Drivers of Canadian Food Processing Competitiveness Macro Factors and Micro Decisions

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PROCESSED FOOD SECTOR RESEARCH PROGRAM

PROJECT 2

About the CAPI Processed Food Research Program

Food and beverage processing is one of the country's largest manufacturing sectors and an essential channel for Canadian agricultural products. Companies are succeeding yet the sector has been facing challenges, including record trade deficits in secondary processing. Working closely with a variety of partners, CAPI's research is focused on better understanding the issues and opportunities facing this sector and their implications for policy and strategy, and to generate a dialogue on ways to support the sector's future growth and competitiveness.

Project 2: Drivers of Canadian Food Processing Competitiveness: Macro Factors and Micro Decisions: A variety of issues are often assumed to be the cause of the rising trade deficit in secondary processing. The George Morris Centre examines many of the well-identified drivers, provides a commentary on some lesser-known reasons for change, and reveals that the reasons for the trade deficit and determinants of competitiveness are complex.

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- 1a. Diagnosing the trade deficit
- 1b. Reasons for the trade deficit
- 2. Explaining the trade deficit
- 3a. Food manufacturing performance 5. Consumers and markets
- 3b. Plant openings, closings & investments

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1. Introduction

The long-term competitiveness of Canada's food processing sector continues to be a major concern. Recent articles and industry developments have re-energized the analytical debate about the status of this sector. There have also been further discussions on the indicators of exactly what is occurring in the sector, and ultimately, on the analysis of the drivers of competitiveness. The release in late 2012 of a Canadian Agri-Food Policy Institute (CAPI) paper authored by Dr. D. Hedley, *The State of Canada's Processed Food Sector: Trade Balance*, provoked the most recent discussions. Subsequent papers by Kevin Grier of the George Morris Centre and the Conference Board of Canada, as well as long-standing industry concerns over food plant closures since mid-last decade, contributed to the discussion. Cost differences between jurisdictions as well as recent investments and disinvestments in this industry have all drawn attention to the drivers of competitiveness of this sector in Canada.

Earlier this year, CAPI commissioned a study to examine the drivers of food processing competitiveness in Canada. This follow-up analysis explores the complexity and diversity of the drivers affecting longer-term competitiveness in this industry. The analysis begins with the sector's trade performance. It then examines the well-identified drivers that may affect the entire sector, and provides a commentary on the lesser-known drivers. The emphasis on the drivers of competitiveness, and the decisions by individual firms at a micro level, become more critical with the shift from macroeconomic factors to microeconomic drivers.

2. Drivers of Food Processing Competitiveness

An examination of recent papers, speeches, and reports indicates that a common list of accepted macroeconomic factors, or drivers, of competitiveness can be easily identified. The Hedley paper quickly notes five possible explanations for the sector's trade performance over the last several decades. These include: Exchange Rate Impacts; Regional Trade Agreements; Integrated North American Economy; Falling Capital Investment; and Policy and Regulatory Changes. The 2010 Agriculture and Agri-Food Canada Industry/Government Action Plan (Growing the Food Processing Sector) identified four major categories of focus: Economics; Market Access; Research and Development and Innovation; and Regulatory.

A March 2013 speech by the Honourable John Manley, President and CEO of the Canadian Council of Chief Executives, entitled "First, do no harm: oil, the dollar and the future of Canadian manufacturing" reviewed the impacts of rising exchange rates, and ways industry can respond to remain competitive. Mr. Manley's remarks noted that while exchange rates had risen and affected the sector, the impacts were not always adverse, and other issues were key drivers for industry competitiveness. These drivers include: labour market conditions; market access; and a policy framework favouring growth/scale in order to succeed in global markets.

The short paper by Grier noted the variable impacts of: the rising value of the Canadian dollar; productivity; shifts in cost structure (focus on wages); utilization rates; margin squeeze on Canadian food processors; food retailer market dominance; food plant closures; and the role of scale and innovation in remaining profitable within domestic and foreign markets.

The Food Processors of Canada argue that changes in certain regulatory limits on Canadian food processors can have adverse effects unless all regulatory issues are examined and altered. In their view, the number of food plant closures since the middle of the last decade is indicative of a domestic industry on the margins of sustainability, and challenged by a higher cost structure than foreign competitors in its own market. They suggest that selective regulatory reform may not be the positive influence on industry that some believe it to be.

These sources reveal variations in the public understanding of the possible drivers of competitiveness. As the CAPI research program evolved over 2013 into several different projects, an expanded list of drivers was developed (see Figure 1)¹. This list reflects a broad consensus on a number of macroeconomic drivers, while recognizing a wider – often more industry-, region-, or product-specific – list of possible drivers of competitiveness of Canada's food processing sector. This expanded list incorporates a number of issues raised by industry that are considered critical to longer-term competitiveness. This paper examines and comments on the various drivers of competitiveness of food processing in Canada.



Figure 1: Drivers of Structural and Competitive Change. Source: CAPI.

The analysis provided in this report draws out the complexity of these drivers, the need to examine underlying issues or variations within the food processing sector, and the challenges of data availability.

1. This paper constitutes Project 2 of CAPI's Processed Food Sector Research Program. Additional details can be found on the CAPI website: www.capi-icpa.ca.

It also underlines the need for future work on certain drivers of competitiveness. Many of the identified drivers enjoy considerable public acceptance, but the necessary economic or market analyses have not been undertaken with the same level of thoroughness as has been done for macroeconomic drivers. These complications limit the identification of any specific actions that should be taken to improve the competitiveness of Canada's food processing sector. At times, the analysis may only point to areas in which further research or analysis should be undertaken to better understand the drivers of competitiveness and any appropriate public and private sector actions needed to address these drivers.

The following analysis will build upon CAPI's ongoing efforts to examine competitiveness and the trade balance in Canadian food processing. This analytical work, however, shifts to other variables and contexts to better understand the possible impacts of more product- and industry-specific drivers. This will lead to variations in analytical methodologies, which then limits comparisons between the drivers. The analysis does provide commentary on these additional drivers, and the challenges in data collection (i.e., definition and public availability of such information) and the analysis of the impact of such drivers on Canada's food processing competitiveness.

