

**The Conference
Board of Canada**



Manitoba's Agri-Food Sector

Competing for a Greater Share of the Global Market



Contents

- 1 Key findings**
- 2 Where does Manitoba's agri-food sector stand?**
- 2 Manitoba's agri-food sector – a large sector with two stories**
- 6 Manitoba's competitiveness: Agriculture versus food processing**
- 8 Exporting markets: Beyond the U.S.**
- 17 COVID-19 brings challenges and opportunities**
- 19 Boosting productivity to tap into fast-growing global demand**
- 24 Challenges ahead, but also opportunities**
- Appendix A**
- 26 Methodology**
- Appendix B**
- 28 Manitoba's revealed comparative advantages in agri-food products**
- Appendix C**
- 30 World demand analysis**
- Appendix D**
- 32 Bibliography**

Key findings

- The agri-food sector is by far Manitoba's largest export sector.
- While Manitoba's agriculture goods account for the largest share of the province's overall agri-food exports, agriculture exports have been volatile over the past two decades. In contrast, the food manufacturing sector is small, but has generated steady export gains over that period.
- The United States, Japan, and China are the most important markets for Manitoba's agri-food goods. Yet, tensions between China and Canada, the U.S.–China trade deal, and China's focus on the primacy of domestic food production pose new risks for exporters.
- Several regions of the world will be important sources of demand for processed food products in the coming years. Recent trade agreements and fast-growing demand for food items such as meat and higher-end food products in emerging economies present many opportunities.
- Canada and Manitoba will need to be proactive in diversifying their markets and moving up the value chains. Productivity in the processed food sector has been declining over the past two decades, and investment is needed to reverse the trend. The sector should work on differentiating its products from the competition, accessing workers with the right skills, and improving skills training.
- To boost its competitiveness, the sector will also need to keep up with new technologies as they become integrated in the global food system. It will also need to invest in infrastructure to protect workers' health and safety and improve the sector's resilience to future shocks.
- COVID-19 and global forces present many challenges to the food-processing sector. But they also present opportunities. For example, there is a greater focus on food security around the world. Canada and Manitoba could expand their brand as a stable, reliable, and significant source of agri-food products.



Where does Manitoba's agri-food sector stand?

The agri-food sector is central to Manitoba's economy and, by far, its largest export sector. It includes agriculture and food manufacturing. (See "What is the agri-food sector?") Manitoba's agriculture goods, such as cereals and oil seeds, account for the largest share of the province's overall agri-food exports. They are also its most globally competitive agri-food products.

In contrast, the food manufacturing sector is small and has experienced declining productivity over the past two decades. Yet, it is a subsector that warrants further attention. Manufacturing processes add value to agriculture goods. The food manufacturing sector has also been the source of steady export gains over the past two decades. These exports are usually much less volatile than exports of commodities like agriculture goods. They usually generate higher margins and are less sensitive to market share variability. In addition, several countries and regions of the world are set to be major and growing sources of demand for processed food products in the coming years.

As such, it is in the interest of Manitoba's processed food producers to tap into this growing global demand. The U.S. is still the most important market for Canada and Manitoba's agri-food goods. Japan is another key importer with growing potential. The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) offers some opportunities.¹ China is also an important market for Manitoba's agri-food products. This is particularly true for agriculture goods. However, recent tensions between China and Canada, and China's agriculture policies that emphasize self-reliance pose new risks for exporters. The Canadian agri-food sector should explore exporting opportunities elsewhere.

Demand for processed food products is quickly expanding in other parts of the world. These present opportunities for Manitoba's agri-food sector to diversify its export markets and move up along the agri-food value chain. However, the sector will also need to improve its productivity and global competitiveness to expand its global reach.

Manitoba's agri-food sector—a large sector with two stories

Agriculture and food manufacturing exports accounted for more than one-third of Manitoba's total exports in 2019, with the share hovering between one-third and 40 per cent in the last few years. (See Chart 1.)

¹ Government of Canada, "About the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)."

What is the agri-food sector?

Canada's agri-food sector includes agriculture, fisheries and aquaculture, and food and beverage processing.² In this impact paper, the agri-food sector and its subsectors are categorized based on the Harmonized System (HS) Codes for trade data and the North American Industrial Classification System (NAICS) codes for productivity, investment, and employment data.

Using the Harmonized System (HS) Codes, products at the two-digit HS code level categorized as being part of the agriculture sector in this impact paper are:

- 01–Live animals
- 03–Fish, crustaceans, molluscs, and other aquatic invertebrates
- 07–Edible vegetables and certain roots and tubers
- 08–Edible fruits and nuts
- 10–Cereals
- 12–Oilseeds, oleaginous fruits, industrial or medicinal plants, straw, and fodder

The food manufacturing two-digit HS products are:

- 02–Meat and edible meat offal
- 04–Dairy produce, eggs, honey, and other similar edible products of animal origin
- 09–Coffee, tea, mate, and spices
- 11–Products of the milling industry; malt, starches, inulin, and wheat gluten
- 13–Lac, gums, resin, and other vegetable saps and extracts
- 15–Fats, oils, their cleavage products and waxes
- 16–Meat, fish, and seafood preparations
- 18–Cocoa and cocoa preparations
- 17–Sugars and sugar confectionery
- 19–Preparations of cereals, flour, starch, or milk

- 20–Preparations of vegetables, fruit, nuts, or other parts of plants
- 21–Miscellaneous edible preparations
- 22–Beverages, spirits, and vinegar

Data on the agri-food sector's productivity and investment were pulled from Statistics Canada's tables 36-10-0480-01 and 34-10-0035-01, in which industries are classified based on NAICS codes. In this impact paper's productivity and investment analyses, the agriculture sector includes:

- 111–Crop production
- 112–Animal production and aquaculture (fishing [1141] is not included)

Based on NAICS codes, the food manufacturing sector (311) includes the following subsectors:

- 3111–Animal food manufacturing
- 3112–Grain and oilseed milling
- 3113–Sugar and confectionery product manufacturing
- 3114–Fruit and vegetable preserving and specialty food manufacturing
- 3115–Dairy product manufacturing
- 3116–Meat product manufacturing
- 3117–Seafood product preparation and packaging
- 3118–Bakeries and tortilla manufacturing
- 3119–Other food manufacturing

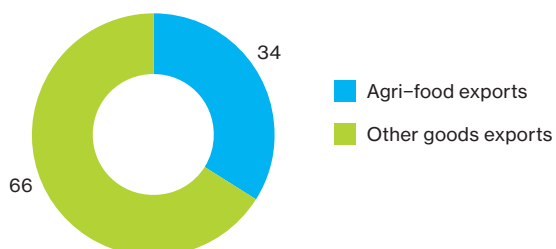
Beverage manufacturing (3121) is also included in food manufacturing investment spending.

Sources: Innovation, Science and Economic Development Canada; Statistics Canada, The Conference Board of Canada.

2 Innovation, Science and Economic Development Canada, "AF Interim Report."

Chart 1

Agri-food exports account for more than one-third of Manitoba's total exports, 2019
(per cent)



Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

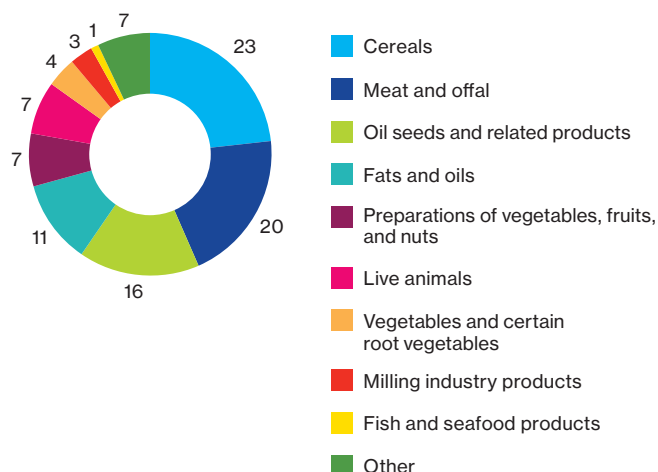
Agriculture exports account for the largest share of the province's overall agri-food exports. Cereal products such as oats and wheat were the top agri-food exports in 2019. (See Chart 2.) Oil seeds, vegetables, and processed food products such as meat; oils; and prepared vegetables, fruits, and nuts were also among the province's top exports.

Exports of agriculture products have been volatile over the years, mainly due to volatility in exports of cereals, oil seeds and related products, and live animals. (See charts 3 and 4.) Variable weather can affect local production but also global supply, resulting in sizable price movements. The introduction of international trade barriers by countries such as China, affecting the volume of exports, also account for volatility. Exports of vegetables and fish and seafood, which represent a smaller share of the province's agriculture exports, have been less volatile over the years.

Chart 2

Manitoba's agri-food exports: cereal, meat, and oil seeds at the top

(nominal exports by sector as a share of Manitoba's total agri-food sector's exports, per cent, 2019)



Note: Total may not add to 100 due to rounding.
Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

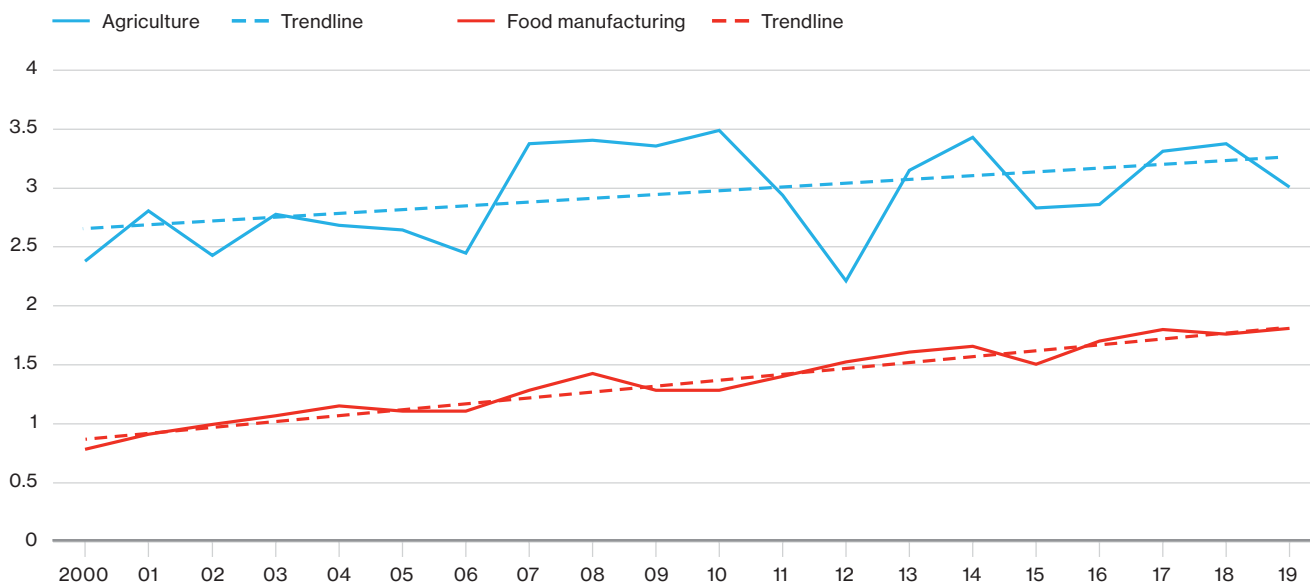
Relative to agriculture exports, the volume of manufactured food exports is small. Yet, exports of manufactured food products such as meat; oil; and preparations of vegetables, fruits, and nuts have trended upward with much less volatility in the past two decades. This suggests that food-processing exports have been a more stable and growing source of revenue for Manitoba's agri-food sector.



