

## FCC Ag Economics: A 2014 look at global trade



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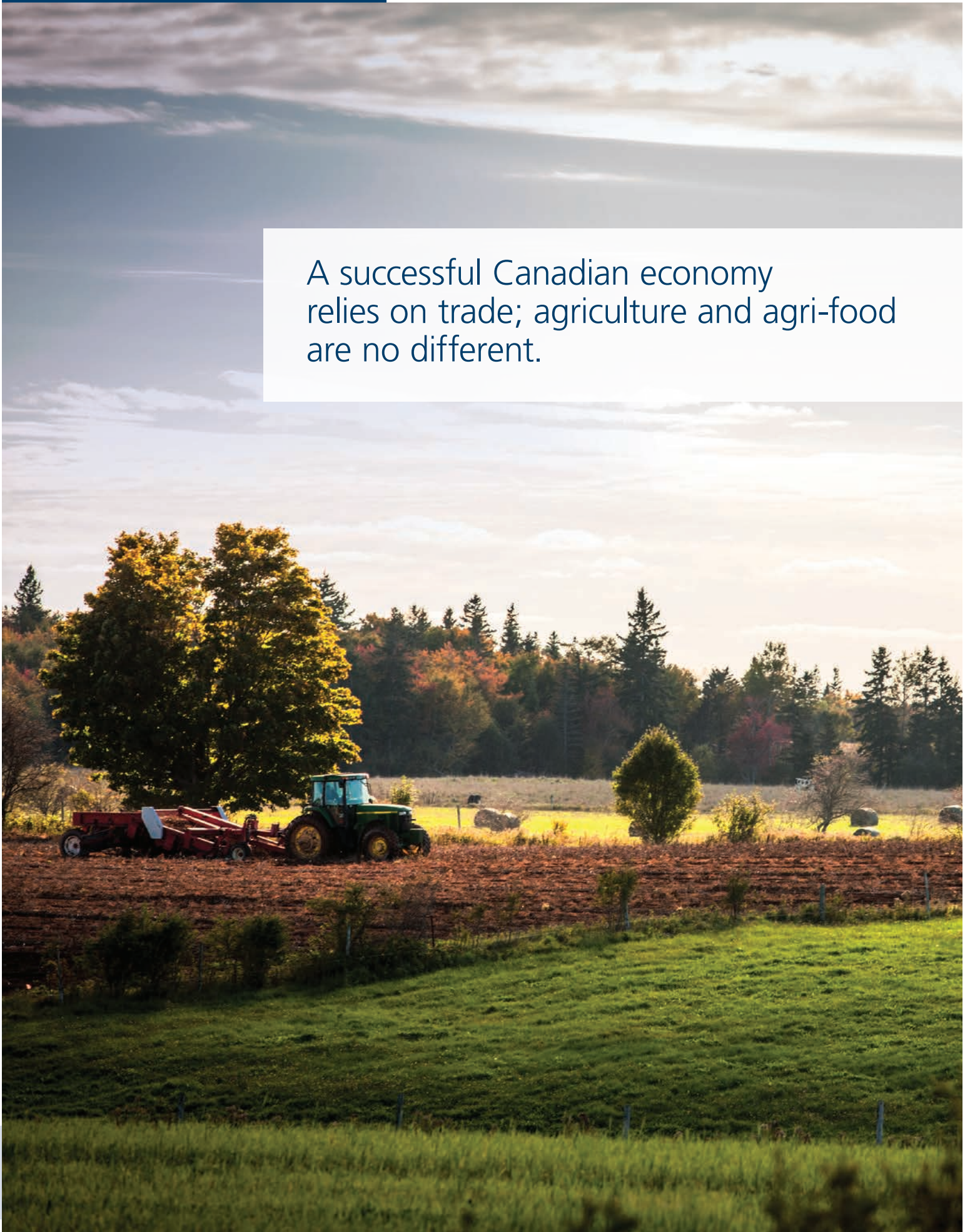
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A successful Canadian economy  
relies on trade; agriculture and agri-food  
are no different.



## Introduction

Trade is critical to the Canadian economy and the agriculture and agri-food system. Canada benefits from an open economy promoting trade, ranking among the world's top importers and exporters of agriculture and agri-food products. The agriculture and agri-food system provides Canadians with 2.2 million jobs (Agriculture and Agri-Food Canada (AAFC)) and year-round access to a supply of healthy, high quality and diverse food options.

To maintain this system, Canada needs to remain competitive in traditionally strong export markets such as the United States, while at the same time creating new market opportunities among more affluent Organization for Economic Co-operation and Development (OECD) populations and the expanding middle class in developing markets.

This report focuses on primary agriculture and agri-food manufacturing and the competitiveness of these sectors relative to other key agriculture and agri-food economies. It provides a brief summary of the different countries and regions selected for inclusion in the report and the factors that impact Canada's competitiveness. The report also describes recent trade flows and future market opportunities as a result of population growth and shifting food demand in developing economies.

The report features several case studies of special interest to Canadian producers and businesses: the Trans-Pacific Partnership (TPP), the Comprehensive

Economic and Trade Agreement (CETA) with the EU and the general challenge to open trade posed by non-tariff trade barriers. It examines the potential market opportunities for Canada in two emerging economies: 1) in India, where conditions may create a more open trade environment for pulse crops; and 2) in China where demand for red meat is growing.

### Key Findings:

- Canada is the world's fifth largest exporter and the sixth largest importer of agriculture and agri-food products
- Per capita, Canada is the top global trader of agriculture and agri-food products
- Export growth rates to Brazil, Russia, India and China (BRIC countries) exceed that of OECD countries; however, the value of primary agriculture exports to the OECD markets is four times that of exports to BRIC
- The United States is and will remain Canada's largest trading partner for agriculture and agri-food products
- The removal of trade barriers for Canadian lentils to India could result in a 147 per cent increase in exports over five years
- Rising incomes in China present major market opportunities for beef; however, pork will remain the preferred protein of the Chinese population

# The importance of the agriculture and agri-food system to Canada<sup>1</sup>

Canada<sup>2</sup> is the world’s 10th largest economy and has a population of 35 million people. Canada ranks as the world’s fourth largest country in terms of total land and the eighth largest in terms of arable land. Canada has the world’s third lowest population density, behind only Australia and Kazakhstan. This means Canada and Australia both have the capacity to produce far more than their small populations can consume.

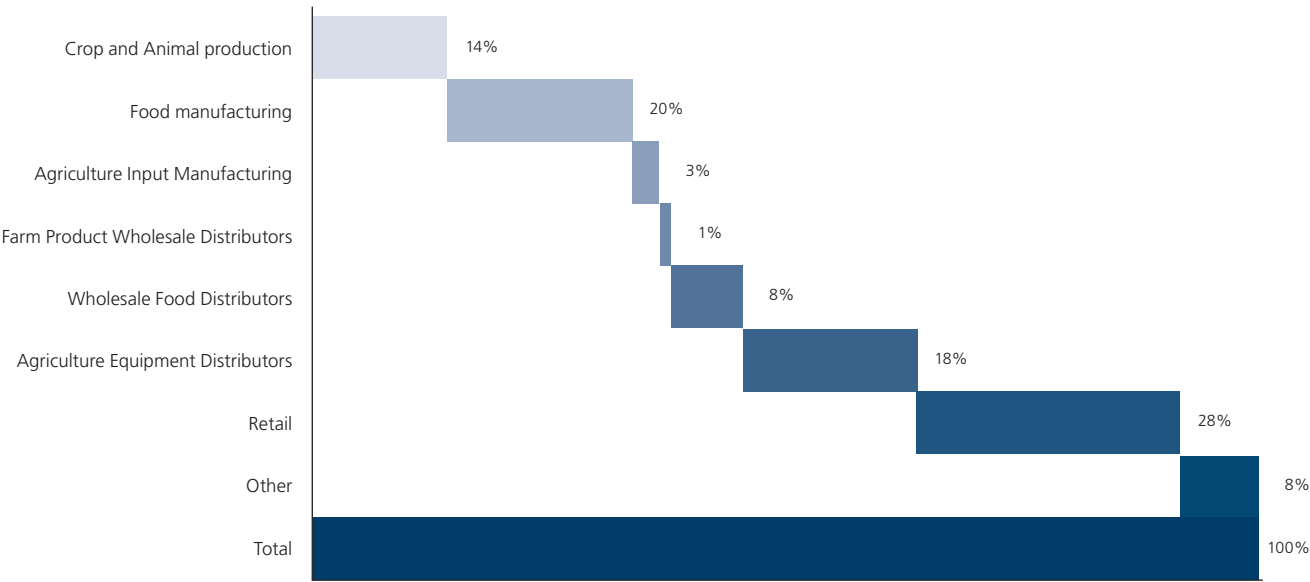
The agriculture and agri-food system<sup>3</sup> is an important component within the overall Canadian economy. It

accounted for 6.7 per cent of total GDP in 2013 and provided almost one in eight jobs, according to AAFC.

The agriculture and agri-food system is comprised of different industries along the supply chain (Figure 1). The two largest contributors to the agriculture and agri-food system are retail and food manufacturing, together representing almost half of the total system. In 2013, primary agriculture – crop and animal production – accounted for 14 per cent of the agriculture and agri-food system.

**Figure 1: Key components of Canada’s agriculture and agri-food system**

Source: Stats Canada, CANSIM table 379-0031



Accessed: August 2014

1 Within this document, “agriculture” describes crop and animal production (NAICS 111 & 112); “agri-food” is defined as all food and beverage manufacturing products (NAICS 311 & 312); “agriculture and agri-food” refers to the output of the agriculture and agri-food sectors combined.

2 For sources used to calculate world rankings, see Appendix I

3 The overall agriculture and agri-food system includes farm input and service suppliers, primary agriculture, food and beverage processing, food retail and wholesale and foodservice industries.

## The importance of trade to Canada

Canada is a world-leading trader of agriculture and agri-food products: the fifth largest exporter, behind the European Union (EU), the United States (U.S.), Brazil and China, and the sixth largest importing country (Figure 2). Canada holds its own among countries with much larger populations

and economies, both importing and exporting large values of agricultural and agri-food products. Canadian imports are driven by two prominent features: sophisticated food preferences of Canadians and climatic conditions that prohibit the year-long production of fresh produce.

