

# Understanding the Processed Food Trade Balance

A Preliminary Overview of  
PROJECT 1

THE CAPI PROCESSED FOOD SECTOR RESEARCH PROGRAM

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The Canadian Agri-Food Policy Institute  
960 Carling Avenue, CEF  
Building 49, Room 318  
Ottawa, ON K1A 0C6

Telephone: 613-232-8008 or toll-free 1-866-534-7593  
Fax: 613-232-3838

[www.capi-icpa.ca](http://www.capi-icpa.ca)  
[info@capi-icpa.ca](mailto:info@capi-icpa.ca)

David McInnes, President & CEO: [mcinnesd@capi-icpa.ca](mailto:mcinnesd@capi-icpa.ca)

Daniel Yeon, Vice-President, Operations: [yeond@capi-icpa.ca](mailto:yeond@capi-icpa.ca)

The word 'Canada' is written in a large, black, serif font. A small Canadian flag is positioned above the final 'a'.

## Overview

The Canadian Agri-Food Policy Institute (CAPI) is providing a detailed view of the trade performance of Canada's processed food sector.

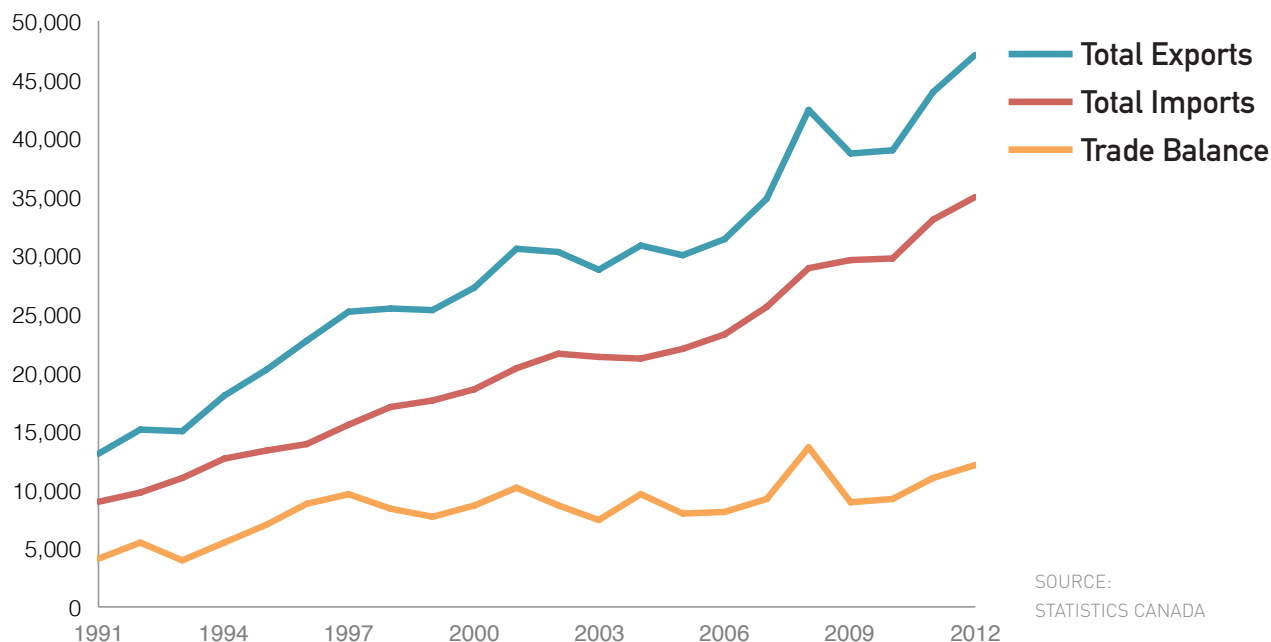
While our analysis will be forthcoming, your input may help us better understand what is happening and why. As our analysis unfolds, we will identify what may be common key drivers of change. This will be important to our further work as part of this research program into the state and prospects of Canada's processed food sector.

## Canada's overall agri-food trade balance: A consolidated view

CAPI's work is based on reporting on trade balance performance according to the World Customs Organization's Harmonized Commodity Description and Coding System (HS) for trade statistics.

Overall, Canada has a trade surplus in agri-food thanks to its robust trade performance in agricultural commodities and primary processing sector. With a trade surplus of some \$12.2 billion, the situation is a good news story, notably because of the growth in the value of its exports. However, when disaggregating the trade balance by its four sections, the picture changes.

