APPENDICES

When interests converge

AGRICULTURE AS A BASIS OF RE-ENGAGEMENT WITH CHINA

CANADAWEST FOUNDATION
TRADE & INVESTMENT CENTRE

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List of abbreviations

ACA	Agricultural Cooperation Agreement
AQSIQ	General Administration of Quality Supervision, Inspection and Quarantine of China
ATC	Agricultural Technical Cooperation Program
BRI	Belt and Road Initiative
ChAFTA	China-Australia Free Trade Agreement
CFIA	Canadian Food Inspection Agency
COFCO	China Oil and Foodstuffs Corporation
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
MOFCOM	Ministry of Commerce, People's Republic of China
MOU	Memorandum of Understanding
MRL	Maximum residue limits
NTB	Non-tariff barriers
NX	Net exports
OIE	World Organization for Animal Health
TRQ	Tariff-rate quota
WTO	World Trade Organization

Appendix I

CHINESE AGRICULTURAL NON-TARIFF BARRIERS

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Despite Canada's export growth with China relative to other countries, intermittent trade conflicts have hindered Canadian agricultural exports to China. The use of non-tariff barriers (NTB) restrictions has increased with the recent rise in political tensions between the two countries, resulting in a lack of market access certainty with China. This section defines and presents some of the recent key non-tariff barrier issues for Canadian agricultural exporters with China that Canada is still actively working to resolve.

Defining non-tariff barriers

The largest Canadian agricultural trade issue with China is the use of non-tariff barriers on products such as canola, barley, beef and hog exports that have dominated headlines. The WTO defines non-tariff barriers as various bureaucratic or legal issues that could involve hindrances to trade. This includes export subsidies, import licensing, rules for the valuation of goods at customs, pre-shipment inspection, rules of origin and investment measures that affect trade in goods.[1]

This report defines NTBs as policy measures other than tariffs or tariff rate quotas that harm trade flows.[2] Building on to the WTO definition and more specific to agriculture, NTBs involve the deliberate misuse of scientific and/or health reasons to restrict trade. This can be done by misappropriating established procedures and rules for using scientific or other evidence including the aforementioned list of bureaucratic and legal issues listed under the WTO. The definition is, of course, highly subjective. What one party views as legitimate safety concerns can be viewed as overreach or overkill by another party. Current disagreement over acceptance of genetically modified products is one example of subjectivity. The anti-dumping disputes brought to the WTO is another example. At the other end are cases where empirical evidence can verify or repudiate claims according to agreed-upon procedures. In essence, the management of NTB issues means setting clear cut rules that eliminate wiggle room and establishing procedures for quickly resolving differences of opinion or interpretation to provide business with a higher degree of certainty.

Therefore, addressing decisions specific to NTB issues and how they will be reached is essential in the management of NTBs for Canadian governments. While the WTO includes mechanisms to manage NTBs, the agreements are relatively shallow in integration and allow too much flexibility in implementing special provisions leading to needless agricultural disputes between countries across the world. The following section discusses in detail some key Canadian agricultural issues with China as of 2019.

[1] 'WTO | Understanding the WTO – Non-Tariff Barriers: Red Tape, Etc'. Accessed 12 November 2020. https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm9_e.htm.

[2] Tariffs are taxes or customs duties on merchandise imports, giving locally produced goods a price advantage over similar goods that are imparted. Tariff rate quota is a two-tiered tariff regime that combines two conventional policy instruments (import quota and tariff) to regulate imports. For example, a lower tariff rate on imports of product X that is within a specific quantity and a higher tariff rate on imports exceeding that quantity. Canada, to the consternation of many of its trade partners, uses tariff rate quota to limit free trade in dairy. Source: https://www.wto.org/english/tratop_e/tariffs_e/tariffs_e.htm

Suspension of canola seeds

Blackleg is a disease that affects canola crops and dockage is the presence of blackleg, stems, pods, weeds and other plants that wind up in seed shipments. For six and a half years starting in 2009, China and Canada disputed the amount of blackleg that arrived in canola shipments. In 2016, China once again professed concerns for the spread of blackleg to its domestic canola crops. China insisted on reducing the maximum dockage rate of foreign materials from the traditional 2.5% to 1% as a way to reduce the transmission of blackleg and gave Canada a one-month deadline to make that change.[3] Removing that much dockage is difficult and goes beyond international norms. The presence of blackleg in canola is not unique to Canada and reducing dockage does not necessarily reduce blackleg in domestic crops but it certainly slows down exports and increases price. This move would have significantly limited the amount of canola that Canada could ship.[4] With resolving the canola issue as a top priority, Prime Minister Justin Trudeau's visit to Beijing in 2016 led to the signing of a bilateral Memorandum of Understanding (MOU) that ensured continued market access under existing commercial terms of a 2.5% dockage level or lower until March 31, 2020.[5] After this date, Canadian exporters could continue to export to China, but only if they could meet Chinese terms. Under the MOU, Canada agreed to continuous technical engagement between Canadian and Chinese plant health experts to further investigate and identify a science-based solution for blackleg.

This understanding was not to last. In January 2019, the General Administration of Customs of China (GACC) issued two notices to the Canada Food Inspection Agency (CFIA) indicating the presence of weeds, insects, bacteria and plants found in the shipments of Canadian canola companies. After retesting the sample, the CFIA did not find any non-compliance with the Chinese or Canadian prohibited list and requested meetings with GACC to no avail. In March, China suspended the import license of canola seeds from two Canadian companies and their affiliates. China also increased inspection scrutiny on all imports of Canadian canola seeds – inspecting almost every shipment of canola from Canada.

China's suspension harmed Canadian farmers and significantly diminished overall Canadian canola seed exports. (China is Canada's largest canola seed recipient, accounting for 48% of Canada's total canola seed exports, followed by Japan at 22% and Mexico at 12%).[6] The bilateral conflict costed Canada almost $2 billion, a decline of 71% from 2018 to 2019.[7] Comparing the month of January 2019 with that of 2020, Canada saw a 32% decline in canola seed export levels to China (from $137 million to $94 million).[8] As of 2020, China has once again begun to accept canola seed exports from Canada, but at a 1% dockage level. However, the ban and permit suspension of the two Canadian companies continues to be in place. The two largest companies in China are also still not buying from Canada.

Currently, the Plant Protection Regulation (Biodiversity Protocol) has a list of prohibited pests. In order to load, Canadian businesses must have a phytosanitary certificate (export document) to be used by CFIA. The CFIA then tests (and keeps) a sample of the shipment and issues a certificate which the Canadian business then presents at the port of entry. China then does its own testing and if issues such as prohibited pests are discovered, the GACC informs CFIA of non-compliance and the CFIA retests the sample and communicates further to resolve the issue. For canola, there are currently two strands that are prohibited in China's list but allowed in Canada (thus subject to protocol). Finally, China does not provide a clear definition of dockage. While there is also a significant amount of blackleg in Australia, China does not have dockage restrictions for Australia.[9] The standard for Chinese canola farmers on the presence of blackleg

[3] CBC News. 'Canola dispute looms over Canadian PM's visit to China'. 26 August 2016. https://www.cbc.ca/news/business/canola-canada-china-1.3736908.

[4] Sarah Pittman, 'WHAT NOW? Canada's China-Canola Challenge' (Canada West Foundation, 26 April 2019) https://cwf.ca/research/publications/what-now-canadas-china-canola-challenge/.

[5] Sharon Zhengyang Sun. 'OP-ED | How Canada Can Cope with Chinese Market Access Roadblocks to Agriculture'. (Canada West Foundation, 21 March 2019). https://cwf.ca/research/publications/op-ed-how-canada-cancope-with-chinese-market-access-roadblocks-to-agriculture/.

[6] Sharon Zhengyang Sun. 'OP-ED | How Canada Can Cope with Chinese Market Access Roadblocks to Agriculture'. (Canada West Foundation, 21 March 2019). https://cwf.ca/research/publications/op-ed-how-canada-cancope-with-chinese-market-access-roadblocks-to-agriculture/.

[7] Statistics Canada, Trade Data Online database 2020.

[8] Canada has three types of canola exports: canola seeds, canola oil and canola meal. Canola seeds represent about half of Canada's total canola exports. Only canola seeds have been banned from the Chinese market, not canola oil or meal. In 2018, Canada's total canola seed exports to China were worth $4.4 billion, 42% of Canada's total canola export to the world. (Statistics Canada, Trade Data Online database, 2020).

[9] However, Australia does not produce or export as much canola to China compared to Canada. This may be a reason for less restrictions.

is 8%. Therefore, the disagreement in dockage and protocol demonstrates the issue between Canada and China on the different views of how to determine phytosanitary certification. China's suspension also hinders Canadian business confidence in the predictability and certainty of the Chinese market. Canada currently continues to engage China at all possible levels in order to secure a mutually acceptable, long-term solution for Canadian canola.

Complex regulatory process for GM biotech and trait approval

China has a zero tolerance for unapproved genetically modified (GM) biotechnology traits and its regulatory approval process for GM products is complex, leading to significant delays. Such delays in China's regulatory approval process are preventing Canadian farmers from using the innovations they need to improve their productivity and increase sales to China and other markets. Canada continues to advocate for China to adopt a transparent and predictable approval process for biotechnology products.

In the case of canola, industry has identified three GM canola biotechnology traits as priority products for China's timely approval. The applications for these three biotechnology traits were submitted to China in 2012. The MOU on canola signed in 2016 did not address new GM approval biotechnology traits. In January 2019, China's Ministry of Agriculture and Rural Affairs published on its website the approvals of two of the three GM canola traits. This took eight years. China's National Biosafety Committee has requested additional information before making a decision on the pending GM canola trait with no clear date of approval. Even if the canola or new GM trait is approved domestically in Canada, businesses often wait for the approval in all major markets (e.g. E.U., U.S., China, Japan etc.) before they commercialize the seed domestically. China was the last hold-out for the new GM canola traits.

Lengthy approval process for new and existing product entry: pulses, raw oats and honey

There are no defined timelines for China's approval and evaluation process for new products and market access after the submission of the risk assessment questionnaire. In 2018, CFIA submitted responses to China's risk assessment questionnaire for chickpeas, lentils and fava beans in the hope of new market access. Inspection visits by Chinese officials, protocol and import conditions, etc. have still not taken place. Based on previous technical negotiations, China's approval process for each Canadian pulse commodity is not expected to be a short process. China has not indicated timelines for completing its approval process.

Similarly, this is the case for raw oats. Currently, Canada has access to China for oat seed (i.e., for propagation) and processed oat products, but not for oat grain (i.e., intended for food and feed use). The Canadian oat sector has identified China as a priority market for Canadian oats for food and feed use in order to diversify exports. In May 2018, the CFIA submitted responses to China's risk assessment questionnaire for oat grains (raw oat). Once again, based on previous technical negotiations, China's approval process for Canadian oat grain is not expected to be a short process and China has not indicated timelines for completing its approval process.

Finally, in 2016, China began implementing new honey regulations, which required trading partners to complete a risk assessment questionnaire to maintain access. Canada already had market access for honey to China and submitted a completed questionnaire as requested. Canada is still waiting for China's evaluation response with no timelines indicated for completing its evaluation process. China has indicated that trade would not be suspended while the evaluation of the questionnaire is being completed. Canadian industry has raised concerns about honey shipments potentially being rejected by China due to the presence of American Foulbrood (AFB), a bacterial disease found in honeybees. Testing for AFB is part of China's import requirements for honey, and to Canada's knowledge it is not a new requirement. However, it seems China has taken actions to verify that AFB requirements are met by testing every other shipment of imported honey (that is 50% of imports) at its ports of entry. Canada is engaging with China on import requirements and to minimize trade disruptions.

Inauthentic export certificates for beef and pork of unknown origin

In June 2019, CFIA identified an issue involving inauthentic export certificates that affects the export of meat and meat products to China. Based on concerns that there may be a food safety issue for China, the CFIA agreed to implement China's emergency precautionary request to not issue certification for exports of meat and meat products to China until more information is known.

This case is linked to fake export certificates for products of unknown origin and is not related to quality or safety of the Canadian food inspection system. Specifically, the CFIA discovered that a non-party was using fake CFIA certificate to export products to China, and the CFIA was not aware of the issue and thus stopped all pork and beef export to China. This incident is specific to China and pork and beef exports to other countries continue. The ongoing investigation into inauthentic export certificates was referred to the RCMP.

In November 2019, China resumed beef and pork imports. China's foreign ministry indicated that Canada has addressed the safety concerns of China and that Canada's rectification plan was in accordance with China's demands to ensure safety. China once again agreed to resume acceptance of sanitary documents issued by the Canadian government's competent authority for meat product exports to China as there was high demand for pork due to the recent Swine Flu.[10] This may be one of the fastest turnarounds in an NTB case with China.

Authorization of germplasm export permit

China's approval for Canadian facilities exporting germplasm (bovine semen, bovine embryos, porcine semen) has expired. Since then, Chinese importers of these products have experienced difficulties in obtaining import permits from the relevant Chinese authorities. The CFIA extended an invitation to Chinese authorities to conduct an inspection visit in Canada in 2019 for the re-approval of Canadian facilities to allow exports to fully resume once again. At this time, China has yet to respond to Canada's request. Canadian officials continue to engage with China to resolve this issue as soon as possible. In the past, China had continued to issue import permits for Canadian germplasm products until such time that China was able to inspect Canadian facilities and reapprove them to be eligible for exports. The CFIA requested an extension of the approval period for Canadian facilities; however, China has indicated that this transitional arrangement would not be extended this time.