**Figure 2: Canada's agriculture and agri-food system a major global player**

Source: UN, Comtrade

World ranking	CANADA	AUSTRALIA	EU	JAPAN	U.S.	BRAZIL	RUSSIA	INDIA	CHINA
Total ag & agri-food exports	5	8	1	33	2	3	16	7	4
Total ag & agri-food imports	6	15	1	4	2	18	5	9	3

Accessed: August 2014

The median household income in Canada was \$76,000 in 2011, according to Statistics Canada, making Canadian households among the wealthiest in the world. That level of income has led to a preference for healthy and high quality foods. For example, Canadians demand fresh fruits and vegetables year round, and that demand must partially be met by foreign exporters.

The value of Canadian exports of agriculture and agri-food products is also high. Based on Canada's high economic output and small population, they are an important overall driver of its economy. Exports account for a relatively large portion (30 per cent) of gross domestic product (GDP) and are the second largest contributor to Canada's economic growth, behind personal consumption.

In 2013, Canada recorded an overall agricultural trade surplus. What particularly stands out is Canada's

performance on a per capita basis, which pushes it to the position of the world's top trader (Figure 3).

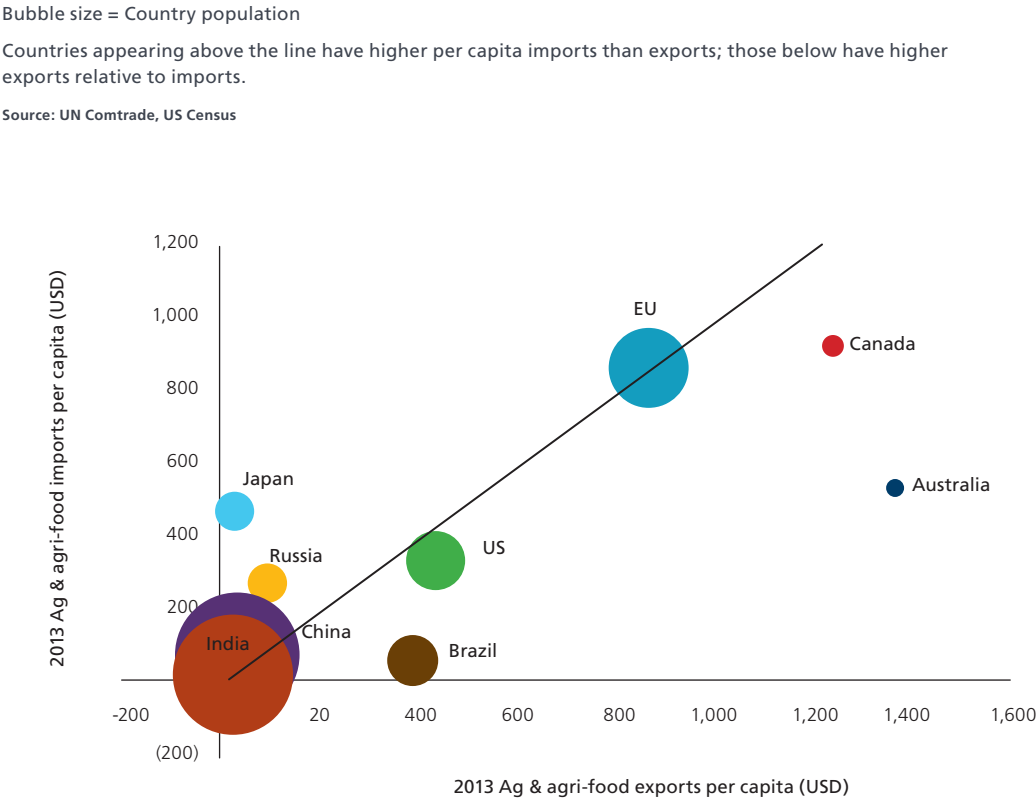
The value of Canadian agriculture and agri-food exports was roughly \$1,200 USD per capita in 2013, second only to Australia (about \$1,300 USD).

Canada also has a higher value of agricultural trade (i.e., both imports and exports) per person than any other country. In 2013, that amounted to more than \$2,100 (USD) per person. Australia, with export values and a small population similar to Canada, has the second highest values at about \$1,900 (USD).

Countries appearing above the line in Figure 3 are those with an agriculture and agri-food trade deficit (greater import values than export values) while those below the line – generally major agriculture producers – have a surplus agriculture and agri-food economy. More developed countries appear to trade more on a per capita basis.



**Figure 3: Canada: the world’s top per capita agriculture and agri-food trader in 2013**



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The story differs substantially looking at agriculture and agri-food imports and exports based on countries’ availability of land (Figure 4).

The trading activity of both the EU and Japan on a per-hectare basis is disproportionate to that of the other countries – so much so that it is impossible to distinguish the other countries in the analysis.

In 2013, the EU had roughly the same very high values – about \$4 million (USD) per 1,000 hectares of arable land – of both imports and exports. This

produces a trade balance near zero. On the other hand, Japan, with high population density and small land base, had imports of about \$14 million (USD) and less than \$1 million (USD) of exports per 1,000 hectares of arable land.

With the EU and Japan removed from the analysis, the relative importance of the other countries is revealed. The pull-out section of Figure 4 shows agriculture and agri-food trade on a per hectare basis of these countries, including Canada.

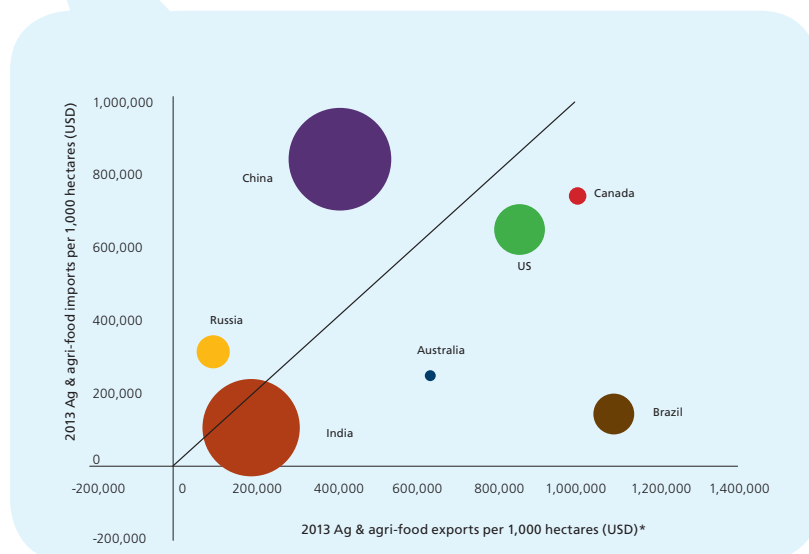
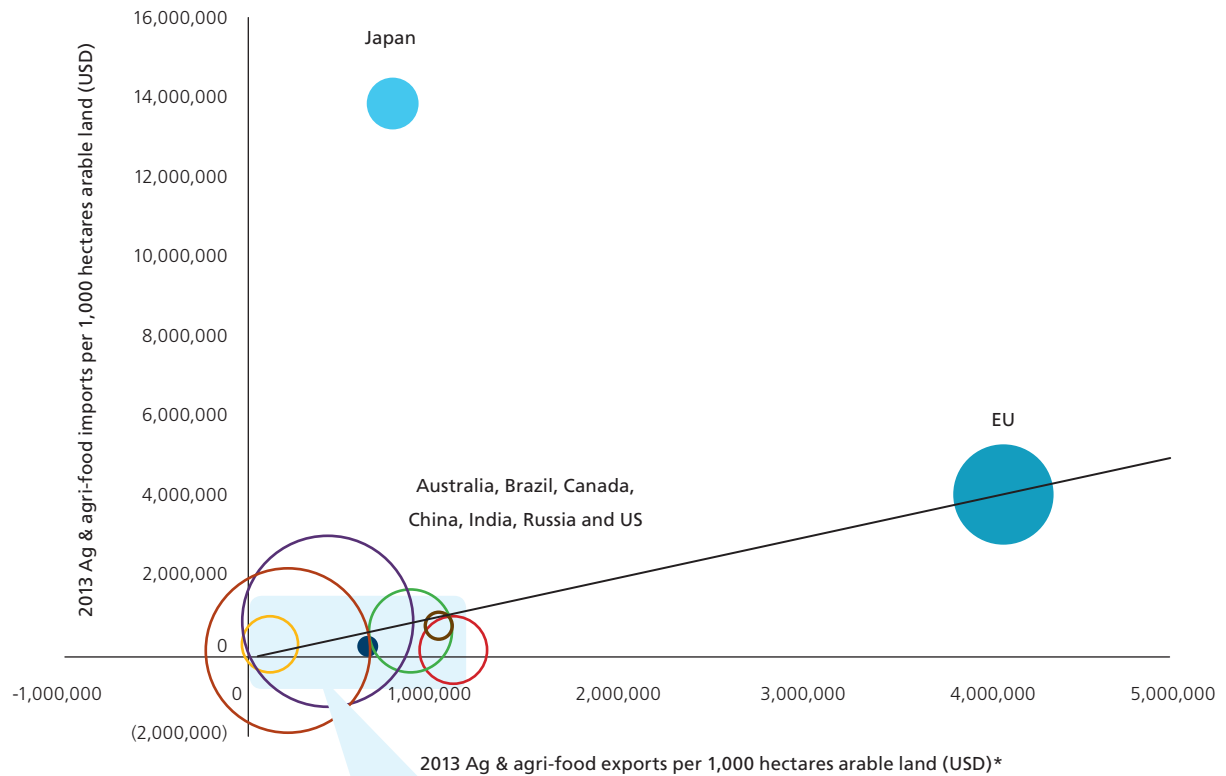


**Figure 4: EU and Japan outsized world traders on high-value trade (per 1,000 hectares arable land)**

Bubble size = Country population

Countries appearing above the line have higher per capita imports than exports;  
those below have higher exports relative to imports.

Source: UN Comtrade, US Census, FAOSTAT




In 2013, for every 1,000 hectares available for production, Canada exported about \$1 million in agriculture and agri-food products. Imports were roughly \$700,000.

Only Brazil and the EU have higher export values on a per hectare basis than Canada. Australia, with slightly more land available for production than Canada, has considerably lower export and import values.

The charts reveal an interesting story. The Canadian agriculture and agri-food sector is clearly open, not only to exports but also to imports. The EU is a very active agriculture and agri-food trader, in absolute and relative terms. Russia, and especially Japan, import far more than they export, while Brazil is a very strong exporting country.

A lot of attention is paid to China and India as export markets because of their large populations and rapid economic growth (see page 17 for an analysis of Canada's lentil trade with India and page 20 for a description of China's growing consumption of red meat). Figures 3 and 4 show the extent to which there are still opportunities for those markets to develop. While both India and China are in the top ten of both agriculture and agri-food importers and exporters, their low position on a per capita and per hectare basis shows the potential market opportunities if trade opens up in those countries.