This expanded list and the following analysis identify a range of competitiveness drivers affecting Canada's food processing sector. They try to draw out the complexity of these drivers, and their limits in explanatory capacity. The analysis also identifies opportunities for additional research, and new directions for public and private sector actions to develop the public data necessary for these additional drivers of competitiveness. It is equally important to identify and comment on these drivers as many are viewed as significant by the participants in Canada's food processing industry. Reluctance or an inability to fully analyze such drivers may lead some industry associations or their members to inadvertently assume that their concerns are not valid, or worse, not even considered.

3. Analysis of the Drivers of Food Processing Competitiveness

The George Morris Centre has in the past defined competitiveness as "the sustained ability to profitably gain or maintain market share." This definition will be applied to the subsequent analysis. Although food processing trade flows are analyzed initially, the shift in the drivers examined reflects a deeper understanding of the competitiveness of the sector beyond basic shifts in trade, and the benefits of increased foreign investment, foreign competition, and deeper integration among market jurisdictions as well as supply chains across jurisdictions.

3.1 NAICS/HS Codes and Primary and Secondary Processing

In contrast with other CAPI papers, this analysis uses the North American Industry Classification System (NAICS) codes to describe industry or sector performance rather than Harmonized System (HS) codes used by Hedley and Thompson. The differences in most part are not substantial and do not undermine the critical points of the overall CAPI research program, but differences do exist. Figure 2a, which includes both primary and secondary food and beverage processing, shows a slight trade deficit of \$330 million as measured by NAICS codes. Figure 2b, which shows the previous work done by CAPI and uses HS codes for secondary processed goods only, has a much larger negative trade balance.



Figure 2a: Food and Beverage Processing Trade Balance Using NAICS Codes (Primary and Secondary Processing). Source: Industry Canada Trade Data Online.



Figure 2b: Food and Beverage Processing Trade Balance Using HS Categories (Secondary Processing only). Source: Hedley and CAPI, 2012.²

2. Hedley and CAPI, 2012. *The State of Canada's Processed Food Sector*. Note that data for 2012 records a deficit of nearly \$6.5 billion.

Differences in NAICS and HS code definitions and the use of primary as well as secondary manufacturing statistics account for these differences. The decision to use the NAICS definitions, which includes primary and secondary manufacturing, was made to provide a deeper insight into the complexity of impacts for various drivers of competitiveness on different segments of the domestic food industry. While a number of Canadian food manufacturers are highly specialized, many others participate in several segments of the food manufacturing process. Moreover, the benefits of possible market advantages in primary processing may strengthen certain segments of secondary food processing and, in other industries, simply provide exports for secondary food processors in a foreign jurisdiction (Appendix A shows differences in total, primary and secondary pork trade as an example of the differences within the same general commodity/ product category.)

This analysis should be seen as a next step in the overall CAPI research program as it attempts to widen the discussion over the drivers of food manufacturing competitiveness in Canada, and the varying capacity of individual firms to participate in the marketplace in contrast with sector-wide, or industry-wide market performance.

3.2 Trends in Food Processing Trade

The main symptom of lagging competitiveness in the Canadian food manufacturing sector has been the trade balance. Based on NAICS, exports of manufactured food products only slightly outpace imports, and the growth of imports is outpacing that of export growth (Figure 3), resulting in a declining trade balance over time. The trade balance for beverage and tobacco manufacturing, however, shows a much different picture, with the trade deficit growing annually through the past decade (Figure 4).



Figure 3: Trade Balance - Food Manufacturing. Source: Industry Canada Trade Data Online.



Figure 4: Trade Balance - Beverage and Tobacco Manufacturing. Source: Industry Canada Trade Data Online.

The trend for Beverage and Tobacco Manufacturing is more indicative of the trend for aggregate manufacturing trade balance (Figure 5), while the trend for food manufacturing is more consistent with the trade balance seen in vehicle manufacturing (Figure 6).



Figure 5: Trade Balance – All Manufacturing. Source: Industry Canada Trade Data Online.



Figure 6: Trade Balance – Vehicle Manufacturing. Source: Industry Canada Trade Data Online.

Drilling down further within food manufacturing, we find some subsectors with positive trade balances and others with negative balances (Figure 7). This strongly suggests other factors/drivers are at work within each major sector of manufacturing beyond the broad macroeconomic factors of exchange rates, interest rates, and overall legislative/regulatory frameworks, which would be consistent across each sector. The reasons for those variations must be examined.

Postive Trade Balance	Negative Trade Balance		
Grain and Oilseed Manufacturing	Animal Food Manufacturing		
Meat Product Manufacturing	Sugar and Confectionary Product Manufacturing		
Seafood Product Preparation and Packaging	Fruit and Vegetable Preserving and Specialty Food		
Bakeries and Tortilla Manufacturing	Manufacturing		
	Dairy Product Manufacturing		
	Other Food Manufacturing		
	Beverage Manufacturing		
	Tobacco Manufacturing		

Table 1: Subsector Trade Balance – Beverage and Tobacco Manufacturing

At a high level, trade performance within subsectors of food manufacturing varies. Clearly, more is occurring in the trade performance than simply one or two macro-level drivers affecting the sector, and there is a need to conduct further analysis at the subsector level. The wider variations also suggest that more micro-level or industry-specific (not sector-specific) analysis must be undertaken.

3.3 Sales Performance

While a trade deficit may be a result of declining sales, an analysis of sales performance in the past decade shows that food manufacturing sales have been more stable than aggregate manufacturing sales (Figure 7). This indicates that it was not the simple reduction in sales, or a collapse in some categories that was responsible for the sector's trade performance. Overall, exports as a percent of sales stayed relatively constant despite variations in exchange rates, and significant reduction in interest rates (Figure 8). More analysis of micro-level/industry subsector data is needed to better understand competitiveness in these industry groups.