Registration requirement for exports of grain, oilseed and pulse commodities

Decree 177 provides regulatory guidance on measures imposed by China on both imports and exports of grain (specifically for plant health). Decree 177 is very broad in scope. It requires exporting countries to register their production, processing, storage and exporting enterprises with China, as well as adhere to an extensive list of conditions. At least for Canada, China only enforces Decree 177's registration requirement for facilities handling barley, wheat, soybean and canola. The decree applies to these specific commodities as they are all over $1 billion in exports for Canada with China. The decree requirement only applies to certain grain for logistic purposes in resource allocation. At one point, the decree requirement may apply to all commodities. The objective of the decree is to have better control of imports, for example, providing more choices if there was a health crisis. The decree is applied to all countries including Australia and New Zealand. The enforcement of Decree 177's registration requirement for other grain, oilseed and pulse commodities will be carried out in successive stages that have yet to be announced by China. Canada is concerned that this may have a negative impact on these commodities as well as other potential agricultural exports to China in the future.

There is no quick easy solution in dealing with these non-tariff barriers. The NTB issues have demonstrated that traditional methods such as direct engagement with Chinese authorities have been met with little or no response, engagement through the WTO has also not been effective. Having an agreement or securing a stronger relationship with China (like Canada does with the U.S.) may mitigate the problem of market access uncertainty. Other countries have experienced and mitigated similar tensions with China, though this process may best be described as an on-going struggle requiring constant engagement and re-engagement with victories but no permanent peace.

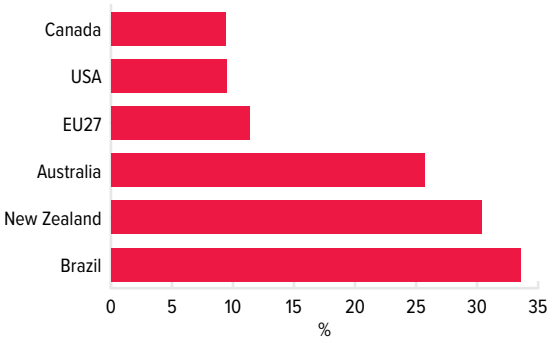
[10] Johnson, Kelsey. 'China to Resume Imports of Canadian Beef and Pork'. Reuters, 6 November 2019. https://www.reuters.com/article/us-canada-trade-china-idUSKBN1XF29X.

Appendix II

NO EASY WAY OUT | DEPENDENCY VS. DIVERSIFICATION

This appendix relates to the section *No easy way out: Dependency vs. diversifcation* of the report. There are a number of factors that contribute to understanding dependency and diversification to and from the Chinese market.

Figure 1: Top agriculture exporters to China by percentage of total exports



Source: UN Comtrade data 2020

Table 1 shows the assumed most likely changes in crop production in the Upper Qu'Appelle Canal region of southwestern Saskatchewan occasioned by the irrigation project. The proposed Lake Diefenbaker irrigation project would allow for 110,000 to 175,000 acres to be irrigated along the canal outside of the Qu'Appelle Valley. This would shift crop production to higher-value crops as land moves from dry land farming to irrigated farming. The entire premise of the project's viability rests on a crop production switch like that shown in Table 1. As things now stand at the project's inception, China is the first, second or third largest market for crops where production is expected to be increased.

Table 1: Top crops to be increased by proposed Diefenbaker irrigation project

	Average growth by 2051	China's ranking as Canada's export market	Largest export of product category, 2018
Cereals	38%	3rd	**HS 100199** Wheat and meslin
Oil Seeds	26%	2nd	**HS 120510** Low erucic acid rape or colza seeds
Pulses	23%	1st	**HS 71310** Dried shelled peas
Vegetables	5%	2nd	**HS 71290** Vegetables and mixtures
Forage	8%	NA	**HS 121490** Fodder roots, hay, clover, sainfoin, forage

Source: Canadian International Merchandise Trade (CIMT) and Prairie Prosperity: A Vision for the Management of Water Resources across Saskatchewan and the Prairies, WED, 2020. https://www.wd-deo.gc.ca/eng/20090.asp

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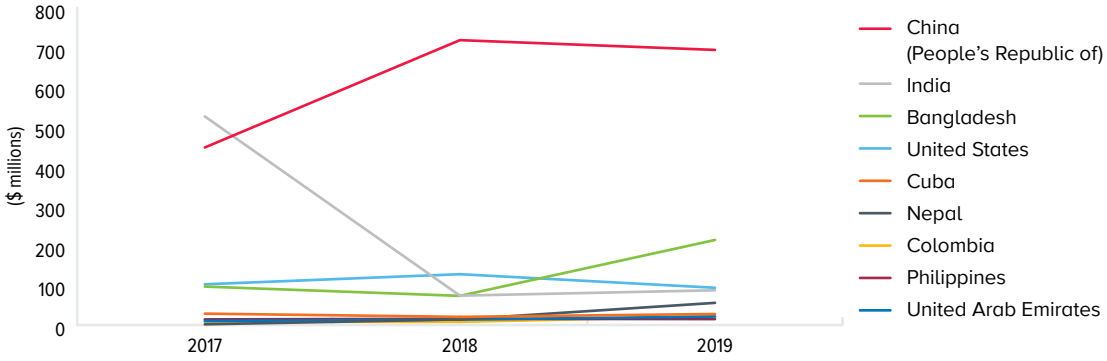
Figure 2: The next canola? Canadian exports of HS071310, dried, shelled peas (2017-2019)



Source: Trade Data Online, Statistics Canada 2020

Appendix III

HYPER-SPECIFIC CONCESSIONS BY CHINA UNDER THE U.S.-CHINA ECONOMIC AND TRADE AGREEMENT, CHAPTER 3

TRADE IN FOOD AND AGRICULTURAL PRODUCTS

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China shall...	Page	Product	Structured limitations and specificity
upon entry into force of this Agreement allow imports of U.S. dairy products that are: (i) manufactured at a facility on a list compiled by the FDA; and (ii) accompanied by an Agricultural Marketing Service (AMS) dairy sanitary certificate;	3-4	dairy	
within 10 days of the date of entry into force of this Agreement, (China shall) recognize the U.S. dairy-safety system as providing at least the same level of protection as China's dairy-safety system;	3-4	dairy	10-day time limit to act
each time the United States provides China with an updated and complete list of dairy facilities and products under the jurisdiction of the FDA, **within 20 working days of receipt of the list:** (i) register the facilities and publish the list of facilities and products on the GACC website; and (ii) allow U.S. dairy imports into China from those facilities;	3-4	dairy	20-day limit to act. On-going requirement
allow imports of U.S. dairy products of bovine, ovine, and caprine origins **when accompanied by** an AMS dairy sanitary certificate;	3-4	dairy	U.S. certificate compels Chinese acceptance
within 60 working days of the date of entry into force of this Agreement: a. complete the approval process for U.S. dairy permeate powder for human consumption consistent with the requirements of the Notice of the General Office of the National Health and Family Planning Commission for Regulating the Review of Imported Foods for Which There Is No Chinese National Food Safety Standards, and b. allow the importation of U.S. dairy permeate powder;		dairy	60-day time limit for action
for infant formula products accept, complete review of, and issue a decision on product registration applications **regardless of whether the submitting entity is associated with an already-registered facility;**	3-6	Infant formula	Imposes condition on China reducing its ability to

China shall…	Page	Product	Structured limitations and specificity
complete technical reviews of infant formula product registration applications and do so **ordinarily within 45 working days from receipt of the application;**	3-6	infant formula	"ordinarily" not defined but still quantifies expectation
normally complete within 40 working days of completing the technical review, provided the U.S. manufacturer provides timely access if needed, any audit, inspection, sampling, or testing that is required in order to register an infant formula product;	3-6	infant formula	"normally" not defined but still quantifies expectation
taking into consideration the FDA's previous product reviews, inspections, and determinations of the regulatory standing of the facility or facilities where the product is manufactured, **complete the product registration within 20 working days following completion of the technical review** or of any required audit, inspection, sampling, or testing	3-6	infant formula	20-day time limit for action
each time the United States provides China with an updated and complete list of infant formula facilities under the jurisdiction of the FDA, **within 20 working days of receipt of the list, register the facilities, publish the list on the GACC website, and allow U.S. infant formula imports into China from those facilities,** provided the infant formula product is registered with the State Administration of Market Regulation;		infant formula	20-day limit to register, publish and allow imports based on list that the U.S. provides. China must accept list given to it by the U.S.
not require renewal of registration of: (i) infant formula facilities more frequently than once every four years; and (ii) infant formula products more frequently than once every five years;	3-7	infant formula	Defines when China can act
at least 20 working days in advance of any inspection or audit at a U.S. dairy or infant formula facility, notify the FDA, the U.S. Department of Agriculture (USDA), and the facility;	3-8	dairy/infant formula	Sets defined time limit
not require an on-site audit or inspection as a pre-requisite to registering a dairy or infant formula facility; and		dairy/infant formula	Constrain Chinese ability to act
ensure that any audit or inspection it conducts for an infant formula product registration or for the registration of a dairy or infant formula facility is for verification of either **the U.S. system of oversight or of the ability of the facility to meet the applicable requirements;**	3-8	infant formula	Binds China to accept U.S. standards for registration of dairy facilities
within one month of the date of entry into force of this Agreement, **eliminate the cattle age requirements** for the importation of U.S. beef and beef products.	3-9	beef	Sets defined time for long-standing irritant. Canada still has cattle age requirement

China shall...	Page	Product	Structured limitations and specificity
Provided the United States maintains its OIE negligible risk classification for that disease, China **shall not impose new import restrictions or requirements** related to that disease on imports of U.S. beef. Should the United States' negligible risk status change, **China shall administer the regulations for imports of U.S. beef in accordance with** the 2018 OIE Terrestrial Animal Health Code, Chapter 11.4, Article 11.4.11 or any successor provisions.	3-9		Dictates future Chinese action with specific outcomes
Within one month of the date of entry into force of this Agreement, China **shall permit the importation into China** of those beef and beef products, except for those listed in Appendix I (Beef, Pork, and Poultry Products Considered Not Eligible for Import into China), inspected by the USDA's Food Safety and Inspection Service (FSIS) in an FSIS-approved facility.	3-9	beef	Specific time for action. Dictates acceptance of USDA inspection as sufficient for import into China
Within one month of the date of entry into force of this Agreement, China shall adopt maximum residue limits (MRLs) for zeranol, trenbolone acetate, and melangesterol acetate for imported beef. For beef tissues for which Codex has established MRLs for these hormones.	3-10	beef	Specific time for specific action
Within 10 working days of the date of entry into force of this Agreement China shall **permit the importation into China** of those pork and pork products inspected by the FSIS in an FSIS-approved facility.	3-10	pork	Specific time for specific action. Dictates Chinese acceptance of U.S. inspection to allow imports
Upon entry into force of this Agreement, China shall **recognize FSIS oversight** of U.S. meat, poultry meat, and processed meat and poultry meat facilities for purposes of **allowing imports of U.S. meat, poultry meat, and processed meat and poultry meat.**	3-10	meat, poultry, processed meat	Specific time for specific action. Dictates Chinese acceptance of U.S. inspection to allow imports
Upon entry into force of this Agreement, China **shall accept** meat, poultry meat, and processed meat and poultry meat, except for those products listed in Appendix I (Beef, Pork, and Poultry Products Considered Not Eligible for Import into China), **inspected by the FSIS in an FSIS-approved facility and accompanied by a FSIS Export Certificate of Wholesomeness** (FSIS 9060-5/FSIS 9295-1).	3-10	meat, poultry, processed meat	Specific time for specific action. Dictates Chinese acceptance of U.S. inspection to allow imports
Each time the United States provides China with an updated and complete list of FSIS approved facilities, China shall, **within 20 working days of receipt,** publish the list on the GACC website and allow the importation into China of products from all facilities on the list.	3-10	meat, poultry, processed meat	Ongoing requirement for action within a specific time in response to U.S. action. Dictates Chinese action in response

China shall...	Page	Product	Structured limitations and specificity
Provided the United States has implemented (an electronic and automated system for China to access FSIS export certificates accompanying U.S. exports to China of meat) and demonstrates the reliability and safety of the system, China shall also **implement the system by February 2020.** China shall accept via the system all information, including FSIS certificates, necessary to allow shipments of U.S. meat, poultry, and meat and poultry products into China and shall provide relevant certificate information in a timely manner to the Chinese port customs officials.	3-11	meat	Specific time for specific action. Dictates Chinese acceptance of U.S. inspection to allow imports
GACC shall accept replacement certificates, provided that the FSIS ensures that replacement certificates are clearly identifiable. China shall accept replacement certificates issued by the USDA for situations that include the following: (a) the original certificate did not contain required information; (b) the original certificate contained typographical errors; (c) the importer, exporter, consignee, or consignor changed, but is within the same country that appears on the original certificate; (d) the certificate is lost or damaged; or (e) the port of entry changed.	3-11	meat	Dictates acceptance of replacement certificates and conditions of their use
Within 20 working days of the date of entry into force of this Agreement, China shall **allow imports into China** from those: (a) aquatic products facilities considered to be in good regulatory standing by the FDA and also registered by the GACC, when the shipment is accompanied by the bilaterally–agreed certificate issued by the NOAA; and (b) fish meal processing facilities considered to be in good regulatory standing by the NOAA and also registered by the GACC, when the shipment is accompanied by the bilaterally-agreed certificate issued by the NOAA.	3-12	seafood	Specific time for specific action. Dictates Chinese acceptance of U.S. inspection to allow imports
Each time the United States provides China with an updated and complete list of aquatic products facilities under the jurisdiction of the FDA, within **20 working days of receipt of the list, register the facilities, publish the list of the facilities on the GACC website, and allow** U.S. aquatic product imports into China from those facilities; and	3-12	seafood	Ongoing requirement for action within a specific time in response to U.S. action. Dictates Chinese action in response
Each time the United States provides China with an updated and complete list of fish meal processing facilities under the jurisdiction of the NOAA, **within 20 working days of receipt of the list, register the facilities, publish the list of the facilities on the GACC website, and allow** U.S. fish meal imports into China from those facilities.	3-13	fish meal	Ongoing requirement for action within a specific time in response to U.S. action. Dictates Chinese action in response

