

Trade Deals and Agriculture: Not a game-changer but positive

Canada has been stepping up efforts to diversify its trade relationships. While free trade agreements are a net positive for the economy, they aren't always game-changers — and that is likely to be true for both CETA and the CPTPP, including when it comes to Canadian agriculture. Given that the benefits to Canadian food producers are expected to be incremental, the opportunity lies mostly in taking advantage of growing external demand for Canadian processed food products. And in continuing to leverage the Canadian agriculture sector's track record of massive productivity gains.

Ignore the hyperbole often attached to arguments for and against expanding trade — the truth is that the benefits of modern free trade agreements mostly occur at the margins. The Canadian government's own estimate is that the CPTPP will increase total Canadian economic output by about 0.1%...by 2040.

There are, however, pockets of the economy that stand to benefit. In the case of the CPTPP, that includes food production, particularly processed meat exports. Overall exports are expected to rise only by about \$2 billion (0.2%) by 2040 under the CPTPP, but half of that will come from increased sales of pork and beef. CETA is also expected to have a relatively modest impact on the overall economy but with a larger potential boost to processed food exports like meat¹.

Specific country trading relationships matter less for some products

Field crops account for close to one-third of total Canadian food production — and those are less affected by specific bilateral trade agreements. Crops like wheat are priced and sold into a global marketplace, and their prices are determined by global supply and demand dynamics, not bilateral arrangements. For other farm products, like animal products and fresh fruits and vegetables, distance also matters. It makes sense that most of those exports go to the United States — the world's largest consumer market sitting right on Canada's doorstep.

Trade agreements don't address land constraints

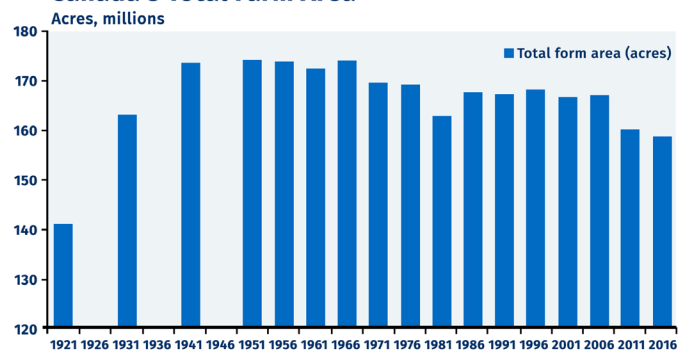
Production of food is also limited by land availability, and Canada's best farmland is already in use. Total farm area has gradually declined over the last 50 years, and recent trade agreements aren't likely to change that. To be sure, Canada's traditional crop and animal production will continue to expand — but that has more to do with ongoing productivity gains in the country's agricultural sector than shifting global demand. (See box for a discussion of broader agriculture production/productivity trends.)

Larger opportunities lie in moving up the food value chain

In that context, it is not all that surprising that most of the gains to Canadian food production from the new trade agreements are expected to come from moving up the food value chain rather than significantly boosting traditional crop and animal production. In effect, taking advantage of 'brand-Canada' to generate more demand for Canadian-sourced and labeled food products. Indeed, food manufacturing has already been a bright spot in the Canadian manufacturing data — sale volumes increased 10% over the last two years. That was twice the rate of growth in manufacturing sales overall.

1. See the Canadian PBO's May 2017 report [here](#) for more discussion

Canada's Total Farm Area



Source: Statistics Canada, RBC Economic Research

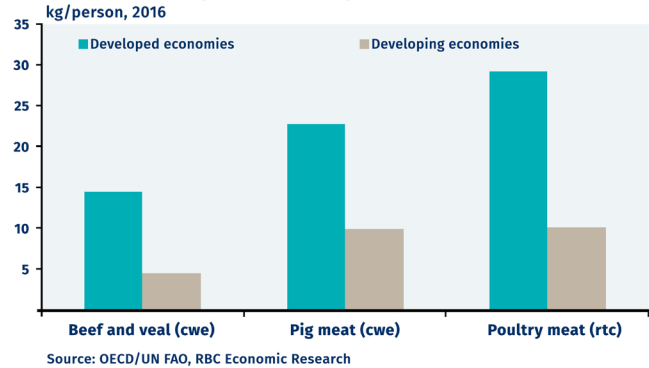


Meat sales in particular could see significant further sales growth abroad, and not just from Canada's new CETA and CPTPP trade partners. Growth in global food demand — like growth in the global economy — is expected to be driven by emerging markets over the next decade. Meat consumption in the developing world still lags significantly behind advanced economies on a per-capita basis but that gap could narrow as incomes rise.