### AGRI-FOOD TRADE BALANCE (\$ millions)

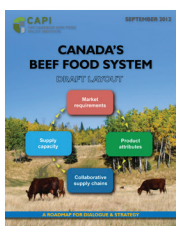
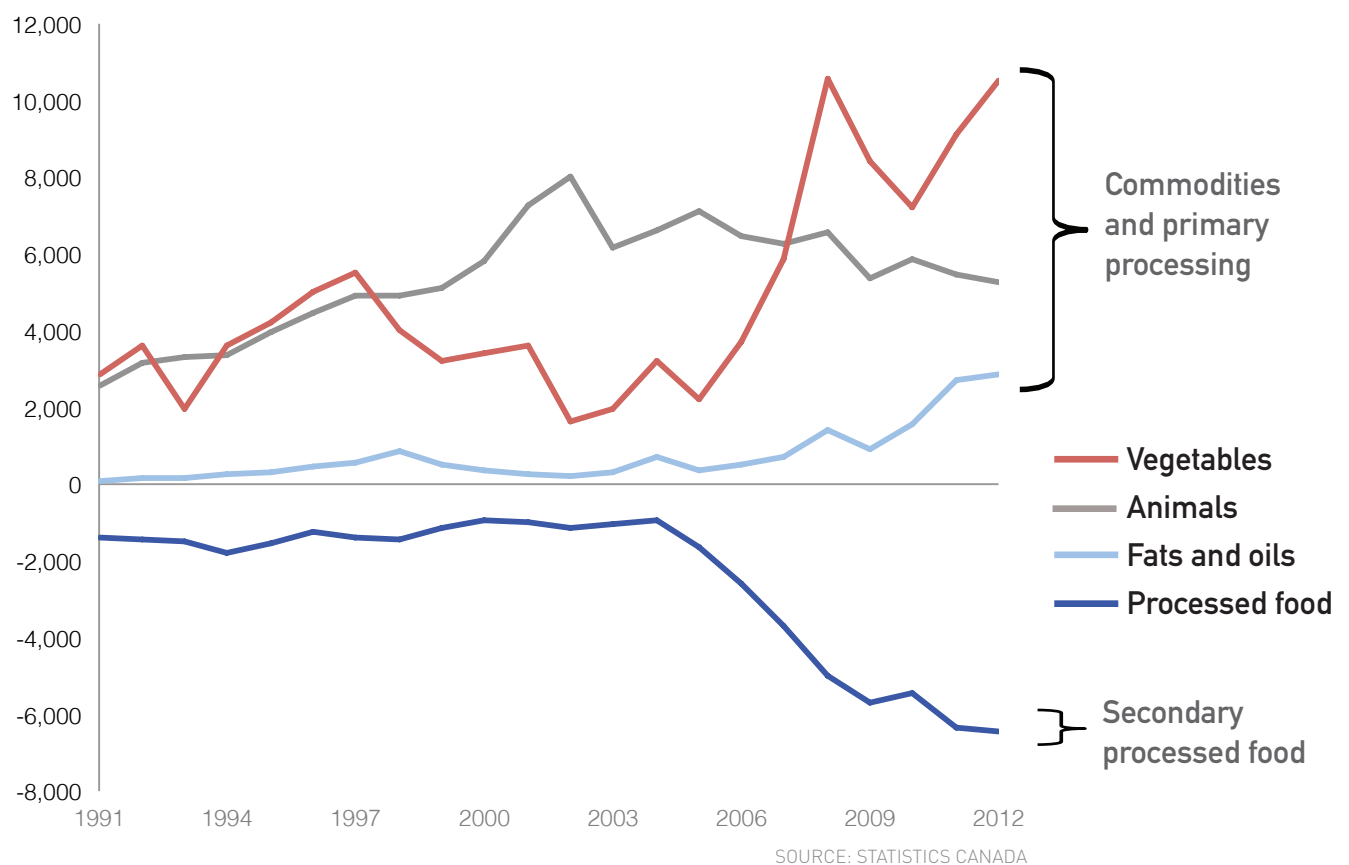


## The performance of Canada's four agri-food sectors

All three of Canada's commodity designations (i.e., sections I, II, and III of the HS classification), which also include "primary processing," are in a trade surplus. However, processed food (secondary processing) is facing a rising trade deficit. The "live animals" trade balance is \$5.3 billion, but this is down from its peak of \$8 billion.\* "Vegetable products" (which includes grains and oilseeds) has a \$10.5 billion surplus. "Fats and oils" has a \$2.9 billion surplus. The "food, beverage, spirits, vinegar" category has a negative trade balance and, since 2004, its trade deficit has risen to nearly \$6.5 billion. (Tobacco was removed from this category for purposes of this analysis.)

CAPI's current research is focused on this latter HS category, secondary processing.