China shall...	Page	Product	Structured limitations and specificity
Each time the United States provides China with a list of rice facilities approved by the APHIS as compliant with the Phytosanitary Protocol on the Import of Rice from the United States to China, within 20 working days of receipt of the list, China **shall register the facilities, publish the list of facilities, and allow the importation** of U.S. rice from each of the APHIS approved rice facilities;	3-13	rice	Ongoing requirement for action within a specific time in response to U.S. action. Dictates Chinese action in response. Dictates Chinese acceptance of U.S. inspection to allow imports
not require an on-site audit or inspection as a condition for registering facilities or for approving the importation into China of feed additives, premixes, compound feed products, Distillers' Dried Grains (DDG), and Distillers' Dried Grains with Solubles (DDGS);	3-15	animal feed	Dictates Chinese action
not require an export protocol as a condition for permitting the importation into China of feed additives, premixes, compound feed products, DDG, and DDGS.	3-15	animal feed	Dictates Chinese action
Each time that the United States provides China with an updated and complete list of U.S. feed additive, premix, compound feed product, DDG, and DDGS facilities, China shall, **within 20 working days of receiving the information, register the facilities, publish the list on the GACC website, and allow imports** of feed additives, premixes, compound feed products, DDG, and DDGS from U.S. facilities appearing on the list on the GACC website;	3-15	animal feed	Ongoing requirement for action within a specific time in response to U.S. action. Dictates Chinese action in response
within three months of receiving an application from a U.S. DDG or DDGS manufacturer for the approval of the importation into China of one of its products, **complete the review** of that application; and (ii) **within 20 working days of completing the review** of that application, **issue a license allowing importation** of the product into China;	3-15	animal feed	Specific time for specific action
within 20 working days of receiving an application from a U.S. DDG or DDGS manufacturer that holds or has held a license permitting importation into China of one of its products, but whose license: (i) expired on or after January 1, 2017, or (ii) is scheduled to expire after that date, **issue a license to that manufacturer allowing imports** of the product into China;	3-16	animal feed	Specific time for specific action
within nine months of receiving an application for the approval of the importation into China of a new feed additive, premix, or compound feed product, **complete its review of that application and add the product onto** China's List of Feed and Feed Additives;	3-16	animal feed	Specific time for specific action

China shall...	Page	Product	Structured limitations and specificity
within three months of receiving a new application for the approval of the importation into China of a feed additive, premix, or compound feed product, **complete its review of that application and issue a license allowing importation** of the product;	3-16	animal feed	Specific time for specific action
within 20 working days of receiving an application for renewal for a feed additive, premix, or compound feed product license, **issue a renewed license allowing importation** of the product;	3-16	animal feed	Specific time for specific action
within one month of the date of entry into force of this Agreement: (i) **lift its ban** on U.S. pet food containing ruminant ingredients in accordance with Annex 4.2 (Beef); and (ii) **eliminate the use of Polymerase Chain Reaction (PCR) testing on all U.S. pet food** products containing ruminant ingredients, and limit **PCR testing of U.S. pet food products** not containing ruminant ingredients to a risk-based selection of shipments;	3-17	pet food	Specific time for specific action. Action to be taken dictated by US
upon entry into force of this Agreement, **allow the importation** of U.S. pet foods containing poultry products;	3-17	pet food	Specific time for specific action
allow the importation of pet foods with animal origin ingredients from a 3rd country as long as the ingredients are legally imported into the United States, **meet U.S. domestic requirements** for inclusion in pet food, and are traceable to the country of origin.	3-17	pet food	Dictates acceptance of U.S. standards to allow importation into China
China has completed its review of 24 new U.S. pet food and animal feed facilities and shall, **within five working days** of the date of entry into force of this Agreement, **include those facilities on the list of facilities allowed to export to China** pet food or non-ruminant derived animal feed.	3-17	pet food	Specific time for specific action
Upon receipt of each update to the list of U.S. pet food and non-ruminant derived animal feed facilities **that the United States has determined to be eligible to export pet food or non-ruminant derived animal feed to China,** China shall, **within 20 working days, register the facilities, publish the updates to the list of facilities on the GACC website, and allow imports** of pet food and non-ruminant derived animal feed from U.S. facilities on the list on the GACC website.	3-18	pet food	Ongoing requirement. Dictates Chinese acceptance of U.S. determination of what China must accept
The entirety of China's TRQs for wheat, rice, and corn (WRC TRQs) for each year **shall be allocated by January 1** of that year to end-users.	3-18	tariff rate quotas wheat, rice, corn	Will benefit Canada

China shall...	Page	Product	Structured limitations and specificity
China shall reallocate all unused and returned WRC TRQ amounts, including all unused and returned amounts allocated to STEs or designated as part of the "STE share," by October 1 of each year. Only new applicants and entities other than those returning unused quotas shall be eligible to receive reallocated WRC TRQ amounts.	3-19	tariff rate quotas wheat, rice, corn	Will benefit Canada
For agricultural biotechnology products for feed or further processing, China shall significantly reduce, to **no more than 24 months,** the average amount of time between: (a) the submission of a formal application for authorization of such a product; and (b) the final decision on approval or disapproval of the product.	3-20	agriculture biotechnology	Will benefit Canada
China shall establish an **authorization period of at least five years** for any agricultural biotechnology product.	3-20	agriculture biotechnology	Will benefit Canada
China shall, **within 12 months** of the date of entry into force of this Agreement, establish and make public a simplified, predictable, science- and risk-based, and efficient safety assessment procedure for approval of food ingredients derived from genetically modified microorganisms.	3-20	agriculture biotechnology	Will benefit Canada
If prior to receipt by China of a formal application for approval of an agricultural biotechnology product but following the submission of the dossier for the product to U.S. authorities, the dossier for the product is submitted to China, **pre-screen** the dossier **within five working days** of receipt for completeness against the Chinese requirements that will apply following the submission of a formal application for approval of the product in China;	3-21	agriculture biotechnology	Will not benefit Canada
for any product that passes China's safety evaluation, make the administrative decision of approval and issue a biosafety certificate within 20 working days of conclusion of the NBC meeting.	3-21	agriculture biotechnology	May benefit Canada

Source: United States Trade Representative, 'Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China' (2020), https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic_And_Trade_Agreement_Between_The_United_States_And_China_Text.pdf.

Appendix IV

U.S.-CHINA PHASE ONE AGREEMENT ADDRESSES CANADIAN NON-TARIFF BARRIERS ISSUES

This appendix shows parts of the U.S.-China Phase One agreement where language could be adapted to address Canadian NTB issues with China.

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Canadian major NTB issues with China	U.S.-China Phase One
Import license suspension of canola seeds from presence of weed, pest and blackleg; and increased inspection scrutiny on all Canadian canola seed imports/ shipments	Within 10 days of the date of entry into force of this Agreement, recognize the U.S. dairy-safety system as providing at least the same level of protection as China's dairy-safety system; (pg. 3-4 Sect. 2, b) allow imports of U.S. dairy products of bovine, ovine, and caprine origins when accompanied by an AMS dairy sanitary certificate; (Pg. 3-4, Sect. 2, d) China continues to have the right to audit the U.S. dairy and infant formula food safety regulatory system, including a representative sample of U.S. dairy and infant formula facilities, in coordination with the FDA. Such auditing shall be risk-based. China also continues to have the right to conduct inspections of a risk-based selection of shipments of U.S. dairy and infant formula products at the port of entry. If China determines, based on scientific inspection, that a particular shipment of U.S dairy or infant formula products is in violation of applicable food safety import requirements, China may refuse importation of that shipment. If China determines that there is a significant, sustained or recurring pattern of non-conformity with an applicable food safety measure by a particular facility, China may refuse to accept shipments from that facility until the problem is resolved. (Pg. 3-8, Sect. 5)
Disagreement on dockage level for Canadian canola seed as a result of disagreement over scientific claims	Within one month of the date of entry into force of this Agreement, China shall adopt maximum residue limits (MRLs) for zeranol, trenbolone acetate, and melangesterol acetate for imported beef. For beef tissues for which Codex has established MRLs for these hormones, China shall adopt the Codex MRLs. For beef tissues for which Codex has not established MRLs for these hormones, China shall adopt its MRLs by following Codex standards and guidelines and referring to MRLs established by other countries that have performed science-based risk assessments. (Pg. 3-9, Sect. 5)
Complex regulatory process for GM trait approval with significant delays. Lack of transparency and predictability in approval process for biotechnology products	China shall, within 12 months of the date of entry into force of this Agreement, establish and make public a simplified, predictable, science- and risk-based, and efficient safety assessment procedure for approval of food ingredients derived from genetically modified microorganisms. (Pg. 3-19, Sect. 6) China shall implement a transparent, predictable, efficient, science- and risk-based regulatory process for safety evaluation and authorization of products of agricultural biotechnology. For agricultural biotechnology products for feed or further processing, China shall significantly reduce, to no more than 24 months, the average amount of time between: (a) the submission of a formal application for authorization of such a product; and (b) the final decision on approval or disapproval of the product. (Pg. 3-20, Sect. 2)
Lengthy approval process for new and existing product entry with no defined timelines and unresponsive Chinese authorities	within five working days of receipt of the product dossier submitted in support of a formal application for approval of a product of agricultural biotechnology, prescreen for completeness, by means of comparison against the requirements on the application form, the dossier and inform the applicant of any deficiencies in the sufficiency of information in the dossier (Pg. 3-20, Sect. 4, a)

Canadian major NTB issues with China	U.S.-China Phase One
Expiry of germplasm export permit and unresponsive Chinese authorities to Canadian request and conduct inspection visits and re-approve Canadian facilities to resume exports	China shall establish an authorization period of at least five years for any agricultural biotechnology product (Pg. 3-21, Sect. 5)
Decree 177 registration requirement for exports of grain, oilseed and pulse commodities; and eventually on all agricultural commodities	Annex 10. Rice Each time the United States provides China with a list of rice facilities approved by the APHIS as compliant with the Phytosanitary Protocol on the Import of Rice from the United States to China, within 20 working days of receipt of the list, China shall register the facilities, publish the list of facilities, and allow the importation of U.S. rice from each of the APHIS approved rice facilities. China continues to have the right to conduct on-site phytosanitary audits of registered rice facilities (Pg. 3-13)
Beef, age restrictions on beef exports, unpredictability over bovine spongiform encephalopathy regulations	China acknowledges that the United States has submitted all relevant and necessary information as requested by China to enable completion of a risk assessment related to the importation of all U.S. beef, beef products, and pet food containing ruminant ingredients. China shall, within one month of the date of entry into force of this Agreement, eliminate the cattle age requirements for the importation of U.S. beef and beef products. (Pg. 3-9, Sect. 2) China recognizes the U.S. beef and beef products traceability system. The U.S. Government, in accordance with U.S. regulations, continuously maintains measures, including for traceability, that meet or exceed OIE guidelines for maintaining negligible risk status for the bovine disease addressed in Chapter 11.4 of the 2018 OIE Terrestrial Animal Health Code. Provided the United States maintains its OIE negligible risk classification for that disease, China shall not impose new import restrictions or requirements related to that disease on imports of U.S. beef. Should the United States' negligible risk status change, China shall administer the regulations for imports of U.S. beef in accordance with the 2018 OIE Terrestrial Animal Health Code, Chapter 11.4, Article 11.4.11 or any successor provisions. (Pg. 3-9, Sect. 3) ..within one month of the date of entry into force of this Agreement, China shall permit the importation into China of those beef and beef products, except for those listed in Appendix I of the agreement (Beef, Pork, and Poultry Products Considered Not Eligible for Import into China), inspected by the USDA's Food Safety and Inspection Service (FSIS) in an FSIS-approved facility. 5. Within one month of the date of entry into force of this Agreement, China shall adopt maximum residue limits (MRLs) for zeranol, trenbolone acetate, and melangesterol acetate for imported beef. For beef tissues for which Codex has established MRLs for these hormones, China shall adopt the Codex MRLs. For beef tissues for which Codex has not established MRLs for these hormones, China shall adopt its MRLs by following Codex standards and guidelines and referring to MRLs established by other countries that have performed science-based risk assessments. (Pg. 3-9, Sect. 5)

Source: United States Trade Representative, 'Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China' (2020), https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic_And_Trade_Agreement_Between_The_United_States_And_China_Text.pdf.

