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Agri-food Productivity and Trade: Policy Gaps and Possibilities

Perspective Report Prepared for CAPI by Al Mussell, Ted Bilyea and Douglas Hedley



Perspective
Report



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A Note from CAPI

Canada's agri-food system is facing increasing pressure from disparate sources to do more, environmentally. To do more, socially. And to do more, economically. There is also a growing interest from government and the public in the development of domestic solutions to address the challenges facing Canada's agri-food system.

These pressures — these calls for the agri-food system to do more — lack perspective. Canada's agri-food system is a sum of individual parts that are too intertwined within domestic and global contexts to consider in isolation of each other. Policy solutions focused on the environment, should also pay equal attention to positive social and economic outcomes, and so on.

Canada's agri-food system needs to better acknowledge its role amid an evolving, global context and it needs to muster what's needed in order to quickly brace for change, largely adverse change. Canada's agri-food policy needs a new strategy.

Canada's agri-food system is global, with Canada being a top-10 exporter and importer of agricultural products. When considering how the system can do more, environmentally, socially, and economically, it should be in the context of doing more, globally.

In this Canadian Agri-Food Policy Institute (CAPI) Perspective Report, experts Al Mussell, Ted Bilyea, and Douglas Hedley outline how Canada's domestic policy solutions should better reflect the evolving global reality.

The text of this report was prepared shortly before the Russian invasion of Ukraine in late February 2022. This is an explosive development, which is consistent with and reinforces the findings, concerns and conclusions developed in the paper.

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Key Takeaways

- Climate change is complicating the assumptions made in farming practices, and at worst, can undermine existing agricultural systems.
- Growth in agricultural productivity is slowing.
- Internationally, governments are increasingly implementing policies of stockpiling and erecting trade barriers in response to variability and potential scarcity in food supplies.
- Sharp increases to energy prices have triggered a range of dramatic adjustments, including increasing nitrogen fertilizer prices and renewed interest in renewable fuels.
- In 2021, global food prices were at their highest levels since the short-term price spike in the early 1970s, with severe impacts in the developing world.
- Increasing demand and variable supply may increase prices for farmers while increasing food insecurity.
- The benefits of increased prices may be offset by increased expenses and instability, which may be beyond the scope of existing income stabilization tools.
- Canada's agri-food policy priorities appear to be a combination of largely the status quo and a shift to a strong emphasis on climate change and labour in agri-food.

Recommendations

1. An emphasis on sustainability and climate change is needed but it cannot be at the exclusion or expense of agricultural productivity and Canada's role in domestic and global food security. Agri-food policy must take on a more ambitious agenda that recognizes that important norms and guardrails — established historically, and the basis for current policy parameters — are at risk of being breached.
2. The erosion of rules-based trade has allowed for sudden or *ad hoc* barriers to agri-food trade to be raised. The distortions in agri-food trade are increasingly being used as a geo-economic weapon in which open-economy exporters like Canada are vulnerable. Greater efforts in market access advocacy will help, but Canada needs to adjust its trade policy to recognize these risks by aligning with like-minded countries in using market leverage to mitigate these risks.
3. Governments in Canada must find a way to work differently, or create a new policy space, with agri-food firms and exporters to mitigate increasing risks from predatory trade disputes, or acquisition of Canadian agri-food assets by others whose interests are not aligned with Canada's. Canada's agri-food firms can be injured financially by the actions of other countries, and its productive assets taken over by others with nationalistic interests in food extending beyond marketing and profit-seeking.



Introduction

Our world appears increasingly on edge, the result of a broad range of factors — the ongoing (and resurging) Covid-19 pandemic; the increasingly tangible evidence of global warming with associated challenges of mitigation and adaptation; the risk of geo-political rivalries superseding multilateralism, and the threat of international conflict¹; the simmering prospect of social change relating to gender, race, and economic class; the prospect of inflation or even hyper-inflation throughout the global economy. Food security and agricultural systems sustainability are deeply enmeshed in each of these issues.

How is, or how should, our agri-food policy change in response to these factors? Our existing policy paradigms for agri-food date from a period, mostly in the 1990's and early 2000's, of a liberalizing world order in which freer trade was widely viewed as the leading vehicle to expand prosperity and reduce poverty. Canadian agri-food followed a path toward freer markets, greater efficiency, output, innovation, and became a much larger international player in this

environment, fostered by enabling policy. Doing so has been greatly beneficial for the world, and for Canadian agri-food.

This paper provides a survey of the growing evidence that a range of potent forces are acting to push Canadian agri-food out of the bounds of norms within which it has operated for the last three decades. While some sort of normality may eventually re-emerge, Canada must rapidly prepare for a very different, and largely unkind, production, marketing and trade environment.