Chart 3

Manitoba's agriculture and food product exports expanding, 2000–19

(real exports by agri-food sector, 2012\$ billions)

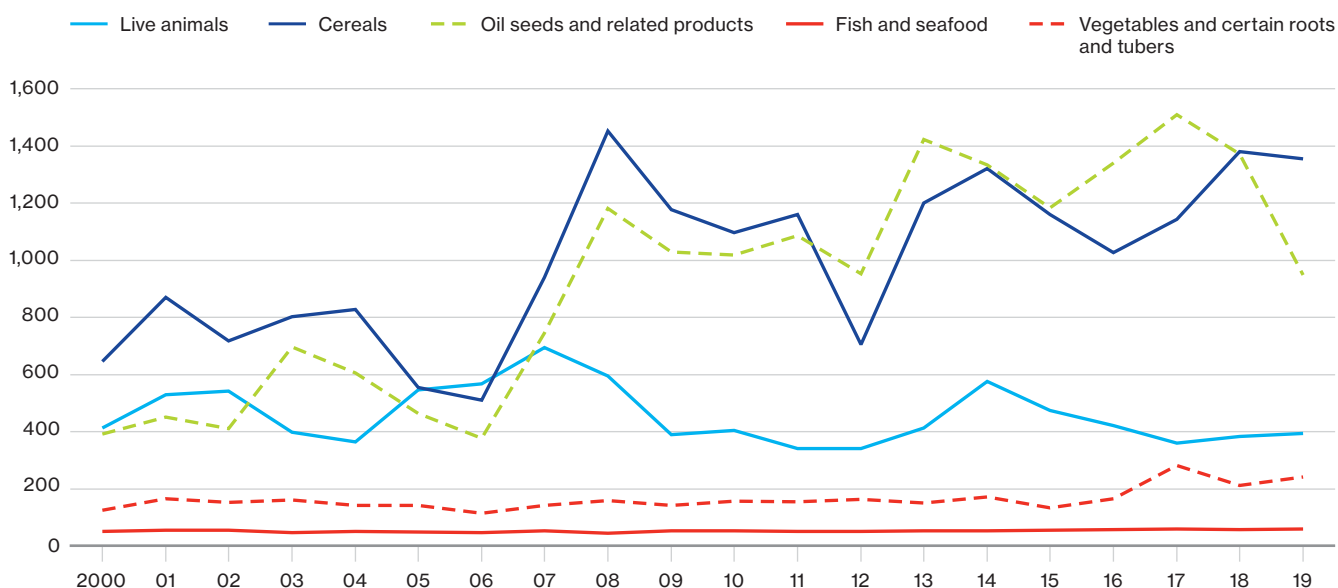


Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Chart 4

Cereals, live animals, and oil seeds (and related products) driving most of the volatility in Manitoba agriculture exports

(C\$ millions, nominal terms)



Note: Fruits and nuts were excluded from this chart due to their small export value.

Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Manitoba's competitiveness: Agriculture versus food processing

Assessing a country's, or a province's, comparative advantages helps to explain trade flows and identify exporters' most competitive products. It also helps to assess where resources should be allocated to improve the competitiveness of and better position products facing high demand.

The following competitiveness analysis is based on a commonly used measure of revealed comparative advantage (RCA)³ to evaluate whether Manitoba holds relative advantages in any of the 19 two-digit HS agri-food groups.⁴

The RCA index measures the relative export performance between Manitoba and the world market for a particular industry or product. In short, a product has an RCA if the share of Manitoba's exports to the world for the product is greater than the share of the world's exports for the product. This is taken to mean that Manitoba can produce the product more efficiently than its average trading partner.

Manitoba's agri-food sector is most competitive (i.e., holds the highest RCA values) in agricultural goods. (See Table 1.) The "live animals" category holds the highest RCA, followed by oil seeds and cereals (e.g., wheat and oats). In processed food products, Manitoba is globally competitive in goods such as milling products; meat; prepared vegetables, fruits, and nuts products; and fats and oils.

Table 1
Manitoba holds revealed comparative advantage (RCA index > 100) in nine of the 21 agri-food product classes*

Agriculture	RCA	Food processing	RCA
Live animals	3590	Products of the milling industry	1688
Oil seeds, oleaginous fruits, and related products	2441	Meat and edible meat offal	1363
Cereals	2055	Preparations of vegetables, fruits, nuts, and related products	1106
Vegetables and certain roots and tubers	475	Fats, oils, their cleavage products and waxes	1085
Fish, crustaceans, molluscs, and other aquatic invertebrates	96	Lac, gums, resins, and related products	247
Fruits and nuts	0	Preparations of cereals, flour, starch, or milk	98
		Meat, fish, and seafood preparations	95
		Dairy produce, eggs, honey, and related products	69
		Cocoa and cocoa preparations	33
		Sugars and sugar confectionery	18
		Miscellaneous edible preparations	18
		Coffee, tea, mate, and spices	4
		Beverages, spirits, and vinegar	2

*sectors above 100 in light blue

Sources: United Nations Comtrade Database; Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

3 See Appendix A for methodology on the calculation of Revealed Comparative Advantage.

4 Our chosen indicator of analysis is the Balassa index (1965). Although a commonly used RCA metric, it is worth noting its limitations. For one, it assumes unobstructed free trade without considering trade frictions, such as production subsidies and import tariffs, that impact the ability of a country to produce a good vis-à-vis its trading partners. And while it does tell us that a comparative advantage exists, it does not identify *where* the comparative advantage actually lies (e.g., Canada's geographical location, vast supply of arable land and fresh water, robust innovation ecosystem).

At a more granular level, Manitoba's most competitive agri-food goods are prepared vegetables, oats, canola oil, canola seeds, prepared fruits and nuts, prepared cereal products, live swine and swine meat, jams, wheat, and dried legumes. (See Appendix B.)

Some goods lying within Manitoba's comparative advantage experienced fast or moderate-growing global demand in recent years. (See Chart 5.) For example, world imports of oil seeds and oleaginous fruits; meat; milling products; and prepared vegetables, fruits, and nuts—all products for which Manitoba is globally competitive—have grown between 2 and 4 per cent on average annually over the 2016–19 period.

However, recent trends in global imports suggest that the global demand picture is not as bright for all of Manitoba's competitive products.

In particular, world demand for many agriculture goods has grown at a modest pace over the 2016–19 period. For example, overall world imports (from everywhere in the world) of cereals, live animals, and vegetables have grown on average annually by about 1 per cent or less. Overall, world imports of animal and vegetable fats have even declined over that period.

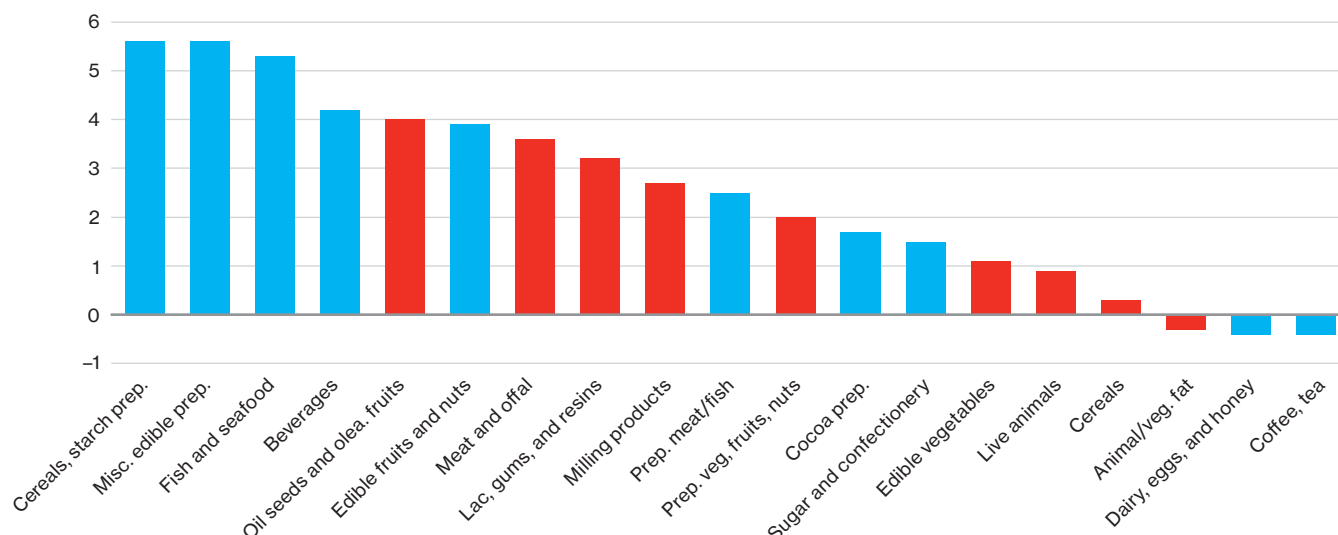
In addition, several of the top agri-food categories boasting the fastest-growing global demand are not among Manitoba's most competitive agri-food goods. These include several processed food categories such as:

- prepared cereals, flour, and starch products
- miscellaneous edible preparations
- other animal products
- meat preparations

Chart 5

Manitoba lacks competitiveness in top agri-food goods with fastest-growing global demand

(world imports, average annual compound growth rate 2016–19, by agri-food product)



Note: Import data were deflated using the Food and Agriculture Organization of the United Nations (FAO) Price Indexes 2014–2016 average = 100.

Red bars represent goods for which Manitoba has an RCA.

Sources: United Nations Comtrade Database; Food and Agriculture Organization (FAO) Price indexes; Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Manitoba's global competitiveness is not too far behind for some of these fast-growing categories. In particular, Manitoba holds RCAs close to 100 for prepared cereals; flour; starch products; and preparations of meat, fish, and seafood. (See Table 1.) These agri-food groups include products for which Manitoba is highly competitive, such as prepared cereal products. Enhancing the competitiveness of other products within those broader categories would better position the sector to tap into fast-expanding demand.

Exporting markets: Beyond the U.S.

Focusing solely on broad trends in overall world imports can hide the export potential of promising products in specific countries or regions. Some countries and regions have increased their demand for certain agri-food products at a much faster pace than others in recent years.

Manitoba's current top agri-food export destinations are the U.S., Japan, and China. Food-processing exports are much less spread out across several destinations than agriculture exports. (See charts 6 and 8.) There is potential for both subsectors to expand their global reach. However, there is much room for Manitoba's food-processing sector to diversify its exporting markets.