Appendix V

U.S. CONCESSIONS UNDER THE U.S.-CHINA PHASE ONE AGREEMENT

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The U.S. shall...	Page	Product	Structured limitations & specificity
China continues to have the right to audit the U.S. dairy and infant formula food safety regulatory system, including a representative sample of U.S. dairy and infant formula facilities, in coordination with the FDA. Such auditing shall be risk-based. China also continues to have the right to conduct inspections of a risk-based selection of shipments of U.S. dairy and infant formula products at the port of entry. If China determines, based on scientific inspection, that a particular shipment of U.S dairy or infant formula products is in violation of applicable food safety import requirements, China may refuse importation of that shipment. If China determines that there is a significant, sustained or recurring pattern of non-conformity with an applicable food safety measure by a particular facility, China may refuse to accept shipments from that facility until the problem is resolved. China shall notify the FDA of such non-conformity.	3-8	dairy/ infant formula	
Within 30 days following receipt from China of a formal request for an evaluation of a region of China for avian disease free recognition and a completed information package to support such a request that addresses the eight factors outlined in 9 CFR Part 92, or any successor provisions, the USDA's Animal and Plant Health Inspection Service (APHIS) shall initiate such an evaluation.	3-8	poultry	U.S. committed to action in defined time
China continues to have the right to audit the U.S. meat and poultry food safety regulatory system, including a representative sample of U.S. meat and poultry facilities, in coordination with the FSIS. Such auditing shall be risk-based. China also continues to have the right to conduct inspections of a risk-based selection of shipments of U.S. meat and poultry products at the port of entry. If China determines, based on scientific inspection, that a particular shipment of U.S. meat or poultry products is in violation of applicable food safety import requirements, China may refuse importation of that shipment. If China determines that there is a significant, sustained or recurring pattern of non-conformity with an applicable food safety measure by a particular facility, China may refuse to accept shipments from that facility until the problem is resolved. China shall notify the FSIS of such non-conformity. The Parties shall exchange information on their meat and poultry food safety regulatory systems and other public health matters.	3-10	meat/ poultry/ processed meat	
China continues to have the right to audit the U.S. aquatic products food safety regulatory system, including a representative sample of U.S. aquatic product facilities, in coordination with the FDA. Such auditing shall be risk-based. China also continues to have the right to conduct inspections of a risk-based selection of shipments of U.S. aquatic products at the port of entry. If China determines that a particular shipment of U.S. aquatic products is in violation of applicable food safety import requirements, China may refuse importation of that shipment. If China determines that there is a significant, sustained or recurring pattern of non-conformity with an applicable food safety measure by a particular facility, China may refuse to accept shipments from that facility until the problem is resolved. China shall notify the FDA of such nonconformity. The Parties shall exchange information on their aquatic products food safety regulatory systems and other public-health matters concerning aquatic products.	3-13	seafood	

The U.S. shall...	Page	Product	Structured limitations & specificity
China continues to have the right to conduct on-site phytosanitary audits of registered rice facilities.	3-13	rice	
Within 45 days of the date of entry into force of this Agreement, USDA/APHIS shall complete its regulatory notice process for imports of Chinese fragrant pear.	3-14	fruit	
Within two months of the date of entry into force of this Agreement, USDA/APHIS shall complete its regulatory notice process for imports of Chinese citrus.	3-14	fruit	
Within one month of the date of entry into force of this Agreement, USDA/APHIS shall complete its regulatory notice process for imports of Chinese Jujube.	3-14	fruit	
China continues to have the right to audit the U.S. feed additive, premix, compound feed, DDG, and DDGS feed safety regulatory system, including a representative sample of U.S. feed additive, premix, compound feed, DDG, and DDGS feed facilities, in coordination with the relevant U.S. competent authority. Such auditing shall be risk-based. China also continues to have the right to conduct inspections of a risk-based selection of shipments of U.S. feed additive, premix, compound feed, DDG, and DDGS feed products at the port of entry. If China determines, based on scientific inspection, that a particular shipment of U.S. feed additives, premix, compound feed, DDG, and DDGS feed is in violation of applicable feed safety import requirements, China may refuse importation of that shipment. If China determines that there is a significant, sustained or recurring pattern of non-conformity with an applicable feed safety measure by a particular facility, China may refuse to accept shipments from that facility until the problem is resolved. China shall notify the relevant U.S. competent authority of such nonconformity.	3-16	animal feed	
China continues to have the right to audit the U.S. pet food and non-ruminant derived animal feed safety regulatory system, including a representative sample of U.S. pet food and non-ruminant derived animal feed facilities, in coordination with the relevant U.S. competent authority. Such auditing shall be risk-based. China also continues to have the right to conduct inspections of a risk-based selection of shipments of U.S. pet food and non-ruminant derived animal feed at the port of entry. If China determines, based on scientific inspection, that a particular shipment of U.S pet food and non-ruminant derived animal feed is in violation of applicable pet food and non-ruminant derived animal feed safety import requirements, China may refuse importation of that shipment. If China determines that there is a significant, sustained or recurring pattern of non-conformity with an applicable feed safety measure by a particular facility, China may refuse to accept shipments from that facility until the problem is resolved. China shall notify the relevant U.S. competent authority of such non-conformity.	3-18	pet food	

Source: United States Trade Representative, 'Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China' (2020), https://ustr.gov/sites/default/files/files/agreements/phase%20one%20agreement/Economic_And_Trade_Agreement_Between_The_United_States_And_China_Text.pdf.

Appendix VI

THE IMPORTANCE OF FOOD SECURITY FOR CHINA

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China's response to its food security focus is a key factor that determines and impacts Canadian agricultural exports to China.[11] In the world's most populous country, food security is an existential and therefore, key political and national security concern for China. It translates into policies aimed at guaranteeing the quantity, quality, safety and steady supply of food. China was once described as a land of famine. This historical famine is deeply ingrained in the collective mind. There are arguably few civilizations that have as intense and deep tradition of thinking about famine in modern history. From 108 BC to 1911 there was a drought or flood-induced famine in at least one province in China almost every year. Mao's Great Leap Forward in the late 1950s to early 1960s created one of the planet's largest famines and is estimated to have killed up to 55 million Chinese.[12]

The Food and Agricultural Organization of the United Nations defines food security as "when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." While other countries are concerned about food security it is not a stretch to say that China is obsessed.[13]

"Since the founding of the People's Republic of China in 1949 the country always prioritized food security in state governance."[14]

– The State Council Information Office of the People's Republic of China, 2019

Chinese interests – food security

In thinking about how to engage China on any issue, but certainly on agricultural trade, being able to offer assistance on food security as China defines it, is an important asset. For Canada, the components of food security in the Chinese context highlight the complementarity with Canadian assets.

The importance of food security for China

The report discusses the importance of food security for China. In the world's most populous country, food security is a real concern and a key priority for the Chinese government. It translates into policies aimed at guaranteeing a steady supply of food.[15]

[11] For a good overview of the importance for Canada of food security concerns in China see Anna Kuteleva, 'China's Food Security Situation: Key Issues and Implications for Canada', Occasional Paper Series (Edmonton, AB: China Institute, University of Alberta, April 2016), https://www.ualberta.ca/china-institute/media-library/media-gallery/research/occasional-papers/food-securityanna-kuteleva201604.pdf.

[12] Zha, Daojiong, and Hongzhou Zhang. "Food in China's International Relations." The Pacific Review: East Asia and food (in)security 26.5 (2013): 455–479.

[13] Zha, Daojiong, and Hongzhou Zhang. "Food in China's International Relations." The Pacific Review: East Asia and food (in)security 26.5 (2013): 455–479. Web.

[14] Food Security in China. The State Council Information Office of the People's Republic of China. October 2019

[15] See for example, Kuteleva, "China's Food Security Situation: Key Issues and Implications for Canada."

Fear of food as a weapon and distrust of global food trading system

Historically grounded fears of famine are compounded by experience of food being used as a political weapon against China. During the Great Leap Forward famine mentioned above, China attempted to buy grains on international markets. An U.S. embargo blocked it from buying enough grain to feed its population. Interestingly, though China was able to buy grain from Canada. In the present context, this is the story that Canada should celebrate in China even more than stories of Norman Bethune.[16]

Beyond the explicit threat of agricultural trade embargos, China also sees threats in the structure of the global food markets that are largely dominated by large U.S. companies. In the Chinese view, these markets fail to guarantee supply because they operate to benefit large U.S. multi-nationals at the expense of importers like China.

Bad luck with diversification

One obvious response to the fear of dependence on the U.S. based on its history of use of food as a weapon and its control of the global food system is to look for alternatives.

Diversification has been one of the driving forces behind the Belt and Road Initiative (BRI) even though its role in food security has not received attention in western reporting on the initiative.[17] Some of the larger BRI investments have been multi-country rail projects: the Europe Rail Link I & II, the single gauge Trans-Asian Railway and the Budapest-Belgrade railway.[18] All of these diversify China's options for agricultural imports and create negotiating leverage with current exporters.

In Kazakhstan, the BRI lists three major transportation projects including the China-Kazakhstan Modern Agriculture Innovation Park. In the first quarter of 2018, wheat exports from Kazakhstan to China increased by nearly 50% and Kazakhstan's Ministry of Agriculture announced it would triple wheat shipments to China by 2020 over 2016 levels.[19] However, in 2020, Kazakhstan announced a COVID-crisis inspired ban on wheat exports that later modified to export restrictions. Similarly, in 2010, Russia announced bans on processed grains a result of a severe drought that devastated crops and spread wildfires across the country.[20] Russia also banned wheat exports in 2010, on the heels of the 2008-2009 global food price crisis.[21] Therefore, China needs to diversify – increasing agricultural imports from reliable sources that are abundant in the face of exogenous shocks.

The cost of increased food self-sufficiency

The other obvious response to food insecurity is to increase domestic agricultural production capacity. China has achieved self-sufficiency in key crops such as rice, wheat, corn, soy and oilseeds and targets import substitution, negatively impacting Canadian exports. However, this self-sufficiency objective is challenging and comes with an environmental cost from heavy fertilizer use, limited arable land, and soil degradation.

China has identified development of and access to advanced agricultural technology and practice to mitigate these problems. There is a focus on agricultural technology in Made-In-China 2025, China's industrial policy to achieve greater self-sufficiency in specific advanced manufacturing sectors. Specifically, the policy targets Smart-agricultural technology – advancing agricultural

[16] Asa Mckercher, 'Diefenbakers World: One Canada and the History of Canadian-American Relations, 196163', The Historian, n.d., 29.

[17] Arcesati, "Is the Belt and Road a Food Security Plan?"

[18] Belt and Road Initiative. 'Belt and Road Initiative'. Accessed 12 November 2020. https://www.beltroadinitiative.com/.

[19] Reynolds, "Central Asia Sees Opportunity in US-China Trade War | Eurasianet."

[20] Robyn Dixon, David L. Stern, and Almaz Kumenov, 'As Borders Harden during Pandemic, Some Countries Look to Hold on to Their Own Food', Washington Post, 8 April 2020, https://www.washingtonpost.com/world/as-borders-harden-during-pandemic-some-countries-look-to-hold-onto-their-own-food/2020/04/08/385600e4-7459-11ea-ad9b-254ec99993bc_story.html. Isis Almeida and Agnieszka de Sousa, 'Countries Starting to Hoard Food, Threatening Global Trade', Bloomberg, 25 March 2020, https://www.bloomberg.com/news/articles/2020-03-24/countries-are-starting-to-hoard-food-threatening-global-trade.

[21] Catherine Belton, Jack Farchy, and Javier Blas, 'Russia Grain Export Ban Sparks Price Fears', *Financial Times*, 5 August 2010.

machinery and equipment and increasing international research collaborations on crop optimization and soil remediation.[22] Greater bilateral cooperation between Canada and China in soil remediation and land reclamation have begun over the last five years.

For China, assistance to address food security goes beyond simply offering to export agricultural products and food. Ideally, it would also include assistance on food production in China, which is a major focus of food self-sufficiency efforts. Access to agricultural technology is a critical need and another area of potential collaboration between Canada and China.

Important to note is that goals of self-sufficiency in agriculture and food does not guarantee independence from exports given vagaries of nature, crop failure, disease, natural and man-made disaster and fluctuations in harvest.

Increase food self-sufficiency

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One way to achieve food security is to increase Chinese domestic production to become self-sufficient. In China's case, this means becoming less reliant on agricultural imports and produce more domestically. Agricultural self-sufficiency and food security have been a major policy focus of modern China. The policy has been successful for crops targeted by the government. Of the four sectors that the Chinese National Bureau of Statistics uses to define agriculture – farming, forestry, animal husbandry and fisheries, growth has been strongest in fisheries and weakest in farming. But in this case weakest has meant an average growth rate of 2.9% per year from 1978 to 2009. Within this period, production of grains has almost doubled from 354 million tons in 1982 to 618 million tons in 2017. That is a rate of growth of 1.8% per year or 34% greater than the rate of population growth of the same period. The growth rates of the three major cereal crops (i.e., rice, wheat and corn) are quite different. From 1978 to 2009, rice production increased at an annual rate of 1.15%, while wheat and corn grew at 2.48% and 3.53%, respectively.[23] These growth rates reflect the fact that grain production has gradually shifted from southern paddy fields (historically the food-surplus region) to northern dry land conditions (where wheat and corn dominate). The demand for feed grains has been increasing, thereby inducing an increased supply of domestic corn.[24] China's soybean production increased by 13.3% to a record 18.1 million tonnes due to a 10.9% increase in the planted area of 23 million acres.[25] China's focus on self-sufficiency targets import substitution for a few key crops: rice, wheat, corn, soybean and oilseeds. Two of these five – oilseeds and wheat – are Western Canada's biggest exports to China.

However, this drive to self-sufficiency has had an environmental cost – 20% of China's 133 million hectares of farmland is heavily contaminated – making it unsuited for cultivation.[26] The water supply is also limited. Deserts cover more than a quarter of the country's territory and are growing.

20% of China's 133 million hectares of farmland is heavily contaminated

Therefore, China needs to continue to rely on foreign

[22] Sharon Zhengyang Sun 'WHAT NOW? Strong Signals: China's Changing Trade Direction and What It Means for Canada', Canada West Foundation'. Accessed 12 November 2020. https://cwf.ca/research/publications/what-now-strongsignals-chinas-changing-trade-direction-and-what-it-means-for-canada/.

[23] Colin A. Carter, Funing Zhong, and Jing Zhu, 'Advances in Chinese Agriculture and Its Global Implications', Applied Economic Perspectives and Policy 34, no. 1 (2012): 1–36, https://doi.org/10.1093/aepp/ppr047.

[24] Carter, Zhong, and Zhu.

[25] Amanda Lee, 'China Facing Soybean Dilemma as It Tries to Balance Phase One Trade Deal with Self-Reliance', South China Morning Post'. 27 May 2020. https://www.scmp.com/economy/china-economy/article/3086280/china-facing-soybean-dilemma-it-tries-balance-phase-one-trade.

[26] Dong et al. Financing Models for Soil Remediation in China. Chinese Academy for Environmental Planning. August 2018

supplies such as those from Canada. Global Agro-Ecological Zone studies published by the FAO show that most land resources with potential for additional crop production are concentrated in South America, Russia, Canada and the U.S. (Canada with 21 million hectares and the U.S. with 20 million hectares). Therefore, importing soybeans, for example, is equivalent to importing arable land.