Sales performance also suggests that the food industry, or at least specific firms, have increased competitiveness, but within a changing sector-wide market. For example, expanding demand for certain food products, over and above domestic production capacity, would suggest an increased flow of food product imports in that category – until domestic production capacity were to expand, if allowed. In turn, food product sales gains may reflect differing profit opportunities for different products within the same category – differences in primary processing and secondary processing, and less on the competitive performance of the one food product, or one company.



Figure 7: Manufacturing Sales 1992-2012. Source: Cansim 304-0015. *2012 estimate due to missing data.



Figure 8: Food Manufacturing Exports as Percent of Total Sales. Source: Cansim 304-0015, Industry Canada Trade Data Online.

3.4 Exchange Rate

The change in the exchange rate relative to the United States is a frequent issue of discussion in the analysis of competitiveness of exports. The Canada-US exchange rate changed rapidly in the early part of the new millennium; however it has been fairly consistent over the past 3 years (Figure 9). The exchange rate does show correlation to changes in the trade balance, indicating that exchange rates do matter and should be monitored and examined. However, as indicated in previous sections, the impacts are not sufficient for explanation of the variations in trade performances across manufacturing sectors.



Figure 9: Canada-US Exchange Rate. Source: Bank of Canada.

Figure 10 provides a regression analysis of the exchange rate and Canada's trade balance. It is clear there is a relationship, but it is not as strong as some commentators would suggest.



Figure 10: Trade Balance vs Canada-US Exchange Rate. Source: Industry Canada Trade Data Online, Bank of Canada.

3.5 Capacity Utilization

The ability of an individual processing facility or even an entire industry to match production output to plant capacity is usually a signal of sustained competitiveness. Excess plant capacity can be viewed as reducing competitiveness as the costs of the facility are shared by a less-than-optimal production level. In turn, exceeding the capacity utilization of any food manufacturing facility over a prolonged period of time would imply excessive strain on equipment and employees, and would lead to increased costs of operation.



Figure 11: Capacity Utilization – All Manufacturing, Food Manufacturing and Beverage Manufacturing 2003-2012. Source: Cansim Table 028-0002.

Prior to the recent recession, capacity utilization was less for food processing than other manufacturing (Figure 11). Capacity utilization within the Food, Beverage and Tobacco processing sectors show significant swings over the past decade (Figure 12, Figure 13). These graphs indicate that there is a modest relationship between capacity utilization and trade balance, and that the impacts may be lagged.



Figure 12: Capacity Utilization – Food Processing. Source: Cansim Table 028-0002, Trade Data online.



Figure 13: Capacity Utilization Beverage and Tobacco Processing. Source: Cansim Table 028-0002 Trade Data online.

3.6 Food Manufacturing Equipment Expenditures

A look at investment in machinery and equipment over time reveals modest investment in the sector (Figure 14). Additionally, investment indexed to 2000 also shows an increase in food processing, but a decline in beverage and tobacco processing (Figure 15). The indication is that the entire sector is not in a major expansion mode, or investing sizeably for future growth. It would indicate that a certain level of replacement capital is occurring, and better analyses of those investments, and in which subsector, may better identify longer-term trends in current and future trade balances.

Foreign Direct Investments in Food, Beverage and Tobacco Manufacturing (Figure 16) shows growth, signalling foreign investor willingness to invest more in this sector, rather than disinvest because of a lack of growth opportunities. Matching this analysis with appropriate domestic investment growth, and in which categories, would provide better insights into domestic vs. foreign food firm performances, and expectations in the marketplace. This in turn should lead to an analysis of why such differences would exist in the same market, in similar subsectors. For example, could foreign food firms entering/expanding in Canada simply be replacing domestic firms or are these new investments in new growth opportunities?

It should be noted that the governments of Canada and several provinces have made recent efforts to improve overall manufacturing investment within their jurisdictions through several initiatives. For the Government of Canada, the faster Accelerated Capital Cost Allowance, which allows increased investments in plant/equipment to be written off for tax purposes at a far improved rate, is a signal to all manufacturing firms in Canada, including food manufacturers, that Canada intends to spur such investments.



Figure 14: Machinery and Equipment Expenditure. Source: Cansim Table 029-0009.



Figure 15: Machinery and Equipment Expenditure Index 2000=100. Source: Cansim Table 029-0009.



Figure 16: Foreign Direct Investment in Food, Beverage and Tobacco Manufacturing. Source: Cansim Table 376-0052.

3.7 Performance of Canada's Trading Partners

Trends in trade for processed food, beverage and tobacco products show shifts over time. None are dramatic, even though overall export and import levels increase (figures 17 and 18). This implies a competitive global and domestic marketplace for food, beverage and tobacco processing for Canada. In a manner, the figures indicate that diversification of trade is occurring, and yet the importance of the US market, as both a customer and competitor, remains critical to overall trade. Focusing on comparing costs and other drivers of performance in the Canadian food processing sector with the United States remains valid, but an examination of Canada's performance with other nations must now also be made to better understand overall sector performance within both the global and domestic markets.

A similar analysis is undertaken for US imports of Processed Food, Beverage and Tobacco (Figure 19). The graph shows a decline in Canada's performance in an expanding market compared with its foreign competitors, suggesting a level of reduced competitiveness with other nations inside the US market. It also underlines the importance of the US market, and the necessity of understanding the reasons for this change (supply chain links, subsidiary of US firms, integrated markets, etc.), as Canada remains the single largest food exporter to the US.



Figure 17: Export Markets for Products of Food, Beverage and Tobacco Processing. Source: Industry Canada, Trade Data Online.



Figure 18: Import Markets for Products of Food, Beverage and Tobacco Processing. Source: Industry Canada, Trade Data Online.



Figure 19: US Imports of Processed Food, Beverage and Tobacco Products. Source: United States Census Bureau.