Manitoba's current top agriculture export destinations: U.S., Japan, and China

The U.S. still reigns supreme as the most important market for Canada and Manitoba's agriculture sectors. (See Chart 6.) Japan, China, Mexico, and Europe are also among Manitoba's top export destinations. Exports of agriculture goods to the U.S. and most of these top destinations (China being the exception) have been volatile over the past two decades, without showing any significant trends.

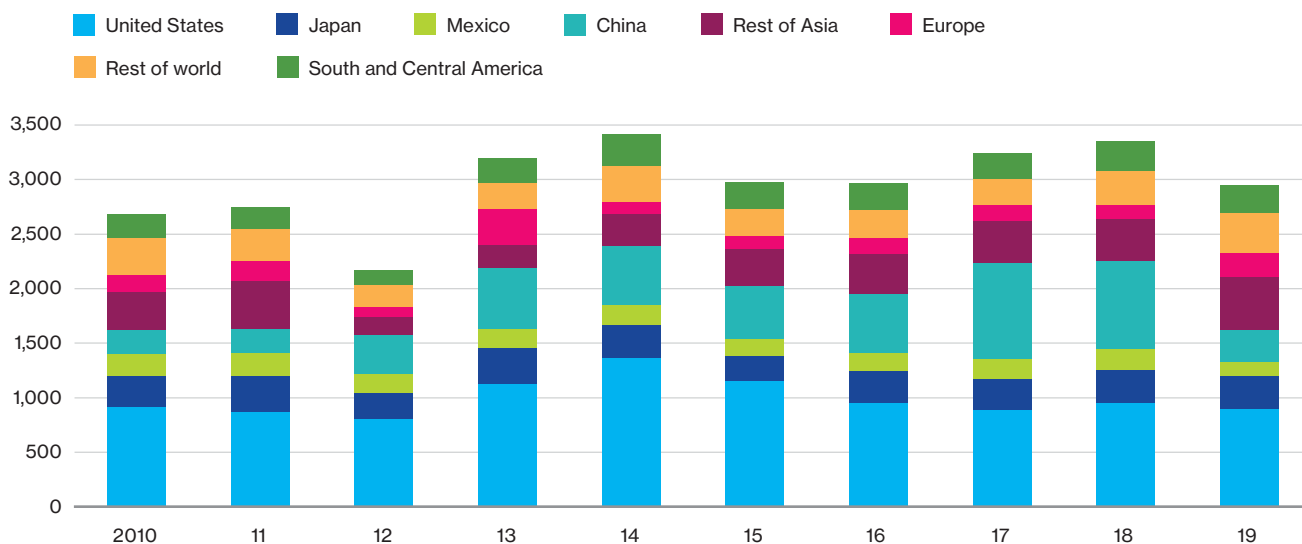
In contrast, Chinese demand for Manitoba's agriculture goods has significantly expanded alongside the rise in China's middle-class population. However, Manitoba's agriculture exports to China collapsed in 2019 following China's ban on Canadian shipments of canola and other agriculture products. (See Chart 7.) As a result, China moved down from second to third place in Manitoba's top export destinations ranking (after the U.S. and Japan). Available data for 2020 (from January to October 2020) suggest that agriculture exports have picked up to some extent in the last few months, especially in exports of cereals and oil seeds and related products.



Chart 6

Manitoba agriculture exports to China shrank in 2019, but expanded to other parts of Asia

(agriculture exports by destination region/country, C\$ millions)



Note: Agriculture includes HS 01–Live animals; HS 12–Oil seeds, oleaginous fruits, industrial or medicinal plants, straw and fodder; HS 10–Cereals; HS 07–Edible vegetables and certain roots and tubers; HS 03–Fish, crustaceans, molluscs, and other aquatic invertebrates; and HS 08–Edible fruits and nuts. Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Chart 7

Manitoba agriculture exports to China plunged in 2019, but recorded some gains in 2020, \$ millions



f = forecast

Note: Agriculture includes: HS 01–Live animals; HS 12–Oil seeds, oleaginous fruits, industrial or medicinal plants, straw and fodder; HS 10–Cereals; HS 07–Edible vegetables and certain roots and tubers; HS 03–Fish, crustaceans, molluscs, and other aquatic invertebrates; and HS 08–Edible fruits and nuts. Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Manitoba's current manufactured food exports: Most destined to the U.S. and Japan

More than 80 per cent of Manitoba's processed food exports are destined for our southern neighbour and Japan.

The U.S. is by far the largest importer, buying mainly food products such as oils and prepared vegetables, fruits, nuts, and meat. Both U.S. and Japan's imports of Manitoba's food products have been increasing steadily over the past decade. (See Chart 8.)

Mexico and China are the two largest export markets for Manitoba's processed food products, after the U.S. and Japan. Manitoba's exports to those two markets have also been trending up over the past decade. Meanwhile, Manitoba's processed food exports to Europe and other parts of Asia have remained limited, despite these markets' large size and demand potential.



Which markets have growth potential?

Assessing recent and potential future trends in world imports by country and region will help us better understand which products and markets represent promising exporting opportunities for Manitoba's agri-food sector. Recent growth in world imports of agri-food products (19 two-digit HS agri-food product categories)⁵ can be used as an indicator for future growth, as they reflect both trends in demand and openness to foreign goods.

However, the past does not necessarily indicate future trends, and several factors will play a role in supporting or limiting demand for Canadian goods. For example, China's ban on Canadian canola exports led to a significant decline in Manitoba's exports to China in 2019. In addition, some parts of the world are untapped frontiers for Canadian commercial activity. There may be opportunities to establish and expand Canadian engagement there.

The giants

The U.S. is one of the fastest-growing markets for agri-food imports. (See Chart 9.) In recent years, U.S. imports from the world increased for several agri-food products for which Manitoba is highly or moderately⁶ globally competitive. These include vegetables; prepared vegetables; fruits and nuts products; and prepared cereal, flour, and starch products. (See Appendix C.)

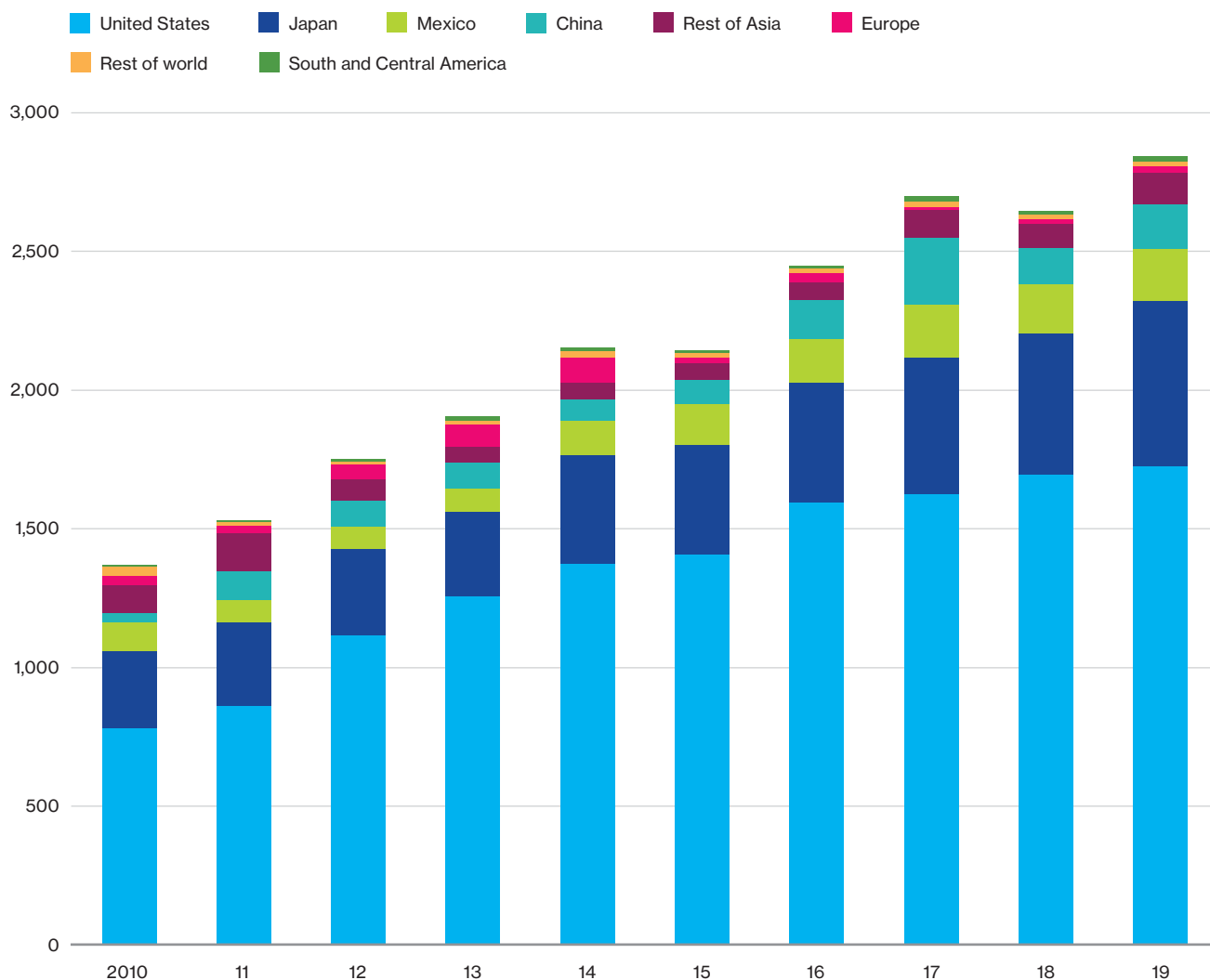
⁵ Based on the average annual compound growth rate over the 2016–19 period.

⁶ For the purpose of this analysis, moderate competitiveness is defined as a product that has an RCA value close to 100.