The paper concludes that, in fairly short order, Canadian agri-food policy should change its tack. First, it must take on the full ambition presented by the situation — an emphasis on sustainability/climate change is appropriate, but not to the exclusion or weakening of agri-cultural productivity and the role in food security that Canada can play.

Secondly, the implicit assumption that markets will work, and that export market access can be maintained — as it has in the past — need to be updated, with ma-

jor trading partners prepared to use agri-food as a weapon. The tension of demand leading supply and falling stocks amid food security concerns could lead to higher farm prices, but also much greater instability in prices, costs, and farm incomes — different from the experience that has shaped existing stabilization tools.

Finally, Canada will need to work differently with its companies engaged in agri-food export trade — these firms sustain the first line of injury from blowback in agri-food trading relations, and also serve as the standard bearer for a Canadian agri-food trade strategy. If they can be injured financially through predatory trade disputes or acquired by others with interests not aligned with Canada's, it represents a new and potent risk requiring proactive policy.

The language in the paper is somewhat editorial, and in some places stark, simply because there appears to be a broad lack of attention to or understanding of this critical situation.

¹ As of mid-February 2022, Russian forces are massed at the Ukrainian border, and Russian troops have entered the Donbas region. A Russian invasion of Ukraine appears imminent.

Extremes of Climate

Parts of western North America endured extreme heat and devastating drought in the 2021 growing season, resulting in greatly reduced crop yields and quality in some areas, and insufficient forage growth to support grazing animals. The 2021 situation builds on the freak weather events experienced in fall of 2019, sometimes referred to as the “harvest from hell” in different regions in Canada. At the same time, there were episodic events, most notably devastating flooding due to sudden and excessive rainfall in the Lower Mainland of BC, and also in parts of the Maritimes. These events were sufficient in magnitude to create extensive destruction of property and agricultural capacity.

The origins of each of these events are probably complex, but in North America there is an understanding that an important contributor

is the weakening higher elevation winds around the Arctic that allow for a smoother gradient of temperatures emanating southward from the Arctic.² This both allows arctic air to penetrate further to the south, and allows for warm air from the equator to move more readily north, on an episodic basis. This phenomenon does not appear to be cyclical (such as other well-known climate influencers, such as *La Nina* and *El Nino* currents in the Pacific); it is the devolution of an equilibrium separating cold arctic air from warm air due to climate change. The implication is that volatility experienced in both growing season conditions, such as droughts, and catastrophic events like severe weather and flooding, are likely to continue, and perhaps at an accelerated rate.

The adverse weather extremes extend more broadly throughout the

world, including major areas with agri-food producers and exporters. In 2021 Australia rebounded from multi-year drought, only to face excessive moisture and flooding. Brazil is facing severe droughts in some areas³ with, simultaneously, flooding elsewhere.⁴ China suffered under extensive flooding in 2020, but more generally faces a worsening structural water deficit, with 20 percent of the world’s population and 7 percent of the freshwater.⁵ In particular, important grain growing regions in Northeastern China face ongoing constrained access to water.

These increasing climatic anomalies have the impact of complicating the assumptions made in farming practices, and at worst can undermine currently understood agricultural systems.

Declining Agricultural Productivity Growth

Evidence is building that growth in agricultural productivity — the rate of increase in output of farm products relative to inputs — is slowing. The most recent evidence is provided by *Fuglie et al.* (2021) that surveys global agricultural productivity growth.⁶ Lagging global productivity growth is driven by developing countries — including major producers/

exporters like Brazil, China, and India — that have seen productivity growth rates slip in the most recent decade compared with previous decades. Most concerning is the declining growth in total factor productivity (TFP) — growth in productivity contributions remaining after accounting for intensity in utilization of inputs (such as fertilizer and pesticides), and the extent of

land use in agriculture.

The situation for developed countries such as Canada is better, but even developed country TFP growth rates have declined relative to the 1960’s and 1970’s. Moreover, it places protracted pressure on developed countries to increase agricultural output and offset slipping TFP growth in developing countries.