The background of the entire page is a photograph of a port. In the foreground, there are several stacks of shipping containers, mostly red and brown, with the 'ZIM' logo visible on many of them. In the background, there are large red and white gantry cranes. The sky is a clear, pale blue.

## The challenge of non-tariff trade barriers

Trade agreements are often evaluated on the basis of direct market access and tariff concessions. But there are multiple factors that impact the ability to sell in foreign markets. Meeting regulations in foreign markets can sometimes represent sizeable costs for businesses, especially when there is a great deal of uncertainty about how these measures will be interpreted and enforced. For this reason, modern trade agreements address more than taxes at the border. They also aim to address and harmonize regulations, standards and other measures that have an impact on business practices.

An importing country's rules around labelling, product testing, and certification can impose additional costs to exporters – costs that place the product beyond competitive pricing in that export market.

These are “non-tariff barriers,” requirements that provide protection for a country's industries despite reduction of all tariffs and related taxes in ratified trade agreements. They're often used to protect industries deemed sensitive when facing pressure from increased imports.

Those costs can be steep: a Dutch consulting firm estimated that non-tariff barriers imposed on bilateral agri-food trade flows between the U.S. and the EU were in many instances about ten times larger than actual trade taxes applied at the border.

# Canada’s competitive agriculture and agri-food system

Canada has some natural advantages in agriculture and agri-food trade. With enviable proximity to the Unites States, Canada’s primary agriculture, food and beverage manufacturing sectors have become highly integrated with the world’s largest single-country economy. The North American Free Trade agreement (NAFTA) helped support the development and integration of Canadian and U.S. industries. This is further enhanced by the natural trade flows of North American goods and services. North-south trade routes are often more developed and efficient than east-west traffic.

The U.S. economy accounted for 34 per cent of Canada’s total agriculture exports in 2013. Certain

subsector exports rely almost exclusively on the U.S.: over 90 per cent of Canada’s greenhouse, live cattle, and hog exports and approximately 85 per cent of Canadian fruit and vegetable exports went south of the border in 2013.

Across all Canadian agri-food export markets, the U.S. is dominant, accounting for 68 per cent of food manufacturing exports and 89 per cent of beverage manufacturing exports.

In 2013, Canada ranked among the top five exporters for pork, wheat and oilseeds and was the seventh largest exporter of the beef (figure 5).

Figure 5: Canada: the world’s third largest exporter of pork and wheat

Source: Index Mundi (USDA PSD Online), OECD-FAO Agricultural Outlook

World ranking	CANADA	AUSTRALIA	EU	JAPAN	U.S.	BRAZIL	RUSSIA	INDIA	CHINA
Beef exports	7	3	9	33	4	1	23	2	18
Beef imports	9	39	6	3	1	26	2	60	5
Pork exports	3	9	2	17	1	4	20	n/a	5
Pork imports	8	10	35	1	7	53	4	n/a	2
Wheat exports	3	5	1	23	2	18	4	9	13
Wheat imports	58	94	6	5	10	3	38	113	17
Oilseed exports	4	6	3	27	1	2	15	10	7
Oilseed imports	13	25	2	3	5	21	10	20	1

Accessed: August 2014

## A comparison of OECD and BRIC markets

Countries from the OECD historically represent the key markets for Canadian agriculture and agri-food exports. These include developed economies whose consumers have incomes that allow for the purchase of high-value food. More recently, economic growth among developing economies, most notably the BRIC countries have outpaced OECD countries. They present significant market opportunities for export growth.

OECD markets are the top importers of all Canadian crops, with over half (55 per cent) of our exports shipping to these markets. Within the OECD, the U.S. is the largest single-country importer, accounting for 27 per cent of Canada's total crop exports, followed by Japan (12 per cent).

Overall, China is Canada's second largest export market for crops (15 per cent).

Within overall crop production, grains and oilseeds make up three-quarters of Canada's exports. The U.S. is still the number one importer (18 per cent of total grains and oilseeds exports), but the dominance that the U.S. shows across most Canadian export subsectors is not found with this category. Other significant markets include China (17 per cent) and Japan (14 per cent). Four emerging markets – Mexico,

India, Bangladesh and Indonesia – account for another 16 per cent.

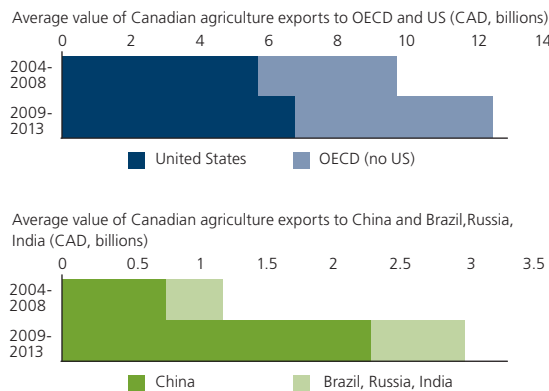
Canada enjoys a trade surplus in three of the four categories (crop and animal production, food manufacturing) within the agriculture and agri-food system. Only in beverage and tobacco manufacturing was there a trade deficit at the end of 2013 (\$3.76 billion). This side of manufacturing contributes five per cent of Canada's total agri-food exports.

Within agri-food export markets, the OECD dominates (83 per cent of all agri-food exports), with the U.S. market at the top of the list. China (eight per cent), Japan (six per cent) and the EU (three per cent) are other significant markets for Canadian agri-food exports. China is the primary market among the BRICs (Figures 6 and 7).

Average annual Canadian agriculture and agri-food export growth to OECD and BRIC countries increased between 2009 and 2013 compared to the previous five years, as shown in Figures 6 and 7. While the growth rate of exports to BRIC countries outpaced the rate of export growth to OECD countries, agriculture exports to OECD countries (over \$12 billion (CAD)) remain more than four times greater than exports to BRIC economies.

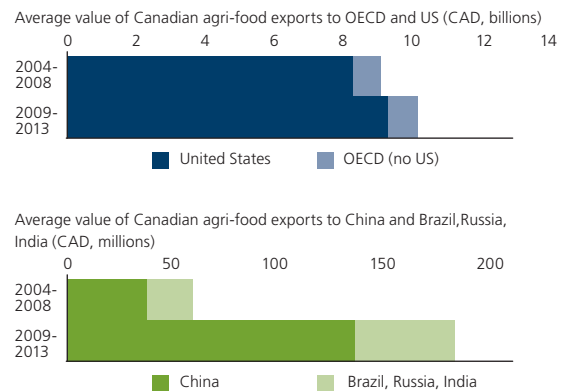
**Figure 6: Composition of agriculture exports to OECD and BRIC countries**

Source: Industry Canada



**Figure 7: Composition of agri-food exports to OECD and BRIC countries**

Source: Industry Canada



Accessed: August 2014





## Exports grow, despite the trade deficit in secondary food processing

While Canada has remained competitive in the overall food and beverage manufacturing sector, the secondary food processing sector<sup>6</sup> has waned. Canada's overall trade balance in this sector has steadily declined since 2004, to a deficit of \$6.8 billion in 2013.

The pattern in the trade balance may suggest a loss of competitiveness, yet exports have increased. IBM defines resilience as: "...the ability to rapidly adapt and respond to risks, as well as opportunities, in order to maintain continuous business operations, be a more trusted partner, and enable growth." Canada's growth in exports speaks to a resilient food and beverage manufacturing sector.

As is the case for overall agriculture and agri-food trade, the U.S. is Canada's largest trading partner for secondary food processing products. Prior to 2008, Canada had a trade surplus with the U.S.; however, since the financial crisis, imports have grown faster than exports. This is the result of multiple factors, such as the increase in the value of the Canadian dollar and decreased purchasing power of American consumers.

<sup>6</sup> This includes food processing as defined by HS code 14

## COUNTRY/REGIONAL ANALYSIS

### United States

The U.S. economy continues to recover from the 2008-2009 financial crisis. Projections from the International Monetary Fund suggest its GDP annual growth rate is expected to exceed 2.5 per cent between 2014 and 2019. The U.S. remains one of the world's most highly ranked countries for its infrastructure, innovation capacity and education system. This positions the U.S. well to compete in export markets, especially for agriculture and agri-food exports.

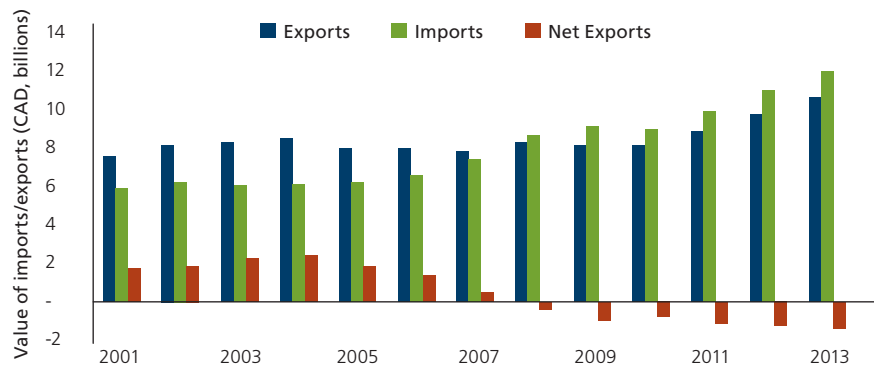
Ranked second behind the EU on imports and exports of total agriculture and agri-food products, the U.S. is the world's largest single-country economy, and

a direct competitor to Canada in nearly all domestic and international markets. With a large population and relatively wealthy households, the U.S. represents an important market for most agriculture and agri-food products, most notably beef (Figure 5).

Given the integration of the Canadian and U.S. agriculture and agri-food systems, exchange rates and market access impact Canada's competitiveness. The Canadian dollar appreciated from \$0.62 USD in 2002 to a high of \$1.05 USD in 2011. In 2014, it traded around \$0.90. The impact of the strengthening Canadian dollar has been felt clearly in the agri-food trade over the last decade (see sidebar).

