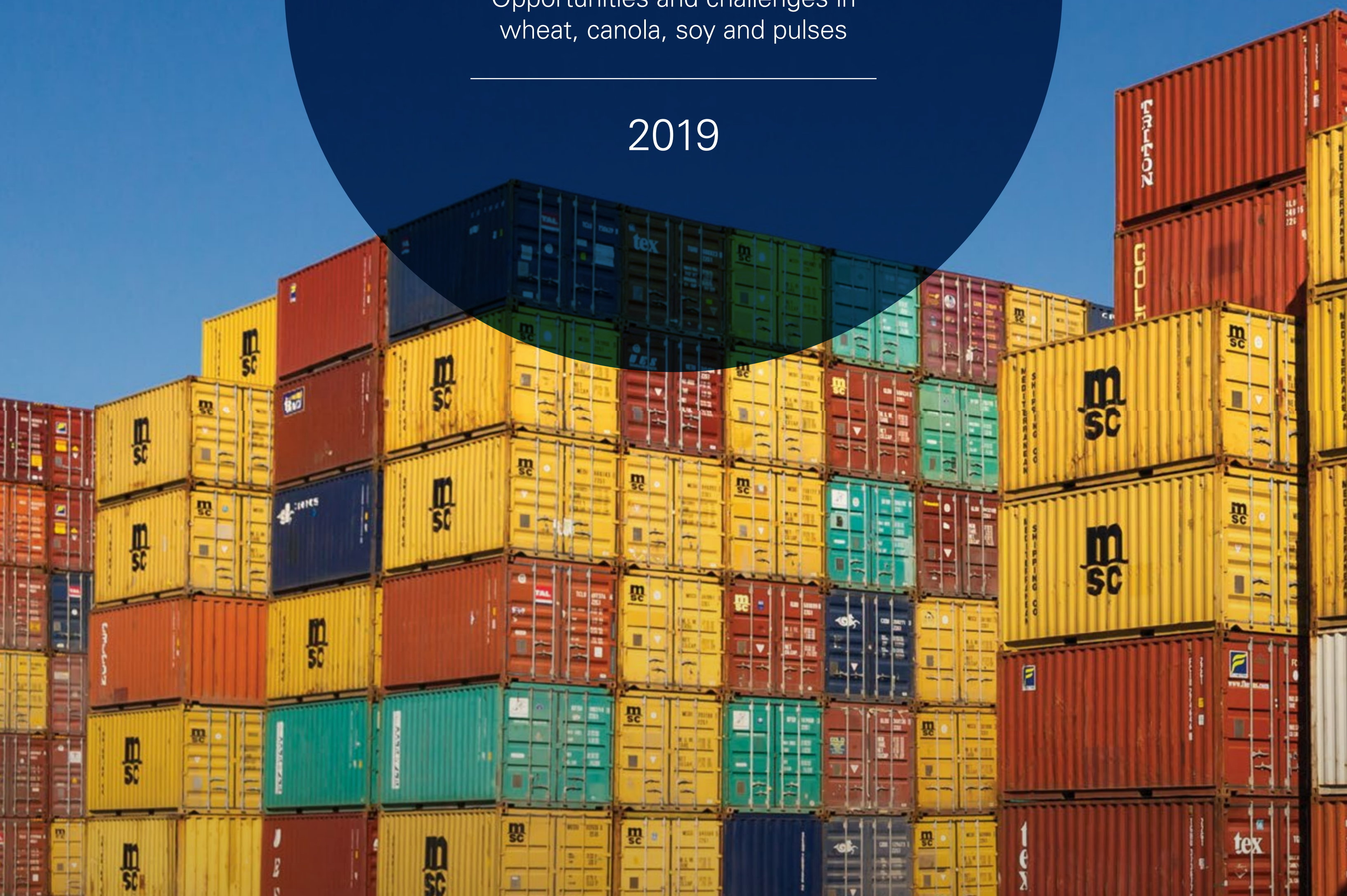
Diversifying Canada's agriculture exports:

Opportunities and challenges in wheat, canola, soy and pulses

2019



Introduction

Competition is increasing among exporters of agricultural commodities. Asian, South American and suppliers from the Black Sea region can now vie for the world's import dollars, having developed their production capacity and the infrastructure to deliver globally. And importers are exercising both these emerging options, along with the more traditional exporters to achieve goals related to both trade balances and geopolitical outcomes.

This affects Canada, the world's fifth-largest agricultural exporter in 2018. The U.S., traditionally our largest foreign market, last year accounted for just over 35% of our total agricultural exports, worth C$33.97 billion. Canada can chalk up our excellent performance to numerous factors, but our historical relationships, well-established infrastructure and proximity to the world's largest single-country economy are significant.

Such apparent advantages may not guarantee future success. The last 18 months of global trade have highlighted the risks of an over-dependence on one buyer and the importance of diversified markets to agricultural suppliers like Canada.

In an era of heightened protectionist tensions, the continued diversification of our export markets may help reduce Canadian ag producers' financial risk.