> "[To replace yearly imports of soybeans, the size of land required for plantations would be] equivalent to the cultivated area of the entire northeastern China."[27]

> "China's successful achievement of food security in recent decades has resulted in serious damage to the environment upstream of the agricultural sector, on farm and downstream. The environmental costs of this damage are not only agro-ecosystem function and the long-term sustainability of food production, but also bio-physical including human health with impacts at all levels from the local to the global, and with economic loss estimates ranging from 7 to 10% of China's agricultural gross domestic product (GDP)".[28]

China has among the highest use of chemicals in agriculture, using over 30% of global fertilizers and pesticides on only 9% of global cropland; largely a result of overuse on small-scale farms which still account for a significant portion of the country's agricultural production.[29] Therefore, China is moving to increase size and mechanization of farms to reduce environmental harms and maintain production levels.[30] The country is already pushing the envelope on what is possible by feeding close to 20% of the world's population on 10% of the globe's arable land.

Soil degradation is another major threat to food security in China. An estimated 9% loss in productivity will be experienced by 2030 given the current rate of soil degradation and 30% by 2050 as the rate of degradation doubles. Cropland loss is estimated to cause a 13-18% decrease in food production capacity by 2030-2050, which is only partially offset by a 11-23% expected increase from agricultural intensification. The bottom line is that an 18% food production surplus in 2005 will turn to deficits that will range from minor to severe depending on the scenario, by 2030–2050.[31]

The increase in domestic production may have long-term implications for Canadian agricultural product exports such as canola, wheat and soybeans, some of Canada's largest exports to China. Therefore, Canada may experience more non-tariff barrier in the future. However, given the environmental cost and the inability for China to be fully self-sufficient, China will still need Canadian exports in these areas. Furthermore, for China, assistance to address food security goes beyond simply offering to export agricultural products and food. It would also include assistance on food production in China. Access to agricultural technology is a critical need for China. Canada should expect to see an increase in agricultural technology cooperation as well as an increase in export of meal and plant protein products – discussed in the following sections – as a result of China's shift towards self-sufficiency.

[27] Professor Ke Bingsheng, former principal of China Agricultural University and an adviser to the Ministry of Agriculture and Rural Affairs, https://www.scmp.com/economy/china-economy/article/3086280/china-facing-soybean-dilemma-it-tries-balance-phase-one-trade

[28] Norse, David, and Xiaotang Ju. "Environmental Costs of China's Food Security." Agriculture, Ecosystems and Environment 209 (2015): 5–14.

[29] Wu Y, Xi X, Tang X, et al. Policy distortions, farm size, and the overuse of agricultural chemicals in China. Proc Natl Acad Sci USA. 2018;115(27):7010–7015.

[30] Sharon Zhengyang Sun 'WHAT NOW? Strong Signals: China's Changing Trade Direction and What It Means for Canada', Canada West Foundation'. Accessed 12 November 2020. https://cwf.ca/research/publications/what-now-strongsignals-chinas-changing-trade-direction-and-what-it-means-for-canada/.

[31] Liming Ye and Eric Van Ranst, 'Production Scenarios and the Effect of Soil Degradation on Long-Term Food Security in China', Global Environmental Change 19, no. 4 (1 October 2009): 464–81, https://doi.org/10.1016/j.gloenvcha.2009.06.002.

Appendix VII

CHINESE DOMESTIC AND FOREIGN POLICY ON AGRICULTURE

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China's domestic and foreign policies have signaled efforts of self-sufficiency and regional integration to secure agricultural supplies. China's changing international political strategy has also influenced its foreign trade policy – including reliance on NTBs to limit imports from specific countries like Canada, Australia and Brazil. Canada may expect to see shifts in future agricultural trade patterns with China.

China has identified development of and access to advanced agricultural technology and practices to mitigate some of the environmental problems for self-sufficiency identified above. Made-In-China 2025 (MIC2025) is China's industrial policy to achieve greater self-sufficiency in specific advanced manufacturing sectors to overcome stagnant growth and transition from a middle-income to high-income economy.[32] While there is no explicit language in the policy on food security, the policy focuses on the development of advanced agricultural technology – advancing agricultural machinery and equipment in major production processes such as grain, cotton, oil, sugar and other large-scale grains.[33] The policy also focuses on increasing international research collaborations on crop optimization and soil remediation. This policy signals China's efforts to increase domestic agricultural capacity and ability to meet its own demands.[34] For example, the emphasis on the need to integrate digitization, environmental technology advancement for soil remediation and land reclamation points toward agricultural sustainability. Greater bilateral cooperation between Canada and China in soil remediation and land reclamation have already been observed over the last five years. China's interest in intelligent manufacturing equipment under MIC2025 presents an opportunity for agri-food enabling technology businesses in the Prairie provinces under the Smart Agri-Food Supercluster. There may be opportunities for Canada in terms of research and partnership on technological development including land reclamation, agriculture and waste management (such as agricultural wastewater solutions).

Another food security policy has been the Belt and Road Initiative. As noted by one researcher, this has not been a subject of attention in western reporting on the initiative.[35] Of the 118 projects currently listed on the official BRI website, 44 are port or non-mass transit rail projects. Several of these have the potential to not only increase Chinese access to agricultural production but to bring this production online for global markets. This is important for Canadian producers given the precedent of the emergence of Brazil as a global soybean power thanks to investments in the 1980s by a Japan worried about its dependence on U.S. soybeans during the U.S.-Japan trade wars.

[32] Sharon Zhengyang Sun 'WHAT NOW? Strong Signals: China's Changing Trade Direction and What It Means for Canada', Canada West Foundation'. Accessed 12 November 2020. https://cwf.ca/research/publications/what-now-strongsignals-chinas-changing-trade-direction-and-what-it-means-for-canada/.

[33] Translated from the original Notice of the State Council "Made in China 2025" in 2015 (国务院关于印发《中国制造2025》的通知). Original text: 《打造具有国际竞争力的制造业， 是我国提升综合国力、保障国家安全、建设世界强国的必由之路。》Accessed Nov. 7, 2018. http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm

[34] Sharon Zhengyang Sun 'WHAT NOW? Strong Signals: China's Changing Trade Direction and What It Means for Canada', Canada West Foundation'. Accessed 12 November 2020. https://cwf.ca/research/publications/what-now-strongsignals-chinas-changing-trade-direction-and-what-it-means-for-canada/.

[35] Arcesati, "Is the Belt and Road a Food Security Plan?"

This is potentially being repeated with the BRI in Tajikistan, where Chinese firms have opened an agriculture and textile industrial park and the China-Kazakhstan Modern Agriculture Innovation Park to improve agriculture productivity in Kazakhstan in those crops of interest to China. In 2018, wheat exports from Kazakhstan to China increased by nearly 50% in the first quarter of the year and its Ministry of Agriculture announced it would triple wheat shipments to China by 2020 over 2016 levels.[36] The BRI lists three major transportation projects in Kazakhstan. Some of the larger BRI investments have been multi-country rail projects, the Europe Rail Link I and II, single gauge Trans-Asian Railway and the Budapest-Belgrade railway. All of these have the potential to give China greater diversity for agricultural imports and thus greater negotiating leverage with current exporters. These investments have two primary impacts on Canada. The first is the obvious increase in competition for the Chinese market and weaker negotiating leverage. But the second is the creation of another market for agricultural technology, machinery and agricultural knowledge exports in the countries in which China is investing to increase agricultural production.

Part of the rationale for China's massive investments is not only to serve the Chinese market but to increase overall global production on the theory that more food in global markets decreases food security risks for everyone, including China. The BRI also has a shared prosperity aspect. This attempt to increase overall global food production creates a significant need for improved agricultural technology in regions where China – perhaps more so than the Asian Development Bank, the World Bank and certainly more than the Canadian International Development Agency – will be the principal funder if current trends continue. Kazakhstan is already a significant market for Canadian agriculture equipment manufacturers and could grow along with the agriculture technology markets.[37]

Both Made-in-China 2025 and Belt and Road Initiatives provide China with greater agricultural supply diversification and certainty as well as greater self-sufficiency.

The increase in domestic agricultural production, and the matching policies that facilitate it, has the potential to reduce demand for Canadian agricultural exports to China. However, these factors also present opportunities for new exports of goods and services in the agri-tech sector for Canada. Improvements in intellectual property law and its enforcement in China occasioned by the U.S.-China Phase One agreement make this potential opportunity more attractive.

[36] Reynolds, "Central Asia Sees Opportunity in US-China Trade War | Eurasianet."

[37] Carlo conversation with short-line manufacturer.

Appendix VIII

CHINA'S CHANGING DEMOGRAPHICS AND SHIFT IN DEMAND

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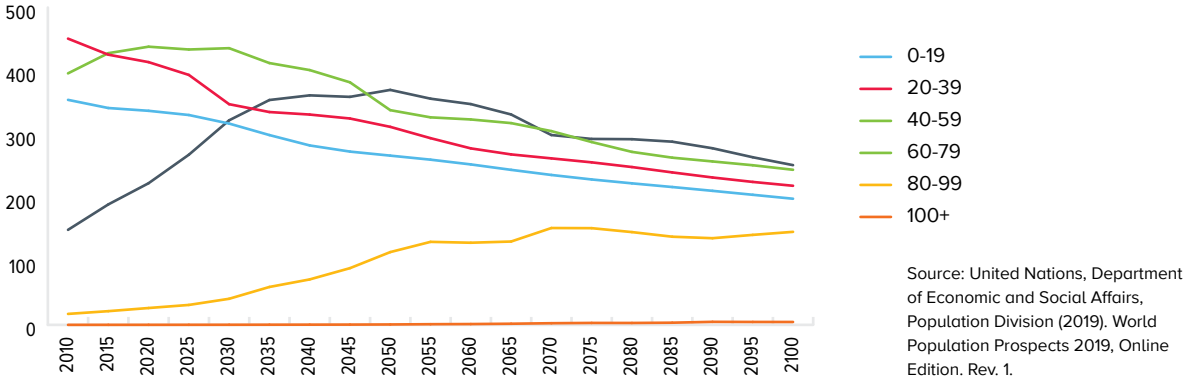
China's agricultural demand and trade patterns continue to shift because of its changing demographic patterns. The aging population, growing middle-income population and urbanization will change the composition of food demand in China. As China's middle-class continues to grow, it will change Chinese demand for agriculture products, imports of those products and preferred suppliers.

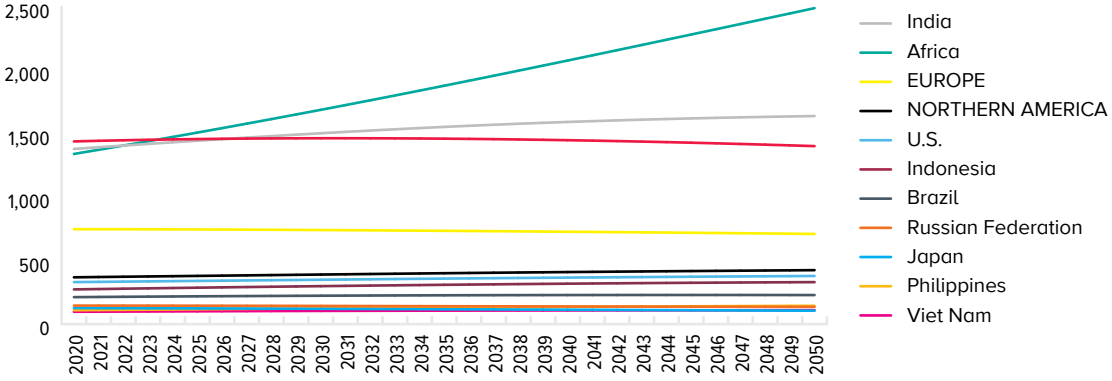
The aging population and declining rate of population growth as a result of China's previous one child policy may also mean an eventual decline in overall market demand (Figure 3). China is not open to immigration therefore China's population growth is estimated to peak by 2031 with a total population of 1.46 billion, and a subsequent decline that may potentially fall to 1.4 billion by 2050 (see Figure 4). These will have major implications both for Chinese demand and competition for Canadian exports to China.

Figure 3: China total population forecast (both sexes combined) **by five-year age group** (millions)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.

Figure 4: Total population forecast, both sexes combined (millions)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.

Table 2: Top 5 pork producers, consumers and exporter in 2028 (tonnes)

PORK 2028					
Consumption		**Export**		**Production**	
01 China	59,246,973	**01 EU**	3,292,697	**01 China**	58,050,371
02 EU	19,761,364	**02 USA**	2,969,264	**02 EU**	22,886,485
03 USA	10,521,346	**03 Canada**	1,681,610	**03 USA**	12,819,866
04 Viet Nam	4,411,278	**04 Brazil**	785,177	**04 Brazil**	4,509,924
05 Russia	3,952,761	**05 UK**	274,131	**05 Viet Nam**	4,326,844
14 Canada	794,569			**08 Canada**	2,199,754

Source: OECD-FAO Agricultural Outlook 2019-2028

Studies forecast that there will be an increase in meat, aquatic product and fruit consumption and subsequently, a shift toward increased feed grain demands and a decline in human consumption of grains. Per capita consumption of food grains in China is expected to decrease while the consumption of animal based food including pork, beef, mutton, poultry, aquatic products, eggs and milk will increase.[38] Therefore, as China continues to grow landless industrial livestock production systems, Canada may expect an increase in animal feed exports.