**Figure 8: Secondary food processing imports from the U.S. rise faster than Canadian exports to the U.S.**

Source: Industry Canada

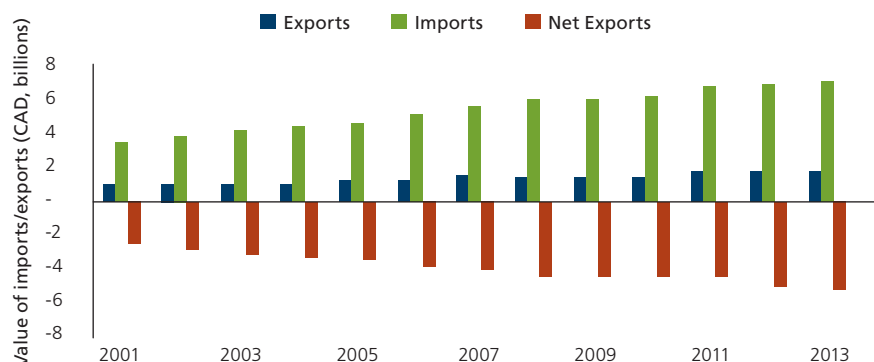


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**Figure 9: Canada grows secondary food processing exports to the world even as global imports continue to dominate in trade balance**

US excluded

Source: Industry Canada



Accessed: August 2014





## Canada and the European Union Comprehensive Economic Trade Agreement

In August of 2014, Canada and the EU finalized negotiations of a comprehensive economic trade agreement (CETA), which will eliminate 95 per cent of tariffs between the two economies over a 15-year period.

The agreement will open European markets to Canadian producers and agri-food businesses by giving them preferential access. The red meat sector is expected to benefit from CETA. The deal is also anticipated to increase Canadian exports of wheat, barley, confectionary foods, maple syrup and many other commodities. European businesses will have increased market access to Canada, most notably for specialty cheese.

It is expected that CETA will be ratified by Canadian provinces and EU member states by 2016.

## European Union

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The EU is the world's largest market economy. It is comprised of 28 member states, with a population of 500 million people and annual economic activity of almost US\$17 trillion.

The EU's 2013 imports of US\$2.2 trillion (European Commission, Directorate General for Trade), exceed Canada's total GDP for that year, which stood at US\$1.8 trillion. It's the world's sixth largest beef and wheat importer, and only China imports more oilseeds (Figure 5). The EU economy represents an important opportunity to diversify Canadian exports (see sidebar).

With high household incomes and a strong emphasis on food safety, the EU is the global leader

in agriculture and agri-food imports and exports, importing over \$130 billion worth of goods in 2012. In 2013, the EU accounted for 7.4 per cent of Canada's agriculture exports and 4.5 per cent of imports; it has historically been one of Canada's top five export markets and the second-largest source of imports by value. In 2013, it was Canada's fourth largest export market and third largest source of imports.

The EU exports some of the world's largest agriculture values. Globally, it's the largest wheat exporter, the second largest pork and third largest oilseeds exporter.



## The Trans Pacific Partnership

The Trans Pacific Partnership (TPP) is a strategic agreement to free up trade and investment among countries rimming the Pacific Ocean. It started in 2005 with New Zealand, Brunei, Chile and Singapore. Australia, Peru, Malaysia, Vietnam and the U.S. joined negotiations to expand the TPP in 2008. Malaysia followed suit in 2010. By 2013, Japan, Canada and Mexico were part of the negotiations. This is an interesting mix of fast-growing economies and competitive agricultural producing nations.

A TPP agreement could help Canada gain access to some of the world's largest markets, representing 640 million people (excluding the U.S. and Mexico) and some of the world's fast-growing emerging markets. Vietnam, Peru and Malaysia's GDP are forecast to increase in 2015 at an annual rate of 5 per cent or more (IMF).

This economic growth will translate into increased incomes and consumption of agri-food products. The 2014-2023 OECD-FAO Agricultural Outlook projects that consumption of beef, pork and wheat in Malaysia, Peru and Chile will all increase rapidly over the next decade. Pork consumption is expected to increase 27 per cent, with beef and wheat increasing more slowly at 19 per cent and 13 per cent respectively. This sharp increase in consumption will make developing nations larger trade partners on the world stage.

An expansion of the TPP trade agreement could advance Canadians trade diversification. Strictly from an agricultural standpoint, a TPP agreement could be larger than the comprehensive trade agreement with the European Union. Excluding the U.S. and Mexico, 2013 exports to potential TPP members totaled \$3.2 billion, with roughly 82 per cent of that total going to Japan.



## Japan

Japan is the world's third largest economy and a lucrative export market. It continues to face economic challenges related to high public debt, a stagnant economy, and an aging population. Japan has a large, wealthy population and a small land base, which means that the country must rely on world markets to source agriculture and agri-food products.

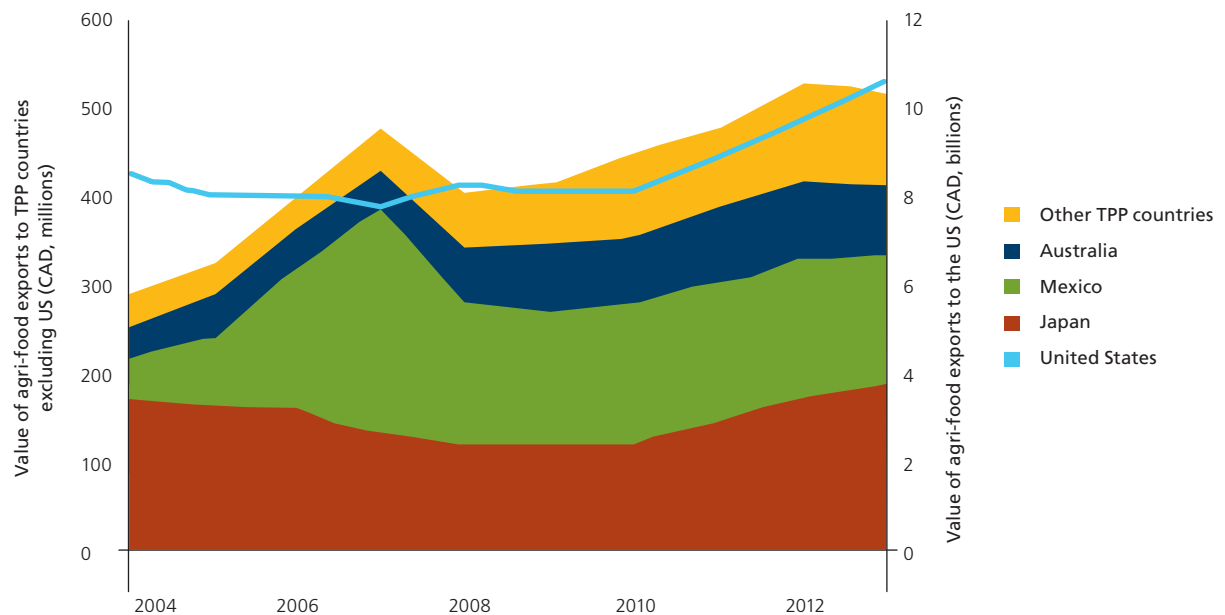
In 2013, Japan was the second largest market for Canadian pork products, accounting for 28 per cent of exports and the fourth largest market for Canadian beef (five per cent). Japan is an important market

for grains and oilseeds, accounting for 14 per cent of Canadian exports. It is the second largest market for Canadian greenhouse exports.

Canada continues to seek increased access to the Japanese market through bilateral trade negotiations and multilateral TPP negotiations (see sidebar). In April 2014, Australia and Japan concluded negotiations for an Economic Partnership Agreement. The agreement may signal that Japan is willing to open its market to agriculture and agri-food exports.

**Figure 10: Current levels of trade with TPP countries show promise of expansion with trade agreement**

Source: Industry Canada



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## Looking at potential: lentil exports to India

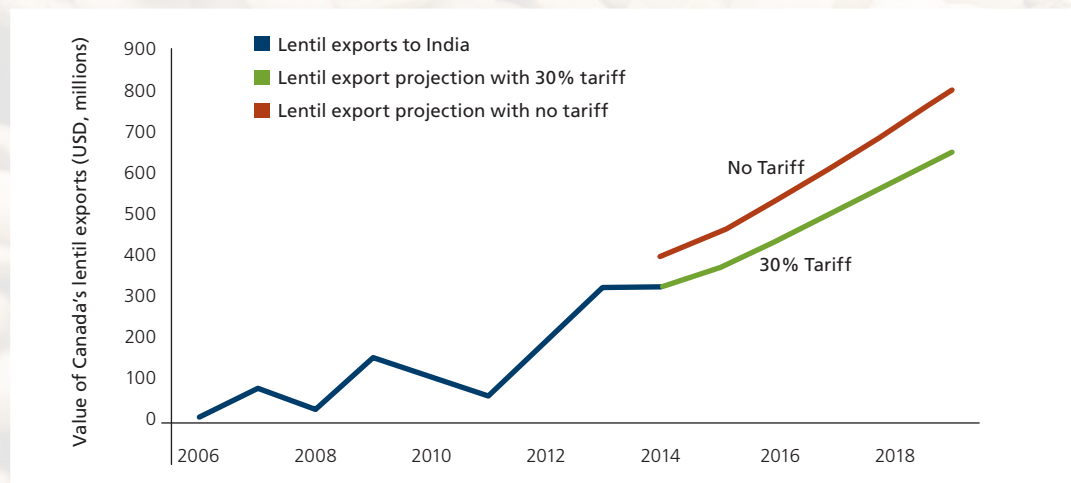
In 2010, Canada and India entered into negotiations for a comprehensive economic partnership agreement. The negotiations focus on a wide range of areas for cooperation including rules of origin and trade facilitation.

In 2013, Canadian lentil exports to India were valued at \$325 million (USD). Currently, India applies a 30 per cent tariff to all imported lentils. Based on growth projections of Canadian lentil production and India's GDP, exports could double within the next five years under the current tariff structure.

A free trade agreement could reduce or eliminate the 30 per cent tariff, potentially triggering an even larger boost to Canadian exports. Eliminating the border tax on Canadian lentils would lift the projected growth in exports by 23 per cent more than what would normally be expected based on production and GDP. By 2019, lentil exports to India could total US\$807 million – an increase of 147 per cent from today.

**Figure 11: Canada's lentil exports to grow even more if tariff reduced to zero**

Source: FCC AgEconomics



## Brazil

While economic growth has slowed recently in Brazil, it's expected to continue to outpace most economies, with average annual GDP growth of 3.7 per cent over the next 10 years. Brazil is ranked 63rd in per capita GDP and has a larger arable land base than Canada.

Brazil is the second largest consumer of beef in the world, but does not represent a real potential market for Canada due to its large domestic production. With a small market for Canadian exports, Brazil is a direct competitor for beef, pork and grains and oilseeds exports to world markets.