² See for example Lindsey (2021) <https://www.climate.gov/news-features/understanding-climate/understanding-arctic-polar-vortex>

³ “Withering Crops Highlight La Nina Fears for Brazil Soy Farmers,” Tatiana Freitas. Bloomberg December 22, 2021 <https://www.bloomberg.com/news/articles/2021-12-22/withering-crops-highlight-la-nina-fears-for-brazil-soy-farmers?sref=ZcpONEpZ>

⁴ “Dam Breaks threaten Worse Flooding in Northeast Brazil,” Associated Press December 28, 2021 <https://www.bloomberg.com/news/articles/2021-12-26/dam-breaks-threaten-worse-flooding-in-northeast-brazil?sref=ZcpONEpZ>

⁵ “China Is Running Out of Water and That’s Scary for Asia,” Hal Brands. Bloomberg December 29, 2021 <https://www.bloomberg.com/opinion/articles/2021-12-29/china-s-water-shortage-is-scary-for-india-thailand-vietnam?sref=ZcpONEpZ>

⁶ Fuglie, Keith, Jeremy Jelliffe, and Stephen Morgan. 2021. “Slowing Productivity Reduces Growth in Global Agricultural Output,” *Amber Waves*, December 28, 2021. <https://www.ers.usda.gov/amber-waves/2021/december/slowng-productivity-reduces-growth-in-global-agricultural-output/>

There are a number of causes of lagging TFP growth; *Fuglie et al.* cite a greater frequency of extreme climate events that impact yields, decreasing investments in basic agricultural research and fewer technological breakthroughs, emergence of more potent pests

and crop diseases (and also emerging/catastrophic livestock diseases), slow diffusion of agricultural technologies due to regulatory restrictions, and increases in some barriers to trade that relate to agricultural technologies.⁷

Evolving International Trade and Geo-politics in Food

In an environment of more variable global harvests and lagging agricultural productivity, worries regarding the availability of staple food/farm products have proliferated. A number of countries have instituted export bans. For example, Russia on wheat (using both an export tax and quota); Argentina on wheat, corn, soy oil and meal, and beef; Ukraine on sunflower and sunflower oil; Vietnam on rice.⁸

At the same time, others are actively stockpiling. Jordan began stockpiling wheat and barley in 2020.⁹ The Government of Egypt has stockpiled wheat; the Philippines has stockpiled rice.¹⁰ In other cases, governments have had to contend with, or have actively encouraged, citizens stockpiling and hoarding, such as Turkey and China.¹¹ These represent the immediate responses to perceptions of scarcity and food security concerns.

Agri-food trade policy is also a new focus in foreign relations. Agri-food

products have long been a target for retaliation in trade disputes, and this is intensifying. In other cases, food has been used apparently as an element of a broader diplomatic tensions. Trade actions taken by China against Australia on barley, wine, beef, and lobster provide an illustration. Canada has also been targeted by China on the premise of technical issues, on canola, beef, and pork.

In other cases, sudden complexity and ambiguity in food inspection standards are used. For example, China has required that cold chain imports be tested, tracked, segregated and be issued point of purchase QR codes.¹² This has been bolstered by contradictory findings by Chinese scientists and communications regarding transmissibility of the Covid-19 virus in foods, and an apparent attempt to single out imports as a source of risk—imposing additional costs on imports, and supporting prices for domestic producers.



⁷ Moreover, there is an increasing emergence of pests resistant to existing control technologies (for example to the herbicide glyphosate), without parallel development of equally effective replacements at similar cost. That is, in some quarters we are losing ground rather than standing still.

⁸ See Argentina halts export registration for soy oil, meal | Reuters, March 14, 2022.

⁹ See The Cost of Food Security in Jordan by Hadi Fathallah and Timothy Robertson, Carnegie Endowment for World Peace <https://carnegieendowment.org/sada/84424>

¹⁰ See “Countries follow consumers in stockpiling food”, Financial Times April 2020 <https://www.ft.com/content/5c8cbc60-aec0-4f3d-b0e2-a5e44f0c6f74>

¹¹ See for example “China urges families to stock up on food for winter months,” New York Times November 2, 2021 <https://www.nytimes.com/2021/11/02/world/asia/china-food-shortages-winter.html>

¹² See for example “China’s Covid Food Import Controls: ‘Jump!’ ‘How High?’ Dim Sums January 17, 2022 <http://dimsums.blogspot.com/2022/01/chinas-covid-food-import-controls-jump.html>

The above examples are consistent with a more general erosion in the institutions of rules-based trade, as evident in the US-Japan Agreement and the US-China agreement —

bilateral treaties that create exclusive trade preferences for the parties to the agreement but do not extend to others on a Most Favored Nation basis. This would appear

to contravene fundamental GATT/ WTO rules; however, with the WTO appeals panel process sidelined since 2020, no country has taken the matter up in a formal dispute.

Energy, Input Intensity, and Farm Product Markets

Global energy prices strengthened remarkably in 2021; this was something of a surprising development since the USDA Agricultural Projections to 2030, published last February 2021 noted that “Crude oil prices are forecast to remain relatively low and move in a narrow range in 2020 and 2021 as both demand

and supply recover gradually from the pandemic environment”.¹³ The long-term outlook envisioned oil prices in a range of just over \$US 40/barrel in 2021-22, gently increasing to \$US 57/barrel out to 2030.