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Figure 20 is a single-industry examination of shifts in purchases of wines in Canada since the implementation of the North American Free Trade Agreement (NAFTA). The shifts in market shares and expansion of certain "New World" wines during this period should be noted. Prior to 1990, the Canadian wine industry was dominated by European and American wines, but new competitors entered the market, and added new options to meet changing consumer tastes. This would not have been expected prior to 1990, except by the most insightful experts. The focus of any industry strategy for the domestic wine sector at that time was on competition with the traditional wine jurisdictions, and did not consider new entrants, their new marketing strategies, or Canadian consumers' willingness to try, and purchase, New World wines. Canadian wines continued to be a strong competitor but the overall market conditions changed for all wines in Canada with the new entrants.





3.8 Market Access Agreements

Canada has embarked on a more aggressive strategy to open up foreign markets to Canadian primary and processed foods exporters, as well as open up the Canadian markets. It is difficult to sort out the market impact of overall trade agreements, but Figure 21 looks at canola seed exports and links to various trade agreements and specific market access activities. It compares the value of trade to all countries (total exports) with countries with active free trade agreements (FTAs). There would seem to be worthwhile analytical work here to be undertaken if the product lines can be specific enough and linked to specific agreements for market access. It is noted that this is not processed foods, but there has been a long-term government/industry initiative to expand canola exports over time and similar efforts to improve market access for processed products may yield similar results.



Figure 21: Canadian Canola Seed Exports to Countries with Active Free Trade Agreements. Source: Industry Canada, DFAIT.

3.9 Wage levels/costs

Difference in wages is a commonly identified driver in discussions of industry competitiveness. However, in considering the difference in wages, with the variety of wage levels within each jurisdiction, a comparison of one or two wage categories between the two jurisdictions for the food processing sector would seem to be too high-level. Figure 22 shows the variation of minimum wages in Canada, and Figure 23 provides the same information for select U.S. states.



Figure 22: Minimum Wage Canada (May 2013). Source: Human Resources and Skills Development Canada.





Wages of food processing workers also vary among provinces and states and even within provinces (Table 2). Variations in food processing locations and operations within each jurisdiction must be linked to more than wage levels, including access to customers, supplies, logistics, historical decisions, labour pools. There are differences in wage costs, and likely others once those are examined, but it is not clear if these differences are definitive drivers or not.

Location	Wage (NOC 9617)	Location	Wage (SOC 513099)
Windsor-Sarnia (ON)	13.50	Minnesota	12.68
Toronto	14.52	Vermont	11.07
Kingston-Pembroke (ON) Region	14.00	California	11.65
Annapolis Valley (NS)	12.00	Michigan	12.50
Montréal	12.00	Ohio	11.83
Saskatoon	14.00	Texas	10.74
Edmonton	15.78		
Thompson-Okanagan	14.50		
Kingston-Pembroke (ON) Region	13.00		
Winnipeg	14.52		

Table 2: Hourly	v Wages for Fo	od Processing	Workers in	Canada an	d the US.	2012
	y mages for i v		, WOLKELS III	ounduu un	u inc 00,	2012

Source: Government of Canada. "Working in Canada" database; US Bureau of Labor Statistics, May 2012 Occupational Employment and Wage Estimates.

3.10 Other Drivers

There are a number of other drivers of food processing competitiveness in Canada that have not been examined, as quantitative data that allow for national or cross-industry comparison are not available. Further basic analysis and appropriate comparisons must be undertaken to properly determine if those drivers are significant, meaningful, or a concern and possibly only for specific firms rather than entire categories of industries. These drivers are mentioned below, along with some of the relevant literature, with the understanding that further analysis would be necessary to adequately determine their contribution to competitiveness in the sector.

The commentary below explores each concept briefly, noting the challenges in analyzing the drivers in the same format, and the directions for either further research or, if appropriate, legislative action to assist development of the appropriate public data sets.

It is clear that the Canadian food processing industry has identified these issues as concerns, barriers to the longer-term competitiveness of this industry. The lack of formal public data, and other public analyses of these drivers, means a different approach is required.

The following drivers are examined in this section:

- □ Retail shelf listing practices/slotting fees;
- □ Food supply chain/value chain developments;
- □ Regulatory reform and red tape costs;
- Border related issues;
- Supply management;
- □ Talent and human resource availability;
- 3.10.1 Retail Shelf Listing Practices/Slotting Fees

Retail shelf practices of food retailers in Canada may affect food processor competitiveness, possibly more for SME processors. But without a full comparison with the food retail situation and shelf listing practices in the United States (as an example), it is difficult to determine if these practices are major impediments or just the costs of doing business in either jurisdiction.

In the 2010 AAFC Food Processing Roundtable report, the group included retail food concentration in Canada and "concerns with growing slotting allowances, reduced retail shelf access, narrowed margins"³ among their priority issues. The different scale of Canadian food retailers and food processors, the noted increasing concentration of Canadian food retailers (which the most recent Sobeys/Safeway merger will increase), and reduced differences in the scale of US food retail marketers and processors, combine to argue that Canadian food processors may find the domestic market more challenging. Retail shelf listing practices and slotting fees are common in developed food retail markets globally. The market power associated with larger food retailers and these practices becomes the focal points for regulation of such market power and processor perceptions of such practices.

3. Growing the Canadian Food Processing Sector: An Industry/Government Action Plan." Agriculture and Agri-Food Canada, December 2010, Ottawa.

- □ Commodity cycles;
- □ Retail and food service demands;
- □ Grocery retail footage growth;
- □ Foreign government policy impact; and
- □ Food expectations.

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A number of studies and inquiries in Canada and the United States have occurred in recent decades, with public comments to the Competition Bureau on "Abuse of Dominance Provisions" (Sections 78 and 79 of the Competition Act) in early 2009 being the most recent example. There have also been formal inquiries and studies in the United Kingdom and Australia. This is important because formal, public access to such market practices, their amounts, impacts, and variations among jurisdictions and retailers is not readily available. Without such access, it is difficult to verify and analyze with certainty the market impacts of these practices on large and small food processors, and on domestic or foreign owned food processors.