Chart 8

Japan and U.S. expanding demand for Manitoba food manufacturing exports

(food manufacturing exports by destination region/country, \$ millions)



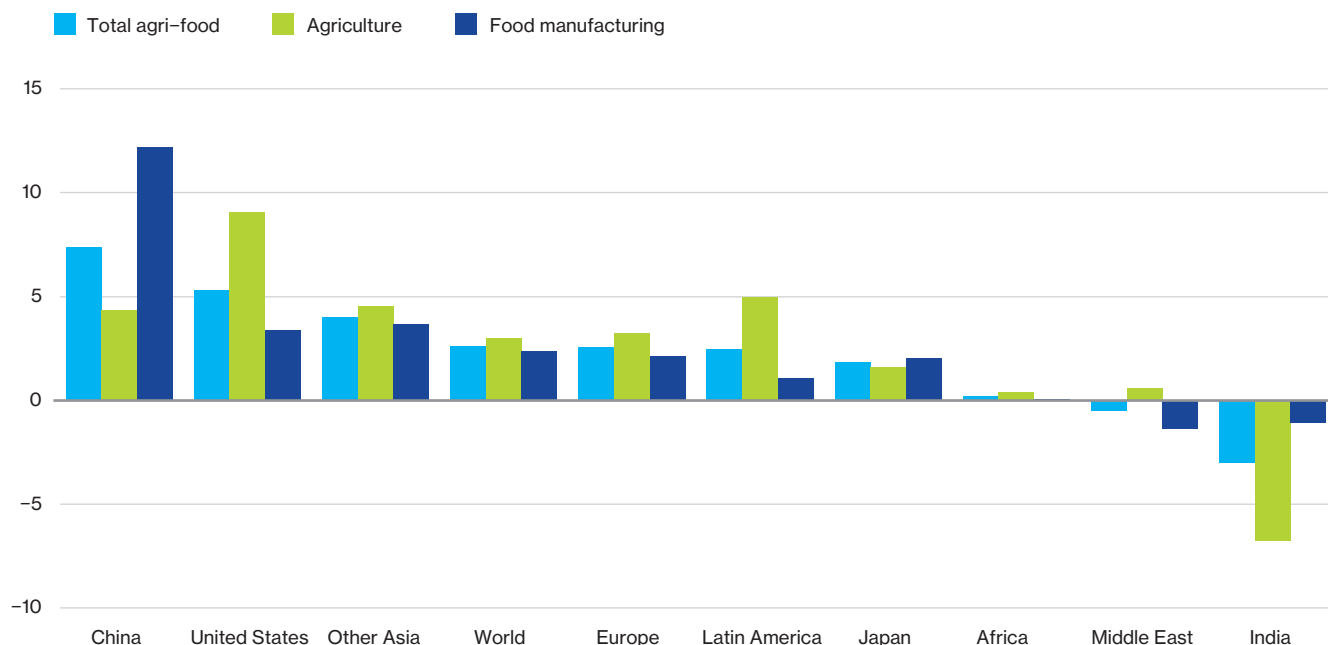
Note: Food manufacturing products include: HS 02–Meat and edible meat offal; HS 04–Dairy produce, eggs, honey, and other similar edible products of animal origin; HS 09–Coffee, tea, mate, and spices; HS 11–Products of the milling industry; malt, starches, inulin, and wheat gluten; HS 13–Lac, gums, resin, and other vegetable saps and extracts; HS 15–Fats, oils, their cleavage products and waxes; HS 16–Meat, fish, and seafood preparations; HS 18–Cocoa and cocoa preparations; HS 17–Sugars and sugar confectionery; HS 19–Preparations of cereals, flour, starch, or milk; HS 20–Preparations of vegetables, fruit, nuts, or other parts of plants; HS 21–Miscellaneous edible preparations; and, HS 22–Beverages, spirits, and vinegar.

Sources: Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Chart 9

World demand for agri-food products: China, U.S., and other parts of Asia lead the way

(real import average annual compound growth rate, 2016–19, per cent)



Note: Deflated using FAO Food Price Index. Note: Food manufacturing products include: HS 02–Meat and edible meat offal; HS 04–Dairy produce, eggs, honey, and other similar edible products of animal origin; HS 09–Coffee, tea, mate, and spices; HS 11–Products of the milling industry; malt, starches, inulin, and wheat gluten; HS 13–Lac, gums, resin, and other vegetable saps and extracts; HS 15–Fats, oils, their cleavage products and waxes; HS 16–Meat, fish, and seafood preparations; HS 18–Cocoa and cocoa preparations; HS 17–Sugars and sugar confectionery; HS 19–Preparations of cereals, flour, starch, or milk; HS 20–Preparations of vegetables, fruit, nuts, or other parts of plants; HS 21–Miscellaneous edible preparations; and, HS 22–Beverages, spirits, and vinegar. Sources: United Nations Comtrade Database; The Conference Board of Canada.

Manitoba has been able to tap into this growing U.S. demand over the years. For example, exports of fats and oils; prepared vegetables, fruits, and nuts products; milling products; and preparations of meat, fish, and seafood all followed an upward trend over the past two decades. Despite not having a global comparative advantage in sugar and sugar confectionary, Manitoba also managed to slowly increase its exports of sugar confectionary products to its southern neighbour.

Canadian factories that make sweet goods have access to lower-cost sugar relative to their U.S. counterparts. This is because U.S. protectionist sugar trade policies inflate sugar prices.⁷ Despite U.S. measures to protect its sugar industry from international competition, Canada's sugar confectionary products have had access (to some extent) to the U.S. market through tariff rate quotas (TRQs),⁸ which were specified in a 1997 Canada–US bilateral understanding.

⁷ Atkins, "The Sweet Taste of U.S. Trade Rules."

⁸ A Tariff Rate Quota (TRQ) "is an import mechanism whereby a set amount of specific products may be imported at a low or zero rate of duty." Global Affairs Canada, "Tariff Rate Quotas Explained."

The Canada–United States–Mexico Trade Agreement (CUSMA) maintained these TRQs and added two new quotas, providing Canadian beet sugar and sugar-containing products increased access to the U.S. market.⁹

The U.S. will likely remain the largest market for Manitoba’s agri-food exports for years to come. Yet, agri-food demand is quickly expanding in other parts of the world. This suggests there are opportunities to look beyond the U.S. market.

China is another fast-growing market for agri-food imports, especially for processed food products. (See Chart 9.) The Chinese market has grown into a major source of demand for Manitoba’s agri-food goods over the past decade. As the Chinese middle class continues to grow over the next decades, China will undoubtedly continue to be a source of demand for global agriculture goods and increased demand for higher-end products.

However, China’s import bans and recent tensions with many foreign markets—including Canada—pose new risks for exporters, as do China’s new economic policies that emphasize “self-reliance.”¹⁰ Arguments have been made for Canada to prepare for re-engagement when circumstances around Canada–China relations eventually change. The two countries’ convergence of interests in agriculture could be central to re-engagement efforts should the two countries decide to go in this direction.¹¹ But the current conditions are also signals for Canada’s agri-food sector to explore export opportunities in other fast-growing markets.

Asia-Pacific: Potential opportunities ahead

Even without China, the Asia-Pacific remains a large, fast-growing, and populous region.¹² In particular, Asia’s imports (excluding China, India, and Japan) of processed food products have been increasing at a fast pace in recent years. (See Chart 9.) This could represent an opportunity for Manitoba to further expand its processed food exports.

Japan and “other Asia” (which represents all Asian countries excluding China, Japan, and India) are large and fast-growing importers of meat, an agri-food good for which Manitoba is globally competitive. The CPTPP—a trade agreement among Canada, Australia, Brunei, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam—offers opportunities for Canada’s agri-food industry, especially in the Japanese market.¹³ The meat industry, in particular, is benefiting from steep tariff cuts,¹⁴ which could represent an opportunity for Manitoba to further expand its meat exports.

The markets in Japan and the “other Asia” grouping are also large and fast-growing importers of prepared cereal, flour, and starch products. Gains in income, urbanization, and population growth in these regions will drive increased demand for wheat and processed products such as instant noodles and bakery products.¹⁵ Increasing meat consumption will also increase demand for feed grains, which would further support grain imports.

9 Canadian Sugar Institute, “North American Trade.”

10 Browne, “Bloomberg New Economy.”

11 Dade and Sun, *When Interests Converge*.

12 Palladini, *Canada’s Most Important Future Global Markets*.

13 Zhengyan Sun and Dade, *More Than the Usual Suspects*.

14 Rao, *Spotlight on Japan*.

15 United States Department of Agriculture, *USDA Agricultural Projections to 2028*.

Additionally, countries in the “other Asia” group may not be large importers of prepared vegetables, fruits, and nuts at the moment, but they have collectively been purchasing more in recent years (over the 2016–19 period). (See Appendix C for average annual compound growth rates of imports of agri-food goods by country and region over the 2016–19 period.) The broad Asia-Pacific region will likely remain a fast-growing market for pulses, such as lentils, peas, beans, and chickpeas. The region’s fast-growing population, urbanization, the expansion of the middle-class population, and increasing demand for health-benefiting food products are all conditions that can help support this trend.¹⁶

India is the second-most-populous country and one of the fastest-growing economies in the world. India is still a small agri-food import market on the world stage, relative to other countries such as China and Japan. Manitoba’s agri-food exports to India are limited and comprise almost entirely vegetables and oil seeds. Exports of processed food products are limited or non-existent. Yet, India has the potential to become an important market for some of Manitoba’s most competitive agri-food exports.

India’s total agri-food imports from the world declined on average annually over the 2016–19 period, mainly due to a sharp decline in pulse imports.¹⁷ The Indian government introduction of new import restrictions on pulses as the country faced large domestic surpluses was the main factor driving the decline. Still, India is the world’s

largest pulse importer.¹⁸ It is striving for self-sufficiency in this food product but still needs to import, as consumption continues to exceed domestic production. Despite India’s restrictions on pulse imports, it remains an important market for Canada, with potential growth for Manitoba’s pulses and pulse products, as India’s large population continues to grow.

Despite the decline in total agri-food imports over the 2016–19 period, India recorded fast-growing demand for several agri-food categories for which Manitoba is globally competitive. These include oil seeds and related products, as well as processed food products such as prepared vegetables, fruits, and nuts; meat; and milling products. Indian imports of prepared meat products, prepared cereal, flour and starch products, and fish and seafood also grew at a fast pace over the 2016–19 period.

India’s food consumption is evolving in line with changing lifestyles, preferences, and demographic needs. Innovative products that offer a high level of convenience, such as easy-to-use packaging, ready meals, and frozen foods as well as healthy foods are growing in popularity.¹⁹ India’s fast-growing imports could represent exporting opportunities for Manitoba’s agri-food sector. The Indian agri-food import market is competitive and price-sensitive. Canadian food producers would need to invest time and resources to differentiate their products to meet Indian needs and preferences if they wish to gain a competitive edge.²⁰

¹⁶ Research and Markets, “Pulse Ingredients Market by Type.”

¹⁷ India’s imports of goods within the “Vegetables, leguminous; shelled, whether or not skinned or split, dried” HS Code decreased by more than 70 per cent in 2018.

¹⁸ Agriculture and Agri-Food Canada, “Sector Trend Analysis.”

¹⁹ Agriculture and Agri-Food Canada, “Outline of Opportunities in India.”

²⁰ Ibid.



The World Bank's Ease of Doing Business Index also suggests that India remains a difficult country to do business in, with several challenges like government regulations and import tariffs.²¹ However, its ranking has improved in recent years, moving from 130th out of 190 countries in 2014 to 63rd place in 2019.²² Engagement in the market would require resources and a long-term strategy.

Europe: A large market, yet with limited Manitoban agri-food goods

European countries are a source of growing demand for several agri-food goods that fall within Manitoba's competitive range. They include agricultural goods such as oil seeds and vegetables as well as processed food products such as prepared cereal; flour and starch products; and prepared vegetables, fruits, and nuts products.

However, Manitoba's agri-food exports to Europe have been modest over the past two decades and have shown limited signs of growth. This limited presence is still true today despite the provisional implementation of the Canada-European Union Comprehensive Economic and Trade Agreement²³ (CETA) in 2017.