As illustrated in Figure 1 below, 2021 saw oil prices rise sharply above

this level. The immediate term outlook envisions energy prices, US basis, generally ranging from 20-50% above 2020 levels.¹⁴ The point is not that the forecasts were in error, it is that a surge in energy prices occurred that was largely unexpected.

Figure 1 U.S. Refiner Acquisition Cost of Crude Oil, Composite, 2011–December 2021



Source: US Energy Information Administration

¹³ <https://www.usda.gov/sites/default/files/documents/USDA-Agricultural-Projections-to-2030.pdf>

¹⁴ See for example US Energy Information Administration forecasts <https://www.eia.gov/outlooks/steo/report/prices.php>



The effects of sharply higher energy prices have triggered a range of dramatic adjustments. Prices of nitrogen fertilizer are increasing aggressively. For example, the December 2021 Chicago futures price for urea was trading at \$US 240/tonne in May 2021; in early December 2021 it was trading in the range of \$US 800/tonne. This price increase is consistent with remarks made by Svein Tore Holsether, the CEO of the fertilizer producer Yara at the COP26 meeting in Glasgow in November 2021. In referring to the surge in her company's cost to manufacture ammonia (a precursor to urea and other nitrogen fertilizers), she was quoted in *Fortune* as saying, "I want to say this loud and clear right now, that we risk a very low crop in the next harvest,... I'm afraid we're going to have a food crisis." She went on to say that "to produce a ton of ammonia last summer was \$110, and now it's \$1,000".¹⁵ The price rise in nitrogen fertilizer is of such significance that it received attention in the *New York Times*, which identified the sources of price increases for urea.¹⁶ It cited increases in coal and natural gas

prices, export restrictions in China and Russia, reduced supplies in China due to energy cost/availability, plant closures in the US due to hurricane damage, and logistical costs and difficulties.

High energy prices are consistent with an intensifying interest in renewable energy. An illustration is the sharp growth in renewable diesel (made from vegetable oils, rendered fats, and waste grease). According to a study by Navius Research for Advanced Biofuels Canada in 2021, consumption of renewable diesel has essentially doubled in Canada since 2015.¹⁷ Renewable diesel is growing sharply in the US. According to the US Energy Information Administration in July 2021, "As of the end of 2020, U.S. renewable diesel production capacity totaled nearly 0.6 billion gallons per year (gal/y), or 38,000 barrels per day (b/d). Several projects currently under construction could increase this capacity by 2.4 billion gal/y; proposed and announced projects would add another 1.8 billion gal/y by 2024. If all projects come online as intended, U.S. renewable diesel production would

total 5.1 billion gal/y (330,000 b/d) by the end of 2024."¹⁸ In other words, between January 1, 2021 and 2024, US renewable diesel refining capacity could increase from 0.6 billion gallons/year to 5.1 billion gallons per year.

The implication is for a sharp increase in the demand for plant and animal-based oil feedstocks and, in turn, production of oilseeds to supply the plant-based oil. In the December 2021 USDA WASDE Outlook, 2021/22 US soybean oil utilization in biofuels is forecast to increase by about 24 percent versus 2020/21. Additional refinery builds in the future imply a major increase in US soybean acreage and will ultimately pressure existing US oilseed crushing capacity.¹⁹ Any significant increase in US soybean acreage will need to compete with corn acreage, itself facing major demand strains. The same dynamic plays out in Canada, especially in the west where canola competes with grain crops for acreage and has a higher oil content than soybeans.

¹⁵ <https://fortune.com/2021/11/04/energy-crisis-food-shortage-security-fertilizer-prices-yara-ceo-madagascar-cop26/>

¹⁶ Raymond Zhong. "This Chemical Is in Short Supply, and the Whole World Feels It", *New York Times* December 6, 2021

¹⁷ See <https://www.naviusresearch.com/wp-content/uploads/2021/11/Biofuels-in-Canada-Final-2021-11-09.pdf>

¹⁸ See "U.S. renewable diesel capacity could increase due to announced and developing projects" US Energy Information Administration, July 2021 <https://www.eia.gov/todayinenergy/detail.php?id=48916>

¹⁹ An excellent discussion of the potential implications was presented by Dan Basse in a December 2021 webinar hosted by the Farm Foundation in the US <https://www.youtube.com/watch?v=N2hqQDKopMM>

Staples and Global Food Security

The ratio of grain stocks at the end of the year to use throughout the year is a common metric of relative availability of staples (such as wheat and rice), and conversely the physical hedge that exists against famine in these products. Globally, the ratio of stocks to use is falling. This is evident in Figure 2 below, which plots global production, utilization, and storage stocks for cereals (food and feed grains). The figure shows that both utilization and production are increasing over time, but utilization is increasing more rapidly than production. This leads to a steady reduction

in available storage stocks — a reversal in trend prior to the period before 2017. Put differently, with stocks in decline, each year's utilization is increasingly dependent upon annual production, with less in terms of stocks to buffer variation in either production or utilization. Given demand — a function of population, income, and preferences — on a global basis production has recently been insufficient to maintain or rebuild stocks.