Brazil is the world's largest producer of sugar, used for both food and ethanol. Having pioneered the introduction of vehicles that consume large blends of ethanol in gasoline, Brazil enjoys a large domestic market. Ethanol use also accounts for 12 per cent of global coarse grains consumption according to the OECD.

Brazil's position as a world leader in ethanol production means that fluctuations in the sugar market can divert large supplies of ethanol from the world market.

## Russia

With the 43rd highest GDP per capita in the world, Russia has experienced rapid economic growth over the past decade. GDP has more than doubled since 2006. Despite this rapid growth, Russia continues to rely on old infrastructure and exhibit high levels of corruption, according to the World Economic Forum's Global Competitiveness Report. Economic risks and unpredictability also plague Russia, evidenced by

political conflicts and unilateral restrictions on food imports.

Russia was Canada's third largest pork export market in 2013, despite restrictions on the use of ractopamine, a feed additive. Russia is a major exporter of grains and oilseeds and competes directly with Canadian exports in many markets.

## India

India has the world's largest youthful population with more than 600 million under the age of 25. The country recorded economic growth in 2013 of 4.4 per cent. However, there are a number of obstacles to economic prosperity in India, including rigid labour regulations, poor and underdeveloped infrastructure, and an overreliance on foreign capital. These challenges make it difficult for companies to do business and leave the Indian rupee exposed to volatility in financial markets.

Despite these difficulties, India remains an important importer and exporter of agriculture and agri-food products. Data from the United States Department

of Agriculture (USDA) (2014) reveal that India is the world's second largest exporter of bovine (cattle and buffalo) meat (1,875,000 MT (CWE)). It is a major market for Canadian pulses and the largest importer of Canadian dry peas and beans.

Projections from the United States Census Bureau call for India's population to increase by 141 million people by 2023 and economic growth to increase by 6.4 annually through 2023 (World Economic Outlook). Hence, India is a major market opportunity for Canadian agriculture and agri-food products. Canada has been negotiating a free trade agreement with India since 2010.





## The case of China's consumption growth

Population growth in China has slowed over the last ten years, from 0.6 per cent annual growth in 2000 to 0.5 percent by 2010. By 2023, it's expected to tumble further to an annual growth rate of 0.2 per cent. However, China's demand for agricultural products is expected to grow because of increasing per capita income.

Beef will continue to provide new market opportunities for Canadian businesses, but the dominant protein in China will remain pork (Figure 12). According to USDA projections, Chinese pork consumption will increase by 6.6 kilograms per capita over the next ten years. These projections also reveal that China's domestic pork production will not be able to match the anticipated growth in demand, resulting in an additional 444 million metric tons of imports over ten years.

The demand for beef is not expected to show as dramatic an increase as pork, but is expected to easily outpace domestic production, resulting in imports increasing by 55 per cent over the next decade.

The Chinese economy has experienced tremendous growth over the past decade and leads all BRIC countries in economic growth. This rapid growth has been accompanied by higher household incomes and urbanization.

China boasts some of the lowest import and export costs in the world. It has grown to become the third largest exporter and the fourth largest importer of agriculture and agri-food products. Unable to produce enough to keep up with changing consumer demand, China has abandoned the economic principle of agriculture production self-sufficiency. Instead, it has developed subsidies that will support jobs in rural China and focused on producing the commodities that will be in the greatest demand due to changing consumption patterns.

The significance of Chinese imports to Canadian agriculture has been increasing. In 2012, China represented Canada's second-largest agriculture market, surpassing Japan, which has traditionally

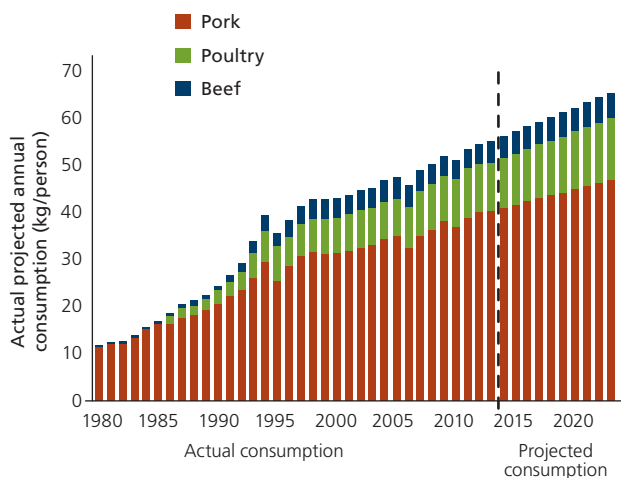
occupied that position. In 2013, that trend continued, as China imported more than 14 per cent of Canada's agriculture exports. This compares to 2008 when China was the destination of five per cent of Canada's agriculture exports.

In 2013, China was the largest importer of Canadian canola, with 40 per cent of the market. It was also the fourth largest importer of Canadian pork (six per cent), the fifth largest importer of beef (three per cent) and the second largest importer of cereal grains (two per cent) – although that number is dwarfed by US imports (90 per cent).

Economic growth in China is projected to slow as the economy rebalances from an investment-based economy to one based on consumption. This transition will occur slowly. Even in a slower economic growth environment, China should continue to carry a large weight in agriculture and agri-food world markets.

**Figure 12: Chinese prefer pork; other meats to gain greater share in food basket**

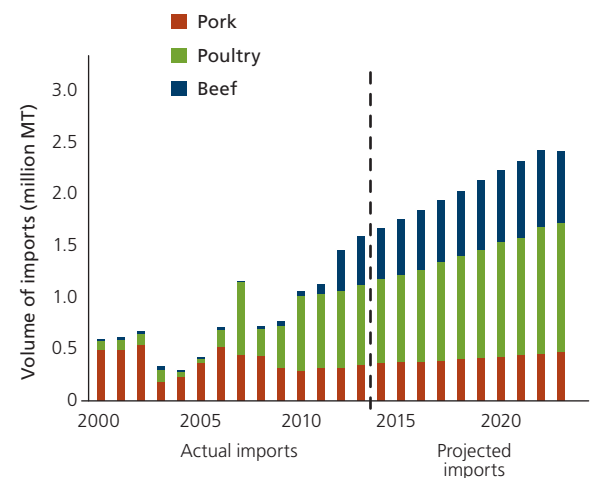
Source: Reprinted from ERS-USDA



Accessed: April 2014

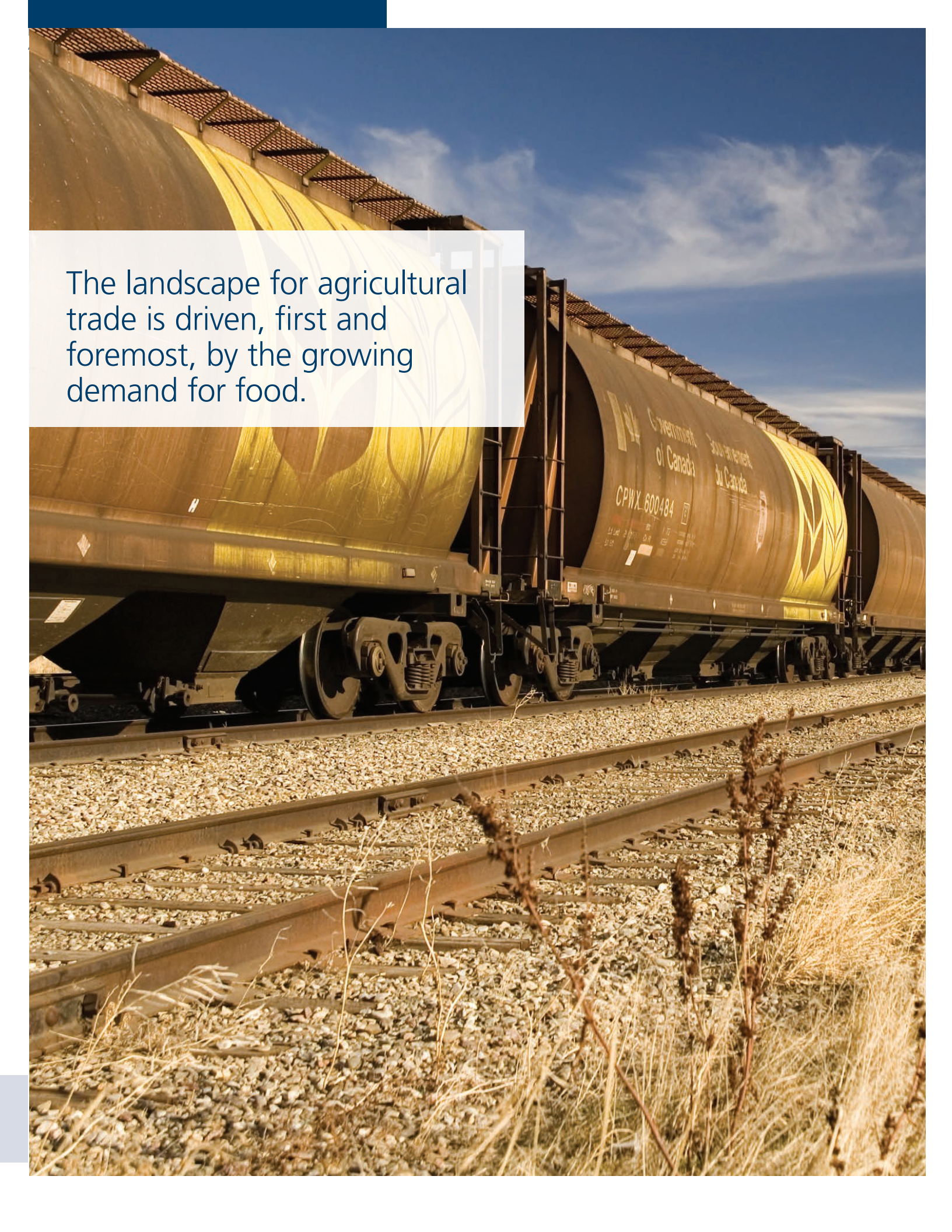
**Figure 13: Chinese imports of meats likely to increase when consumption outgrows production**

Source: Reprinted from ERS-USDA



Accessed: April 2014



A photograph of a train consisting of several large, yellow, cylindrical grain cars. The train is moving along a gravel track. The sky is blue with some light clouds. In the foreground, there is dry, yellowish grass and some small, brown, spiky plants. A semi-transparent white box with a faint floral pattern is overlaid on the left side of the image, containing text.

The landscape for agricultural trade is driven, first and foremost, by the growing demand for food.