### AGRI-FOOD TRADE BALANCE BY SECTOR (\$ millions)



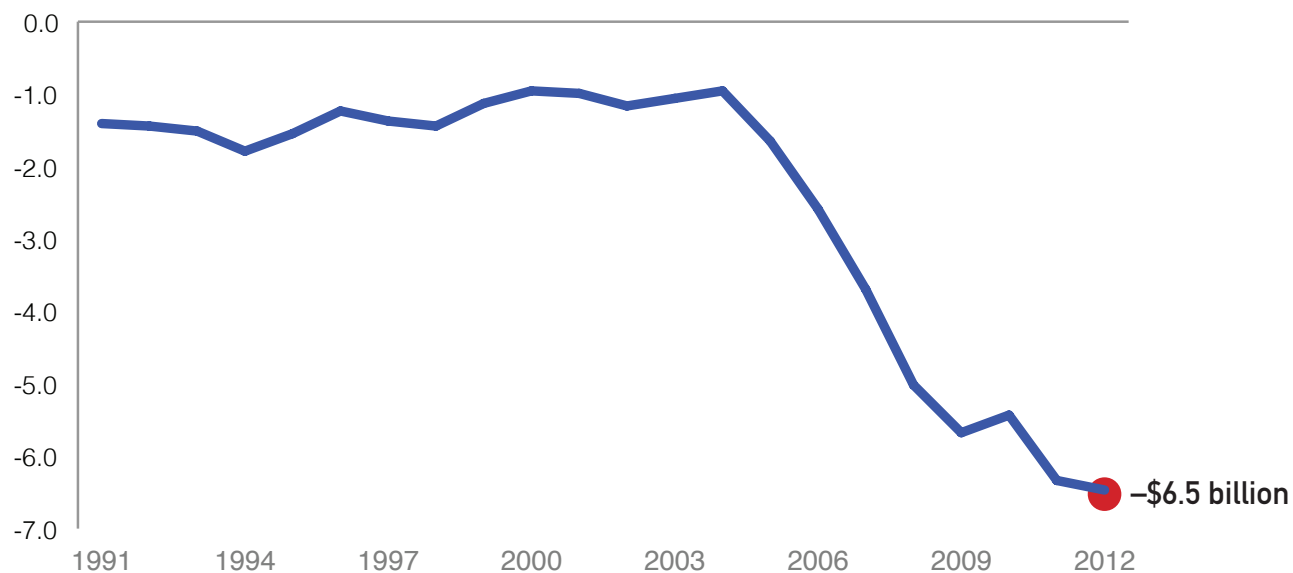
\* The declining trade balance in the Canadian beef sector is addressed in CAPI's 2012 report, *Canada's Beef Food System*.

## Performance of processed food: A deteriorating trade balance

Taken separately (and note the different scale), this view of the secondary processing trade deficit (HS IV only) reveals the substantive shift that has taken place since 2004. Since 2011, the deficit rose from \$6.3 billion to \$6.46 billion in 2012. The data includes “food products” and “beverages, sprits and vinegar” (shortened to “beverages” for use in this analysis), and excluding “tobacco.”

Our work is about understanding what is happening across this sector. This requires examining the trade data for each food type – or some 140 specific products that make up the total trade situation. The analysis begins by looking at the two main categories at a two-digit level of HS code for food products and beverages.

