prices fell in 2017 and 2018, but milk prices remained stagnant from 2014 to 2018

("MI008 Consumer price"). These numbers indicate that high-fat dairy products – the ones that use ultrafiltered milk in their production – were the products mainly affected by the dispute. Both countries saw a change in retail prices around 2014-2015, but Canada experienced a drop in prices ("MI008 Consumer price") while the U.S. experienced a rise. This trend makes sense as it coincides with Canada's ultrafiltered milk price drop. Farmers in Canada were able to sell their products at a lower price, leading to a lower price for consumers. On the other hand, U.S. farmers were harmed by the change and had to charge higher prices for consumers.

Looking to the future of dairy prices as a result of the USMCA, the consensus of Canadian economists is that consumers will see very little change in the price they pay for dairy products. According to agricultural economics professor, Ryan Cardwell, "There would be a small increase in the quantity of lower-priced products coming into Canada which means at the end of the day retail prices for these products may come down but a very little amount" (Crabb). Debra Steger, a professor from the University of Ottawa, explains that the deal will not have a large impact on the U.S. either. Steger says, "What's happening on dairy is that there will be a small amount, a tiny amount, of expanded market access for U.S. milk into Canada, but that could have been expected at the beginning of the negotiations" (Abedi).

Impacts on Diplomacy

Not only do the U.S. and Canada's actions in this contentious time have serious effects on the economies of both countries and the world, but they will also impact diplomatic

relationships. As mentioned above, President Trump used contentious rhetoric when talking about Canada's practices, and many foreign leaders were disapproving of his language. Will President Trump's and other politicians' words have a lasting impact on diplomatic relations between the U.S. and Canada? Will Canada's Supply Management System continue to cause problems with the rest of the world?

In a study published in the European Journal of International Relations, researchers found that rhetoric has a profound effect on citizens and political outcomes. Dangerously, rhetoric has the ability to coerce and persuade (Krebs & Jackson). President Trump's words on Canada are no different. According to Gallup Polls, 94% of U.S. citizens had a positive view of Canada in February of 2018 (Brenan). A few months later, in June of 2018, Public Policy Polling released a study showing only 66% of U.S. citizens had a positive view of Canada ("Tax Reform Still Not Helping"). The study also shows a changing view towards Vladimir Putin after President Trump's comments on the leader. All of this evidence indicates the power of a politician's words and the tangible impacts President Trump's words have had on public diplomacy.

While President Trump was successful in his negotiations with Canada to have Class 7 overturned, long-term impacts of his rhetoric are worrisome. Former foreign service officer and current researcher at the USC Center on Public Diplomacy, Donna Oglesby, states of President Trump's rhetoric, "When anything can be said and everything can be unsaid, nothing that is said matters. When what words say no longer matter, the meticulous word work with a life-and-death purpose that is diplomacy cannot exist" (Oglesby). This leads one to wonder where the balance lies between being forceful enough to achieve goals and being polite enough to maintain relationships.

The Canadian government may not have as loud of a voice in the dispute as the U.S. President Trump, but it certainly has an impact on diplomacy. The Canadian Supply Management System has been a cause of controversy in more than one instance, as described above. The system has now created problems between the U.S. and Canada on two occasions, and it has also caused disputes between Canada and Australia and New Zealand. It may benefit the farmers of Canada, but when it comes to exporting goods, the high tariffs on imports will continue to anger trading partners.

Obviously, diplomatic relations between the U.S. and Canada have been blistered in this dispute, but should the leaders of the two nations even care? According to Thomas Hobbes and Jean-Jacques Rousseau's interpretations of the Social Contract Theory, the job of a government is to provide protection, goods, and services that individuals cannot obtain themselves. The first duty of a government is to its citizens over any other entity. Both philosophers influenced the founders of these nations, and their ideas are apparent in the constitutions of both countries as well (Roland).

The reason for a government's existence is to support the needs and interests of its people above all else, because without the people, a government is nothing. When it comes to these questions of what to do when a people's interests conflict with another country's interests, it may be easy to return to this doctrine and say the citizens' needs should come before any other party. However, the world is more complicated than that. Sometimes a government must determine whether, in the long-run, it is more beneficial to its citizens to maintain diplomatic relationships or to push back against systems that harm them. In the next section, I will provide recommendations to both governments on how to move forward.