## Where do future market opportunities exist?

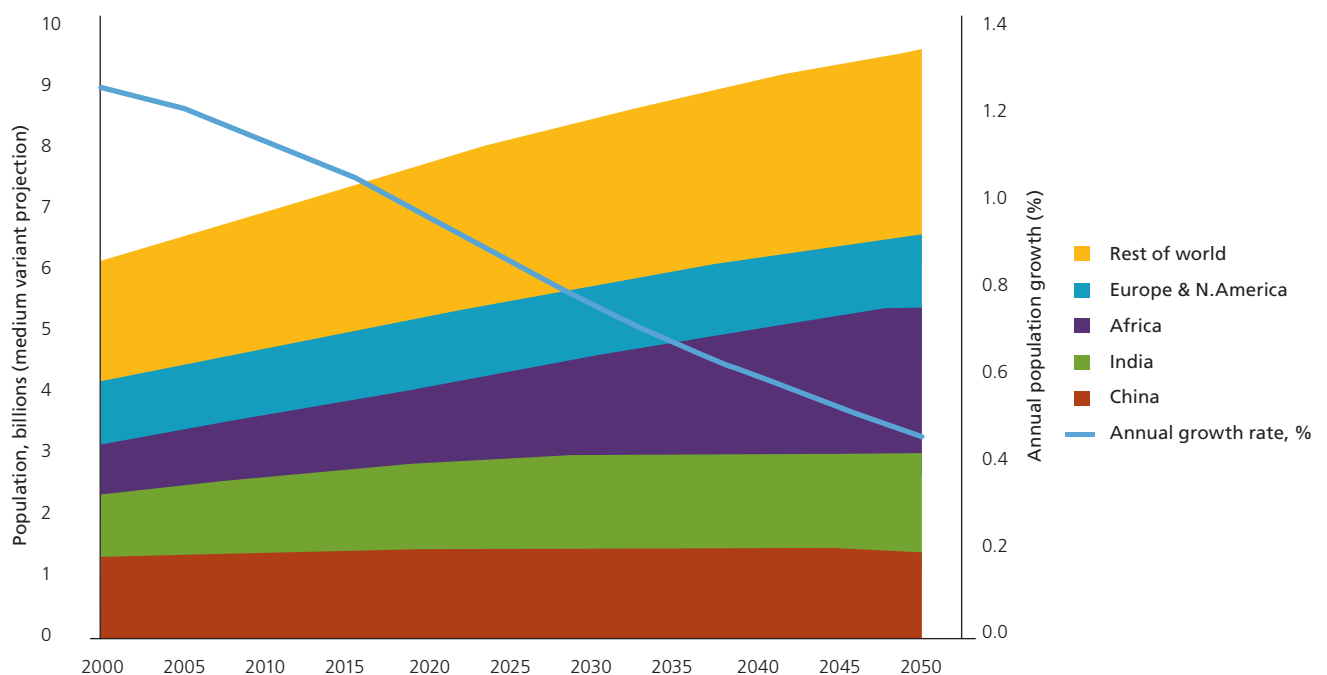
Future market opportunities will be driven by growth in population, the economy and household income. The Food and Agriculture Organization (FAO) of the United Nations projects that world population growth and evolving diets will increase food consumption by 60 per cent by 2050, compared to the baseline period from 2007 to 2009. The shifting demand for agriculture and agri-food products will

force exporting countries like Canada to increase production and exports.

Looking forward to 2050, the largest population growth is projected in Africa, which is expected to grow at an average annual rate of 1.9 per cent (Figure 14). India is projected to grow at an annual average rate of 0.7 per cent per year.

**Figure 14: Population growth rate declines as Africa, Asia will drive growth in food demand**

Source: UN (World Population Prospects, 2012), & US Census Bureau



Accessed: August 2014

Simply put, population growth translates into more demand for food. But economic growth and household income growth are even more important than population growth. In the short-term, regions with the fastest-growing populations are also the regions in which economic growth is expected to be the strongest (Figure 15). Rapid economic growth is projected to occur in much of Asia and

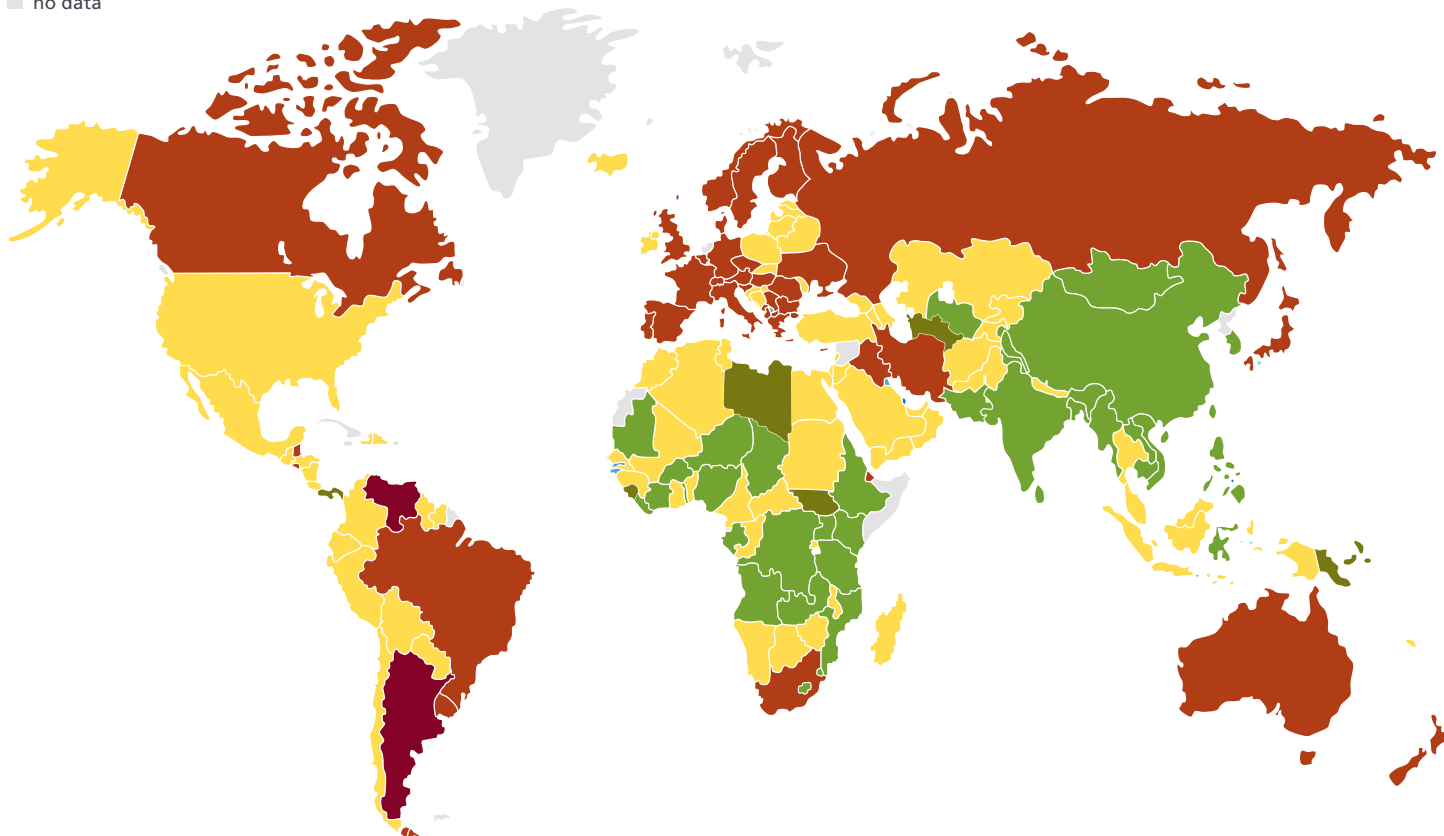
Africa, both in 2015 and beyond. The combination of rapid economic and population growth creates a growing base of consumers who are able to pay for high quality and value added products. With world economic growth having shifted over the last decade away from the developed economies to emerging markets, there will be more people around the world with sufficient income to buy more protein-rich foods.

**Figure 15: 2015 GDP growth forecasts are higher for developing economies**

Source: IMF, Data Mapper

**Annual percent change**

- 10% or more
- 6 - 10%
- 3 - 6%
- 0 - 3%
- Less than 0%
- no data



Accessed: October 2014

While GDP is important to overall trade flows, household income is the greatest driver of food consumption. It also drives the growth in consumption of value added products. The biggest market opportunities remain in regions where household income is the highest, such as the U.S., the EU, and Japan.

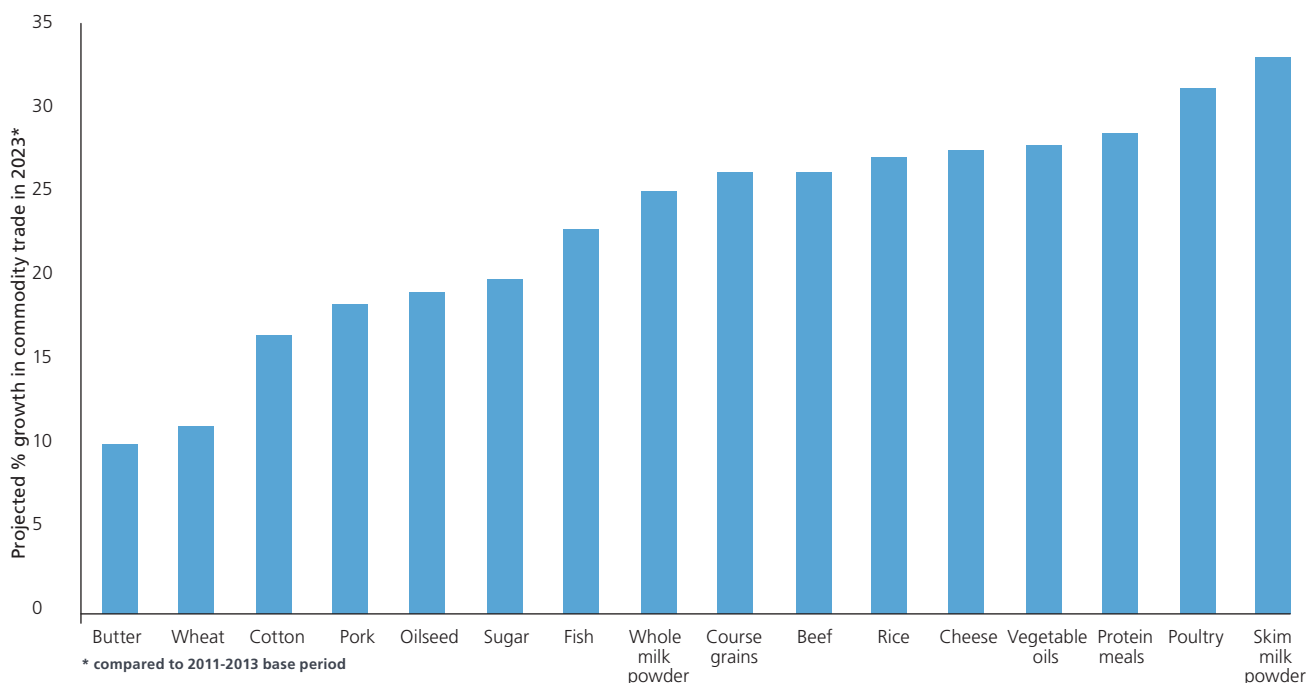
Developing countries experiencing large increases in income and a growing middle class also present important market opportunities for Canada. In these markets, consumers are likely to spend 40 cents or more of an additional dollar of income on food,

according to a USDA study. Not only does spending increase, but the kinds of products consumed changes to include higher value proteins and higher value processed foods.