In this report, we show how Canadian agribusinesses have already successfully started to diversify crop exports by describing three key features of our 2018 trade:

1. World's largest importers of wheat, canola, soy and pulses
2. World's fastest-growing markets for those commodities
3. Markets buying a disproportionately larger share of those commodities from Canada

We also define markets where future diversification is possible. While it may boost Canada's export performance, we outline why it's never easy. Each commodity's unique market structure features barriers to further diversification. Canadian soybeans and pulses compete in markets with one major buyer that dictates the majority of global trade flows, while wheat export markets are characterized as largely mature with well-established trade partnerships. Canadian canola must compete with an intra-European market – arguably the world's largest rapeseed market – that has often been able to meet its own needs when facing average market conditions.

The global trade landscape of 2019 has shifted in ways that complicate efforts to diversify Canada's export markets well beyond the challenges posed simply by market structure. While there are definite opportunities to broaden the spectrum of importers who prefer Canadian commodities, ongoing trade tensions, accelerating weather and disease events will test the successful fulfillment of such potential in 2020.

How we collected the data

We focused on ag commodities with the potential to be exported to non-U.S. markets, which excluded all categories of live plants and live animals. Focused solely on HS categories 07 (vegetables), 08 (fruits and nuts), 10 (cereals) and 12 (oilseeds), we selected for analysis wheat (HS1001), canola (HS1205), soy (HS1201) and pulses (HS0713), Canada's four top-selling agricultural commodities every year between 2009 and 2018.

China's 2018 import data were unavailable from UN Comtrade at the time of publication. We used their 2017 import and export values throughout this report, except where data reflecting exports to China from Canada and elsewhere were available. Data was extracted from UN Comtrade in August and September 2019.

Canada's largest exports

Canada exported C$33.97 billion worth of ag commodities in 2018[1]. Crop commodities[2] made up just over three-quarters of that total. Since 2009, wheat and canola have accounted for at least 50% of Canada's total crop exports. Soy and pulses exports have accounted for an additional approximate 20 – 25% each year. Barley, oats, tomatoes and other vegetables together have comprised 8 – 10% of total exports each year. In 2018, the top four commodities accounted for 73% of total crop exports (Figure 1).

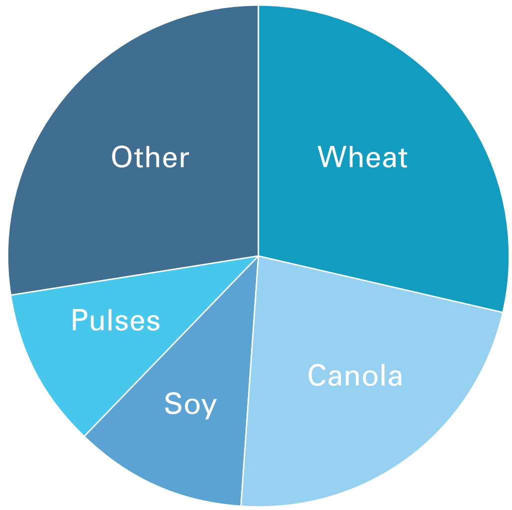
Over the last decade, different combinations of corn (8 of 10 years), frozen fruits and nuts and linseed (6 of 10 years) have rounded out the top 10 exports. Together, the top 10 commodities accounted for no less than 86.0% of total Canadian crop exports each year.

[1]Total ag exports include Harmonized System codes 01 (Live animals), 03 (Fish, crustaceans, mollusks, etc.), 06 (Live plants), 07 (Vegetables), 08 (Fruits and nuts), 10 (Cereals), 12 (Oilseeds).

[2]"Crops" include commodities from Harmonized System codes 06, 07, 08, 10, 12.

Figure 1:

Top four commodities dominate Canada's crop exports in 2018



Source: Trade Data Online, accessed September 2019

Where can Canada expand our exports?

To identify opportunities for potential Canadian export diversification, FCC Ag Economics looked at wheat, canola, soy and pulses markets that are large and growing quickly. Many of these countries already trade with Canada and some count among our very largest export markets. Canada is in the process of establishing formal trade relations, or we have trade agreements already in force, with many.

We then defined markets that "preferred" Canadian commodities in 2018 – that is, their imports of Canadian wheat, canola, soy and pulses were more than expected, compared to the world's imports of those same commodities from Canada. The U.S. is often the largest market for Canadian goods, but they find a competitive advantage in many other markets too. We define those large and quickly growing markets where Canadian commodities have no current advantage as those with the highest potential to increase our exports.

Revealed Market Advantage

Canada has a *revealed market advantage* (RMA) over other exporters if a foreign market's imports of a Canadian commodity represent a greater share of their total purchases than is found in world purchases of Canadian products.