In turn, global food prices have increased sharply. This is illustrated in Figure 3. The figure shows

both nominal and real prices for a global index of foods. In nominal terms, global food prices have never been higher, at least since 1961. On an inflation-adjusted (real) basis, global food prices in 2021 were at their highest levels since the short-term price spike in the early 1970s. These trends are evident in Canada, but they are especially significant throughout the developing world, where food represents a much larger proportion of household income, and where much greater rates/risk of malnutrition exist.

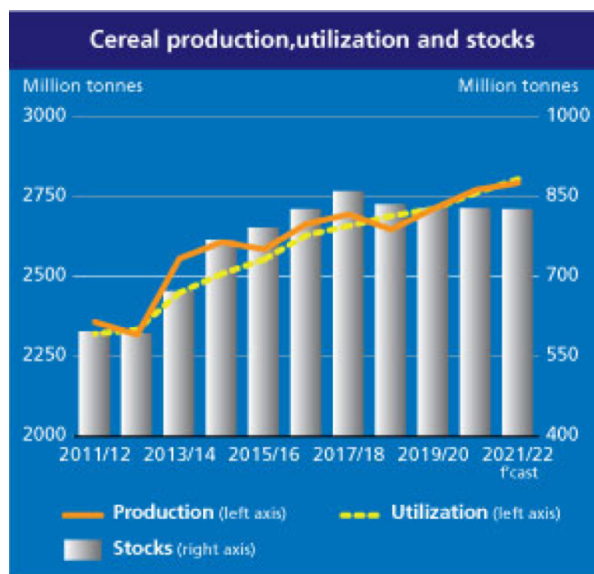


Figure 2

Source: UN-FAO World Food Report February 3, 2022. <https://www.fao.org/worldfoodsituation/csdb/en/>

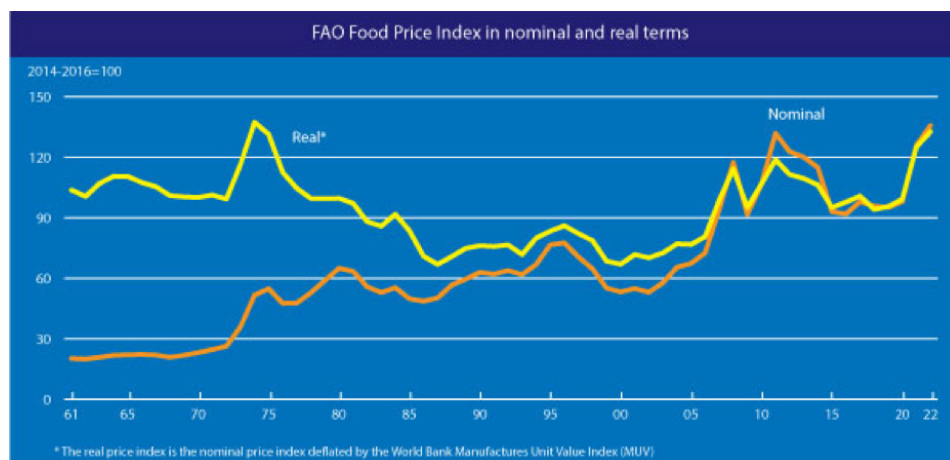


Figure 3

Source: UN-FAO World Food Report February 3, 2022. <https://www.fao.org/worldfoodsituation/foodpricesindex/en/>

Implications

Many of the elements of the current context are developing suddenly or have demand whipsaws and logistical disruptions of the Covid-19 pandemic as corroborating causes. However, a waning pandemic will not restore the pre-Covid situation or resolve many of these issues. In other cases, the issues are the product of long running trends, such as declining growth in total factor productivity, that are only now coming home to roost with the increased tension in the food system. The situation confronting Canadian agri-food has changed fundamentally, largely fueled by the current and prospective future manifestations of climate change, and of geo-political tensions that undermine multilateralism.