Future Recommendations

1. Deregulation of a Supply Management System

Canada is the only developed country with a supply management system. Many others, including Australia, New Zealand, and EU members, have deregulated their markets in previous years. Canada has been criticized for holding onto a system that many perceive to be antiquated and harmful to Canadian citizens as well as international trading partners ("Trade, Trump and Tariffs"), but research from the Boston Consulting Group [BCG] shows that when those countries deregulated, they experienced mixed costs and benefits.

After fully deregulating its dairy industry in 2000, Australia experienced a 72% increase in production with 93% of that growth in exports. The country also experienced an increase in imports from foreign countries. In order to support farms during the transition, the government imposed a AU¢11/liter tax on milk and spent AU\$2 billion on financial support to farmers. In the first two years of deregulation, Australia lost 7% or 2,000 of its farms.

New Zealand took a different approach. The government allowed the two biggest dairy co-operatives, Kiwi Co-op Dairies and New Zealand Dairy Group, to come together under one called Fronterra ("Analysis of the potential impacts"). A dairy cooperative is a business that uses milk produced by smaller farms in order to create other dairy products like cheese. Co-operatives allow small businesses to continue production while overall increasing efficiency ("U.S. Department of Agriculture"). With this shift, Fronterra came to represent 95% of the country's dairy production, and the dairy market saw growth of 4% each year without government aid or price increases to customers. The chart below (Fig. 7) portrays the growth in the New Zealand dairy industry after deregulation and the creation of Fonterra.

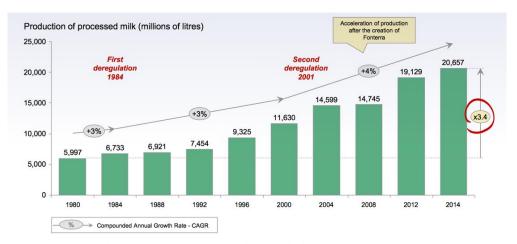


Fig. 7. "New Zealand Dairy Statistics"; *BCG analysis*, https://www.agropur.com/sites/default/files/documents/Analysis_of_%20impacts_of_supply_manage_ment_Canadian_dairy_inudstry-EN.pdf

The EU went through a deregulation process from 2008 to 2015 with unclear impacts to EU member state dairy industries. Since the deregulation initiative ended in 2015, it is too early to see the full impacts, but since the start of the initiative in 2008, EU member countries saw little or no increase in production and little or no change in prices. One tangible impact of the process was direct subsidies to dairy producers. The Common Agricultural Policy gave 57 billion euros in subsidies in 2013 ("Analysis of the potential impacts"). As four percent of the EU's GDP ("European Union") in the same year, these subsidies are too great a cost when considering the lack of clear benefits. The chart below (Fig. 8) indicates production costs after deregulation of the aforementioned industries. New Zealand has had by far the most benefits from their initiatives, and Canada has work to do to lower production costs.

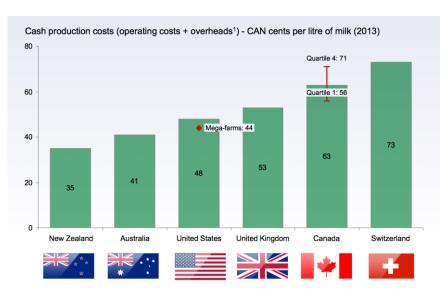


Fig. 8. Agritel; Department of Agriculture of the Australian government; ABARES 2014 – Agricultural commodities; Dairy NZ Economic Survey 2012-13; Northeast Dairy Farm Summary 2014; University of Wisconsin; University of Michigan; USDA; European Commission - FADN database (2012); Agroscope report 2013; Ontario Accounting Project 2013; *BCG analysis*,

https://www.agropur.com/sites/default/files/documents/Analysis_of_%20impacts_of_supply_managemen_t_Canadian_dairy_inudstry-EN.pdf

2. Canada

According to statistics from the Canadian Dairy Commission, the number of dairy cows and dairy farms in Canada has decreased from 2011 to 2016 while the total production has actually increased. The reason behind these trends is that production practices have become more efficient, and the milk production per cow has increased by 9.7%. Following worldwide trends, Canadian farms are growing from small family-owned operations to larger operations with robotic labor used to milk cows ("Production"). Overall, the industry is becoming more efficient, but many small operations are at risk.