In the early 2000s, the United Kingdom introduced a voluntary Code of Practice for large UK grocers, with a subsequent study in 2006, requested by the UK Office of Fair Trading. This has led, over the years and with the support the UK government, to the passage in 2013 of the Groceries Code Adjudicator legislation. Building upon the voluntary code, large UK food retailers are obliged to follow the Groceries Supply Code of Practice when dealing with suppliers on a number of retail practices. Monitoring the results and impacts of this legislation within a concentrated retail food market may provide insights and suggestions for new approaches in Canada.

Building upon previous data analysis efforts by the Competition Bureau in Canada and the Federal Trade Commission in the United States would also improve data access and comparability between the two jurisdictions.⁴ These efforts would provide a far better analytical base to best ascertain impacts of such practices on domestic retail food markets and on food processing trade between the two countries. For example, do larger US food processors have an advantage with larger Canadian slotting fees given that it is a smaller share of their total expenditure in both countries?

3.10.2 Food Supply Chain/Value Chain Developments

Across a number of economic sectors in both Canada and the United States, there is increased awareness, and subsequent analysis, of the value of supply or value chains to SME and large suppliers within a larger supply chain to a major retailer, or end manufacturer. It is not clear that each and every supply chain/ value chain works effectively for all partners, all the time. But case studies and anecdotal evidence would suggest improvements in profits and market performance and reduction in costs for all supply chain participants are realistic goals.

Although the federal government and several provincial departments of agriculture and food are aware of, and are analyzing, supply chains and value chains for agri-food products, there is not yet a complete analysis of the impacts across time, regions, or products. A number of studies do exist, but again, not to the same level of public data availability and analysis to confirm longer-term market success.

However, given the success in other sectors of well-functioning supply chains, improved access to efficiently operated supply/value chains should not be discouraged. Improved analysis across sub-industries of the Canadian agri-food sector would verify the anecdotal evidence, and likely confirm best practices for the participants.

4. http://www.ftc.gov/opa/2001/2002/slottting.shtm

3.10.3 Regulatory Reform and "Red Tape" Costs

Canadian food processors, as with almost all other industries across Canada, have identified the need for regulatory reform, and reduced costs of regulations and cost of compliance with the regulations.⁵ Federal, provincial/territorial and municipal governments have all spent considerable resources over recent decades and prioritized activities to address business needs for reduced costs of regulation ("red tape"). All governments have made efforts to initiate reforms to the regulatory burden on business. It should be noted that these same concerns are identified in the United States with similar levels of antipathy to the costs/ burden of unnecessary regulation.

The Canadian Federation of Independent Business (CFIB) has led independent analysis of the costs of red tape. In 2013, the CFIB published the third edition of its Canada's Red Tape Report with US Comparisons.⁶ This latest analysis indicates that the annual cost of regulation falls heaviest on small businesses in both jurisdictions, with an estimated \$5,942 per year per employee for Canadian business with fewer than five employees as compared with \$4,084 per year per employee for similar US small businesses.⁷ For larger businesses (over 100 employees) the annual cost declines to \$1,146 in Canada, lower than the estimated \$1,278 in the US.

This report is consistent with similar efforts by the federal and provincial governments to estimate regulatory costs, as well as efforts by other business and trade associations to bring about regulatory reform that reduces business costs and boosts productivity and innovation. However, as the CFIB and other initiatives on regulatory reform note, not all regulation is unnecessary or unwanted, and some perform critical needs for the smooth operation of the marketplace. Unfortunately, most analyses of red tape costs and regulatory reform do not provide detailed cost and benefits of these "beneficial" regulations and whether they balance out the costs of others. Further, efforts by governments to reduce costs by reducing the number of regulations rarely examine the reduced costs of fewer regulations in some areas, balanced against costs of new regulations on business activities with higher priority for public sector oversight.

As the costs of regulation are identified in both jurisdictions it is necessary to verify and confirm the differences in regulatory costs between the agri-food sectors of the two countries, and if these differences do affect overall food processing trade, or only smaller segments of the marketplace (e.g., specific commodities, or specific innovations). Broadening the CFIB efforts and possibly combining federal-provincial red tape cost estimates into pilot projects to better estimate industry-specific costs, would help determine the impacts of regulatory reform, and may improve the likelihood of sustained reform benefits.

Regulatory reform or red tape costs arise in all discussions with the food industry representatives. It is necessary to flesh out exactly which regulatory measure(s) need to be examined, and compare them with alternatives in the other nation's industry to verify if relaxation of those measures (or increased regulatory control) assists or worsens food processing competitiveness. This is possible to do, but a full analysis that controls for other factors would be challenging. Comparisons of broadly based legislation may make

^{5.} Growing the Canadian Food Processing Sector", op cit, p. 16.

^{6.} Canadian Federation of Independent Business, *Canada's Red Tape Report with US Comparisons*, 2013, Toronto.7. Ibid, p.i.

for good copy within the industry or news media, but the weighing of costs and benefits to the sector and to other segments of the public may make such larger-scale analyses of major legislation awkward to undertake and confirm.

3.10.4 Border Related Issues

An ongoing challenge for both agri-food exporters and importers is the changed security and regulatory issues now involved in cross-border trade. The more traditional analyses of Canada's trade balance focuses on changes in exchange rates, productivity differences between the agri-food industries in both countries, or major differences in key costs. Over the last decade or so, the costs and delays associated with border security, and with differences among agri-food regulatory agencies of the two nations, place considerable stress on the managerial capacity of those firms exporting and importing across the border.

The Prime Minister of Canada and the President of the United States jointly identified two key initiatives, Beyond the Border and the Regulatory Cooperation Council, as priorities for their national governments to help all economic sectors improve speed, capacity, and long-term sustainability of cross border trade. Pilot projects are underway in several sectors, including the agri-food sector. While the broad costs of delays, inspections, and regulatory differences are becoming better known, the capacity to properly identify the agri-food costs, particularly for processed foods, is still not in place, except on an anecdotal basis.