The evidence is stark. Recent evidence suggests that the world cannot build stocks of staples; even with impressive yields and production the world is going hand-to-mouth, year-by-year. Even minor annual production setbacks can now have global consequences, and companies operating throughout the food system are now trying to carry more stocks as they fear running out with just in time disruptions. Constraints on input intensity and agricultural production systems critical to address climate change limit flexibility to fill deficits

and build stocks. The fragility of the demand-supply balance also carries regional and world-wide risks from geo-political events.

Markets are being tasked with rationing products in intractable situations. The problem is well illustrated by the growth in renewable diesel in the US. If millions more soybean acres will be needed in the US to supply soybean oil for renewable diesel, this will draw down acreage from other crops, mostly corn. Yet, there is great tension in corn demand, especially in export markets as China continues to try and rebuild its pork industry from ongoing outbreaks of African Swine Fever. By itself, this competition for acres will inflate corn and soybean prices, exacerbating the effect of sharply increasing fertilizer prices on nitrogen-intensive crops, especially corn.

More generally, it is clearly evident that China cannot feed itself, nor will it be able to in the foreseeable future. Its great difficulties with natural resource scarcity (especially water in parts of northern China), animal diseases (especially African Swine Fever, Foot and Mouth Disease, and Avian Influenza) and a public commitment to rebuild its pork industry mean it will be the dominant importer of feed grains, oilseeds, as well as meat proteins,

going forward. China's strategy to address its food security needs are enmeshed in a geo-political agenda in which, ironically, it periodically acts to censure its suppliers.

As farm prices and associated food prices increase, the effects will widen inequities in food security. This is an important social policy matter in Canada, where food prices fill the role of a regressive tax that disproportionately impacts lower income households. It is also an issue of international inequity between more developed countries — in which the impact of food price increases is limited due to the relatively small proportion of average household incomes spent on food — and less developed countries where the proportion of income spent on food is much higher and sustained high food prices are a latent source of social unrest.²⁰

In summary, the current situation and reasonable outlook is one of food scarcity, broadly speaking. It appears in sharp contrast with the long period since the Second World War, with only temporary exceptions, in which a primary concern of agricultural policy in North America and Europe was the so-called “challenge of abundance” and the “farm problem” of excess farm product supplies and excessively low/unstable farm prices.



²⁰ As an illustration, in early January 2022 protests erupted in Kazakhstan motivated by high fuel and food prices. Russian troops were called in to restore order.

Agri-food Policy Trends

One might expect that in an open economy with a heavily export-oriented agri-food sector, the prospect of the sweeping changes and shocks observed above would trigger a reconsideration of how and where Canada's existing agri-food policy strategy fits, and a forward-looking view of how it could or should be reconfigured to withstand let alone excel in this environment.

Two recent observations can be made on Canadian agri-food policy. The most recent direction from Federal-Provincial-Territorial agriculture ministers was provided in the *Guelph Statement* and accompanying documents in November 2021. It identifies climate change/sustainability, labour supply in agri-food, and a retail code of conduct as new policy priorities— apart from policy measures discussed to address immediate threats, such as African Swine Fever. Other issues discussed, notably business risk management (BRM) but also innovation, trade and marketing, etc., were seen as requiring only marginal changes and/or occupied essentially the same significance as in the past.

The other observation relates the

mandate letter for the federal minister.²¹ Recent mandate letters presented to federal agriculture ministers have envisioned the role as primarily in supporting the activities of other more senior federal departments, with relatively little in terms of direction solely within the AAFC. The December 16th, 2021 mandate letter issued to Minister Bibeau appears broader than this. The letter singles out initiatives on climate change specific to agriculture, along with action on agri-food labour and a national school food policy as key elements of the mandate. Based on the mandate letter the Minister has a mandate for addressing climate change *for agriculture*. Moreover, the climate change response is for the first time recognized as different from a more “global” top-down issue in Canada with one size fits all. This same is true for the agri-food labour problem.

This leaves the impression that Canada's agri-food policy priorities are some combination of (1) largely the status quo and (2) a shift to a strong emphasis on climate change and labour in agri-food. A policy strategy oriented toward a hungry, hotter world in which increasingly frequent climate/weather perils

threaten global food security, and in which countries continue to weaponize agri-food trade policy, is not evident. What is implied by current agri-food policy trends is that the current environment is being viewed as either a deviation that will revert back to a more normal situation, or one whose importance is dwarfed by climate change, and the need to focus resolutely on climate change.

Canada is an exporter to a world increasingly on edge regarding food security, and there is evidence that demand is growing faster than supply. On the domestic agricultural policy front, this means that farm prices should rise — a boon for farmers. The problem is not with rising farm prices, it is much more about the instability in prices, not only of farm products but also critical farm input prices and availability including fertilizer, chemicals, fuel, and increasingly the high-tech inputs — computer chips, software, etc. The financial and operating implications of increased instability at higher price levels could prove onerous for many farmers and lie outside the experience that frames existing agricultural income stabilization tools.