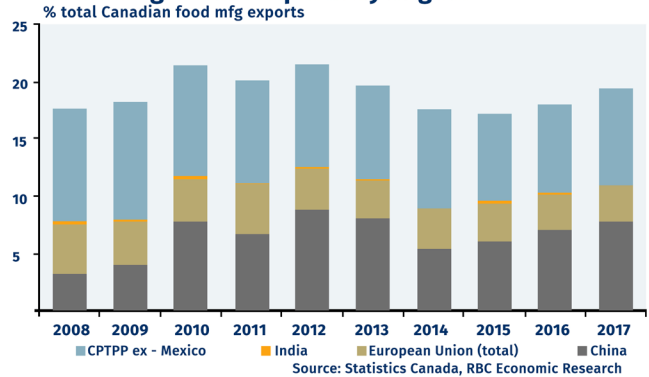
Proof of concept? Canadian food sales to emerging markets have already increased

Canadian food producers are already tapping into emerging market food demand. China accounted for 11% of Canada's meat product exports last year — up from just 2% a decade ago. CPTPP countries excluding Mexico already account for about 20% of Canada's meat exports (mainly Japan) and almost 10% of overall processed food exports. The European Union absorbs just 3-4% of Canadian processed food exports, although that share could increase under CETA. India — with its large and growing population base — remains a largely untapped market for Canadian food producers, accounting for a tiny fraction of Canada's food exports.

Meat Consumption Per Capita



Canada Agri-Food Exports by Region



Canadian Agricultural Output: Lessons for the Future

Farming: the original tech sector

Agriculture isn't always top of mind in conversations about technological innovation. But no industry in Canada has seen more disruptive technological advancement over the last century (or two) than food production. Those advances have led to massive productivity gains — even in recent decades. New techniques and products have increased crop yields. Advanced machinery has dramatically reduced the number of people needed to work the land. Forget about the tractors and combines of a generation ago: the technology in modern farm equipment more closely resembles that found in a spaceship. By our count, agricultural production per farm acre in 2016 was 3.5 times the level in 1941. Per-worker production gains have been even stronger. Output per agricultural worker is about 12 times what it was in 1941.

Fewer farmers, but multiple times more productive

All of those productivity gains have led to dramatic structural changes. Farms have gotten much bigger. The average Canadian farm size in 2016 was about 800 acres, twice as big as an average farm 50 years ago and four times the average size in 1921. Larger machinery means fewer workers are needed. In 1921, about a third of Canadian jobs — about 1 million workers — were in the agriculture industry. Today, agriculture accounts for about 1½% of jobs, or less than 300,000 workers. About 700,000 fewer people currently farm land area that is about 12% larger than it was a century ago.

Automation: this is not our first rodeo

There's a lesson in agriculture for those who fear that automation could make large swaths of the current workforce obsolete. The Canadian manufacturing sector seems to be following agriculture's path — with fewer and fewer workers needed to produce 'enough' manufactured goods. In the past, it was threshing machines, tractors, and combines. Now, it's drones, artificial intelligence, and the Internet of Things. What historical trends in agriculture tell us is that technology can be massively disruptive — and massively welfare-improving.

The prospect of the loss of almost a third of jobs to technological innovation in agriculture would have sounded terrifying in 1921. There have been real negative consequences for rural communities who depended on all of those agricultural jobs. The flip side of that equation, though, is that all of those agricultural productivity improvements freed up almost a third of the workforce to focus on something other than food production. New industries developed, and people found other jobs. Advancements in medical research, a widely expanded social safety net, new innovations that have boosted output in other industries, all owe part of their success to the fact that farmers got really good at producing food.