The successful implementation of the various pilots underway would provide much-needed analysis, case study, and understanding of the ability to allow the regulatory differences/border security operate effectively but at less cost. These pilots may also lead to the widening of the projects to far more products, and even to an enhanced capacity of the various agri-food agencies involved, as well as the private-sector firms in the cross-border agri-food trade. It should be noted that the successes of the Regulatory Cooperation Council would also be of value in overall regulatory reform and the reduction of red tape costs identified.

3.10.5 Supply Management

The issues of supply management are well known to most firms involved in Canada's food processing industry, as well as those members of the Canadian farm community involved in the primary production of these supply-managed commodities. It is recognized that there are differences in views within Canada on the impacts of this national system, on longer-term viability of supply-managed sectors, and on the cost and price impacts for food processors. It is not clear, however, that the national supply management system for dairy, poultry, eggs, turkey and hatching eggs, have the same impacts across the food processing community, or among food processors within the same commodity.

A key part of the existing national supply management systems has been the effectiveness of Tariff Rate Quotas (TRQs) and import quotas on key dairy products (such as various cheeses, butter, and skim milk powder). These TRQs protect domestic producer prices and also limit foreign competition in those selected food products within Canada. This provides benefits to certain food processors, and in turn to food retailers. The impact of higher domestic prices on domestic processing of those foods containing supplymanaged components may not be as favourable, if the current TRQ and import quota system does not limit direct foreign competition in the same manner. A study of both the volume and value of existing levels of processed foods containing supply-managed components and the competitiveness impacts within Canada would provide far deeper insights into the impacts of this system on further processed food products. It would also draw attention to the capacity, if any, of the existing system to properly address these challenges and what other measures may be required to allow those food processors to compete more fully with lower-priced imported food products containing supply-managed components, or the limits of those measures. A first step may be the identification and analysis of the HS data on processed food imports and exports containing supply-managed components in order to properly scope out the extent of this issue. A cursory review reveals that some 35% of milk was used for cheese and nearly 8% for yogurt and ice cream; for eggs, some 25% of this commodity was used in further food processing.⁸

A related issue is the concern expressed by some food industry participants over the broader role of farm marketing boards. Supply management boards are unique among the wide number of farm marketing boards (creations of the provinces according to each province's farm marketing legislation). For example, of the 19 listed farm marketing boards under Ontario's legislation, five have powers to regulate production/ markets through quotas (supply-managed powers) while the remaining boards can negotiate prices with participating processors for those farm products, or have the authority to establish prices for their farm products.

The powers and capacity of the different boards to work with related food processing can vary considerably within provinces and between provinces. Producer-processor relationships are not always smooth in non-supply-managed boards, but these relationships can also be more harmonious at times, depending upon the marketplace and market issues facing both processors and producers.

3.10.6 Talent and Human Resource Availability

A key concern in the cost structure facing the Canadian food processing sector is its wage level, as previously discussed. However, as the Canadian population ages, along with different skill needs within the Canadian food processing industry, the availability of a talented, competent pool of labour becomes a more critical competition concern. With increased competition globally in the industry and increasing skill sets among competitor nations, particularly those which would not have competed in high end/high technology goods, the availability of talented labour (management, professional, technological, as well as the manufacturing workforce) becomes as critical as, or more critical than, competing at low wage levels.

This situation already exists in parts of Canada, particularly Alberta, Saskatchewan, and even Newfoundland, where key resource industry demands for labour have significantly altered labour markets. Obtaining sources of labour from other parts of Canada, from other countries, or other immigration programs, are all examples of the longer-term challenges facing the domestic food processing industry. Historical industry or trade statistics will not provide needed insights on these trends, but future competitive capacity for a number of food processors depends upon ease of access to high-quality, talented labour pools.

8. "Processing," Canadian Dairy Commission website (last modified August 21, 2013). Reference to eggs: "Retail Food Sector Report – Canada", *GAIN Report*, USDA Foreign Agricultural Service, March 2012, p. 39.

A refocus from the cost of labour to the availability of the desired pool of talent will shift management issues surrounding human resources, training, and capital investments in labour-saving technologies. For food processing firms with the scale of production, or those competing in higher technology goods, the capacity to attract and sustain a capable work force by investing more successfully in improved human resource policies and programs may become one of the key competitive conditions for this industry.

Given the relatively recent nature of this human resource challenge, and the lack of data on the challenges, the possible responses and impacts on both domestic and export markets do not allow for sufficient analyses of the significance of this competition driver.

3.10.7 Commodity Cycles

Within agri-food discussions, commodity cycles – of pricing and supply – are linked to competitiveness and trade flows. The charts below on beef trade flows and live cattle futures (figures 24 and 25) would reflect commonly accepted views of these links. The higher live cattle futures would indicate competitiveness pressures from higher prices for key commodity input, such that stronger demand, shorter supply or both would have impacts on beef trade flows. A lag would also be expected. However, for corn, the linkage is not as pronounced. This may not be surprising, as global supply markets for corn can be more easily accessed than beef supplies (particularly live cattle).



Figure 24: Trade Balance vs Commodity Price (Beef). Source: Industry Canada; Reuters Datalink.

However, when examining processed product manufacturing, it is not as clear that higher-value-added meats or grains would fluctuate as much as the commodity prices can during a commodity cycle. The linkage exists but it is modified by the limited supplies needed at the further processing stages, and the importance of other input factors and their prices, as well as consumer responsiveness to volatile pricing at this stage of the food chain.



Figure 25: Trade Balance vs Commodity Price (Corn Products) Source: Industry Canada; Reuters Datalink.

3.10.8 Retail and Food Service Demands

Another driver of competitiveness in food manufacturing is the variation in marketplace demand, whether in food retail or in foodservice. Over the past decades with the sustained growth of the foodservice market in Canada, as in most developed countries, there continues to be substantial competition for the consumer's food expenditures and choices. Figure 26 shows the shares of the two categories over the past half-decade. There is only modest shifting, reflecting the now well-accepted market segmentation between these two major food market outlets for consumers. It is also well accepted that these two markets, while both providing food to consumers, provide different services, different buying (consumption) environments and attendant benefits to the consumer.