An example:

$$\textbf{RMA:}\quad \frac{\text{U.S. import values of CA wheat relative to their overall import values of wheat}}{\text{Global import values of CA wheat relative to overall global import values of wheat}} = \frac{99.7\%}{14.9\%} = 6.7$$

A score above "1" indicates those markets whose imports of Canadian wheat represent a greater share of their total purchases than is found at the world level of purchases of Canadian wheat. These are our "preferred" markets.

Wheat

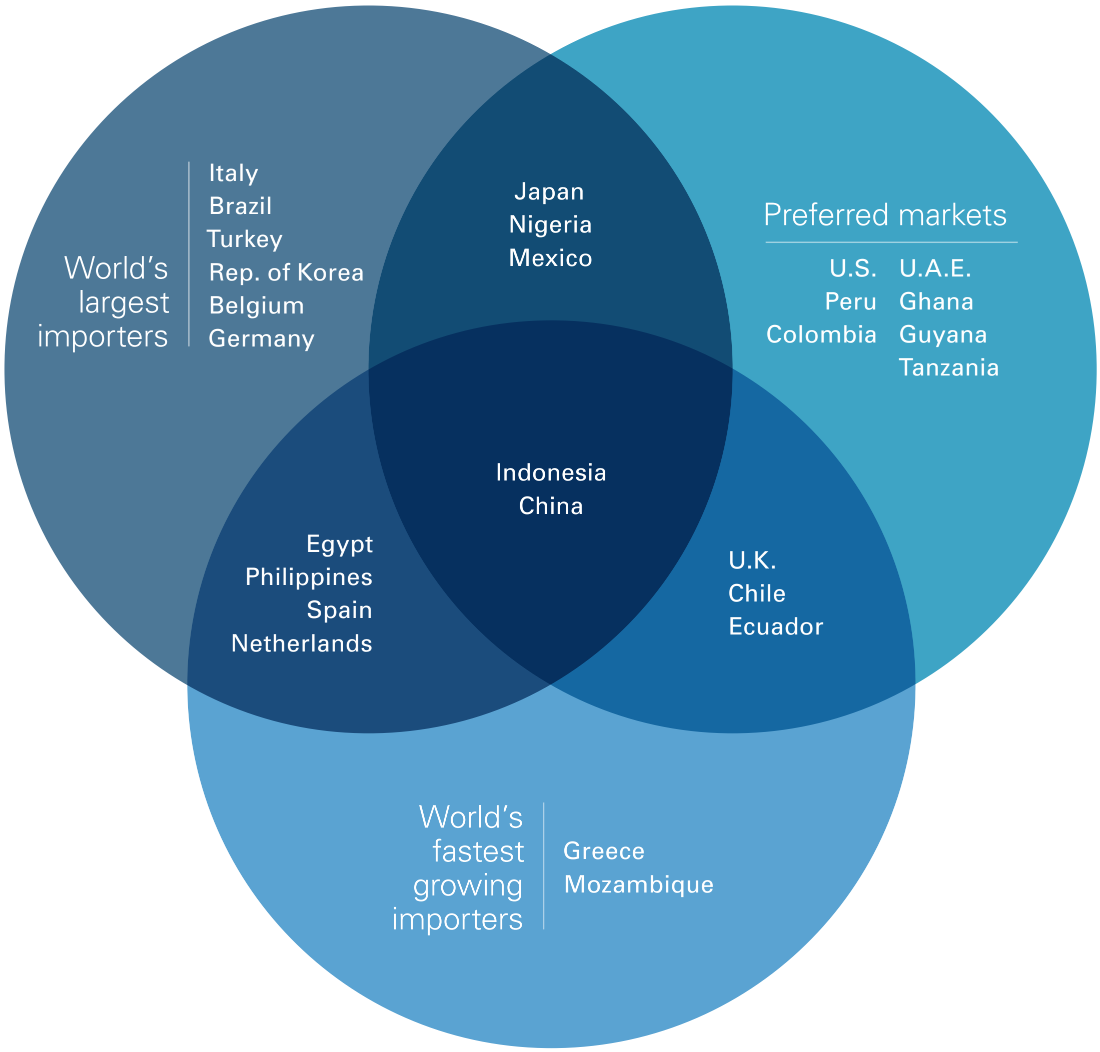
Global wheat imports represent a mostly stable, mature market valued at US$32.56 billion, or 6.0% of total ag imports in 2018. Despite its maturity, and unlike more concentrated crop markets (those with one dominant buyer or those with the largest importers accounting for an overwhelming majority of imports), the wheat market has steadily diversified over time. The number of importers grew while the share of total global imports held by the top 10 largest importers fell from 48.8% in 1999 to 43.1% in 2017[3].

That's good news for Canada, who has counted among the world's four largest exporters since 1999. We were the world's largest exporter in 2015 and the second-largest (behind Russia) in 2018. In 2017, we exported to 102, or 70%, of all wheat importers.

[3]To measure diversification, we looked at trends in the number of importers and exporters, and in the share of total imports/exports the top 10 largest traders held between 1999 and 2017. There was not enough 2018 data available for this analysis.