Agriculture goods account for most of Manitoba's agri-food exports to Europe. Manitoba's vegetables exports have been trending down from 2005 to 2016, although some gains have been recorded since 2017. Manitoba's cereal and oil seeds exports to Europe have been very volatile and lacking any trends over the past two decades, even as Manitoba's overall oil seeds exports to the world

increased over that period (mainly driven by China). The EU's non-genetically modified organism policy is a major factor behind Canada's low oilseeds exports (canola and soybeans) to the EU. Although Canadian canola for biodiesel is allowed to enter the EU, it is effectively banned from the EU human food chain.

Manitoba's processed food sector has so far had a limited presence in Europe. (See charts 6 and 8.) Despite the province's global competitiveness in prepared cereal, flour, and starch products; and prepared vegetables, fruits, and nuts products—"both product categories that experienced fast-growing European demand in recent years—Manitoba's exports of such products have remained limited. Exports of meat—which is another product category for which Manitoba holds a comparative advantage—plunged in 2015 and has remained subdued since. On a more positive note, Manitoban exports of prepared meat, fish, and seafood products to Europe have been trending upward since 2014, although with some volatility from year to year.

Canadian exporters of meat and other food products have reported facing regulatory challenges in selling their goods to Europe. These challenges pertain in large part to EU sanitary/phytosanitary (SPS) requirements and country-of-origin labelling (e.g., Italy's country-of-origin labelling for pasta²⁴ combined with reported "misinformation regarding the quality and safety of Canadian durum"²⁵).

21 Noah, "Exporting to India."

22 Cameron, "Doing Business in India."

23 European Commission, "CETA Explained."

24 Arnason, "BLOG: We Export Rocks to Europe, They Sell Us Audis."

25 Global Affairs Canada, "Second Meeting of the EU-Canada CETA Committee on Agriculture."

For Canadian agri-food producers to be allowed to export to the EU, they must comply with European regulations and food labelling, packaging, safety, and sanitary standards and requirements.²⁶ For example, products approved for common use in Canadian meat production and processing are not allowed in EU meat. Additional testing for meat products specific to the EU market is necessary to become “EU-compliant.” Meat and meat products must also be produced in an EU-approved facility.²⁷ This would require Canadian meat producers and processors to retool the entire supply chain specifically to meet EU requirements.²⁸ Changing production or processing practices specifically for the EU market is very costly for Canadian producers/processors to implement.²⁹ Such factors mean that, currently, availability of Canadian meat products meeting EU sanitary and import requirements is limited.³⁰ As a result, Canadian meat exporters filled only a fraction of their export quotas to the EU (established under CETA) in the first years of the agreement.³¹ The U.S., which has historically been the primary destination for Canadian meat, has standards that are quite different from the EU.³² The disparity between the two standards has so far made it difficult for Canadian meat producers to comply and sell profitably to the two markets.³³

Other potential markets presenting opportunities: Africa, the Middle East, and the Americas

The world’s population is expected to grow to nearly 10 billion by 2050, from 7.8 billion in 2019,³⁴ representing an additional 2.2 billion mouths to feed. Regions with high population growth—including Sub-Saharan Africa, North Africa, and the Middle East—are expected to record fast-growing demand for food.

Africa and the Middle East may represent exporting opportunities for some of Manitoba’s agri-food goods. In particular, both markets have recorded fast-growing imports of goods belonging to the oil seeds and oleaginous fruits category in recent years. African imports grew on average annually by more than 10 per cent (inflation-adjusted) over the 2016–19 period, while the Middle East recorded average annual import growth of more than 6 per cent over this period. Demand for prepared cereal, flour, and starch products has also been posting strong growth in both markets.



26 Trade Commissioner Service, “Exporting to the EU.”

27 Agriculture and Agri-Food Canada, “Exporting Your Agri-Food to the European Union.”

28 Powell, “‘Beef and Pork for Cheese Deal’ Sours.”

29 Ibid.

30 Global Affairs Canada, “Second Meeting of the EU–Canada CETA Committee on Agriculture.”

31 Financial Times, “Canada’s Farmers Struggle to Reap Gains From EU Free Trade Deal.”

32 Ibid.

33 Ibid.

34 World Bank, “Population, Total.”

Although a small partner in Canadian trade, the trade possibilities that Africa represents are growing. Africa's economy will drastically grow over the coming decades. By 2050, Africa's population is expected to double to 2.1 billion and be home to over half of the world's population growth between now and 2050.³⁵ Moreover, Africa has a young population. While its middle class is expanding only slowly, urbanization and population growth will help support increased imports of agri-food products such as wheat.³⁶

Nonetheless, there are challenges to trade between Canada and Africa, including the absence of a bilateral free trade agreement, geographical distance, as well as continued instability and conflict in some regions of Africa. Canada is falling behind given Europe's partnerships with Africa and China's Belt and Road initiative.³⁷ As such, Canada should work to secure preferential access to Africa's free trading bloc.

Latin America is a market that could also represent opportunities for Manitoba's key agri-food exports, such as canola. Latin America imports from the world of goods belonging to the oil seeds and oleaginous fruits category have grown at an average annual rate of 11.8 per cent since 2015. Demand for vegetables; cereals and prepared cereal; flour; and starch products has also been posting strong growth in the last few years.

Some countries can be challenging to do business with, due to other time zones and languages, different cultural and business norms, and rules of law and institutions. Trade deals can help businesses navigate these waters by fostering relationships among parties.

COVID-19 brings challenges and opportunities

COVID-19 has had a major impact on the global economy and trade. It also brought into question the reliability of a global food system that heavily depends on global trade.³⁸ Agricultural trade has proven more resilient than trade in other goods, being somewhat insulated from demand shocks, as people and livestock still need to eat.³⁹ Most trade in agricultural products (notably cereals and oilseeds, which are both among Manitoba's top agri-food exports) are shipped by rail to coastal terminals for shipment in bulk marine containers.⁴⁰ COVID-19 has not led to significant disruptions to the export supply chains of these types of shipments.⁴¹

Still, the pandemic brought on challenges to Manitoba's agri-food sector. Interruptions to food processing as plants shut down to contain COVID-19 cases among workers and partial or full shutdowns of restaurants created backlogs in livestock and surpluses of produce. For example, processing plants suffered plummeting demand for products such as French fries, due to the

35 United Nations, *World Population Prospects 2019: Highlights*.

36 United States Department of Agriculture, *USDA Agricultural Projections to 2028*.

37 African Union, "Africa-Europe Alliance."

38 Chatham House, "Global Food System and Trade After COVID-19."

39 Ker and Caldwell, "2020 Special Issue: COVID-19 and the Canadian Agriculture and Food Sectors."

40 World Trade Organization, *COVID-19 and Agriculture*.

41 Ibid.

partial or full shutdown of restaurants.⁴² This led to a significant surplus of potatoes. The pandemic also brought to light the need to improve the working conditions of agri-food workers and invest in infrastructure to protect their health and safety.

COVID-19 has also affected consumer behaviour.⁴³ In many developed economies, where government support programs have helped to sustain household incomes, consumption of local food products has grown in popularity.⁴⁴ This was observed in the United Kingdom. A U.K. Food Standards Agency survey⁴⁵ found that 35 per cent of survey respondents have bought local food more often during the months that followed the start of the pandemic. However, the extent and duration of this trend has yet to be seen. A Dalhousie University Agri-Food Analytics Lab study suggests that while most Canadians (four out of five) are ready to pay more for locally grown fruits and vegetables, they do not necessarily do so in practice.⁴⁶

In developing economies, the negative impact of the pandemic on overall economic activity has generally been more muted. Yet, households have felt the pinch. COVID-19 supply chain disruptions and, in some cases, currency devaluations have led to food price inflation at retailers across different countries, even as global food prices remained relatively stable. Low- and middle-income countries were most affected given their larger share of household income spent on food.⁴⁷ This means that household incomes are under pressure.

Trade and more resilient food supply chains can play a role in ensuring the availability and affordability of food and addressing food security concerns.⁴⁸ COVID-19 has also created an opportunity to transform the global food system to make it more resilient to future shocks.⁴⁹

The food industry was already investing in new technological solutions before the pandemic. The vulnerabilities exposed by the pandemic will likely be an additional push to accelerate investment in retooling to modernize manufacturing processes and supply chains. For example, technologies like blockchains could allow more transparency in the food system and enable participants in the food supply chain to adapt more easily when a disruption occurs. Over the longer term, automation and adoption of digital tools could help to reduce vulnerabilities.⁵⁰ In the post-COVID-19 world, such tools and processes could become more widespread across the agri-food subsectors.

With the greater focus on food security, Canada and Manitoba can work on expanding their brand as a stable, safe, reliable, and significant source of agri-food products for the global market. However, Canada's agri-food sector will also need to keep up with the greater integration of new technologies in the global food system to improve its resilience in the face of future shocks. COVID-19 has provided an opportunity to reshape the food system so that it is "technologically sophisticated and profitable, but also sustainable, just and healthy."⁵¹

42 Laychuk, "\$252M Aid Package 'Not Going to Save Everybody.'"

43 Kantar, "How COVID-19 Is Impacting Our Eating and Drinking Habits."

44 Centre for the Promotion of Imports From Developing Countries, "COVID-19 Makes a Big Change to the European Consumption Pattern."

45 Food Standards Agency, *Covid-19 Consumer Tracker Waves One and Two Report Published*.

46 Brehaut, "We May See the Value in Buying Local Food."

47 World Bank, "Food Security and COVID-19."

48 World Trade Organization, *COVID-19 and Agriculture*.

49 Batini, Lomax, and Mehra, "Why Sustainable Food Systems Are Needed in a Post-COVID World."

50 Momani, "Building Resiliency in Supply Chains Post-COVID-19."

51 Ibid.

Boosting productivity to tap into fast-growing global demand

Recent trends in global demand suggest there are opportunities for Manitoba's processed food sector to tap into fast-growing global demand for several products. Manitoba has had a limited global reach in several processed food products so far. RCA results suggest that there is room to improve the food-processing sector's competitiveness, especially for products such as meat, fish, and seafood preparations; and prepared cereal, flour, and starch products.