Some commodities stand to gain more from income and global population growth. Overall trade in agriculture commodities and particularly protein-rich foods will continue to grow to 2023 (Figure 16). Although not a leading exporter of some products like poultry and dairy, Canada is a significant producer of many of the mid-range items including beef and some coarse grains like oats and barley.

**Figure 16: More export opportunities in protein-rich foods on the horizon**

Source: OECD – FAO Agricultural Outlook



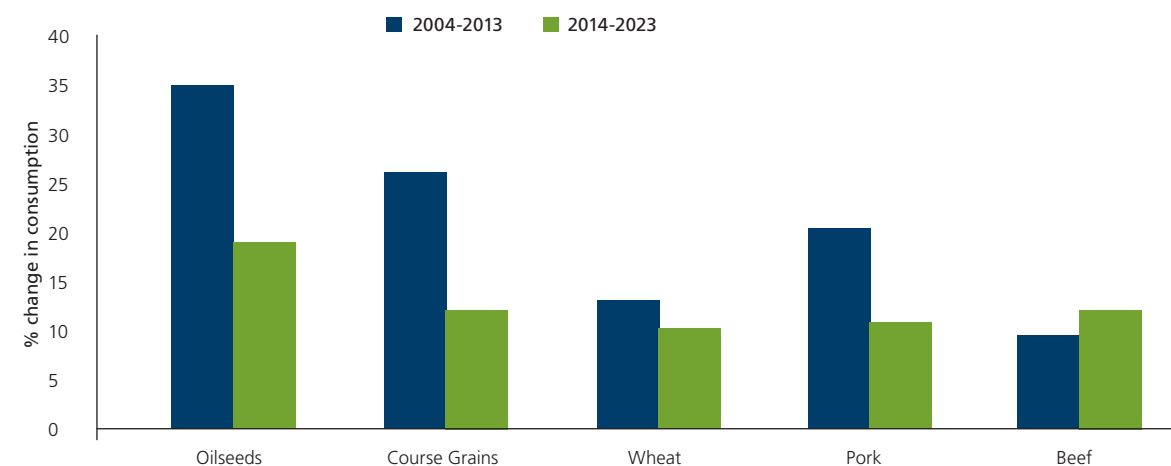
Accessed: August 2014

While projections call for growth in agriculture exports, it is generally estimated that the rate of growth for many Canadian agriculture exports is expected to slow down. The growth rate in the global consumption of wheat is expected to decline – if only slightly – in the next ten years

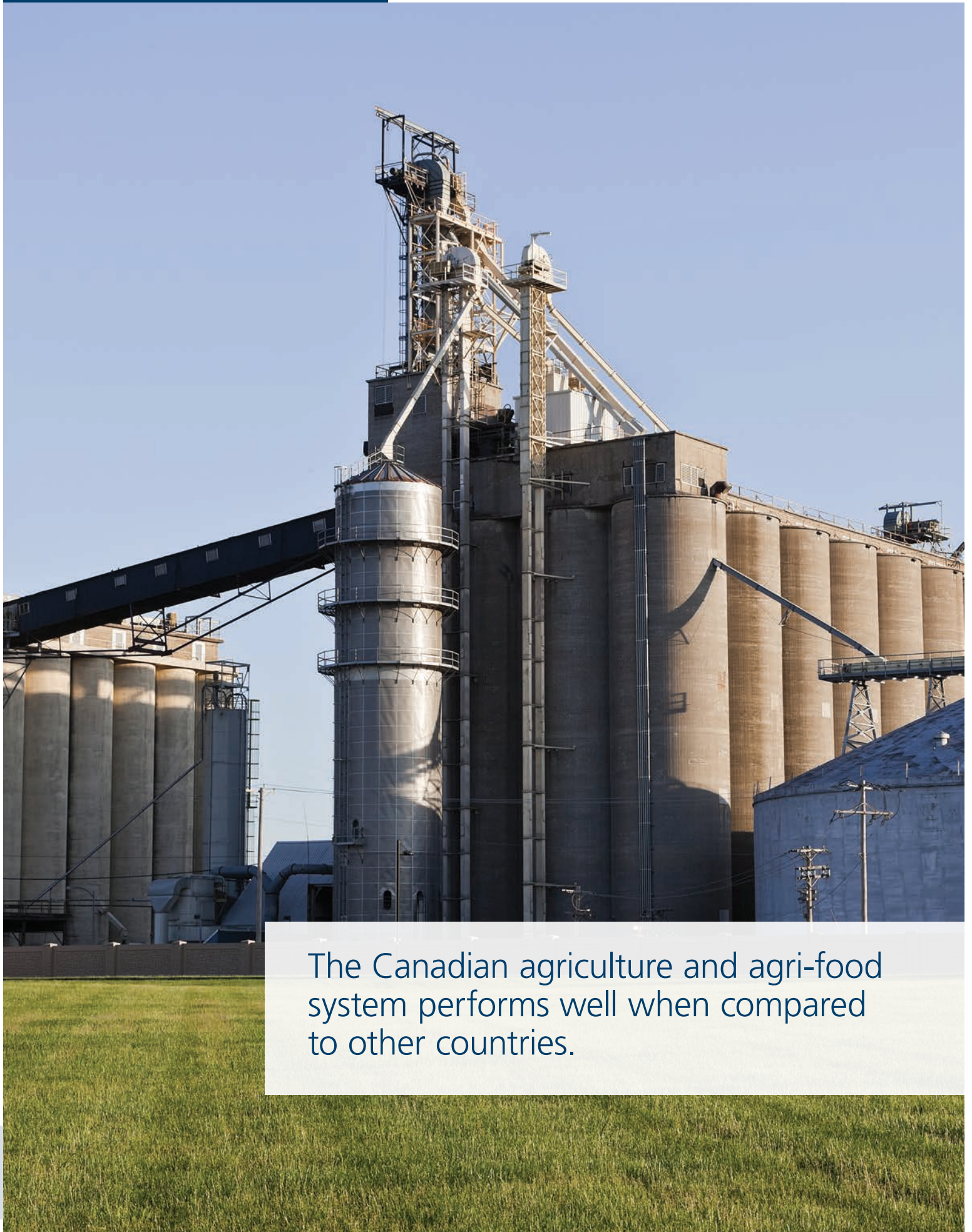
from what was observed between 2004 and 2013. The significant growth seen in oilseed consumption between 2004 and 2013 is also expected to slow (from 35 to 18 per cent) over the next ten years. Of Canada's major exports, beef is the only commodity whose consumption growth rate is expected to increase.

**Figure 17: Growth in expected rate of beef consumption to pick up**

Source: OECD-FAO Agriculture Outlook



Accessed: August 2014



The Canadian agriculture and agri-food system performs well when compared to other countries.



## Conclusion

The agriculture and agri-food system is an important component of Canada's overall economy, accounting for 6.7 per cent of Canada's GDP in 2013 and one in eight jobs. For these industries to continue to thrive, it is important that producers and agri-food businesses pursue new market opportunities, while preserving and developing existing trade relations.

The Canadian agriculture and agri-food system performs well when compared to other countries, especially when looking at performance in relative terms. Producers and agri-food businesses compete in a global marketplace, where emerging economies such as Brazil, Russia, India and China present major opportunities and challenges to Canada's competitiveness. Exports of both agriculture and agri-food products to BRIC countries have increased at a faster pace than exports to OECD countries. Yet sales in these destinations remain only small components of total agriculture and agri-food exports. Developed economies are and will continue to be the most important markets for Canadian products.

The combination of rising household incomes and population growth in India and China present major market opportunities for Canadian exports of beef, pork and pulse crops. While they are rapidly growing economies, they trade relatively little compared to developed countries on a per capita basis. Pursuing new opportunities and enhanced trade relations with more developed countries and regions are essential to Canada's competitiveness. The recently completed CETA negotiations will provide expanded market opportunities into the European market with the removal of 95 per cent of tariffs applied to Canadian exports. Ongoing TPP negotiations are expected to further expand the reach of Canadian producers and agri-food businesses into Asia's emerging economies.

Canada appears well positioned as an important player in the world agricultural and agri-food markets. The expansion of trade relations and economic growth in key regions of the world will help to sustain Canada's leading position in agriculture and agri-food global markets.