Figure 2:

World top importers, fastest-growing markets,
and markets that preferred Canadian wheat in 2018



Wheat 2018 quick facts (USD, billions)

Total global imports	$32.51
World's largest exporter: Russia	$8.43
Total Canadian exports	$5.71
World's largest importer: Egypt	$2.64

Source: UNComtrade, accessed September 2019

China's import values are from 2017

The world's fastest-growing importers include countries with at least 0.5% of total global wheat imports and positive average growth between 2014 and 2018

"Preferred markets" include countries with an RMA score of "1" or more and at least US$1 million in global imports

Countries are listed in each segment in order of largest to smallest importer

Opportunities for further diversification of wheat markets

In 2018, the 15 markets where Canadian wheat had the strongest advantage (Figure 2) accounted for 33.8% of total wheat imports. Most notably, our exports have a comparative advantage in China, which was estimated to be our largest buyer, with 8.0% of total Canadian exports in 2018.

Possible opportunities to grow export markets further include those fast-growing and/or large importers who are importing a lower share of Canadian wheat than the average of the rest of the world: Egypt, Spain, Philippines, Netherlands.

Formalized trade relationships could provide the biggest boost to further growth in trade. Canada has trade agreements with Spain and Netherlands via the Comprehensive Economic Trade Agreement (CETA) and a foreign investment promotion and protection agreement in force with Egypt. We're also in exploratory discussions with the Philippines for a trade agreement.

Brazil also announced in March 2019 a duty-free quota for 750,000 tons of wheat from non-Mercosur (the Southern Common Market made up of Argentina, Brazil, Paraguay and Uruguay) suppliers.

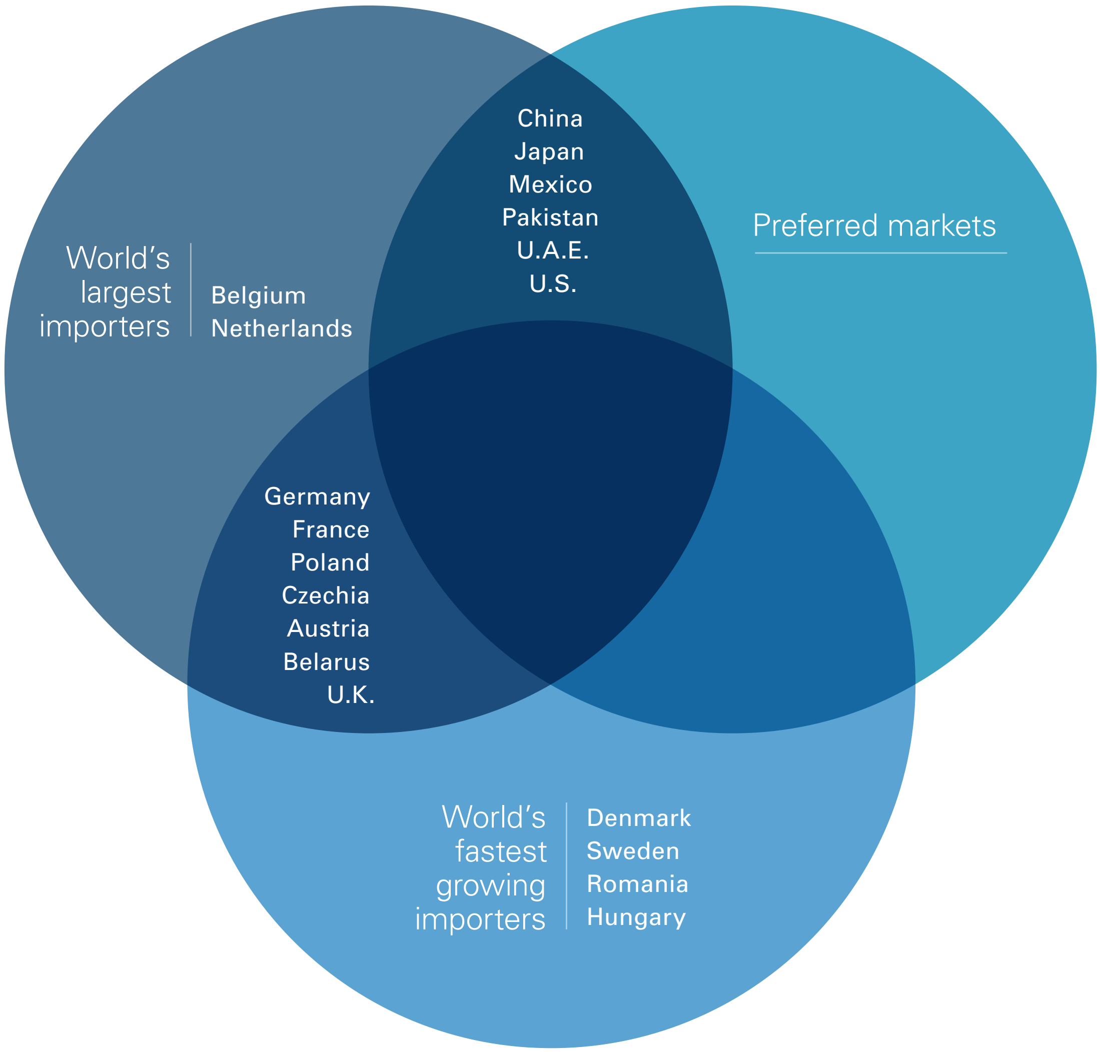
Factors likely to inhibit further trade diversification of wheat markets