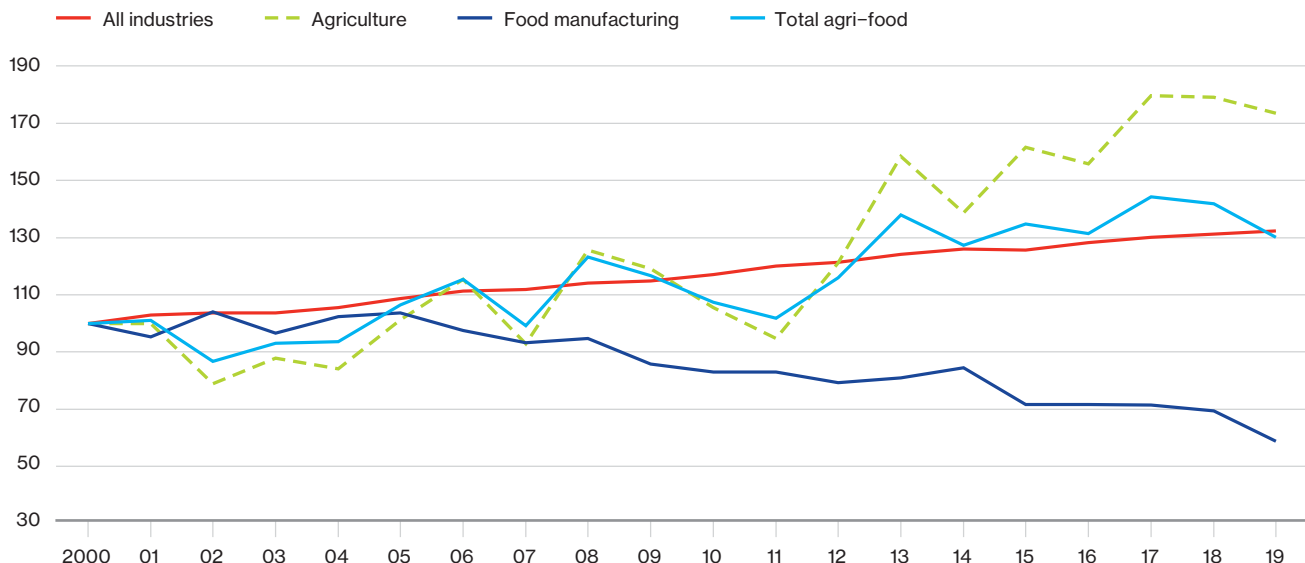
Productivity is a key factor determining a sector's global competitiveness. Labour productivity in Manitoba's agriculture and food-processing sectors have followed opposite trends over the past two decades. Productivity in the agriculture sector has been trending up, while productivity in the food manufacturing sector has now been falling for the better part of two decades, and averaged an annual decline of 3.5 per cent in the decade to 2019. (See Chart 10.)

An interprovincial comparison presents an even bleaker picture of Manitoba's food-processing sector. From 2010 to 2019, Manitoba's food-processing sector had the worst performance in labour productivity growth among the provinces. (See Chart 11.)

Chart 10

Downward trend in Manitoba's food manufacturing productivity

(real value-added per hours worked, indexed 2000 = 100)



Note: Agriculture productivity represents NAICS codes 111 (crop production) and 112 (animal production).

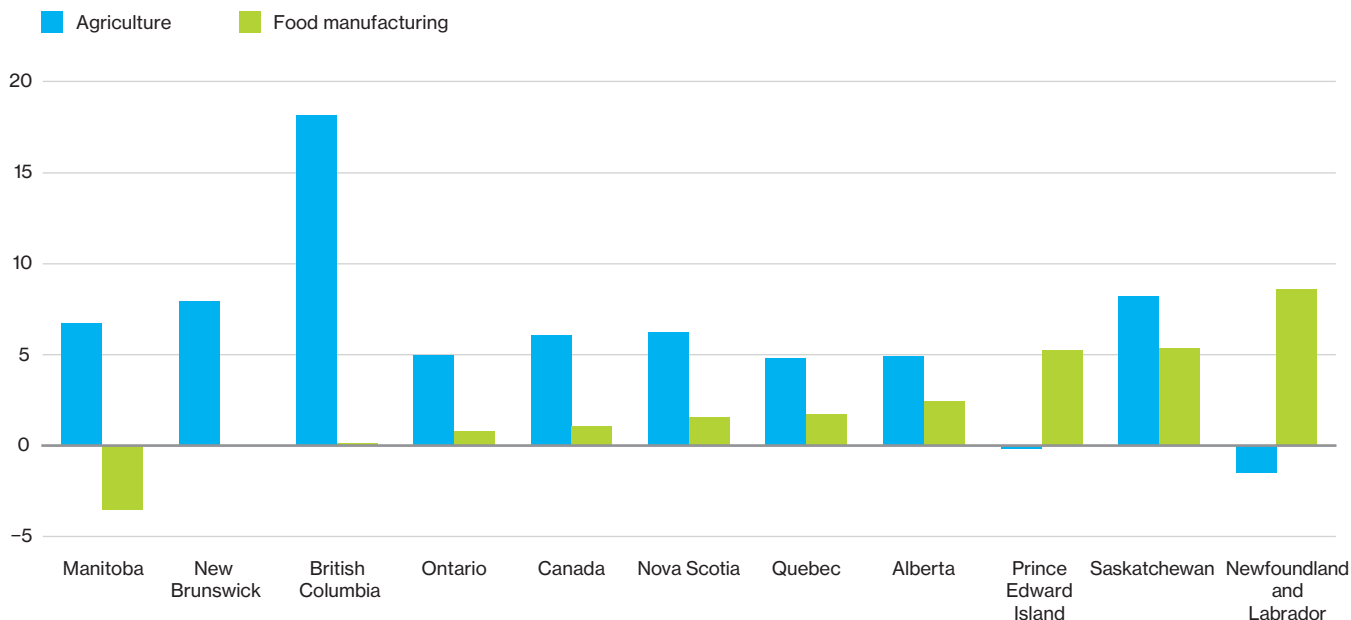
Food manufacturing productivity represents NAICS code 311 (food manufacturing) and does not include beverage manufacturing (312).

Sources: Statistics Canada; The Conference Board of Canada.

Chart 11

Manitoba food processing is behind the pack in labour productivity

(real value-added per hour worked, average annual growth 2010–19, per cent)



Note: Agriculture productivity represents NAICS codes 111 (crop production) and 112 (animal production).

Food manufacturing productivity represents NAICS code 311 (food manufacturing) and does not include beverage manufacturing (312).

Sources: Statistics Canada; The Conference Board of Canada.

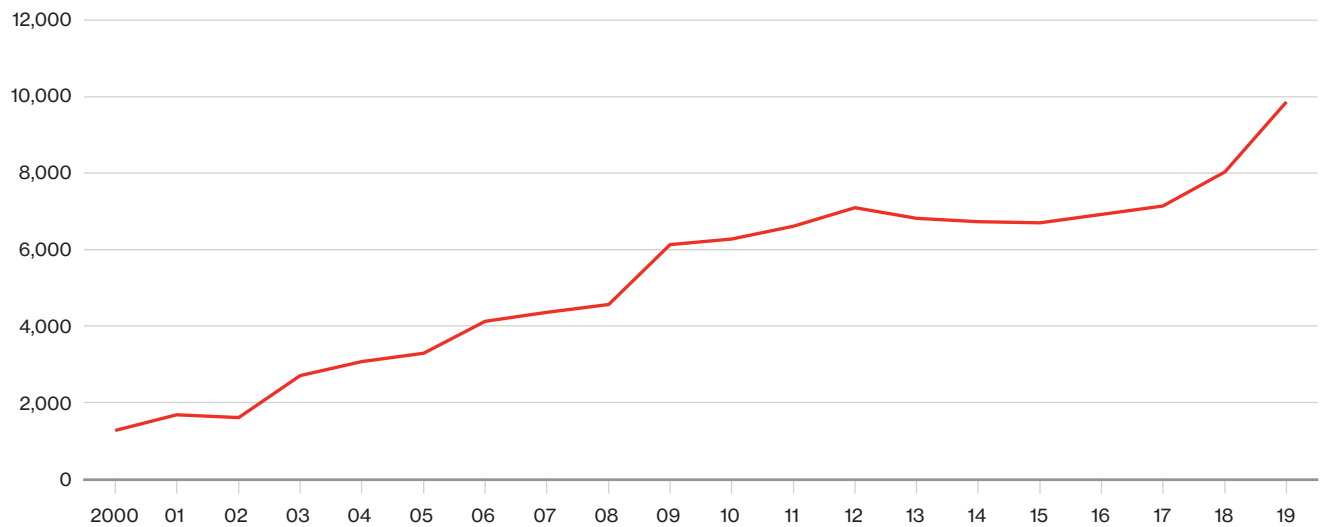
The meat manufacturing subsector, which has historically been Manitoba's largest food-processing subsector (accounting for 45 per cent of the province's food manufacturing output in 2017), drove the decline in productivity. Manitoba's meat manufacturing workforce grew at a faster pace than output from 2000 to 2012. And while output has been following a downward trend since 2013, the number of jobs (and total hours worked) did not contract to the same extent. The subsector has even been recording job (and hours) gains since 2016, more than offsetting the previous years' job (and total hours) losses. (See charts 12 and 13.)



Chart 12

Increasing number of jobs in Manitoba's meat manufacturing subsector

(number of jobs including employees and self-employed)

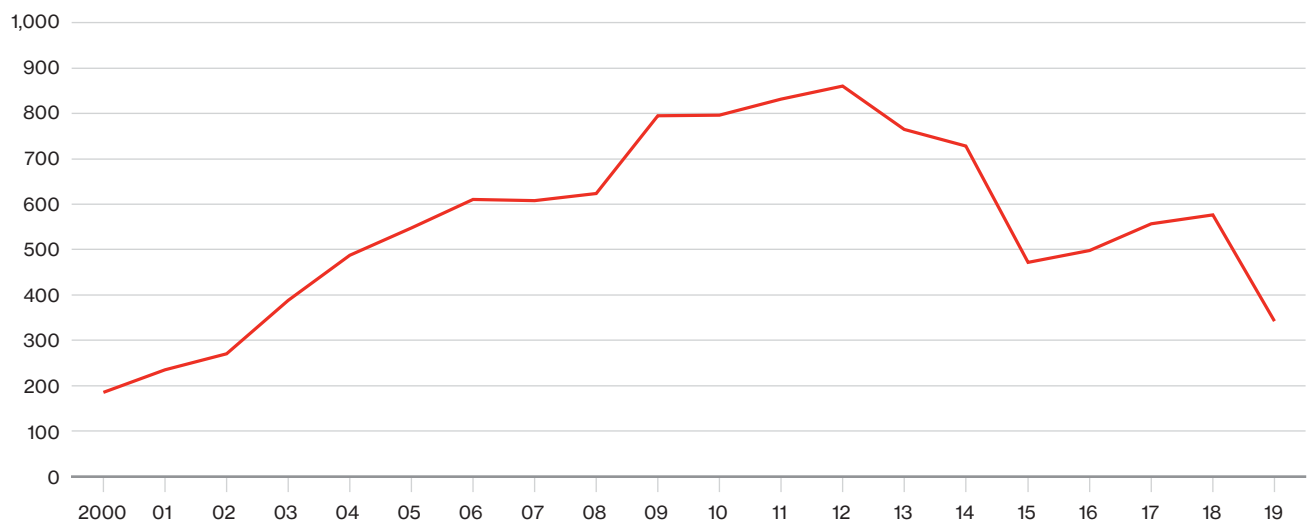


Sources: Statistics Canada ; The Conference Board of Canada.

Chart 13

Manitoba meat manufacturing output trending down since 2013

(GDP at basic prices, chained 2012 \$ millions)



Sources: Statistics Canada; The Conference Board of Canada.