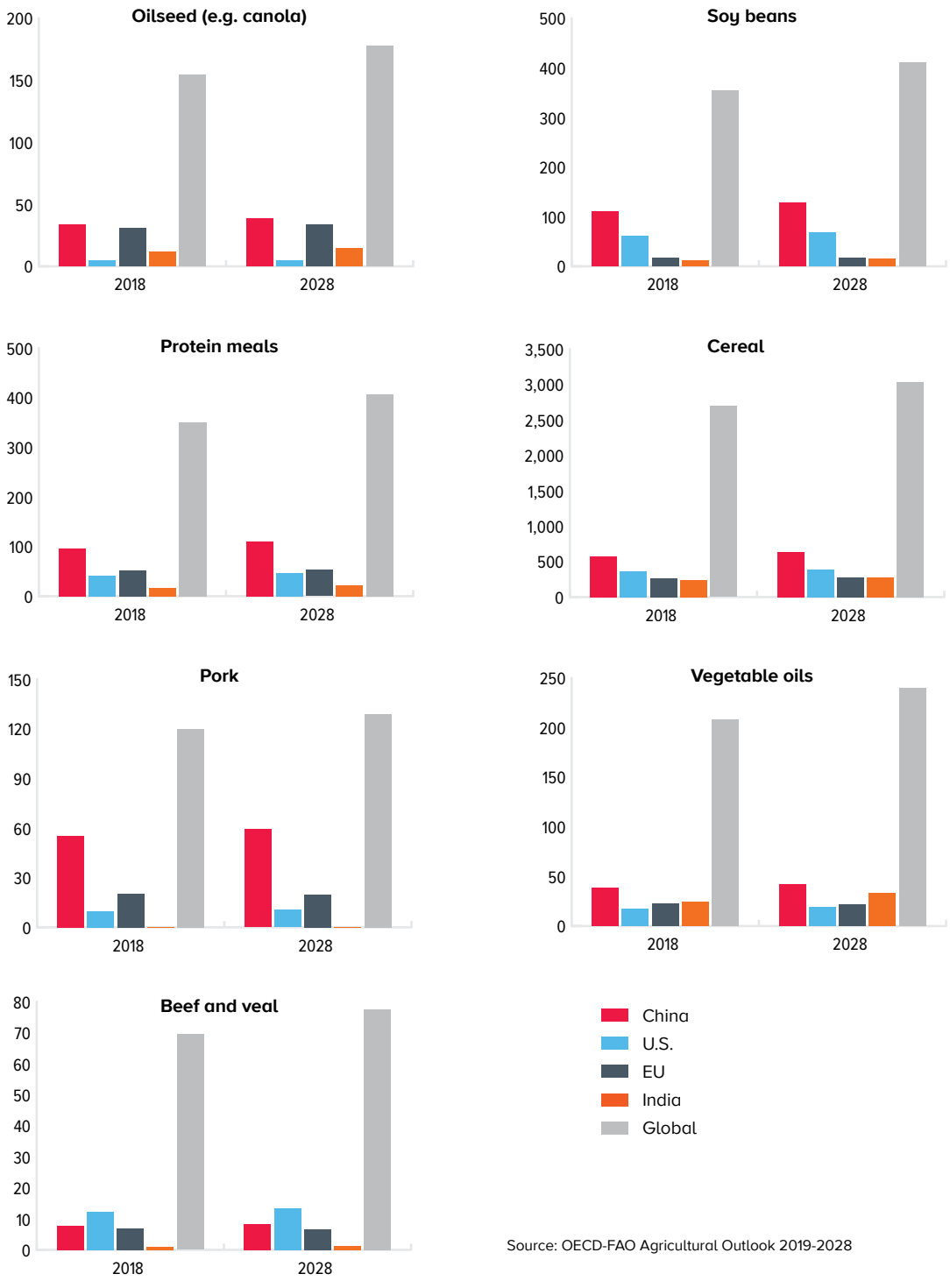
With greater production capacity and shifting demand in China, Canada needs to pay close attention. For example, Table 2 provides the projection of pork consumption, production and export in 2028 with China being the largest consumer and producer in the world. However, its domestic production capacity will not be able to meet consumption. Subsequently, the demand for feed grains and animal grains are also expected to increase. Far from moving toward self-sufficiency in feed grains and animal feed, China has become the world's largest soybean importer and moved from being a corn exporter to become a net importer since 2009. The OECD projects that China will be the largest consumer of these products in 2028. See Figure 5 for the 2028 projection on key agricultural goods in which China demands. Note that Canada has a competitive advantage in these agricultural goods as these goods are already some of the key exports for Canada with China today. "The heavy reliance of China on the world markets to meet its demand for feed grains will continue in the future."[39]

Therefore, the key takeaway is that consideration of Chinese demographic changes must be included as it will influence longer term demand for Canadian products which in turn should influence Canada's broader strategy for re-engaging China. These changes also illustrate the temporal dimension to negotiations with China on agriculture.

[38] Zhihao Zheng et al., 'Predicting the Changes in the Structure of Food Demand in China', *Agribusiness* 35, no. 3 (2019): 301–28, https://doi.org/10.1002/agr.21592.

[39] Zheng et al.

Figure 5: 2028 projections on key agricultural goods consumed by China (thousands of tonnes)



Source: OECD-FAO Agricultural Outlook 2019-2028

Appendix IX

AUSTRALIA'S AGRICULTURAL ISSUES WITH CHINA

This analysis was based in part on reports prepared for this paper by former senior Australian and Brazilian trade negotiators.

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Red Meat (beef and sheep)
Registration of export establishments

China's accreditation process for red meat export facilities is used as a barrier to trade. Registration requires Chinese inspection, audits and formal listing. Red meat exports to China can only be exported from China-approved facilities and approval processes have been prolonged with unjustified delays.

China has also sought to limit the beef trade to frozen beef (citing food safety concerns related to the import of chilled product and cold supply chain capacity in China). In July 2014, Australia became the only country granted access to China for chilled beef, with an initial 10 plants approved to export. Today, only 11 export registered establishments can export chilled meat. A joint statement was signed during Premier Li Keqiang's State visit in 2017, noting that China would expedite approval of an additional 15 Australian frozen meat establishments and progress approvals for chilled meat exports for all establishments that meet the chilled meat standard as verified by the Australian Department of Department of Agriculture. However, China has not met these commitments to date.

Red meat supply-chain players from ranchers, to feed suppliers, processors and exporters are impacted by the unpredictable nature of China's requirements. For example, in July 2017, six accredited meat exporters were banned from shipping to China due to supposed labelling issues. The ban lasted five months. In recent years, a challenging political dynamic has been reflected in the ongoing failure to approve 16 meat processors in Australia that have been on the waiting list for two years, even though China continues to approve facilities in other countries. Australia has not made substantive progress since the formal signing of the China-Australia Free Trade Agreement (ChAFTA) in 2015 and the 2017 joint statement has not translated into outcomes.

The consultative mechanisms under ChAFTA have provided an opportunity to raise the issue formally but not resulted in traction on this issue. In reality, Australia doesn't expect these free trade agreement consultative mechanisms to resolve them in of themselves, but they provide another important opportunity to raise concerns formally with counterparts.

The registration issue is still ongoing, and progress has been difficult as a result of challenges engaging in the formal government space. Top industry bodies in the supply chain are seeking to maintain the relationship with China by developing association-to-association MoUs and formal mechanisms with the China Meat Association, including a program of visits and collaborative work plans. It doesn't help that since early 2015, Chinese authorities have conducted several genuine crackdowns on unofficial channels for meat imports (grey trade), which has seen the total volume of documented beef imports increase by around 50% year-on-year.

Grains (wheat and barley)
Weed seed contamination, MRLs, TRQ administration, anti-dumping

A range of NTBs have disrupted Australia's grain exports, most notably maximum residue limits (MRLs) (higher than international standards) and limits on unintended presence of weeds and foreign materials that have been inconsistently applied. In addition, China is currently conducting an anti-dumping investigation into barley and is administering a quota for wheat.

China has a quota volume for Australian wheat of 9.6 million tonnes, with an in-quota tariff of 1% and an out-of-quota tariff of 65%. Administration of 90% of the wheat import TRQ is done by COFCO. Australia has sought increased transparency and flexibility in the administration of the quota, for example allowing for more non-state owner enterprises to access quota which would allow China's flour mills to gain better and more reliable access to high-quality wheat.

The anti-dumping case for barley undertaken by China has been extended for six months. Australia is China's largest long-term reliable supplier of malting barley. China's Ministry of Commerce (MOFCOM) has had some discussions with the Australian industry, and it is a widely held view in Australia that the issue is politically motivated. The trade in malting barley is complementary to the Chinese brewing sector (i.e. China wants and needs the trade). The fact that China has chosen to undertake an anti-dumping case on such a complementary trade is a bad sign and indicator of the poor state of the bilateral relationship. Delayed end user certificates for barley (e.g. malthouse/brewery) have previously been an issue that resulted in significant delays in exports of barley.

China has in the past imposed MRLs that are more stringent than the international standard, for example, for selenium that has the potential to impact all wheat exports to China. China has also imposed MRLs where no international standard exists (e.g. vomitoxin). These standards are often not enforced but could significantly impact trade. China is currently also reviewing MRLs for barley and given the anti-dumping case there is nervousness in the sector about this process. Similar to Canadian canola, China has also raised concerns about Australian weed seed and pest contamination in bulk shipments on an ad hoc basis. Given the poor tone of the political relationship, industry is seeking to maintain engagement and keep the relationship going during the current tensions (e.g. engagement and conferences with COFCO).

Recognizing the risks associated with the NTB issues for grain exports to China, Australia developed an Industry Management Plan to assist industry and exporters to meet requirements under the Protocol of Phytosanitary requirements for Australian wheat and barley imports into China. On the issue of the wheat import TRQ, Australia has sought to enhance transparency of quota administration in the free trade agreement, where there has been some success in bilateral negotiations. In proceeding to the ChAFTA negotiations, the Australian Government granted China 'market economy' status for anti-dumping purposes in 2015 – an important upfront concession to get to the negotiating table. In effect, it meant Australia would treat China the same as other WTO members for the purpose of anti-dumping – this was seen by Beijing as having a broader demonstration effect in the WTO for other developed economy members. Notably, China in 2019 withdrew from a dispute in the WTO with the U.S. and E.U. on this issue, rather than having the final findings go against them.

Dairy

Registration of export establishments, infant formula

Similar to beef and lamb, the general requirements for dairy exports to China require that they can only be exported from China-approved establishments. The accreditation process for export-registered establishments is used as a barrier to trade, with formal Chinese processes having prolonged, arbitrary and unjustified delays.

Infant formula exporters also have been subject to additional requirements, including brand and formula registration and limiting each plant to only three formulations per brand. The 2008 melamine scandal demonstrates the source of concern for infant formula. In order to achieve food safety outcomes, China has sought to reduce the number of infant formula manufacturers exporting to China, however the brand and formulation restrictions are arbitrary and not related to human health.

In the early stages of the ChAFTA negotiation, there was an issue relating to variable import clearance and testing in China of Australian dairy products. In response, Australia initiated and established the Cooperation Arrangement Governing the Inspection and Quarantine of Dairy Products between relevant government agencies. The arrangement focused on import testing of a pathogenic microorganism (Enterobacter sakazakii) only relevant to infant formula. Under the arrangements, new health certificates were negotiated and problems regarding import clearance were largely resolved in a couple of years. The Agricultural Technical Cooperation (ATC) Program provides Australian funding for visits of incoming Chinese officials to advance these outcomes.

Despite the poor state of the current political relationship, the dairy industry is seeking to maintain engagement and keep the relationship going through continued commitment and focus on a scholarship program in China (which has just turned 20 years old), whereby industry leaders frequently travel to China.

Appendix X

BRAZIL'S AGRICULTURAL ISSUES WITH CHINA

This analysis was based in part on reports prepared for this paper by former senior Australian and Brazilian trade negotiators.

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Beef

Occurrence of bovine spongiform encephalopathy (BSE or mad cow disease) and requirement to automatically suspend exports

From December 2012 to May 2015, China maintained a ban on Brazil's fresh beef exports due to the occurrence of BSE. China was one of the first countries to suspend imports from Brazil and one of the last to remove the restriction. Soon after the ban was imposed, it was confirmed that the BSE was atypical, not posing danger to human health. On February 2013, the World Organization for Animal Health (OIE) upheld the 'negligible risk' status for Brazil over BSE and described the bans on beef imports imposed by foreign countries as "unjustified."[40] Nevertheless, China continued to ban Brazilian fresh beef exports. This was one of the most difficult NTB negotiations between Brazil and China.

The main stakeholders affected by the restriction were eight Brazilian meatpacking plants, which had been previously approved for exports to China, and 52 other processing facilities that had been waiting to be authorized for exports. The Brazilian associations of beef exporters and meatpacking plants, as well as farmers, represented by the Confederation of Agriculture and Livestock, worked closely with the government to remove the Chinese ban, which was negatively affecting the image of the Brazilian beef industry as a whole and undermining confidence in the safety of the Brazilian product in international markets. Brazil is an important global player, responsible for 20% of the world exports of beef. Brazil was losing about US$1 billion per year in potential beef exports to China due to the ban.[41]

Even though the ban was not supported by testing by the OIE, the Chinese government insisted Brazil sign an umbrella Agreement on Cooperation in the Animal Health and Quarantine between the two ministries of agriculture and a new sanitary protocol between the Ministry of Agriculture, Livestock and Food Supply of Brazil (MAPA) and the General Administration of Quality Supervision, Inspection and Quarantine of China (AQSIQ) before lifting the ban.[42] This new sanitary protocol established Brazil's obligation to immediately suspend exports to China upon the report of any new BSE case (even atypical). Today, China is the only country that requires such a restrictive measure from Brazil. Additionally, Brazil had to agree to reciprocate, with the approval of more Chinese imports of fish and animal intestines to the Brazilian market. With negotiations at the technical level advancing at a slow pace, Brazil addressed the issue at a higher political level by intensifying dialogue

[40] OIE Scientific Commission for Animal Diseases decision: https://www.oie.int/en/for-the-media/press-releases/detail/article/oie-scientific-commission-maintains-brazil-bse-status-as-negligible-and-recommends-strong-monitoring/

[41] Estimates of the Ministry of Agriculture, Livestock and Food Supply of Brazil.

[42] Ministério das Relações Exteriores, Government of Brazil. Accessed on 12 November 2020. https://www.gov.br/mrept-BR/component/content/article#quarentena-eng

within the Sino-Brazilian High-Level Commission for Concertation and Cooperation, co-presided by both countries' vice-presidents. The support from the Brazilian president in setting a deadline and prioritizing the reopening of China's market for Brazilian beef was crucial for the successful conclusion of the negotiations.