### PROCESSED FOOD TRADE BALANCE (\$ billions)

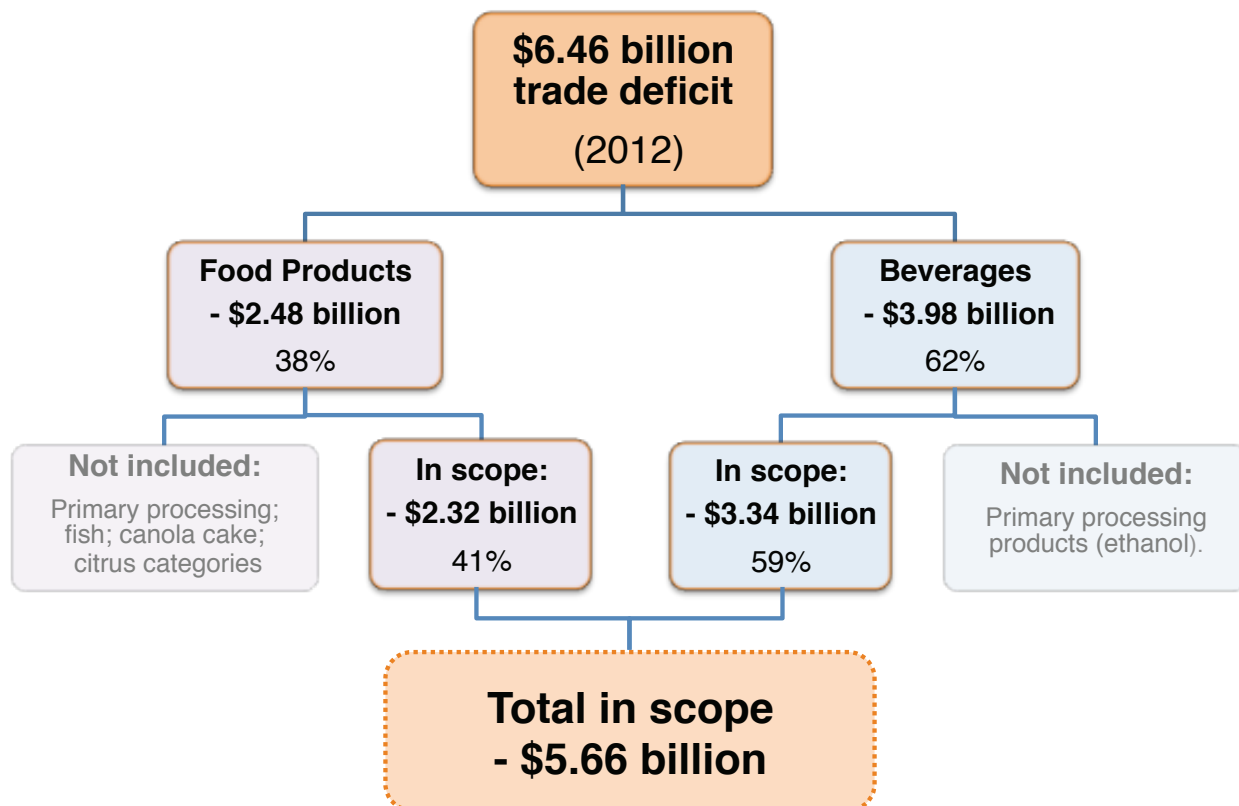


SOURCE: STATISTICS CANADA

## Processed food research focus: Methodology

This analysis of HS IV examines its two contributing sectors or subsectors: food products and beverages. Certain items are not included in our analysis and were deemed out of scope. Though an important sector, fish and seafood processing was removed from our analysis. Canola meal used in animal feed and citrus juices, a non-Canadian sourced ingredient, are also not included. As well, the HS classification normally includes tobacco (chapter 24) but CAPI has excluded it from its analysis. Within the beverages sectors or subsectors, ethanol was deemed out of scope as it is a primary processed product.

After these adjustments, the analysis focuses on food products representing \$2.32 billion in activity (representing 41% of the total trade deficit in HS IV) and beverages represents \$3.34 billion in trade activity (or 59% of the total). Some \$0.8 billion of combined activity was deemed out of scope. The total for food and beverages in this analysis: a trade deficit of \$5.66 billion.



## Understanding HS codes

To properly examine trade performance for an industry, the data must be viewed at a more granular level. This is facilitated by using the World Customs Organization's Harmonized Commodity Description and Coding System (HS) for trade statistics as made available by Statistics Canada. This is a recognized method to analyze trade in products.

HS codes differ from other measures of economic performance, such as the "NAICS" or North American Industry Classification System. CAPI is using HS data in this project because it provides detailed information on trade in specific products. By examining the data to four or six levels of HS code analysis, a better view of trade performance by food type can be provided.

### Explanation of HS Classifications

|                         |  |
|-------------------------|--|
| <b>HS IV</b>            | This HS classification refers to "sections," such as those measuring commodities and most primary processed foods (i.e., sections I, II, and III, respectively). Section IV examines most secondary processed foods. The HS categories can be further broken down into more detailed views or chapters of trade performance. |
| <b>Two-digit level</b>  | CAPI's focus is section IV, which has several chapters at a two-digit level of analysis. Each chapter reflects broad groupings of food; for example, HS chapter 16 represents the trade balance for "meat, fish, and seafood".   |
| <b>Four-digit level</b> | At a four-digit level, HS codes permit a greater level of detail about trade performance for individual categories or sub-sectors. For example, chapter HS 1602 measures processed meat but excludes sausages.   |
| <b>Six-digit level</b>  | The six-digit category is the highest level for which the codes are harmonized throughout the world. The six-digit level permits further categorization of the data. Still within chapter 16, for instance, there are various types of meat, such as "turkey" (HS 160231), "ham" (HS 160241) and "beef" (HS 160250).         |

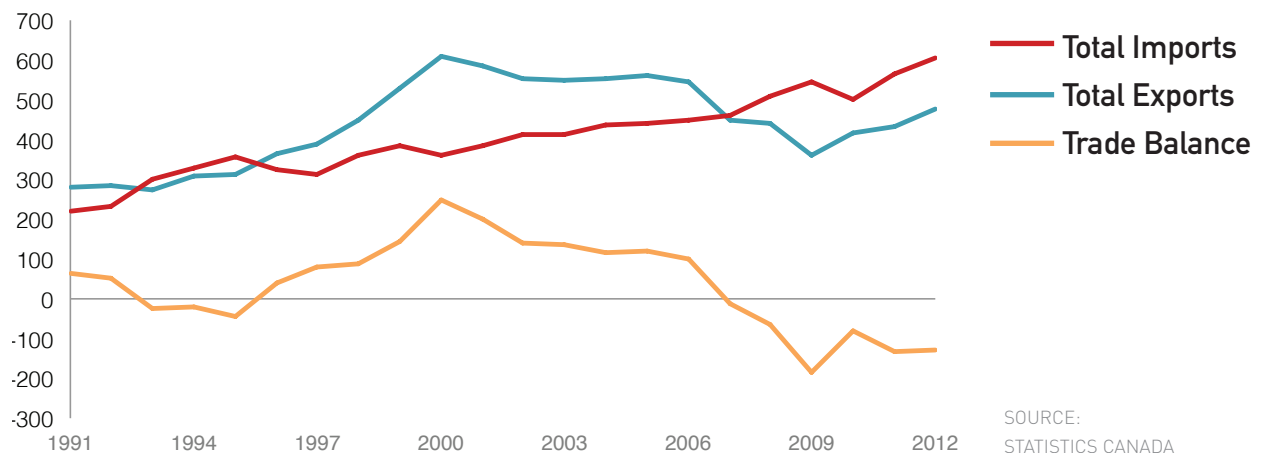
The trade balance of food and beverages products includes several HS "chapters," notably chapters 16 through 23 (Food products are covered by chapters 16, 17, 18, 19, 20, 21, and 23, and beverages by chapter 22.)