Other provinces, including Saskatchewan and Alberta, also experienced declines in meat manufacturing productivity in the past two decades, although not to the same extent as Manitoba. (See Chart 14.) In Alberta, where meat manufacturing accounted for close to 50 per cent of the province's food manufacturing output in 2017, most of the productivity decline occurred in the early 2000s. In contrast, the productivity decline in Saskatchewan's meat manufacturing occurred more gradually, as was the case for Manitoba.

Different industrial compositions can explain some of the difference between Manitoba and Saskatchewan's overall food manufacturing productivity performance. Meat manufacturing accounts for a smaller share of Saskatchewan's food manufacturing sector, relative to that of

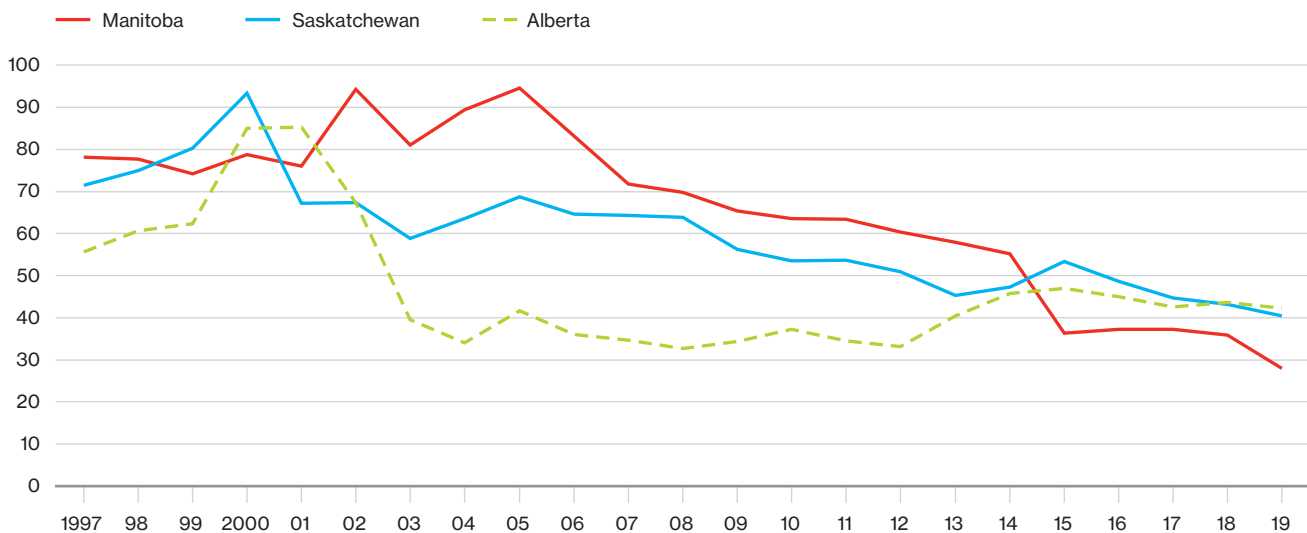
Manitoba. Meanwhile, grain and oilseed milling manufacturing accounted for more than 50 per cent of Saskatchewan's food manufacturing output in 2017, compared with about 17 per cent in Manitoba. Grain and oilseeds milling manufacturing recorded strong productivity gains in both provinces in the past two decades. However, the larger share of the subsector in Saskatchewan's food manufacturing production explains a large part of its better overall productivity performance.

There is still room for optimism for Manitoba's food manufacturing sector. Manitoba managed to record some productivity gains in grain and oilseed milling manufacturing and the fruit and vegetable preserving and specialty food manufacturing subsectors in the past two decades. These subsectors are two of Manitoba's largest food manufacturing subsectors, each accounting

Chart 14

Productivity in Prairie meat manufacturing – Manitoba recorded steepest decline

(real value-added by hour worked, 1997–2019)



Sources: Statistics Canada; The Conference Board of Canada.

for about 17 per cent of the province's food manufacturing output in 2017. Investments in the broad food-processing sector have also risen sharply since 2017, alongside the growing focus on the growth potential of the Canadian agri-food sector.

In a 2016 report, Canada's Advisory Council on Economic Growth identified agri-food as a sector with high-growth potential and one that should be specifically targeted for economic growth. This recommendation was subsequently taken up in the federal budgets that followed, which set a Canada-wide export target for agri-food products of \$75 billion by 2025⁵² and several initiatives to spur investment and innovation in the industry. Manitoba has particularly benefited from the federally funded initiatives, including the Canadian

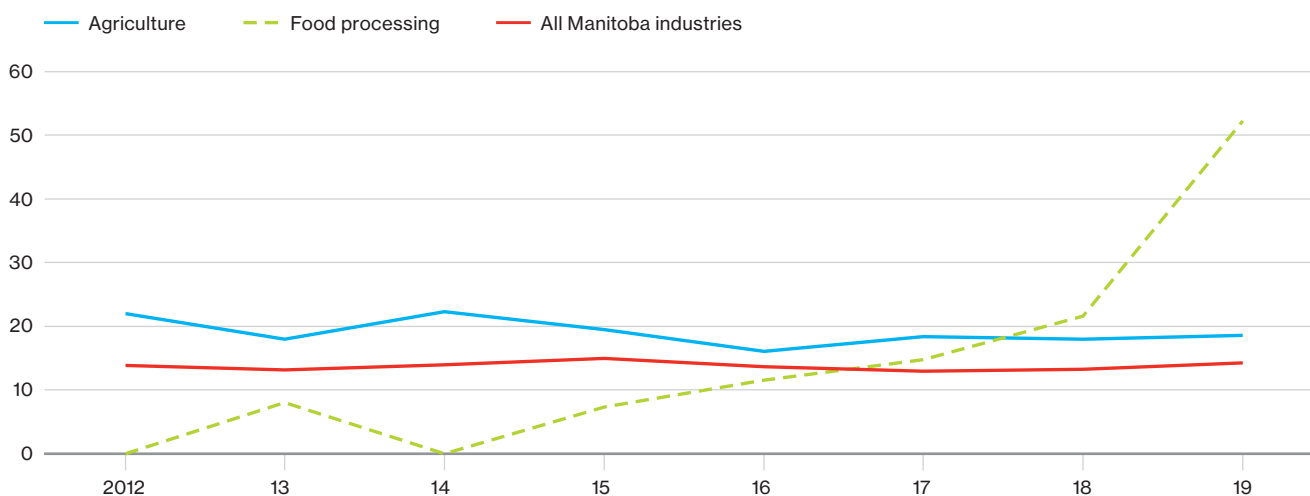
Agricultural Partnership and the Protein Industries Superclusters in the Prairies, which are both intended to support innovation and high-value agri-food production in Canada.

Investment in Manitoba's agri-food industry has averaged 21 per cent of the industry's total output per year since 2017, after having averaged 14 per cent over the 2012–16 period. Increased investment in food processing largely drove these gains. (See Chart 15.) Recently, Simplot Foods invested \$450 million to expand its potato-processing plant and Roquette has begun construction on its \$400-million pea-processing plant in Portage la Prairie (soon to be the world's largest), while Paterson GlobalFoods has invested \$94 million toward the construction of an oat-processing facility in Winnipeg.

Chart 15

Investment spending in food processing improving, 2012–19

(real investment to real output by agri-food subsector, per cent)



Note: Agriculture includes NAICS codes 111 (crop production) and 112 (animal production).

Food manufacturing includes NAICS codes 311 (food manufacturing) and 3121 (beverage manufacturing).

Sources: Statistics Canada; The Conference Board of Canada.

52 As of 2019, Canada's agri-food exports stood at \$67 billion.

Recent gains in investment suggest that Manitoba's food-processing sector is on the right path. However, more investment is needed to reverse the declining trend in productivity of the past two decades. Technological innovation and adoption will be central in supporting food manufacturing exports.

To enhance their competitiveness and move up along the value chains, food producers will also need to work on differentiating their products from the competition and find market niches to expand their global reach.

Moreover, the Canadian agri-food sector has struggled with labour shortages for years. Manitoba's food producers will need to find workers with the right skills to adapt to technological changes, improve productivity, and prosper in the changing global environment. Producers should also improve skills training for workers, including "human resource management training and certification demonstrating quality practices for training, retention, recruitment and staff management."⁵³

Challenges ahead, but also opportunities

Several factors will affect future global demand for Manitoba's agri-food products:

- demographic trends;
- changes in lifestyle and tastes in the global market;
- international, regional, and bilateral trade agreements;
- existing and potential trade barriers;
- the productivity and global competitiveness of the agriculture and food-processing sectors.

Manitoba's agri-food sector is facing a complex global environment. COVID-19 has intensified the protectionist trend that emerged in recent years. China has also made a commitment to import an agreed value of U.S. agriculture goods under the U.S.–China trade deal, which may limit Manitoba's agriculture exports in the coming years if the deal is maintained.⁵⁴ China's bans on Canadian canola seeds and its continued emphasis on the primacy of domestic food production are also signals to look for other fast-growing markets.

Trade agreements such as the CPTPP as well as a fast-growing demand for food products such as meat and higher-end food products in emerging economies present opportunities.



⁵³ Black, Robinson, and MacDonald-Dewhirst, "COVID-19 Exposed the Urgent Need for an Agri-Food Labour Strategy."

⁵⁴ The impact of the deal on Canada's agriculture exports to China is still uncertain as China is still far from reaching its buying commitment under Phase 1 of the deal. See Bown, "Trump's Phase One Trade Deal With China and the US Election."

Canada and Manitoba will need to be proactive in their efforts to diversify their markets. They should focus on countries and regions with strong demand potential that are also open to Canadian and Manitoban agri-food products. Food producers will also need to invest in capital to improve productivity and competitiveness in the global market. Manitoba is on the right path—investment in the food-processing sector has risen sharply since 2017. Yet, more is needed to reverse the declining trend in productivity observed in the past two decades. Productivity declines were particularly evident in the meat manufacturing subsector. Food producers should differentiate their products from the competition and find market niches. They should also focus on accessing workers with the right skills and improving the knowledge and skills of workers, supervisors, and managers. These efforts would help them move up along the agri-food value chains and expand their global presence.

COVID-19 and global forces represent many challenges to the food-processing sector. But they also present opportunities. For example, there is a greater focus on food security around the world, especially among net food importers. In this light, Canada and Manitoba could expand their brand as a stable, reliable, safe, and significant source of agri-food products. However, the sector will need to keep up with the greater integration of new technologies in the global food system to boost its competitiveness. It will also need to invest in infrastructure to protect workers' health and safety and improve the sector's resilience to future shocks.



Appendix A

Methodology

This impact paper was written to assess the competitiveness and export potential of Manitoba's agri-food sector. It explores the potential for growth in agri-food exports to different parts of the world based on recent trends in agri-food world imports (results presented in Appendix C) as well as a range of other quantitative and qualitative analyses. The impact paper also assesses productivity trends by food manufacturing subsectors and Manitoba's competitiveness in exporting agri-food goods based on the calculation of revealed comparative advantage (RCA).