Mature markets pose enough of a challenge for diversification that it's reasonable to ask how much more Canada can diversify. Several other factors are currently limiting that potential, especially within those markets that are large and/or quickly growing:

- Italy's country-of-origin legislation has disrupted the flow of Canadian durum exports since 2018.
- There's fierce competition among wheat exporters, a situation that's unlikely to fade. Russia, the U.S., Argentina and European suppliers are major wheat exporters, each with close and preferential ties to the markets we identify as offering the highest potential for Canada's further growth.
- Global economic forces have limited the overall sector growth that's necessary for individual exporters to diversify export markets. Wheat markets illustrate how. Overall, wheat import values grew 167% between 1999 and 2017, while the largest importers increasingly represented smaller shares of total imports. But the number of importers peaked in 2008 and has fallen since. This suggests that the largescale downturn in the global economy and quickly rising commodity prices that also raised food prices at that time limited importer potential, especially among the smaller economies. Any similar decline in the future could produce similar market contractions.

Figure 3:

World top importers, fastest-growing markets,
and markets that preferred Canadian canola in 2018



Canola 2018 quick facts (USD, billions)

Total global imports	$10.78
World's largest exporter: Canada	$4.45
World's largest importer: Germany	$2.52

Source: UNComtrade, accessed September 2019

China's import values are from 2017

The world's fastest-growing importers include countries with at least 0.5% of total global canola imports and positive average growth between 2014 and 2018

"Preferred markets" include countries with an RMA score of "1" or more and at least US$1 million in global imports

Countries are listed in each segment in order of largest to smallest importer

Canola

Canola represents a smaller global market than wheat, worth US$10.8 billion, or 2.0% of total ag imports in 2018. Emerging more recently than wheat into the market, it offers higher growth: global import values grew 410% between 1999 and 2017, and they managed to grow an impressive 17.7% between 2008 and 2017.

Over the last 20 years, the number of importers has also grown while import values became more evenly distributed among all importers. This suggests the canola market continues to expand, offering future growth.

Canada has always been the world's largest exporter of canola used for human consumption. Of the 107 countries importing canola/rapeseed in 2017, Canada exported to 32 (29.9%). Our export markets aren't as diverse as are our wheat markets, but that's in part due to canola's unique market structure.

Opportunities for further diversification of canola markets

Figure 3 shows the clear divide in the market: European importers often source European products used mainly in biodiesel production, while non-European importers prefer Canadian canola for human food consumption.

Because canola is a higher-quality product than rapeseed, Canada's share of total export values has become increasingly concentrated – from 38.4% in 1999 to 44.1% in 2017. Over that period, other exporters represented smaller shares of the market despite growth in the number of competitors, indicating a trend for non-European markets' concentration around Canadian exports.

Factors likely to inhibit further trade diversification of canola markets

Further market diversification may not happen easily. For one thing, the markets in which Canadian canola had a competitive advantage accounted for 46.2% of total imports in 2018. It's Canada's largest success story, but challenging future growth will be the fact that canola oil competes directly with palm oil, a much larger global food market.