Conclusion: Breaking the Mold

Viewed in its fulsome context, it is unlikely that the current situation is merely a temporary deviation from the norm that will revert back to a normal situation — there are simply too many factors in flux, and these have shifted to an excessive degree. The evidence lies everywhere before us — increasing demand for food globally — a function of

past, current, and expected future economic growth and urbanization — and a great unwillingness to give up past advances against poverty.

There is a compelling, timely need to reflect these factors in a deep-think about Canadian agri-food industry and Canadian government strategy to maintain and contribute to food security, and support agri-

food industry viability while moving toward net zero emissions.

The Federal government has signaled an awareness of the need to address the deteriorating geo-political situation by deciding to start with the creation of an Indo-Pacific strategy as per the Minister of Foreign Affairs mandate letter of December 16, 2021.

²¹ <https://pm.gc.ca/en/mandate-letters/2021/12/16/minister-agriculture-and-agri-food-mandate-letter>



It reads that the Minister is to “Develop and launch a comprehensive Indo-Pacific strategy to deepen diplomatic, economic and defense partnerships and international assistance in the region”. In the same letter the Minister is also tasked with a long list of other priorities including “in collaboration with the Minister of Environment and Climate Change, continue Canadian leadership on international efforts to combat climate change”. However, what is missing is the clarity that these issues are deeply interconnected and are having a significant impact of the global food system and its ability to maintain global food security.

Also lacking clarity is the understanding that security for Asia, particularly China, is about food, energy and economic growth. The global efforts to mitigate climate change threaten Asia’s food, energy and economic growth as well as our own. However, there has been limited integrative thinking regarding how we might move toward a strategy that would both mitigate climate change while decreasing the geo-political/geo-economic forces that are disrupting the global food trade (and the Canadian agri-food companies and industry segments engaged in it), increasing food insecurity, and threatening our physical security.

There appears to be limited understanding of how Canada as a large net exporter of food — as well as energy and other commodities — could use these assets more strategically for good purpose. A recent strategic review by Dr. Jeffrey Wilson of the Perth-USA-sia Centre detailing how Australia might counter China’s geo-economic actions helps to inform how we might build a strategy to better protect Canada’s trade dependent agriculture and minimize disruption to the food system.²² The worry might be summarized as follows:

Both China and the U.S. deploy geo-economic strategies to manipulate economic relationships for geo-political gain. This is particularly challenging for Canada when our total value of agri-food exports are overwhelmingly destined for the U.S. and China. With both super-powers demonstrating waning commitment to multilateralism, we are increasingly subject to coercive trade tactics which are costly to the Canadian economy. Yet, if this correct, a waning commitment to multilateralism is anathema to global food security.

As Canada is one of only a handful of net food exporters with significant capacity, we are acutely exposed to increasing geo-economic

risk which is initially unequally borne by our resource industries in the front line of this battle, especially agri-food. Moreover, we are not well organized for geo-economic competition as we are committed to an open economy/liberal economic policy, where government is primarily a regulator rather than a partner with business in strategy.

However, as an enormously trade dependent economy with heavy reliance on two increasingly protectionist superpowers, we must develop leverage to secure our interests against these geo-economic threats. Any strategy to do that will require a more collaborative working relationship between Canadian business and government, acknowledging that Canadian agri-food companies and agricultural industries are the foot soldiers in geo-economic competition, and at times have suffered greatly when Canada is unprepared for protectionist blowback. Regulatory effort generally focuses on worries of potential gaps and unintended consequences in the market system — environment, food safety/quality, etc. — and assumes that the international risks are adequately addressed in trade rules and international trade dispute resolution mechanisms. But as these have weakened, the international risks are increasingly borne by firms,

²² See *Adapting Australia to an era of geoeconomic competition* by Jeffrey Wilson, Perth USA Asia Centre, February 2021 <https://perthusasia.edu.au/our-work/geoeconomics-report>

and government regulation must shift to provide new protection.

Our existing agri-food trade policy, and economic policy more generally, does not adequately contemplate the needed alignment between governments, companies, and agricultural industries in this regard. How do we build that strategic leverage? As a major net surplus commodity food exporter, we are part of a very small club of seven other countries that make up over 60 percent of global net food exports. (Brazil, U.S., Argentina, Australia, New Zealand, Canada, Thailand, India* (India is in transition from a net food exporter to net food importer as its income grows). For the most part the large net food exporters would benefit from of a coalition of the willing that would build consensus around rules for trade and a shared approach to sustainability and climate mitigation.