In June 2019, Brazil reported to the OIE a new atypical case of the BSE in the State of Mato Grosso and immediately suspended its beef exports to China, as required by the sanitary protocol. As in the previous case, the OIE almost immediately upheld the 'negligible risk' status for Brazil over BSE. But exports remained suspended for about two weeks before China authorized operations to resume. Brazil finds the automatic suspension unreasonable and discriminatory and is trying to negotiate with China to modify the current sanitary protocol.

Authorization of meatpacking plants for exports

Before the recent escalation of the trade war between the U.S. and China and the catastrophic outbreak of the African swine fever, the authorization of Brazilian meatpacking plants for exports to China had been a very bureaucratic and lengthy procedure. Approval would only be given after an on-site inspection by Chinese authorities of all the processing facilities. At the beginning of 2015, only 36 meatpacking plants were approved for exports to China (29 for poultry and seven for pork).

Even after the reopening of the Chinese market for Brazilian beef in May 2015, China did not automatically approve the eight beef-processing plants that had been authorized before the ban. It requested additional information about the operational system of control and prevention of BSE and ordered these eight meatpacking plants (and the other ones that also applied for authorization) to provide individual monitoring and prevention programs. It took Brazil several more months to effectively resume beef exports to China. Between 2015 and 2018, Brazil negotiated the authorization of more than a hundred new meatpacking plants (52 for beef, 48 for poultry and 23 for pork), but only a total of 64 plants had been approved (an increase from 44).

However, the situation completely changed in 2019 when the U.S.-China trade war intensified, and the African swine fever outbreak spread to every region of China. China needed a guaranteed and secure food supply from Brazil. China relaxed its inspection proceedings and even started to do it virtually via Skype. In February 2019, China agreed with Brazil on a measure that significantly reduced bureaucracy in issuing international sanitary certificates for Brazilian beef, pork and poultry exports to China. With the agreement, China approved a general list of official Brazilian veterinarians eligible for issuing certificates for any supplier authorized to export to China. In the past, each official veterinarian could only sign certificates for a designated meatpacking plant and any change in such designation would have to be communicated by Brazil to China. The 2019 certification process agreement significantly reduced the risk of holding Brazilian shipments in Chinese ports due to the questioning of signatures. From September to November 2019, China authorized 38 additional plants for exports of beef, poultry and pork to the Chinese market. It is worth noting that currently, when authorizing the new meatpacking plants from Brazil, China gives priority to the ones that are approved for exports to the European Union (as it considers the high safety standards imposed by the EU as an additional safeguard).

China needed a guaranteed and secure food supply from Brazil.

The reciprocity principle has been the main negotiating strategy for Brazil over the last three years. Since 2004, China has benefitted from a "pre-listing" system of authorization of its fish and animal intestines producers to export to Brazil. Under this system, Brazil allows China to create and audit a list of pre-approved suppliers that meet Brazilian sanitary and quality requirements. Today, there are about 350 Chinese suppliers of fish and animal intestines authorized to export to Brazil through pre-listing. Since 2012, Brazil has been trying to negotiate the same facilitated method of authorization of its meatpacking plants for exports to China, to no avail until late 2019.

The reciprocity principle has been the main negotiating strategy for Brazil over the last three years.

The lack of transparency and excess bureaucracy that existed for many years in the process of authorization of meatpacking plants for exports to China negatively effected all Brazilian suppliers of beef, pork and poultry that were interested in exporting to China. According to estimates from the poultry and pork industries in 2015, the restrictive procedures cost Brazil about US$900 million per year in potential poultry exports and about US$400 million per year in pork exports.[43]

After the removal of the ban and with speeding up of the approval process, China became Brazil's main export market for meat. Today, in addition to beef, chicken and pork, Brazil also exports turkey, sheep, goat and donkey meat. From January to October 2019, Brazilian exports of all types of meat amounted to more than US$3 billion. This is compared to US$2.59 billion in 2018.[44] The current size of the Chinese market shows the significance of the restrictions imposed by China throughout the years.

Poultry
Maximum levels of residues

In 2015, China found traces of dioxins in poultry imports from Brazil above the maximum permitted levels. Brazil managed to avert the ban of all imports by immediately suspending production in chicken meatpacking facilities that were suspected of violation and ordering the recall of all their shipments to China. While still investigating the violation, Brazil quickly negotiated with China a new sanitary certificate for poultry meat with the implementation of additional guarantees and commitments to further strengthen the auditing of chicken processing plants and introduced additional measures within the Brazilian National Plan for Control of Residues and Contaminants. The Brazilian association representing the poultry industry and the Confederation of Agriculture and Livestock, representing the farmers, were the main stakeholders and supported government's actions in negotiating with China. A suspension of exports to China would have cost the Brazilian chicken industry around US$600 million in annual revenues.

This situation is a good example of successful crisis-management strategy. Brazil immediately recognized China's food safety concerns and was quick in offering additional sanitary guarantees. Such measures undoubtedly reinforced China's confidence in the Brazilian animal health and inspection system.

Unlike Canada, who considers itself to have a world leading food safety system, Brazil recognized it is not a leader in food safety and was amenable to suggestions in this situation. Brazil in this case responded quickly and negotiated immediately to protect its entire industry rather than waiting for scientific and investigation results. Brazil conducted investigations simultaneously with negotiations to offer additional guarantees to reinforce and uphold Chinese confidence.

Trade remedies
Anti-dumping duties

In June 2018, China imposed provisional anti-dumping (AD) duties between 18.8% and 38.4% ad valorem, depending on the exporter, on imported chicken products from Brazil. In February 2019, China approved definitive anti-dumping duties on these products, ranging from 17.8% to 32.4%, for a five-year period. Brazil actively participated in the AD investigation. At the time of the imposition of AD duties, Brazil was supplying almost 85% of total Chinese imports of chicken meat. The Brazilian association representing the chicken meat processing industry and the Confederation of Agriculture and Livestock, representing the farmers, were the main stakeholders and supported government's actions in negotiating with China. Brazil disagreed with China's conclusion about the existence of dumping.

[43] Estimates made by the Ministry of Agriculture, Livestock and Food Supply of Brazil based on the data provided by the meat industry.

[44] Ministry of Agriculture, Livestock and Food Supply of Brazil, Agrostat database.

As a negotiated solution, in February 2019, 14 Brazilian exporters entered into a price-undertaking agreement with the Chinese Ministry of Commerce (MOFCOM) and are exempt from the anti-dumping duties, as long as the products are sold at prices no lower than the minimum values established by the agreement.

In a similar case, Brazil initiated consultations with the WTO over the imposition of a safeguard measure on imported Brazilian sugar by China. In 2016, Chinese MOFCOM initiated a safeguard investigation into imports of sugar and found "serious injury or threat thereof caused by increased imports of sugar." MOFCOM subsequently adopted and applied safeguard measure on imported sugar outside the existing TRQ with an additional *ad valorem* duty of 45% for the first year, followed by 40% in the second year and 35% in the third year of its implementation. When China acceded to the WTO in 2001, it established a TRQ of 1,945,000 tons for sugar, covering raw and refined sugar. The in-quota tariff rate for this sugar is 15%. The out-of-quota rate had been 50%, but with the imposition of the sugar safeguard, the out-of-quota rate was significantly increased. The restrictions were not only applied to Brazil but to other suppliers as well in order to protect its domestic producers from increasing imports. The three-year safeguard thus applies as follows:

Table 3: China's three-year safeguard for sugar imports

Duration	Additional ad valorem safeguard duty	Total duties on out-of-quota sugar
May 22, 2017 to May 21, 2018	45%	95%
May 22, 2018 to May 21, 2019	40%	90%
May 22, 2019 to May 21, 2020	35%	85%

In October 2018, Brazil requested consultations with China concerning (i) a safeguard measure imposed by China on imported sugar, (ii) China's administration of its tariff-rate quota for sugar and (iii) China's import licensing system for out-of-quota sugar.[45] The countries managed to negotiate an agreement in March 2019, resulting in China suspending the renewal of safeguard measures for sugar after May 2020 and avoiding litigation. This was the first case ever brought to the WTO by Brazil against China. Negotiations were challenging because Brazil currently imposes trade remedies on imports of as many as 53 different Chinese products, including some agricultural goods such as garlic and citric acid. With the negotiated solution and favourable market conditions, Brazilian exports to China continued to grow. With the negotiated solution and favorable market conditions, Brazilian exports to China continued to grow. In 2019, Brazil exported 585,300 tons of poultry to China, an increase of 34% more than in 2018 (438,000 tons).[46]

Asynchronous approval of GM crops

Another NTB issue that negatively affects Brazilian exports to China, particularly soybeans and corn, is the asynchrony between China's approvals of biotechnology crops and their approvals by Brazil.

Although China does not permit cultivation of genetically modified (GM) agricultural crops (with a few exceptions such as cotton), it allows imports of GM crops, mainly for animal feed. Canada shares with Brazil the problem of the lengthy approval process of new GM varieties, usually six years, by China's National Biosafety Committee (NBC). The list of pending applications is growing. After issuing approvals for only four new products in 2017, NBC authorized five more in 2019. By comparison, the Brazilian National Technical Commission on Biosecurity (CTNBio) approved 10 GM plant varieties in 2017, 13 in 2018 and 22 in 2019.

[45] WTO 2020. "Dispute Settlement case DS568: China — Certain Measures Concerning Imports of Sugar." https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds568_e.htm

[46] Adrian Fortune, 'Brazilian poultry exports grow in volume and value', Food Navigator, 8 January, 2020. https://www.foodnavigator.com/Article/2020/01/08/Brazilian-poultry-exports-grow-in-volume-and-value#:~:text=According%20to%20figures%20published%20by,2018%20(4.1%20million%20tons).

China imposes rigorous controls on the presence of unapproved GM traits in imported oilseeds and grains. China only accepts applications for GM crop varieties that have been already approved in the country of origin for the same use. Brazil depends on imports of seeds, especially of GM cultivars, from other countries, mainly from the U.S. and E.U. Because China is becoming an increasingly important player in the global seed industry, its approval procedures are becoming more and more dependent on underlying economic reasons and on its political relations with the U.S. and E.U.[47]

The Chinese regulatory approval process was unpredictable and lacked transparency. China would always justify the delay by the overall public concern with the safety of GM crops. The length of the approval process would vary according to different trait types, number of traits, crop types and companies. For crops where China wants to be self-sufficient, the process was even lengthier.

Most of Brazil's soybean crops are GM varieties. Because it exports almost 60% of all soybeans it produces and, at the same time, China is the destination for more than 60% of all Brazilian soybean exports, the asynchronous approval of GM crops makes it difficult to plant new GM varieties of oilseeds. The associations of Brazilian soybean and corn producers, the Confederation of Agriculture and Livestock representing Brazilian farmers, and several multinational biotech companies (Monsanto, BASF, Bayer, Dupont, Dow and Syngenta, before it was bought by ChemChina), for many years supported the Brazilian government's efforts to negotiate with China the adoption of a synchronized regulatory approval of GM crops. Upon the request of Brazil, the two countries created a Joint Working Group on Biotechnology and Biosecurity in Agriculture in 2014. While Brazil requested moving towards a general synchronized regulatory approval of GM cultivars in both countries, China suggested a more strategic bilateral partnership in the area of agricultural biotechnology. Embrapa, the Brazilian state-owned agricultural research corporation, which is one of the world's leading biotech research centers, signed several cooperation agreements with Chinese research institutions (Chinese Academy of Agricultural Sciences-CAAS, Chinese Academy of Science-CAS and Chinese Academy of Tropical Agriculture Science-CATAS), establishing joint projects in genetic improvement and GM seed breeding (including cotton and soybeans). This partnership helped to establish dialogue and create leverage in negotiations as it meets Chinese ambitions building its own biotech (and generic biotech) industry.

This case shows that the length of time for GM crop approval process depends on which sectors China aims to achieve self-sufficiency such as oilseeds and corn. Brazil's experience in negotiating the approval of GM varieties with China is similar to that of Canada, as both countries depend on imported seeds. The latest authorization of Canadian canola varieties by China (BASF's RF3 and Bayer/Monsanto's MON 88302) was reportedly a result of the China-Canada Economic and Financial Strategic Dialogue in November 2018. Therefore, establishing a high-level bilateral political dialogue with China and setting priorities and deliverables seem to help advance reduction of specific NTB barriers.

[47] Tom Luckock and Sarah Xiong. 'China Foreign Investment: Expert Q&A Series – Seed Industry'. Norton Rose Fulbright, November 2019. https://www.nortonrosefulbright.com/encn/knowledge/publications/425c2b2d/china-foreign-investment-seed-industry.

Appendix XI

LESSONS FROM AUSTRALIA AND BRAZIL

This analysis was based in part on reports prepared for this paper by former senior Australian and Brazilian trade negotiators.

Back to report

Australia's agricultural NTB experience with China

Australia was the first G20 country to have a comprehensive free trade agreement with China. China is Australia's largest trading partner with a total two-way trade of US$145 billion as of 2018 – more than the combined trade of Australia's next four largest partners: Japan, the U.S., South Korea, and India. Canada shares a similar China agricultural export product portfolio with Australia, including canola, beef, barley, and animal feeds. While the China-Australia Free Trade Agreement (ChAFTA) has stabilized Australian market access into the Chinese market and increased bilateral governmental engagement, Australia still experiences agriculture non-tariff barriers with China, many of which are similar to the issues experienced by Canada. This section summarizes a few examples. In depth descriptions of the issues can be found in Appendix III.