These sectors remain strong competitors for the food dollar. These two markets also usually require food in different packaging, formats and presentations, which in turn can provide for product differentiation for competing food manufacturers. These can also lead to different margins for such products according to quality, supply and scale requirements.

The differences in consumption patterns between food retailing and food service provide greater insights into the complexity of the food markets and multiple differences in market segmentations, but these become quite micro-focused. Broad data collection and comparisons become difficult as each market segment (even within each major category) requires its own unique handling, presentation and pricing.



Figure 26: Percent of Food Expenditure on Food Purchased from Stores and Restaurants. Source: Statistics Canada Cansim tables 203-0002 and Cansim Table 203-0021.

3.10.9 Grocery Retail Footage Growth

Another key driver of competitiveness for the Canadian food manufacturing sector is the trend in food retail footage growth. Such growth can reflect domestic market growth (population/income growth), increased competition from new entrants (such as Walmart and Whole Foods), and store expansions or remodelling to improve customer experiences. These trends also include the consolidation of retail space over time as food retailers adjust to changed consumer markets.

The latter shifts would indicate increased demand for food manufactured products, but they can also describe an intensely competitive retail food market space, and pressures by major and independent food retailers to aggressively compete for limited consumer food dollars within a specific market or region. With consolidation comes increased purchasing power by these same food retailers, increasing the competition between food suppliers to reduce pricing. A 2013 CIBC report provides ominous words for food manufacturers: "Make no mistake, no matter how many, or what type of synergies are talked about, the vast majority of, and the easiest, synergies are higher rebates from consumer packaged goods suppliers."

The chart below (Figure 27) reveals recent retail square footage growth for groceries in Canada over the past decade. Such information and analysis can provide insights, but when considering the number of SKUs (stock keeping units) in each store, different markets for such products, different product options, and different pricing and product placements within major retailers, a direct link to a food manufacturer's own competitiveness becomes more challenging. It is also recognized that such retail footage growth varies considerably depending on the urban/non-urban market under consideration.

9. CIBC Institutional Equity Research. "2013 Grocery Consolidation Playbook" January 29, 2013.



Figure 27: Grocery Retail Square Footage Growth. Source: CIBC Institutional Equity Research Industry Update, January 29, 2013.

3.10.10 Foreign Government Policy Impacts

Much of the focus on the drivers of competitiveness is on domestic market and policy conditions. The importance and capacity of foreign food manufacturers to successfully compete in either the domestic or global marketplace with Canadian food manufacturers are key elements of long-term competitive capacity for domestic firms. Another is the role of foreign governments in increasing, or limiting, food manufacturing competitiveness.

For example, initiatives by a foreign government to invest in the infrastructure, talent, technology of their agri-food firms, including their food manufacturers, to enable to them compete more effectively in a higher-priced, high-standards market like Canada will have impacts on Canadian food manufacturers both within the domestic market or globally. Investments to obtain and sustain high-quality safety standards by formerly less competitive foreign food manufacturers would be noticeable.

In turn, actions by foreign governments to limit access to their markets for various reasons will also affect competitiveness and viability for Canadian food and agri-food manufacturers. The European Union ban on genetically modified organisms (GMOs) in food sold at retail/foodservice within the EU may reflect EU citizen preferences and desired standards. These can also severely limit the competitive capacity of Canadian food firms that either do not meet those standards or find the shift from Canadian to EU standards, as in this example, too costly to participate. Canada has, along with the US and Argentina, launched and won a WTO case, but the EU has not yet complied.

According to a study by Didier and Fontagne¹⁰ (2010) Canadian exports of corn, canola and animal food preparations to the EU declined between 2003 and 2005. The declines were moderated as Canadian exporters found other markets. The recently announced CETA deal would further open up Canadian beef and pork exports to the EU, but only if they met EU standards. This would require new investments by the domestic food manufacturers, and recognition that differences in standards meant parallel production patterns so as not to mingle supplies. This does affect Canadian food manufacturing competitiveness with competitors within the EU. However, the overall sector impacts are muted and have not been studied as these issues become commodity/sub-sector specific.

3.10.11 Food Expectations

A commonly accepted driver of food manufacturing competitiveness is the ability of the firm, or industry, to match product characteristics to the consumer expectations of the foods consumed. In May 2010, Agriculture and Agri-Food Canada published a market analysis report on consumer behaviour, attitudes and perceptions of food products in the domestic market.¹¹

Specific food trends identified were:

Value: the desire to balance product quality and price;

Health: the contribution of the food product to overall wellbeing;

Convenience: simplified meal preparation with few ingredients, low preparation and clean up times;

Authenticity: differentiation from mass market produced products through attributes such as history, production techniques, or geographical provenance; and,

Sustainability: demand for products with limited negative environmental or social impacts.

These trends are not all equal in impact or preferences. At times, some trends may be at odds with each other. For example, the consumers' search for convenience may not be consistent with history or other authenticity attributes. But both attributes may be critical to the consumers' sense of value of that food product. Consumer preferences may vary with the product purchased, income, age, geography and available competition on the food retail market shelf. There is also the issue of successfully communicating these attributes to the buying consumer. McCluskey and Loureiro,¹² note that consumer responses to food labelling in general is a function of their perception of food quality. Such labelling is only effective in creating a premium for the product if consumers perceive the quality of that product is improved over non-labelled products.¹³ The authors also note distinctions in consumer responses in different markets and cultures, such as the receptiveness (or lack of) in different markets for GMO food products. But, excessive labelling can be counterproductive as consumers may be overwhelmed by the amount of packaging on a food label.¹⁴

14. Abnterle, Alessandro., Alessia Cavaliere and Elena Claire Ricci. 2012. Consumer Preferences and Willingness to Pay for Food Labelling: A Discussion of Empirical Studies. *Journal of Food Distribution Research*. Volume 34, Issue 3. pp.96-102.

^{10.} Disdier, Anne-Célia and Lionel Fontagné. 2010. Trade Impacts of European measures on GMOs condemned by the WTO panel. *Review of World Economics*. Volume 146, Issue 3. pp.495-514.