## UNDERSTANDING THE PROCESSED FOOD TRADE BALANCE

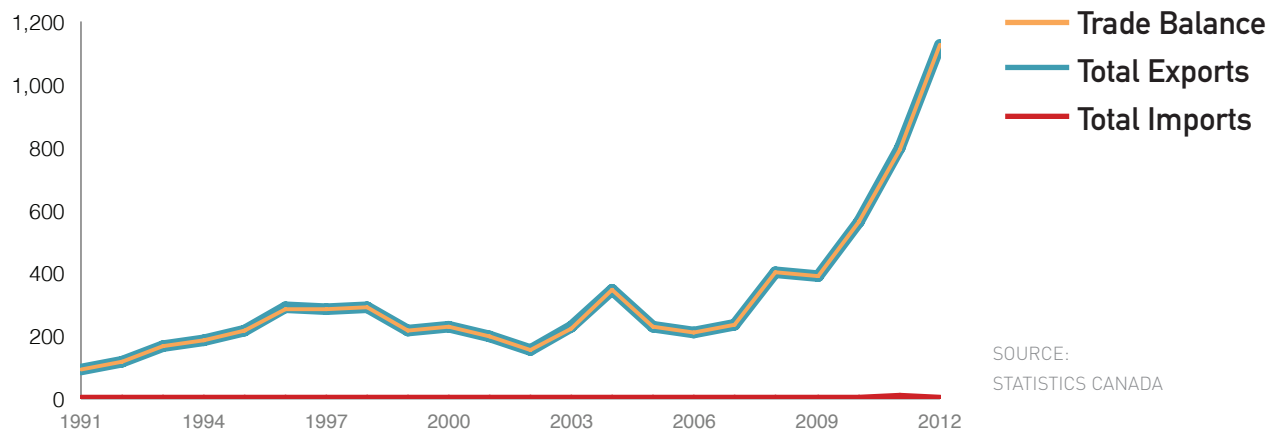
For purposes of our analysis, some items were deemed “out of scope” and not included in order to sharpen our focus. Fish and seafood processing was removed from our analysis as was canola meal used in animal feed and citrus juices, a non-Canadian sourced ingredient. As well, the HS classification normally includes tobacco but CAPI has excluded tobacco (chapter 24) from its analysis. For background interest, the data on the trade balance for fish and seafood and canola meal are provided. Both are important processing activities and economic drivers for Canada. Canola meal is technically included in HS chapter 23 (HS 230640, 230641, & 230649) and has a significant \$1.1 billion trade surplus. Fish & seafood (HS 1603, 1604, & 1605) contains many sub-sectors and had a \$129 million trade deficit in 2012.

Excluded items were deemed to be out of scope to provide a consistent analysis and to focus on processed food from agricultural production. Canola cake is an ingredient used in cattle feed. Fish and seafood is a distinct and large category that, based on this work, may inspire the need to conduct a unique analysis of this sector by other researchers at a later point.

### FISH AND SEAFOOD TRADE BALANCE (\$ millions)



### CANOLA MEAL TRADE BALANCE (\$ millions)





## Data limitations

**Domestic marketplace:** The data reveal trade performance for products in terms of exports and imports. They do not indicate what is happening within the Canadian marketplace. Sub-sectors could be performing well, or not, depending on their presence in the domestic market.

**Processing imported ingredients:** These data do not reveal how imported ingredients are further used to manufacture or produce food products or beverages. Some insights are easier to glean than others. Cocoa is imported and is captured under one HS code, for instance, and it is clearly required to produce chocolate which is exported and falls under another code.

**Firm performance:** The data do not show individual firm performance. They provide a consolidated view at a sub-sector level. Individual companies could be (and are) performing vastly better or worse than the trade data summaries indicate at such levels of analysis.

**Consumer trends:** The HS data reflect the dollar value of imports and exports. They do not reveal consumption trends. This is important to more fully understand what is occurring within Canada and other countries.

**Connection to primary agriculture and primary processing:** Canada's secondary food processors rely on the country's agricultural producers and its primary processors to supply them with the ingredients necessary to further process food for sale by restaurants, grocery stores and food service providers. Over 35% of primary production in Canada is processed within Canada. In some provinces, food processors are a channel for well over 60% of primary agriculture production. The trade data found in the report does not reveal this connection directly. But, clearly, such agricultural ingredients are essential to the processed food sector. Producers and processors are important to each other for their respective economic success.