These trends, in addition to the research on Australia, New Zealand, and the EU, lead me to my recommendation to the Canadian government on its supply management system.

Overall, the Canadian government should not fully deregulate the dairy market at one time, but should make changes to the system to benefit Canadian producers, Canadian citizens, and

foreign trading partners, leading up to deregulation. An analysis done by the Boston Consulting Group indicates that an immediate deregulation would leave Canada at risk of losing \$2.1-3.5 billion from GDP and 24,000 jobs. The study also showed that New Zealand underwent two major phases of deregulation; one in 1984 and one in 200 ("Analysis of the potential impacts"). The Canadian government should follow suit and deregulate the system in two phases, fifteen years apart.

Because of the benefit to the community at large, these changes should be introduced in the form of a public bill to the Canadian House of Commons by a Member of the House ("Types of Bills"). There are three aspects of the supply management system for the CDC to reevaluate: pricing; supply; and tariffs. Lastly, I will recommend a timeline for reevaluation and a shift to a large-scale cooperative. The stakeholders my recommendations seek to benefit are Canadian consumers, Canadian producers, the Canadian government, and foreign trading partners.

Perhaps the most harmful aspect of Canada's supply management system is the pricing regulation that hikes the prices of dairy products in Canada. As mentioned above, the average Canadian family spends \$600 more than Americans for the same amount of dairy products in their groceries, because the government is trying to protect domestic producers ("Globe Editorial"). However, while helping producers in one sense, the system ends up harming all consumers throughout the country. The CDC should set lower prices on dairy products and rework the supply and tariff regulations to offset the market shock that would come from a large-scale price change.

If the CDC lowers domestic dairy prices, it should raise the supply to a level that will cover demand but will not allow farmers to overproduce. This will harm some smaller farms

in the short-term, but when changes in price and supply are combined with my other recommendations, Canadian farmers will benefit in the long-run. During the fifteen years between deregulation phases, the CDC should reevaluate price and supply every five years in order to create a market in Canada that most accurately reflects the natural market trends.

Canada has a tariff rate quota (TRQ) system for nearly all imported dairy products. This means that a certain set amount of those products is allowed to enter the country duty free, and after that amount has been imported, any excess imports will carry a tariff. TRQ's allow countries reap the benefits of international trade while also promoting their own products, because exporters into countries with TRQ systems will be discouraged from selling more than the duty-free amount. The main problem of my thesis is the conflict over ultrafiltered milk, in which the product went from being freely sold by foreign producers in Canada to being sold with steep competition from domestic producers in Canada. To solve this problem in the future, ultrafiltered milk should be included in the "Other Products of Milk Constituents" or the "Other Dairy-based Products" section of Canada's TRQ system in the World Trade Organization ("Levels of Tariff Rate Quotas").

While transitioning to a deregulated dairy industry, Canada should follow New Zealand's footsteps and create large dairy cooperatives in order to increase production and efficiency, to keep those small family farms (the ones at risk of going out of business) running, and to avoid government subsidies. Five major dairy cooperatives exist in Canada currently:

Agropur; Farmers Dairy; Gay Lea Foods Cooperative Ltd.; iÖGO; and St. Albert Cheese.

Agropur is the largest of these, and it owns others like Farmers Dairy and iÖGO. All major cooperatives are located near the Quebec-Ontario border, so the government should begin an initiative to collapse the cooperatives under Agropur ("Agricultural Co-operatives"). The

first phase of this initiative would be to combine St. Albert Cheese, located outside Ottawa, with Agropur and its subsidiaries. The second phase would be to combine Gay Lea Foods, located near Toronto, with the others. Below is a summary of my deregulation initiative along with the stakeholders that will benefit from each change.

Change	Date	Stakeholder Benefit
PHASE 1	2020	
Lower prices		• Consumers
Raise supply		Producers
Add ultrafiltered milk to TQR		• Producers
• Reevaluate price, supply, & TQR	• Every 5 years: 2025 & 2030	• Consumers, producers & trading partners
Combine co-operatives into Agropur & Gay Lea Foods		Government & Producers (small operations specifically)
PHASE 2	2035	
Deregulate price & supply		Consumers & trading partners
Reevaluate TQR		Consumers & producers
Combine co-operatives into Agropur, or another name		Government & Producers (small operations specifically)

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