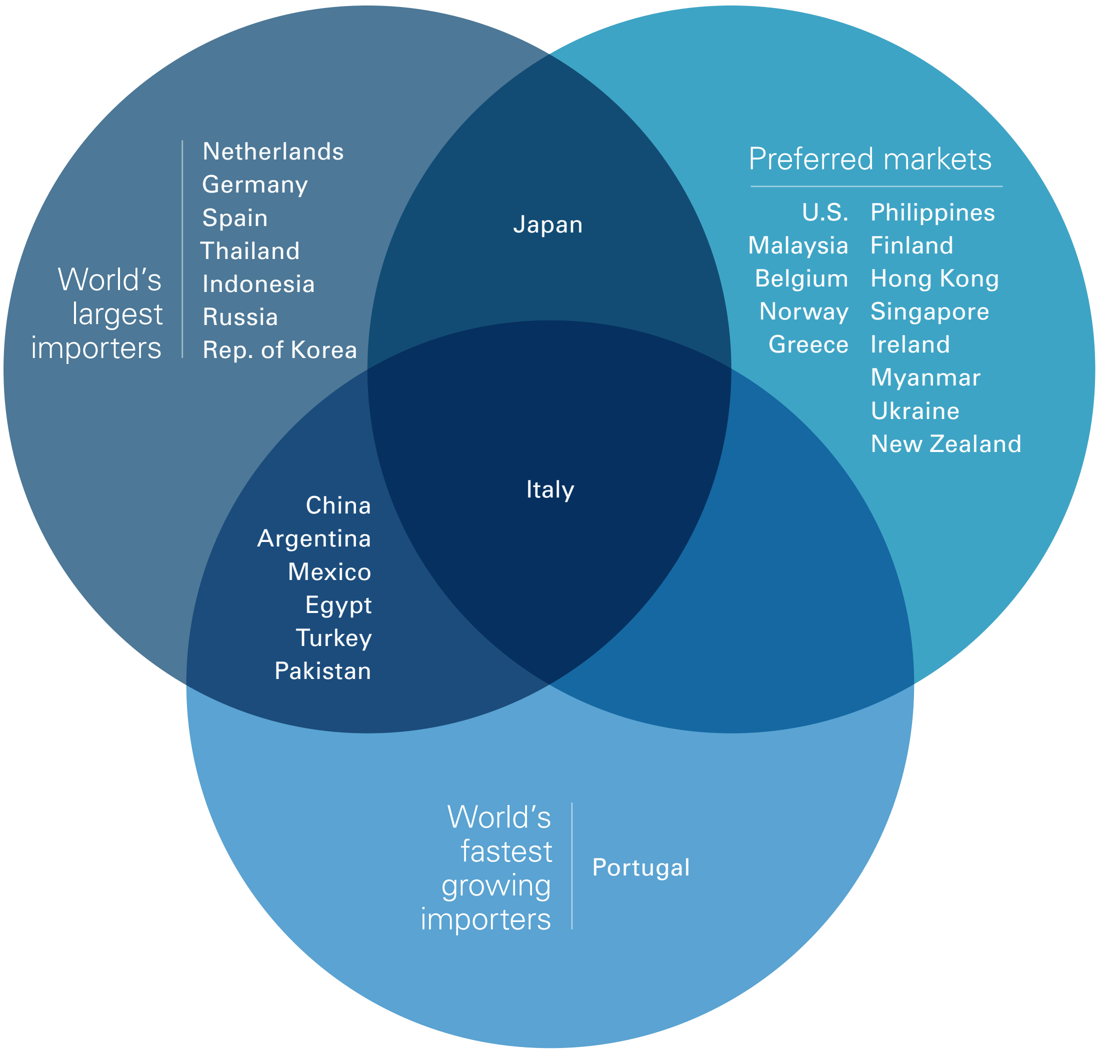
Another possible challenge: as of 2018, all large and fast-growing markets with no current advantage for Canadian canola were European (Belarus, U.K., Poland, Czechia, Germany, Austria and France). That may be changing. Canada's canola exports in 2019 illustrate how market conditions can alter trade flows, if only for the short term.

Two unrelated things have happened: anticipated European production fell below the 5-year average, and export prices fell after China closed their borders to Canada's canola. Canada's exports, typically destined to China, went instead to Europe.

The increase was a welcome bright spot as China's ban on Canadian canola continues, but it's too early to tell if this is real market diversification.

Figure 4:

World top importers, fastest-growing markets, and markets that preferred Canadian soy in 2018



Soy 2018 quick facts (USD, billions)

Total global imports	$62.74
World's largest exporter: Brazil	$33.19
World's largest importer: China	$39.64
Total Canadian exports	$2.22

Source: UNComtrade, accessed September 2019

China's import values are from 2017

The world's fastest-growing importers include countries with at least 0.5% of total global soy imports and positive average growth between 2014 and 2018

"Preferred markets" include countries with an RMA score of "1" or more and at least US$1 million in global imports

Countries are listed in each segment in order of largest to smallest importer

Soy

Soybeans represent perhaps the best opportunity for Canada to diversify crop export markets further. Total global soy imports were valued at US$62.8 billion, a huge market accounting for 11.7% of last year's total global ag imports. Canadian exports were valued at US$2.2 billion.

The one major caveat in the structure of global soy markets comes from China. Chinese imports accounted for a staggering 65% of total soy imports in 2018. Since 2000, when China imported more soy than any other country for the first time, their share has steadily increased; they've accounted for at least 50% of the total market since 2008. Removing China from the line-up reduces 2018's global soy imports to US$23.2 billion.

The remaining markets show diversification potential. The number of soy importers and the overall value of imports have both grown without the giant. And the share of total imports held by the next 10 largest importers dropped from 74.9% in 1999 to 58.9% in 2017, suggesting real market diversification is occurring.

Opportunities for further diversification of soy markets

The top 15 markets in which Canadian soy has an advantage are generally small and well-established with relatively low recent growth. In 2018, they accounted for US$3.7 billion (or 5.8% of total global imports).

Markets with the most significant potential for Canada to diversify future soy exports include Argentina, Mexico, Egypt, Turkey and Pakistan. Improving trade prospects will most likely be achieved through the commercial relations created by existing trade and investment promotion and protection agreements with Egypt, Argentina and Mexico. Canada is pursuing a bilateral free trade agreement with both Argentina and Turkey; Pakistan and Canada are negotiating an investment protection framework. The competition for these markets will be stiff, however.