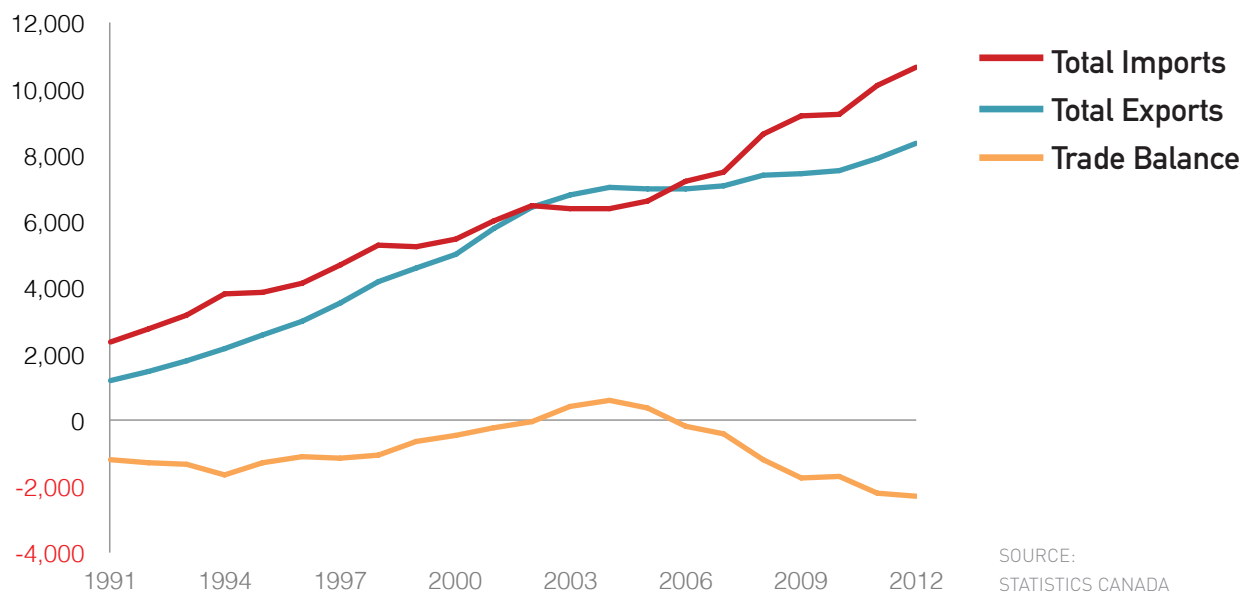
**Note:** Not all of the data at the six-data level were made available for this project.

## Trade performance: Food products

Food products have a \$2.3 billion trade deficit. From 1991 to 2001, exports grew at an average rate of 17% while imports grew at an average rate of 10%. From 2002 to 2012, however, imports grew at a faster rate of 5% than exports which grew at a rate of 3%.

Food products enjoyed a trade surplus from 2002 to 2006 during a period where the Canadian dollar fluctuated from around US\$0.65 to US\$0.90.

### FOOD PRODUCTS TRADE BALANCE (\$ millions)

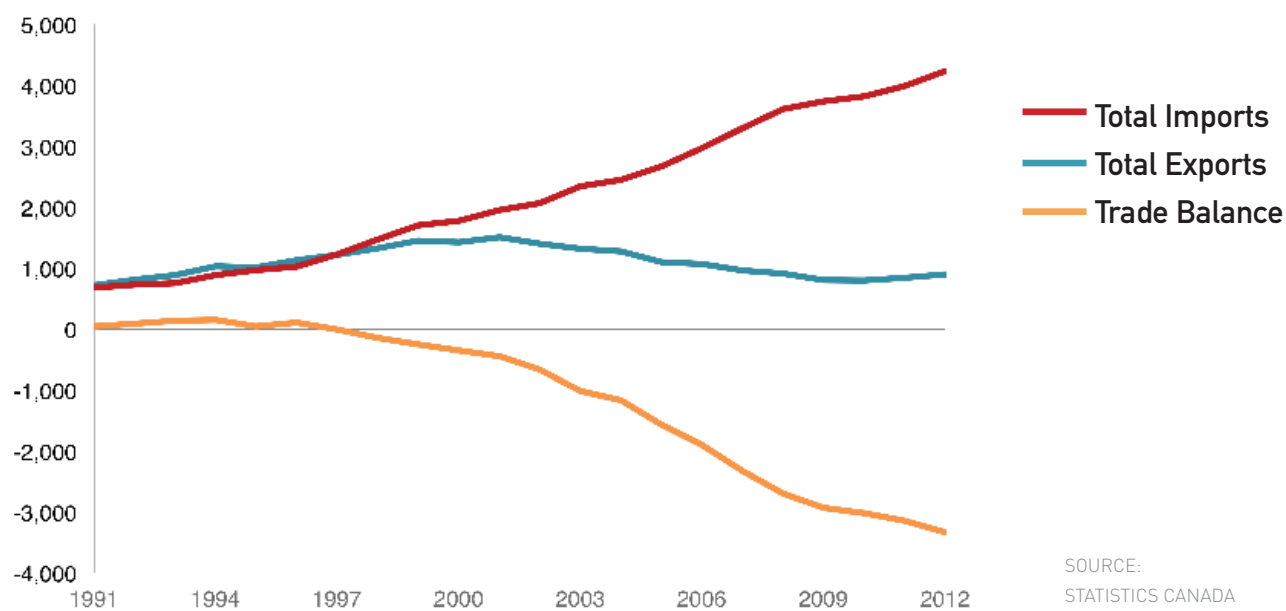


## Trade performance: Beverages

This chart provides a complete view of the in scope beverages trade balance; imports are steadily rising and exports are generally flat. Note: fruit juices are categorized under “food products,” not “beverages”.