First, when we look at the net trade deficit countries it becomes clearer why the coalition of willing large net exporters is important to rebalance the geo-economic power. Five countries, make up over 40 percent of the net food imports globally with the largest net food importer being China. The others are Japan, Russian Federation, Saudi Arabia and Republic of Korea). It would seem possible that at least Japan and Republic of Korea would have strong interest in a coalition of the willing agenda to implement mandatory trade rules.

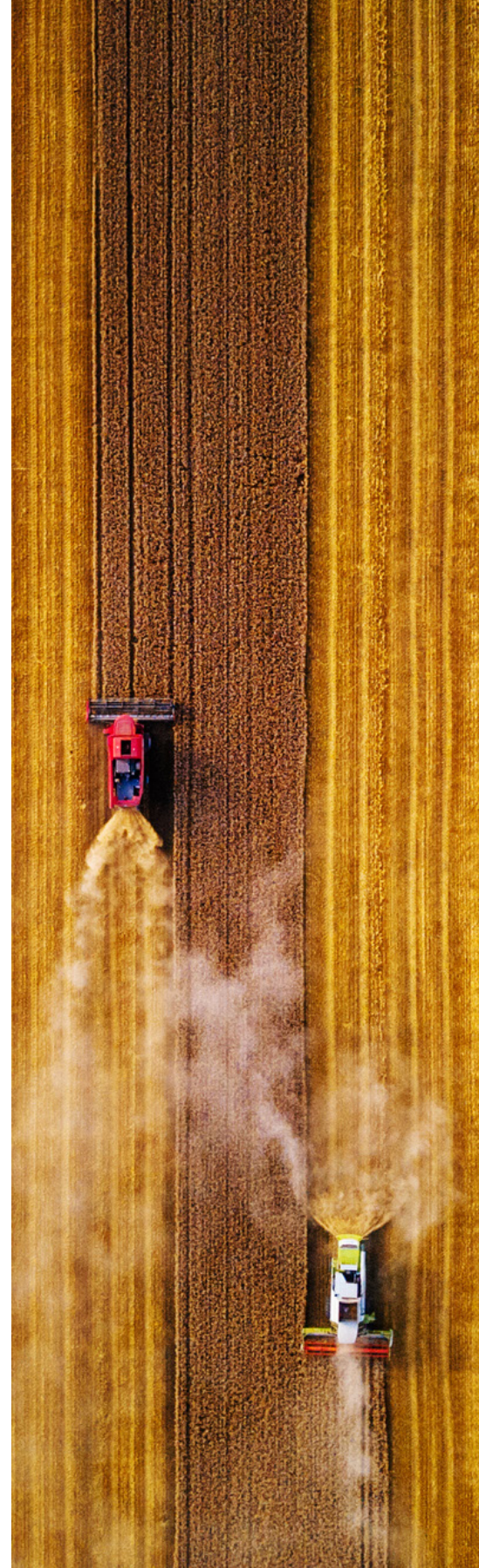
This plurilateral issue-focused group might take on the potent food security issues with more success than the current efforts of competing superpowers through multilateral and bilateral processes.

We must also acknowledge the potential for a counter geo-polit-

ical strategy to the one proposed here — for some of the large net food importers to acquire strategic food production resources in the large net food surplus exporting countries. As an open economy we generally are highly supportive of foreign investment, but we must undertake due diligence and be assured that such investments will be long-term positive for our agri-food sector, economy and security — including the food security of Canadians.

The World Economic Forum (WEF) just laid out what it believes are the most severe global risks over the next 10 years.²³ The United Nations Food and Agriculture Organization (FAO) has linked the risks of conflict, climate change/environment and economic downturn to rising hunger and increasing global food insecurity.²⁴ There is little chance of improving global food security let alone dealing with the underlying risks highlighted by the WEF if we cannot lessen the geo-political interference in the global agri-food trade.

Finally, agricultural productivity growth appears to be waning; in order to lower the risk of a global food crisis we need a better global commitment to lowering the carbon intensity of food production while facilitating and maximizing the trade of low GHG intensity food production from the limited number of surplus suppliers, such as Canada and Australia. The coalition of the willing would be well suited to lead on clarifying the importance of sustainable intensification which CAPI's Big Solutions Conference in May 2021 addressed in some depth.



²³ *The Global Risks Report 2022, 17th Edition by the World Economic Forum*

²⁴ See *The State of Food Security and Nutrition in the World 2021 by the UN-FAO* https://www.fao.org/3/cb4474en/online/cb4474en.html#chapter-executive_summary