Factors likely to inhibit further trade diversification of soy markets

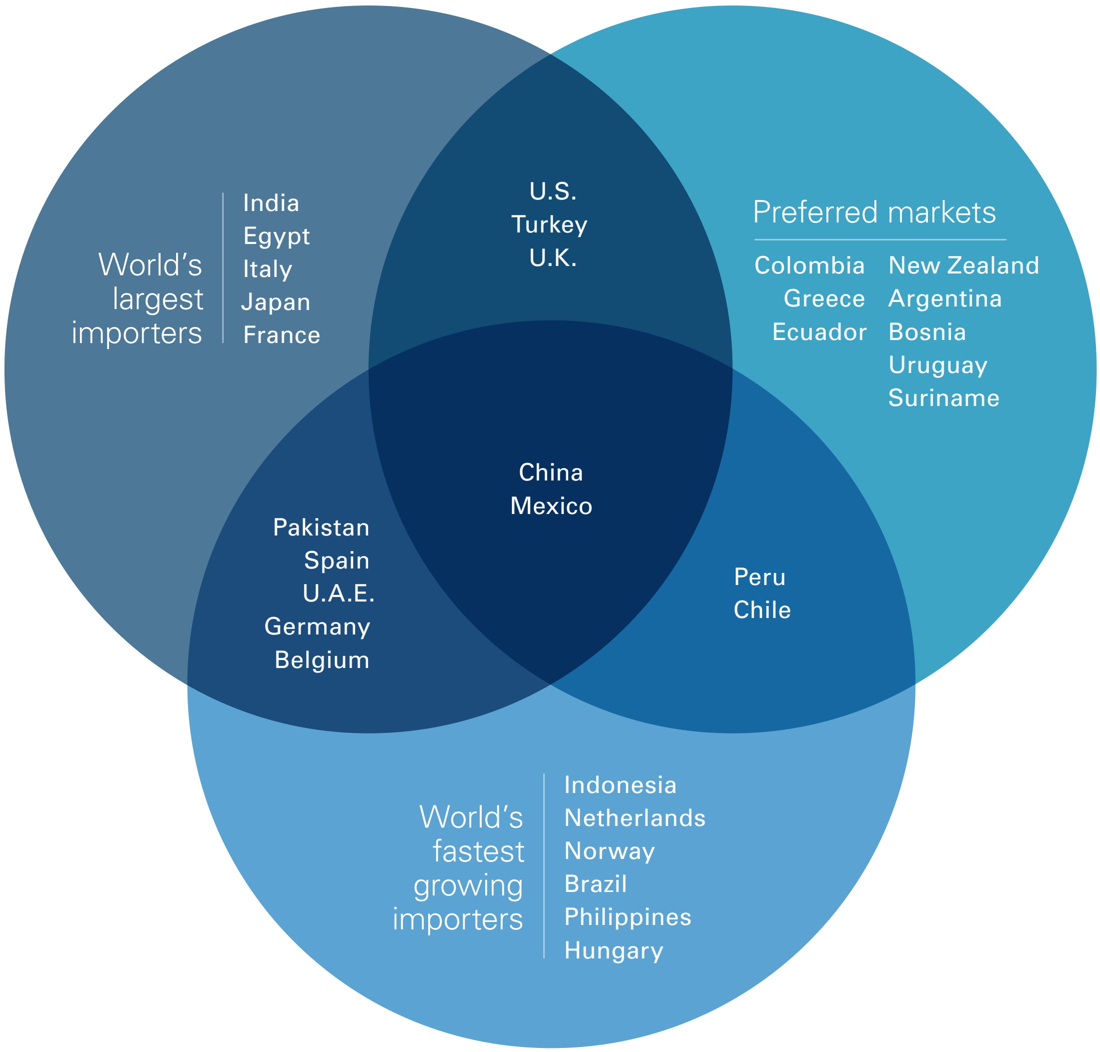
Even under normal market conditions, Canadian exporters must price and ship soybeans to buyers with many options. Argentina has close ties with two of the world's largest exporters: Paraguay and Brazil, who is quickly becoming the world's largest soy exporter. Mexico imports most of its soy from the U.S., and Pakistan, Egypt and Turkey are close to large European and Russian exporters who count among the world's largest exporters. And while being next door to the world's largest single-country market has helped boost Canadian ag export performance, our proximity is a hurdle when trying to grow export markets. The U.S. is not just the world's second-largest soy exporter, but relative to Canada, has a comparative advantage in the production of soybeans.

Add to those inevitable barriers the current situation in soybean markets:

- Ongoing U.S.-China trade tensions have led American exporters to find new markets for U.S. soybeans – even selling into Canada. Canadian imports of soybeans are estimated to have more than doubled in the 2018-19 marketing year.
- China's demand for soybeans has fallen as a result of African Swine Fever's decimation of their sow herd. The certain rebound in the herd will eventually strengthen global demand, but its timing is highly uncertain.