Global competitiveness analysis methodology: Calculation of revealed comparative advantage

Comparative advantage is one of the most important concepts in international trade. It helps to explain trade flows and why we trade with other countries. At the same time, it also helps to guide domestic trade policies by identifying the most important products and markets for Canadian exporters. Essentially, comparative advantage is the idea that countries can gain from trade (e.g., lead to higher average income) by engaging in trade in the products for which they have higher productivity *relative* to their trading partners.⁵⁵

We assess the export competitiveness of Manitoba's agri-food products. To do this, we use a commonly used measure of RCA to evaluate whether Manitoba holds any relative advantages in these product groups.⁵⁶ The RCA index measures the relative export performance between Manitoba and the world market for a particular industry or product. In short, a product has an RCA if the share of Manitoba's export for the product is greater than the share of the world's export for the product. This is taken to mean that Manitoba can produce the product more efficiently than its average trading partner.

We used trade data at the two-digit level (i.e., product class) and four-digit level (i.e., individual products) of Harmonized System (HS) classification.⁵⁷ This allowed us to identify the particular products that are strong performers for Manitoba. We also calculated the average RCA index using trade data from 2015 to 2019. This is important, as the RCA can change significantly from year to year due to factors such as trade barriers. In particular, Canada faced an increase in trade barriers from some of its largest trading partners in 2019—notably the U.S. and China—which pushed down its export share of certain products (and subsequently, its RCA value). For instance, Canada lost its RCA in soybean production in 2019, while also losing some ground in its competitiveness of canola, as a result of China's ban on many Canadian agricultural products.

⁵⁵ See UNCTADstat, "Revealed Comparative Advantage."

⁵⁶ Our chosen indicator of analysis is the Balassa index (1965). Although a commonly used RCA metric, it is worth noting its limitations. For one, it assumes unobstructed free trade without considering trade frictions, such as production subsidies and import tariffs, which impact the ability of a country to produce a good vis-à-vis its trading partners. And while it does tell us that a comparative advantage exists, it does not identify *where the comparative advantage actually lies* (e.g., *Canada's geographical location, vast supply of arable land and fresh water, robust innovation ecosystem*).

⁵⁷ World product trade data classified by HS code were retrieved from the International Trade Center (ITC). Manitoba's product trade data classified by HS code were retrieved from the Government of Canada's Trade Data Online (TDO). All product trade data were compared in Canadian dollars over the 2015–19 time period.

Appendix B shows a list of the top individual products where Manitoba was found to hold a comparative advantage. All in all, we considered 99 individual products that spanned Manitoba's agri-food export sector and found that Manitoba holds a comparative advantage in the world market for 41 of them. The RCA indices tell us that Manitoba's strongest performers are in the agricultural subsector, specifically, cereal and oilseed products (e.g., canola), which hold the highest RCA values.

Other quantitative analyses: data sources

Overall, this impact paper was based on a range of quantitative sources, including:

- Data on Manitoba exports of agri-food goods to the world, broken down by country and region at the two-digit HS code levels from Innovation, Science and Economic Development Canada's Trade Data Online database.
- Average annual compound growth rate of world imports from the world of agri-food goods over the 2016–19 period. The growth rate was calculated for agri-food goods (representing 19 two-digit HS Codes) using the UN Comtrade database.
- Data on gross domestic product, employment, and productivity for a range of food manufacturing subsectors from Statistics Canada.
- Data on business investment for the agriculture and food manufacturing sectors from Statistics Canada.



Appendix B

Manitoba's revealed comparative advantages in agri-food products

This table shows the province's Revealed Comparative Advantage (RCA) for four-digit HS (Harmonized System) Code agri-food categories.

Table 1
Manitoba's RCAs for four-digit HS code agri-food categories, RCA >100

HS Code and agri-food product	RCA
HS 1004–Oats	39355
HS 1514–Rape (canola), colza, or mustard oil and their fractions 0151—not chemically modified	28292
HS 1205–Rape or colza seeds (whether or not broken)	25759
HS 1002–Rye	23958
HS 2004–Potatoes and other vegetables—frozen without vinegar/acetic acid	15255
HS 1103–Cereal groats, meal, and pellets	14891
HS 0103–Live swine	14034
HS 1204–Linseed	13095
HS 1104–Cereal grains—hulled, rolled, flaked, pearled, sliced, or kibbled; germ of cereals	12680
HS 0203–Meat of swine—fresh, chilled, or frozen	9532
HS 0209–Pig fat, free of lean meat, and poultry fat, not rendered or otherwise extracted, fresh chilled, frozen, salted, in brine, dried or smoked.	7311
HS 1001–Wheat	6517
HS 1207–Other oil seeds and oleaginous fruits	6176
HS 0713–Leguminous vegetables—dried and shelled	5029
HS 0102–Live bovine animals	4503
HS 0701–Potatoes—fresh or chilled	3352

(continued ...)

Table 1 (cont'd)**Manitoba's RCAs for four-digit HS code agri-food categories, RCA >100**

HS Code and agri-food product	RCA
HS 1209–Seeds, fruits, and spores for sowing	3256
HS 0206–Edible offal–bovine, swine, sheep, goat, horse, ass, mule, hinny–fresh, chilled, or frozen	2716
HS 1008–Buckwheat, millet, and canary seed; other cereals	2574
HS 1106–Flour and meal of dried leguminous vegetables, sago, edible fruits or nuts	2376
HS 0210–Meat and edible offals of bovine, swine, and other animals–salted, in brine, dried or smoked	2364
HS 1003–Barley	1717
HS 1518–Vegetable/animal fats or oils and their fractions 0151–boiled, dehydrated, blown, chemically modified	1664
HS 1206–Sunflower seeds (whether or not broken)	1647
HS 1201–Soya beans, whether or not broken	1577
HS 0105–Live poultry and turkeys	1395
HS 1107–Malt	1327
HS 1521–Vegetable waxes (excluding triglycerides), insect waxes, and spermaceti	1278
HS 1213–Cereal straw and husks, unprepared	1109
HS 1515–Other fixed vegetable fats and oils and their fractions–not chemically modified	981
HS 1501–Pig fat 11 (including lard) and poultry fat, other than that of heading 0209 or 1503	868
HS 1101–Wheat or meslin flour	521
HS 0304–Fish fillets and other fish meat–fresh, chilled, or frozen	490
HS 0106–Other live animals nes (including fishing bait)	410
HS 0101–Live horses, asses, mules, and hinnies	402
HS 1208–Flours and meals of oil seeds or oleaginous fruits (except mustard and soya beans)	383
HS 1214–Alfalfa, swedes, mangolds, fodder roots, hay, clover, sainfoin, and similar forage products	343
HS 1108–Starches (inulin)	238
HS 1102–Cereal flours (other than wheat or meslin)	236
HS 1211–Plants and parts used primarily in pharmacy, perfumery, insecticides, fungicides, or similar purpose	177
HS 0303–Frozen fish (excluding fish fillets)	106

Sources: United Nations Comtrade Database; Innovation, Science and Economic Development Canada Trade Data Online; The Conference Board of Canada.

Appendix C

World demand analysis

Table 1 shows recent growth in world imports (broken down by region) of agri-food products (19 two-digit Harmonized System [HS] agri-food products) based on the average annual compound growth rate over the 2016–19 period.

We do not limit the analysis to the agri-food import categories that are currently the largest. This is because demand for some of these large categories may be growing at a slower pace while smaller import categories may be insignificant right now, but have strong growth potential.

Table 1

Growth in real imports of agri-food products from the world, by product and by importing country (average annual compound growth rate, per cent, 2016–19)

(average annual compound growth rate, per cent, 2016–19)

	U.S.	Europe	Japan	Latin America	India	China	Other Asia	Oceania	Africa	Middle East	World
Misc. edible preparations	17.6	4.2	0.4	0.7	12.8	19.2	9.7	5.4	1.6	-0.7	5.6
Cereals, flour, starch preparations	8.6	4.9	3.2	2.1	10.6	16.9	5.2	7.7	4.5	2.0	5.6
Fish and seafood	34.4	4.2	2.2	2.1	14.5	23.9	4.7	0.4	-0.1	2.4	5.3
Beverages, spirit, and vinegar	5.0	4.1	2.3	5.4	9.6	7.4	4.6	2.3	3.2	3.6	4.2
Oil seeds, oleaginous fruits, and related products	-0.7	5.1	1.2	11.3	21.5	2.2	2.6	7.3	12.9	6.2	4.0
Edible fruits and nuts	5.5	2.3	3.1	3.9	-1.1	17.4	6.1	-1.0	-3.0	-0.6	3.9
Meat and offal	-2.4	0.9	5.1	1.6	23.4	28.0	5.9	3.9	-0.8	-0.2	3.6
Lac, gums, and resins	-2.7	4.2	1.7	-0.4	8.8	15.4	10.8	3.4	4.1	1.6	3.2
Products of milling industry	5.0	4.0	0.2	4.5	5.4	8.6	1.7	8.4	0.0	-0.5	2.7
Meat/fish preparations	2.5	2.8	3.2	1.0	30.7	12.3	2.5	1.6	2.7	1.3	2.5
Preparation of vegetables, fruits, nuts	3.3	2.1	1.7	1.7	12.4	13.7	5.5	2.3	-3.5	-3.2	2.0
Cocoa and cocoa preparations	0.2	2.0	0.7	2.2	4.5	-2.3	3.0	-0.9	1.6	2.6	1.7

(continued ...)

Table 1 (cont'd)**Growth in real imports of agri-food products from the world, by product and by importing country (average annual compound growth rate, per cent, 2016–19)**

(average annual compound growth rate, per cent, 2016–19)

	U.S.	Europe	Japan	Latin America	India	China	Other Asia	Oceania	Africa	Middle East	World
Sugar and sugar confectionery	2.7	1.8	0.2	3.3	-7.3	-5.0	3.1	5.3	1.6	1.5	1.5
Edible vegetables	4.9	3.4	0.8	6.8	-19.8	-12.5	-3.2	1.1	-4.6	-7.2	1.1
Live animals	-3.0	1.6	3.9	-7.4	-5.2	-3.4	8.1	4.8	3.7	-3.9	0.9
Cereals	-3.1	3.1	0.0	3.3	-2.6	-14.4	2.4	2.4	-0.6	1.2	0.3
Animal/vegetable fat	0.9	0.9	-1.4	-2.6	-3.0	5.0	-2.3	1.5	1.6	-5.2	-0.3
Coffee, tea, and related products	-0.9	-0.8	-5.2	-2.6	-2.4	23.8	3.7	-0.6	-0.1	-0.7	-0.4
Dairy produce, eggs, and honey	-4.3	0.8	0.8	-3.9	-12.0	13.0	0.3	3.8	-4.9	-7.5	-0.4

Note: Import data were deflated using FAO price indexes 2014–16 average = 100

Sources: United Nations Comtrade Database; FAO; The Conference Board of Canada.



Appendix D

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