^{11.} Agriculture and Agri-Food Canada. 2010. The Canadian Consumer – Behavior, Attitudes and Perceptions Towards Food Products.

McCluskey, Jill J. and Marria L. Loureiro. 2003. Consumer Preferences and Willingness to Pay for Food Labelling: A Discussion of Empirical Studies. *Journal of Food Distribution Research*. Volume 34, Issue 3. pp.96-102.
Ibid.

These product differences and consumer expectations, and matching the two, become extremely difficult to analyze within a developed food marketplace in which consumers have access to a wide range of food products with wide variations in product attributes, including price, and in which the market performance of such products varies over time. The measure of such product attributes and consumer food expectations against trade flows would be another major analytical challenge.

4. Conclusions

This analysis builds on previous work by the Canadian Agri-Food Policy Institute to identify a number of the drivers of competitiveness in the Canadian food manufacturing industry. The chart on page 6 of this report provides additional clarity on the evolving analysis of these drivers and the shift to more micro level analyses. Where possible, the analysis in this report examined whether these identified drivers were critical to the longer-term competitiveness of the industry, or whether the analysis led to a more nuanced view of their importance in driving Canada's food manufacturing industry. This report attempts to analyze or comment on almost all of the identified drivers of competitiveness noted earlier.

The key challenge facing such an analysis is the variable impacts of certain drivers across all industry segments; i.e., those affecting one or more industry segments to a greater degree than industry averages; the availability of independent, accurate data for analysis of several drivers; and the shift between macro-level drivers and micro-level drivers on the industry's economic performance, as decisions on investments are made at the firm level.

On balance, the history of trade performance in Canada's food manufactured products argues that there are more factors at play than just the traditionally identified drivers. Ascribing the reason for the trade deficit in food manufacturing exclusively to a short list of widely quoted drivers (such as the Canadian exchange rate, regulatory burden and input costs) may be more expedient than providing a deeper understanding of the sector's competitive performance over time. The trade performance, sales performance, and investment activities all indicate that the Canadian food manufacturing industry has performed differently and at times much better than would have been assumed if these commonly noted drivers of competitiveness were solely responsible for the industry's competitive position.

This analysis examined a range of other drivers of competitiveness raised by industry leaders, outside observers and CAPI. A number of these drivers did not have matching levels of public data availability or historical analyses to draw upon for comparison or detailed analysis. Where possible such analyses were undertaken and commentaries provided on possible impacts of such drivers. In turn, where necessary, a short description of the issues involved and suggestions on how to improve the data, and data analysis, were provided to assist with future work on these drivers.

It is clear that although competitiveness issues for Canadian food manufacturing have long been analyzed, there remains considerable new data collection, analysis and reporting to do to verify impacts and the importance of a number of drivers of competitiveness in this sector. In turn, discussions of the possible impacts of various drivers with industry leaders or proponents may lead to further clarification of issues, improved definition of the drivers, or realignment of these drivers of competitiveness to better reflect industry-wide impacts versus firm-specific impacts.

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The differing responses by various sub-sectors of the Canadian food manufacturing sector provide better insights into the responsiveness, adaptability and innovation of this sector to a series of competitive challenges. This argues for a greater recognition by individual firms or industry segments of the role of management, leadership, and product/process innovation in the effort to better understand the longer-term competitiveness of Canada's food manufacturing sector.

It also argues for a stronger focus on investment activities within the industry – why, by whom, and on what – as the key indicator of future competitiveness, rather than just trade flows. Such analyses could in turn be applied to those public sector agencies or departments closely involved with the food manufacturing sector in order to better understand public sector agency responsiveness and adaptability to similar these drivers.

Additional work on Canada's food manufacturing sector should also include analysis of the recent openings and closings of a number of food processing facilities in Canada since the beginning of the last decade, prior to the rise of the Canadian dollar, and extend into business case studies/surveys of these investments and disinvestments in this industry.

Finally, the explicit variations in industry or firm responses to a number of the drivers of competitiveness argue for a re-examination of previous perceptions of how the food manufacturing industry or specific firms respond. It would include consideration of how fast, or how long, responses to various drivers occur within dynamic, developed economies where consumer and technology reactions to change may be very fast. It would also look into how institutional inertia, and variations in public perceptions of risks and industry legal liability, may lag in response to competitive changes in the day-to-day marketplace.



Appendix

Figure A1: Trade Balance of Primary Processing vs Secondary Processing using selected HS codes for Pork – Example Only. Source: Industry Canada.

The above chart is an example only of the differences within Canada's pork trade between the primary and secondary processing, and the need to look beyond just the general summary line. It also indicates differing factors will have different impacts upon the same general food product category.

Table A1: HS Codes Used

Primary

- HS 020311 Swine, Carcasses and Half-Carcasses Fresh or Chilled
- HS 020312 Swine, Cuts with Bone In Fresh or Chilled
- HS 020319 Swine, Cuts Boneless Fresh or Chilled
- HS 020321 Swine, Carcasses and Half-Carcasses Frozen
- HS 020329 Swine, Cuts Boneless Frozen
- HS 020630 Swine, Edible Offal Fresh or Chilled
- HS 020641 Swine Livers, Edible Offal Frozen
- HS 020649 Swine Edible Offal Nes Frozen
- HS 021011 Hams, Shoulders and Cuts thereof, with Bone In Cured
- HS 021012 Bellies, Streaky and Cuts thereof, of Swine Cured
- HS 021019 Swine Meat Cured

Secondary

- HS 150100 Rendered Pig or Poultry Fat (Including Lard)
- HS 160100 Sausages and Similar Products of Meat, Meat Offal or Blood; Food Preparations of these Products
- HS 160241 Hams and Cuts Thereof of Swine Prepared or Preserved
- HS 160242 Shoulders and Cut Thereof of Swine Prepared or Preserved
- HS 160249 Swine Meat and Meat Offal (Excluding Livers) Nes (Including Mixtures) Prepared or Preserved