Figure 5:

World top importers, fastest-growing markets, and markets that preferred Canadian pulses in 2018



Pulses 2018 quick facts (USD, billions)	
Total global imports	$7.35
World's largest exporter: Canada	$2.08
World's largest importer: India	$1.07

Source: UNComtrade, accessed September 2019

China's import values are from 2017

The world's fastest-growing importers include countries with at least 0.5% of total global pulse imports and positive average growth between 2014 and 2018

"Preferred markets" include countries with an RMA score of "1" or more and at least US$1 million in global imports

Countries are listed in each segment in order of largest to smallest importer

Pulses

Saskatchewan has built a pulse powerhouse that has pushed Canada to the top of the protein's global markets. It's the smallest market of the four commodities that make up Canada's top exports, with global import values of US$7.5 billion in 2018.

India, the largest buyer since 2000, had grown its share of total imports from well under 10% in 2000 to more than 30% in 2017. Aside from India, imports have diversified among a higher number of countries. The sector has also boasted more importers than other commodities each year since 1999.

In such a highly diversified market, Canada has developed relationships with most importers. In 2017, Canada exported to 81% of all markets.

Pulses represent a steadily growing market with 8.3% average annual growth between 1999 and 2017. However, values have fallen in the last two years, at the expense of the largest exporters, including Canada. India is responsible for most of the decline, reducing imports through tariffs after its domestic production increased. The general market's price sensitivity may also play a role.

Canada captured 23.6% of global export values, with shipments to many of the world's largest importers. Our five largest export markets (India, China, U.S., United Arab Emirates (U.A.E.) and Turkey) accounted for 46.7% of total global imports.

Opportunities for further diversification of pulse markets

The markets in which Canadian pulses had an advantage in 2018 accounted for US$1.7 billion (or 13% of total import values). Countries that count among the largest, fastest-growing importers with no current advantage for Canadian pulses include Pakistan, Spain, Belgium, U.A.E. and Germany. Canada has existing trade agreements with Spain, Belgium and Germany through CETA, has concluded negotiations with U.A.E. for an investment protection framework and is negotiating with Pakistan for one.

Factors likely to inhibit further diversification of pulse export markets

As in wheat markets, the number of pulse importers has fallen each year since the global recession. Although consumers in developed countries are increasing their intake of plant-based proteins, pulses are a traditional food staple among populations with limited access to animal protein. A slowing world economy tends to eliminate those pulse importers with the weakest economies.

Conclusion: The diversification of Canadian export markets amidst the competition

There are economic obstacles against efforts to diversify Canada's ag export markets.

First, selling into one or two markets provides economies of scale. It's easier and increasingly cheaper to maintain markets compared to the costs of establishing them. Even when formal trade agreements lower the costs necessary to trade with new partners, diversifying almost always entails seeking markets that are further away and more expensive to develop.

Second, commodity pricing (which we didn't account for in this report) plays a vital role in determining the potential for expansion. Price-sensitive markets limit that potential, sometimes an issue for higher-quality and higher-valued Canadian commodities.

Third, the emergence of China onto the global ag trade horizon is not evidence of a general trend toward greater equality among importers. China often bears as much weight in global markets as the U.S., and in some markets, they have a more considerable influence than the U.S. – hence, their ability to engage in the protracted trade war that has shaped much of global trade in 2019. It would be a mistake to think that our growing export values to China represent the fulfilment of a diversification strategy.

Last, if the world economy outside of China and the U.S. does not support the economic expansion needed to see the demand for ag commodities grow, Canada's efforts to diversify export markets will mean little. As well, many countries' goals of achieving food security are tied to weakening dependence on imports. We may already be as diversified as we can reasonably expect.

However, further diversification may be possible and offer advantages.

As a risk mitigation strategy, diversification allows export flows to continue when trade partners become unavailable. Re-allocating exports among other buyers is a healthier option than the possible decline in exports and lost revenues that occur with border closures.

Canadian businesses have several options:

- Formal trade relations – either in force as of 2018, or in various stages of being formalized – clearly make a difference to the largest importers of Canadian wheat, canola, soy and pulses.
- Beyond such agreements, trade commissioner services can provide the necessary support to smaller businesses looking to enter new markets.
- The fixed costs of developing new business relationships (organizing supply chains, developing contacts, etc.) fall on a per-unit basis when businesses grow – and that's happening now. The higher costs associated with expanding markets will decrease over time as businesses get bigger.

In 2019, disrupted trade flows continue to create challenges for North American suppliers. Trade actions from the last two years continue to reverberate throughout the world's agricultural and general economies. Global supply and demand balances of many ag commodities are becoming increasingly difficult to gauge, adding to more price volatility and market uncertainty. Underlying all of that is increasing competition among exporters jockeying for their advantage. That won't pose a problem, but only if Canada can continue to count among the strongest in that field.

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