Beverages have a \$3.3 billion deficit. From 1991 to 2001, imports grew at an average annual rate of 11% while exports grew at a rate of 8%. Grape wine is the major driver of the overall trade deficit data, representing a deficit of \$1.7 billion (2012). Beer was at a trade deficit of \$400 million. Combined, they account for over 60% of the trade deficit in beverages and nearly 40% of the total within scope trade deficit under HS IV.

### BEVERAGES TRADE BALANCE (\$ millions)



## In-scope food and beverages by chapter

The trade balance analysis can be arranged by HS chapter; each chapter is recording a trade deficit.

Chapter 16: Meat, fish and seafood preparations

Chapter 17: Sugar and sugar confectionary

Chapter 18: Cocoa preparations

Chapter 19: Cereal, flour and pasta

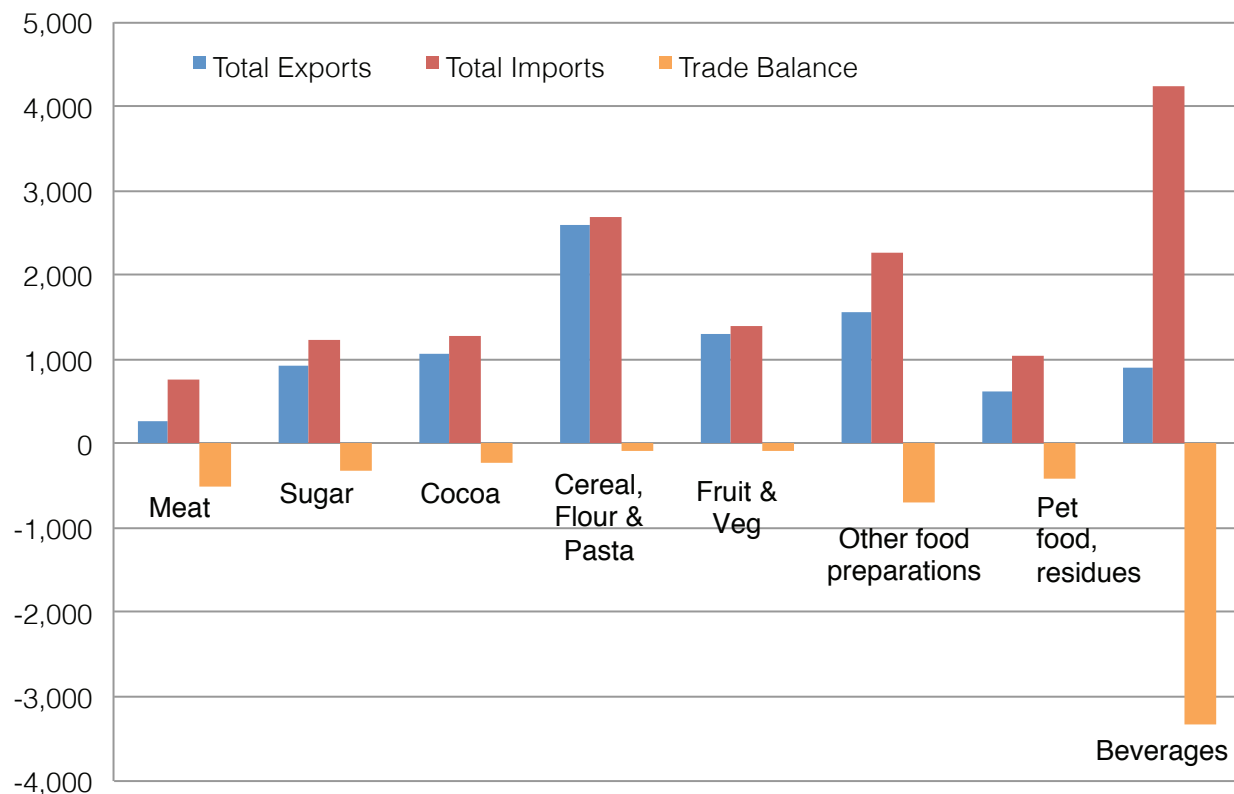
Chapter 20: Fruit and vegetable, nuts

Chapter 21: Other food (or edible) preparations: coffee/tea, yeasts, sauces, condiments (ketchup) and seasonings, broths, ice cream, flavourings, etc.