## Appendix I

Figure 18: World rankings of selected countries on various indicators

World ranking	CANADA	AUSTRALIA	BRAZIL	CHINA	EU	INDIA	JAPAN	RUSSIA	U.S.
<b>Economic indicators</b>									
GDP per capita	10	5	63	85	28*	145	24	52	9
Value (USD)	51,989	64,863	11,310	6,747	32,151	1,504	38,491	14,818	53,101
GDP annual growth (rank)	123	115	119	16	167	60	136	140	127
% change in2013**	2	2	2	8	0	4	2	1	2
GDP avg growth 2014-19 (rank)	146	129	127	23	160	34	184	145	134
Avg % change	2	3	3	7	2	6	1	2	3
Inflation rate 2013 (rank)	32	83	146	90	54	174	15	153	49
Inflation rate 2013, %	1	2	6	3	2	9	0	7	1
2014-19 avg inflation rate (rank)	37	67	137	92	16	163	47	134	28
2014-19 avg inflation rate, %	2	2	5	3	2	7	2	5	2
Debt-to-GDP (rank)	154	43	133	31	153	134	178	14	166
Debt-to-GDP, %	89	29	66	22	89	67	243	13	105
UE rate (rank), 2013	51	34	30	16	n/a	n/a	15	33	55
Unemployment rate, 2013	7	6	5	4	n/a	n/a	4	6	7
Avg. annual 2014-19 UE rate (rank)	54	35	42	19	n/a	n/a	15	43	39
	7	6	6	4	n/a	n/a	4	6	6
<b>Business indicators</b>									
Competitiveness score	14	21	56	29	n/a	60	9	64	5
Costs to import (rank)	58	117	35	172	n/a	106	132	21	98
Costs to export (rank)	44	98	26	174	n/a	95	130	18	101
<b>Socio-demographic indicators</b>									
Population (rank)	36	52	5	1	n/a	2	10	9	3
Population growth rate (rank)	136	106	108	152	n/a	87	199	219	125

Accessed: August 2014

\*Current international dollar

\*\* (constant prices)

Population figures from WEO Outlook; population growth rate figures from United Nations "World Population Prospects - 2012 Revision"

Economic indicators from 2014 World Economic Outlook

Competitiveness score from the World Economic Forum 2014 Global Competitiveness Report

Costs to import/export source: reprinted from Index Mundi (Private Sector and Trade Indicators)

Figure 18 (cont'd): World rankings of selected countries on various indicators

World ranking	CANADA	AUSTRALIA	BRAZIL	CHINA	EU	INDIA	JAPAN	RUSSIA	U.S.
<b>Trade indicators</b>									
Arable land	8	7	6	4	5	2	43	3	1
<b>BEEF CONSUMPTION</b>									
World rank	11	14	2	4	3	7	10	6	1
(1000MT CWE)	970	760	7,925	6,263	7,720	2,125	1,285	2,388	11,172
Consumption growth (world rank)	58	60	27	11	22	20	13	55	59
Annual growth rate (%)	-3	-6	1	5	2	2	4	0	-4
<b>BEEF PRODUCTION</b>									
World rank	11	7	2	4	3	5	17	10	1
(1000MT CWE)	1,025	2,240	9,920	5,760	7,580	4,000	500	1,380	11,230
2004-13 production growth, %	-10	11	8	16	-8	26	-1	-17	2
2014-19 production growth, %	9	10	13	18	-1	21	1	0	7
<b>PORK CONSUMPTION</b>									
World rank	13	15	5	1	2	n/a	6	4	3
(1000MT CWE)	777	513	2,727	57,440	20,315	n/a	2,529	3,199	8,553
Consumption growth (world rank)	54	31	29	21	30	n/a	47	51	49
Annual growth rate (%)	-4	1	1	2	1	n/a	-1	-2	-1
<b>PORK PRODUCTION</b>									
World rank	7	16	4	1	2	n/a	9	5	3
(1000MT CWE)	1,820	365	3,400	56,950	22,300	n/a	1,305	2,550	10,332
2004-13 production growth, %	-8	-8	34	26	1	-26	4	70	16
2014-19 production growth, %	6	9	18	9	4	-2	-2	21	9
<b>WHEAT CONSUMPTION</b>									
World rank	13	19	10	2	1	3	22	4	5
(1000MT)	9,750	6,600	11,600	121,000	121,500	92,050	6,500	33,500	33,093
Consumption growth (world rank)	114	109	57	100	20	99	103	96	104
Annual growth rate (%)	-13	-5	2	-2	4	-2	-3	-1	-3
<b>WHEAT PRODUCTION</b>									
World rank	6	7	16	2	1	3	36	5	4
(1000MT)	28,500	25,500	6,000	123,000	144,880	94,000	780	52,000	53,431
2004-13 production growth, %	34	20	0	32	-3	30	-6	19	-1
2014-19 production growth, %	8	-1	4	0	4	14	14	31	-2

Accessed: August 2014

Consumption and commodity production data (2014) source: Index Mundi

Production growth rates source: 2014 OECD-FAO Agricultural Outlook

Arable land rankings source: FAOSTAT

Figure 19: 2013 Canadian imports, exports, trade balances with selected countries

2013	OECD (TOTAL)	U.S.	EU	JAPAN	BRAZIL	RUSSIA	INDIA	CHINA
<b>NAICS 111 – Crop Production</b>								
Total Exports	11,561,389,164	5,622,564,635	1,719,938,263	2,563,838,945	178,239,689	5,697,004	727,367,305	3,151,981,662
Total Imports	6,317,087,248	4,475,336,463	173,503,194	6,527,981	122,389,890	3,425,461	75,637,201	183,632,376
Trade Balance	5,244,301,916	1,147,228,172	1,546,435,069	2,557,310,964	55,849,799	2,271,543	651,730,104	2,968,349,286
% of total exports	55%	27%	8%	12%	1%	0%	3%	15%
% of total imports	73%	52%	2%	0%	1%	0%	1%	2%
<b>NAICS 1111 – Oilseed and Grain Farming</b>								
Total Exports	8,970,352,833	3,253,099,274	1,618,510,213	2,471,246,690	177,353,792	3,661,010	727,136,302	3,122,439,967
Total Imports	713,470,636	628,567,929	12,769,629	529,594	249,081	3,387,564	47,716,569	22,109,060
Trade Balance	8,256,882,197	2,624,531,345	1,605,740,584	2,470,717,096	177,104,711	273,446	679,419,733	3,100,330,907
% of total exports	50%	18%	9%	14%	1%	0%	4%	17%
% of total imports	81%	71%	1%	0%	0%	0%	5%	3%
<b>NAICS 1112 – Vegetable and Melon Farming</b>								
Total Exports	447,815,717	443,729,148	1,036,310	1,901,583	677,831	252,096	156,373	5,373,628
Total Imports	2,310,170,259	1,815,692,853	29,398,322	1,656,233	1,119,022	527	3,299,429	61,048,573
Trade Balance	-1,862,354,542	-1,371,963,705	-28,362,012	245,350	-441,191	251,569	-3,143,056	-55,674,945
% of total exports	87%	86%	0%	0%	0%	0%	0%	1%
% of total imports	91%	71%	1%	0%	0%	0%	0%	2%
<b>NAICS 1113 – Fruit and Tree Nut Farming</b>								
Total Exports	240,441,000	229,604,251	8,209,543	960,348	0	157,744	39,281	4,054,818
Total Imports	2,585,822,975	1,666,541,622	54,984,724	3,009,077	117,845,153	261	4,546,329	52,835,809
Trade Balance	-2,345,381,975	-1,436,937,371	-46,775,181	-2,048,729	-117,845,153	157,483	-4,507,048	-48,780,991
% of total exports	88%	84%	3%	0%	0%	0%	0%	1%
% of total imports	62%	40%	1%	0%	3%	0%	0%	1%
<b>NAICS 1114 – Greenhouse, Nursery and Floriculture Production</b>								
Total Exports	1,255,040,321	1,243,049,275	1,634,666	10,250,243	0	60,692	51	53,145
Total Imports	549,668,934	241,145,792	61,793,468	337,020	1,169,713	33,596	965,706	2,601,631
Trade Balance	705,371,387	1,001,903,483	-60,158,802	9,913,223	-1,169,713	27,096	-965,655	-2,548,486
% of total exports	1%	99%	0%	1%	0%	0%	0%	0%
% of total imports	78%	34%	9%	0%	0%	0%	0%	0%

Accessed: August 2014



Figure 19 (cont'd): 2013 Canadian imports, exports, trade balances with selected countries

2013	OECD (TOTAL)	U.S.	EU	JAPAN	BRAZIL	RUSSIA	INDIA	CHINA
<b>NAICS 112 – Animal Production</b>								
Total Exports	2,658,907,092	2,515,449,996	81,349,034	37,209,523	2,023,947	13,578,190	1,668,315	296,703,589
Total Imports	734,326,050	456,357,407	250,227,764	104,554	94,782	1,216	57,027	5,970,796
Trade Balance	1,924,581,042	2,059,092,589	-168,878,730	37,104,969	1,929,165	13,576,974	1,611,288	290,732,793
% of total exports	80%	75%	2%	1%	0%	0%	0%	9%
% of total imports	98%	61%	33%	0%	0%	0%	0%	1%
<b>NAICS 1121 – Cattle Ranching and Farming</b>								
Total Exports	1,339,252,521	1,328,616,611	4,851,057	154,132	2,023,947	1,984,895	1,658,388	1,042,388
Total Imports	24,830,508	24,830,508	-	-	-	-	-	-
Trade Balance	1,314,422,013	1,303,786,103	4,851,057	154,132	2,023,947	1,984,895	1,658,388	1,042,388
% of total exports	98%	97%	0%	0%	0%	0%	0%	0%
% of total imports	99%	99%	0%	0%	0%	0%	0%	0%
<b>NAICS 1122 – Hog and Pig Farming</b>								
Total Exports	344,814,703	342,227,909	547,267	424,825	-	4,488,110	-	7,864,373
Total Imports	965,225	965,225	-	-	-	-	-	-
Trade Balance	343,849,478	341,262,684	547,267	424,825	-	4,488,110	-	7,864,373
% of total exports	96%	95%	0%	0%	0%	1%	0%	2%
% of total imports	100%	100%	0%	0%	0%	0%	0%	0%
<b>NAICS 311 – Food Manufacturing</b>								
Total Exports	20,012,582,222	16,633,981,295	826,397,495	1,461,255,283	37,589,869	402,718,522	13,960,624	1,967,785,520
Total Imports	17,567,708,565	14,454,408,566	1,759,996,833	72,964,564	630,154,578	75,788,623	317,584,905	886,635,594
Trade Balance	2,444,873,657	2,179,572,729	-933,599,338	1,388,290,719	-592,564,709	326,929,899	-303,624,281	1,081,149,926
% of total exports	82%	68%	3%	6%	0%	2%	0%	8%
% of total imports	81%	66%	8%	0%	3%	0%	1%	4%
<b>NAICS 312 – Beverage and Tobacco Product Manufacturing</b>								
Total Exports	1,110,604,332	1,023,129,410	42,910,881	26,319,574	92,296	3,955,124	475,380	53,208,129
Total Imports	4,584,474,207	1,576,478,872	2,143,042,195	6,921,510	9,628,187	11,139,106	4,741,341	8,070,580
Trade Balance	-3,473,869,875	-553,349,462	-2,100,131,314	19,398,064	-9,535,891	-7,183,982	-4,265,961	45,137,549
% of total exports	93%	86%	4%	2%	0%	0%	0%	4%
% of total imports	92%	32%	43%	0%	0%	0%	0%	0%

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The expansion of trade relations and economic growth in key regions of the world will help to sustain Canada's leading position in agriculture and agri-food global markets.

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