Chapter 22: Beverages, spirits and vinegar

Chapter 23: Pet food, residues and other waste from the food industries and foods unfit for human consumption; starch residues

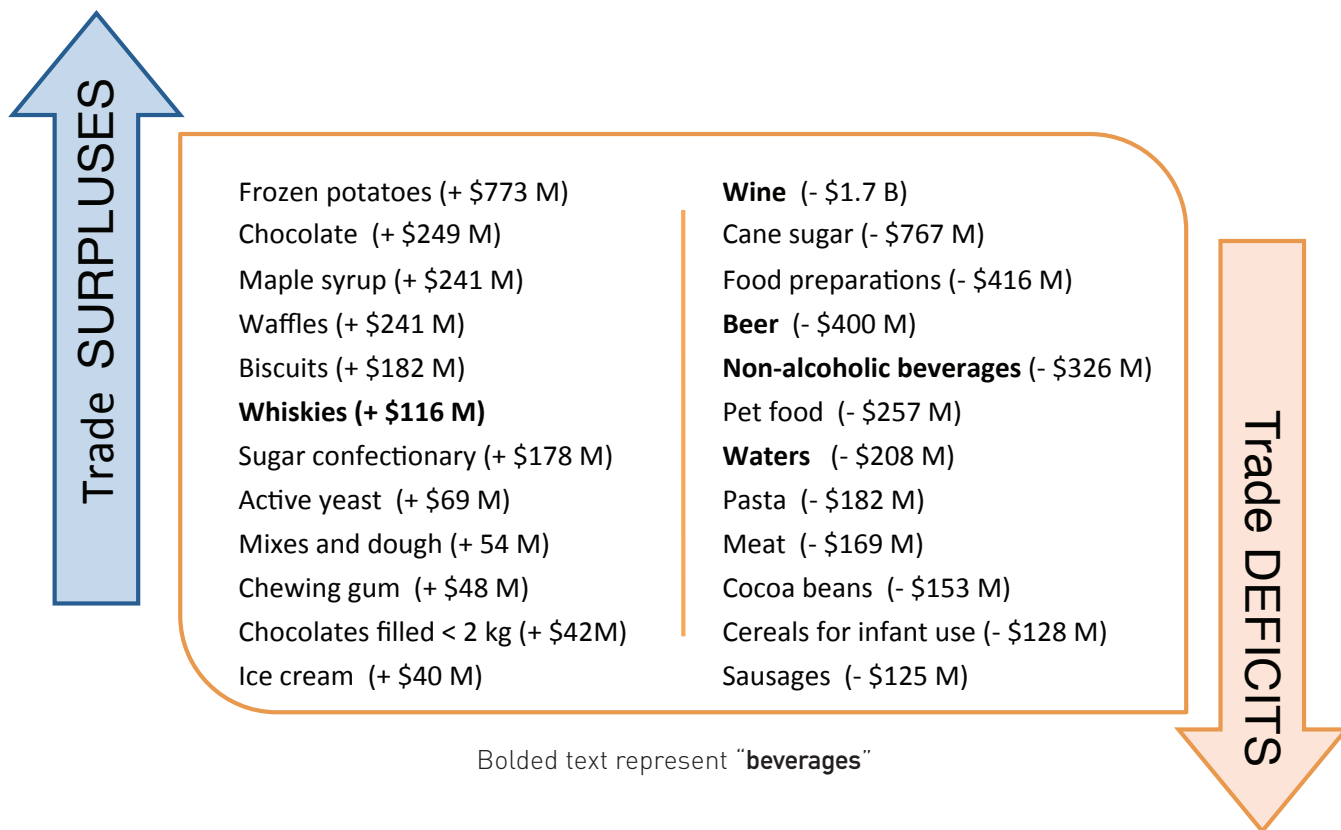
### FOOD and BEVERAGES TRADE BALANCE BY CHAPTER (\$ millions)



SOURCE: STATISTICS CANADA

## Which categories are surplus & deficit leaders? (at a six-digit HS code)

To provide another perspective of trade performance, below are the leading categories and their trade deficit or surplus, at a six-digit level of HS code.



## Further analysis

For the some 140 data sets by HS chapter, please refer to CAPI's website:  
[www.capi-icpa.ca/proc-food/project1/ag-overall.html](http://www.capi-icpa.ca/proc-food/project1/ag-overall.html)

## Research Program Advisory Team

**Ted Bilyea**

CAPI

**Bob Seguin**

George Morris Centre

**Susie Miller, Denyse Landry**

Agriculture and Agri-Food Canada

**Douglas Hedley**

**Munir Sheikh**

Queen's University

**Anne Couillard**

Statistics Canada

**Patrick Hurens,**

**Sylvie Verdun**

Industry Canada

**Shelley Thompson**

(Researcher)

SJT Solutions

**David McInnes, Daniel Yeon**

CAPI

The research data have been prepared by Shelley Thompson, SJT Solutions. CAPI is grateful to Industry Canada, which sponsored this particular project, and to the project's Advisory Team for its guidance.

## About the CAPI research program

The Canadian Agri-Food Policy Institute (CAPI) has taken on the challenge to determine whether Canada's processed food sector — one of Canada's largest manufacturing sectors — can shift from record deficits to competitive resurgence. Canada's prosperity will depend in part to how well this sector invests, innovates, meets consumer needs and expands exports. CAPI will undertake solid research, bring diverse stakeholders together and hold dialogues on the bold choices for industry and government about positioning the sector for future success.