Issues

- **Accreditation process for export registered establishments for red meat (beef and sheep).** Registration requires Chinese inspection, audits and formal listing which are often prolonged with arbitrary unjustified delays. In 2017, six accredited meat exporters were banned from shipping to China due to supposed labelling issues that lasted for five months. China has not yet approved the 16 Australian meat establishments it committed to in its 2017 joint statement. The consultative mechanisms under ChAFTA have provided an opportunity to raise the issue formally but have not resulted in traction on this issue.
- **Wheat and Barley weed seed contamination, MRLs and anti-dumping.** China applies stringent and inconsistent maximum residue limits for unintended presence of weeds and foreign materials. In addition, China is also conducting an anti-dumping investigation into barley and is administering a quota for wheat. The extended time in the anti-dumping case led to delayed end user certificates for barley which resulted in significant delays in barley exports.
- **Registration of export establishments for diary and infant formula.** The export registration process for dairy facilities has also experienced unjustified delays. Infant formula exports have also been subject to new requirements including brand and formula registration, limiting each plant to only three formulations per brand. The brand and formula restrictions are arbitrary and not related to human health.

Attempts to resolve problems

The issues Australia faces are exacerbated when the bilateral political relationship sours. For the red meat facility registration issue, resolution has been difficult to reach because of challenges engaging the formal government space. However, top industry bodies in the supply-chain are trying to maintain the relationship with China by developing association-to-association MoUs and collaborative mechanisms with the China Meat Association, including a program of visits and joint work plans.

For grain exports to China, Australia developed an Industry Management Plan to assist farmers and exporters to meet requirements under the Protocol

of Phytosanitary Requirements for Australian wheat and barley imports into China. On the issue of the wheat import TRQ, Australia has sought to enhance transparency of quota administration in the FTA, where there has been some success in bilateral negotiations. Early in the ChAFTA negotiations, the Australian Government granted China 'market economy' status for anti-dumping purposes in 2015; an important upfront concession to get China to the FTA negotiating table. In effect, it meant Australia would treat China the same as other WTO members for the purpose of anti-dumping. This is symbolic for China at the WTO, particularly as a signal for other developed economy members. Notably, China in 2019 withdrew from a dispute in the WTO with the U.S. and E.U. on this issue, rather than having the final findings go against them.

What is important to note here is that while the free trade agreement is able to reduce tariffs, provide market access as well as regulatory consistency, there were still NTBs in which the ChAFTA alone was unable to resolve. Further bilateral engagements and cooperative arrangements needed to be negotiated.

Key learnings from Australia on resolving NTB issues with China

Relationship matters in China

While China follows tariff reduction commitments as they are enacted into Chinese customs law, grey-area or more ambiguous provisions in ChAFTA (such as transparency, consultation and information sharing) depend on the overall tone of the bilateral relationship. Australia has learned that China cannot be held to transparency commitments, and in most cases, it is counterproductive to do so (even if possible). This is because forcing a win on transparency elements in an FTA would likely be a pyrrhic victory with potential for unintended consequences elsewhere in the trade relationship. Regulatory and particularly registration requirements can and are used to manage trade. For example, where beef import protocols require China to register export establishments, there can be issues regarding the timeliness of Chinese audits/inspections and then how quickly registered premises are approved and then listed. One key lesson from Australia's beef issue with China is clear: the ability to export and engage the Chinese government slows down when the bilateral political relationship deteriorates (with or without an FTA). This experience is consistent with Brazil (see next section).

The ability to export and engage the Chinese government slows down when the bilateral political relationship deteriorates (with or without an FTA).

Consequently, developing expertise, creating a permanent physical presence and cooperation mechanisms at every level in China is valuable for long-term engagement with China. For example, bilateral mechanisms to address technical and regulatory issues were established before the FTA. This includes annual plant and animal products bilateral meetings at senior officials' level. Such bilateral mechanisms exist between Canada-U.S. Australia also established high-level dialogues at the vice minister level during the negotiations. The FTA committee for dispute settlement simply provides one more opportunity to raise and progress issues. Ministerial and leader-level visits discuss major irritants that do not get traction at officials' level. The biggest investment and most practical way that Australia achieves progress is through its overseas counsellor network, and savvy agriculture department trade policy and technical experts based in the Embassy in Beijing who know how to engage with China. Australian agricultural industries have also invested in China-based senior representatives in Beijing and Shanghai. A permanent presence on the ground in China, supported and resourced, builds relationships of trust and value to engage within the Chinese system – particularly when things are not good.

Developing expertise, creating a permanent physical presence and cooperation mechanisms at every level in China is valuable for long-term engagement with China.

Cooperation

Reciprocity has been shown to be critical for Australia's dealing with China. The cooperation for joint research on scientific issues agreed upon under the ChAFTA has been viewed by Australia as vital cooperation and capacity building activities to increase trade. The establishment of scholarship programs and other cooperative agreements under the ChAFTA all proved to be important mechanisms to enhance government-to-government, government-to-industry and industry-industry relationships.

Some rules are better than no rules

While the agreement alone may not directly resolve prolonged approval processes, Australia has sought to enhance transparency of quota administration in ChAFTA with some success in bilateral negotiations. The wheat import TRQ demonstrates this. The bilateral Agricultural Cooperation Agreement (ACA) prior to ChAFTA provided Australia more access to Chinese officials and state-actors when dealing with NTBs. ACA contains a consultative mechanism called Joint Agricultural Commission to exchange bilateral agriculture and forestry related missions each way (funded at own cost). The benefit for Australian industry was that ACA missions had the support of the Chinese Ministry of Agriculture. This offered Australia unique access to officials and state-actors. It has evolved into a wider range of activities and a modest grant program on Australia's side with priorities determined each grant cycle.

Finally, while the agreement is not perfect and many bilateral non-tariff barriers still need to be addressed, the access and special treatment given to Australia compared to non-members is evident. For example, despite the lengthy and unstructured registration process for beef export establishment, Australia is one of the only countries granted access to China for chilled beef.

What's most important to note is that despite Australia's struggle with China on the specific NTB issues, Australia still believes that a comprehensive FTA with China is necessary.[48] While incredibly difficult to negotiate (took a decade for Australia), an FTA is beneficial once the deal is done. Gains are broader than the actual market access gains. Every country is knocking at China's door wanting to trade and do deals. An FTA represents a political bell ringer in the bilateral relationship and signals a green light in the Chinese system that Australia was a preferred partner and open for business, trade and investment. While New Zealand was one of the first to have an FTA with China, Australia was the first G20 economy for China. That mattered to China.

Brazil's agricultural NTB experience with China

Brazil's successful engagement with China on agricultural NTB issues was achieved without a comprehensive free trade agreement. China has become Brazil's largest export and import partner with total bilateral trade of US$98.9 billion in 2018, a 30% growth since China's accession to the WTO in 2001.[49] – 55.2% of Brazil's total exports to China are agricultural and agri-food products. Three commodities alone accounted for 95% of Brazilian total agricultural exports to China: soybeans (77%), cellulose and paper (11%), and meat (7%).[50]

China's NTBs makes it difficult for Brazil to diversify its agricultural exports in the Chinese market. Like Canada, Brazil is exposed to China's market risks as a net exporter. This section provides a summary of Brazil's agricultural issues with China as well as the ways Brazil has resolved these issues. More in-depth description of the issues can be found in Appendix IV.

[48] Interview with source that does not wish to be identified by name.
[49] UN Comtrade data 2020.
[50] Ministry of Agriculture, Livestock and Food Supply of Brazil, Agrostat database.

Issues

- **Occurrence of bovine spongiform encephalopathy (BSE or mad cow disease) and suspension of beef exports.** China banned Brazil's fresh beef exports due to the occurrence of BSE from 2012 to 2015, even after the confirmation of BSE as atypical and not dangerous to human health. Eight Brazilian meatpacking plants and 52 other processing facilities that had been waiting to be authorized for exports were affected, losing about US$1 billion per year in potential beef exports to China during the ban.[51]
- **Authorization of meatpacking plants for exports.** The procedure to authorize Brazilian meatpacking plants for exports to China had been very bureaucratic and lengthy with on-site inspection required by Chinese authorities of all processing facilities. Even after lifting the fresh beef ban in 2015, China did not automatically reapprove the eight beef-processing plants. It requested additional information about the operational system of control and prevention of BSE and ordered the plants to provide individual monitoring and prevention programs. It took Brazil several more months to effectively resume beef exports to China.
- **Maximum levels of residues for poultry.** China found traces of dioxins in poultry imports from Brazil above the maximum permitted levels in 2015. Brazil managed to avert a ban by immediately recalling all shipments and suspending production of any chicken meatpacking facilities that were suspected of violation.
- **Trade remedies: anti-dumping duties.** China imposed anti-dumping duties on Brazilian chicken products in 2019, ranging from 17.8% to 32.4%, for a five-year period. Brazil supplied almost 85% of Chinese chicken imports in 2019.
- **Asynchronous approval of GM crops.** China has a lengthy (usually six years), non-transparent and unpredictable approval process for new GM varieties used for animal feed. China also imposes rigorous controls on the presence of unapproved GM traits in imported oilseeds and grains. The length of the approval process varies depending on trait types, number of traits, crop types and company. For crops where China wanted to maintain self-sufficiency, such as corn, the process was even lengthier. The asynchronous approval of GM crops makes it difficult to plant new GM varieties of oilseeds.

Attempts to resolve problems

BSE and beef export ban. The Confederation of Agriculture and Livestock, which represented Brazilian beef exporters, meatpacking plants and farmers, worked closely with the government to remove the Chinese ban. Even though the World Organization for Animal Health (OIE) did not support the ban, China insisted that Brazil sign an umbrella Agreement on Cooperation in the Animal Health and Quarantine,[52] and a new sanitary protocol between the two ministries of agriculture before lifting the ban.[53] The new sanitary protocol obliged Brazil to immediately suspend exports to China upon the report of any new BSE case (even atypical). Today, China is the only country that requires such a restrictive measure from Brazil. Additionally, Brazil had to agree to reciprocity, with the approval of more Chinese imports of fish and animal intestines to the Brazilian market. Finally, with negotiations at the technical level advancing at a slow pace, Brazil addressed the issue at a higher political level by intensifying dialogue within the Sino-Brazilian High-Level Commission for Concertation and Cooperation, co-presided by both countries' vice-presidents. The support from the Brazilian president in setting a deadline and prioritizing the reopening of China's market for Brazilian beef was crucial for the

[51] Estimates of the Ministry of Agriculture, Livestock and Food Supply of Brazil.
[52] 'FAO.Org': Accessed 12 November 2020. http://www.fao.org/faolex/results/details/en/c/LEXFAOC024716/.
[53] Ministério das Relações Exteriores, Government of Brazil. Accessed on 12 November 2020. https://www.gov.br/mrept-BR/component/content/article#quarentena-eng

successful conclusion of the negotiations. Brazil still finds the automatic suspension both unreasonable and discriminatory and is trying to negotiate with China to modify the current sanitary protocol.

Meatpacking plant authorization. The lengthy and bureaucratic authorization procedure for meatpacking plants completely changed in 2019 with the U.S.-China trade war and the outbreak of African swine fever. *China needed a guaranteed and secure food supply from Brazil*, and thus relaxed inspection proceedings and even started to do it virtually via Skype. China also agreed on a measure that significantly reduced bureaucracy in issuing international sanitary certificates for Brazilian beef, pork and poultry in February 2019. China approved an official list of Brazilian veterinarians eligible to issue certificates for any supplier authorized to export to China. In the past, each approved veterinarian could only sign certificates for a designated meatpacking plant, and any change in such designation would have to be communicated by Brazil to China. The 2019 certification process agreement significantly reduced the risk of Brazilian shipments being held in Chinese ports due to the questioning of signatures. From September to November 2019, China authorized 38 additional plants for exports of beef, poultry and pork to the Chinese market. It is worth noting that currently, when authorizing new Brazilian meatpacking plants, China gave priority to the ones that are already approved for exports to the European Union. The high safety standards imposed by the EU are considered an additional safeguard.

Maximum levels of residues for poultry. While investigating a dioxin violation after the immediate self-suspension of production and export, Brazil quickly negotiated with China a new sanitary certificate for poultry meat with the implementation of additional guarantees and commitments to further strengthen the auditing of chicken processing plants and introduced additional measures within the Brazilian National Plan for Control of Residues and Contaminants. This situation is a good example of a successful crisis-management strategy. Brazil immediately recognized China's food safety concerns and was quick in offering additional sanitary guarantees. Such measures undoubtedly reinforced China's confidence in the Brazilian animal health and inspection system.

Trade remedies: anti-dumping duties. Brazil actively participated in China's anti-dumping investigations. As a negotiated solution, in February 2019, 14 Brazilian exporters entered into a price-undertaking agreement with MOFCOM and are exempt from the anti-dumping duties, as long as the products are sold at prices no lower than the minimum values established by the agreement. From January to October 2019, Brazil exported almost 449 thousand tons of poultry products, which is more than it sold to China during the entire year of 2018 (438 thousand tons).

Asynchronous approval of GM crops. The Confederation of Agriculture and Livestock representing Brazilian farmers, and several multinational biotech companies (Monsanto, BASF, Bayer, Dupont, Dow and Syngenta, before it was bought by ChemChina), supported the Brazilian government's efforts for many years to negotiate with China adoption of the same regulatory approval of GM crops in both countries. Upon the request of Brazil, the two countries created a Joint Working Group on Biotechnology and Biosecurity in Agriculture in 2014. Brazil requested moving towards a general synchronized regulatory approval of GM cultivars in both countries, but China suggested a more strategic bilateral partnership in agricultural biotechnology. Embrapa, the Brazilian state-owned agricultural research corporation (one of the world's leading biotech research centers), signed several cooperation agreements with Chinese research institutions, establishing joint projects in genetic improvement and GM seed breeding. This partnership helped to establish dialogue and create leverage in negotiations as it meets Chinese ambitions building its own biotech (and generic biotech) industry.

Key learnings from Brazil on resolving NTB issues with China

Broader political cooperation and bilateral relations

The existence of a broader and more comprehensive political engagement with China was vital for advancing negotiations of NTB issues for Brazil. The Brazil-China Strategic Global Partnership and the Sino-Brazilian High-Level Commission for Concertation and Cooperation proved to be effective in timely bilateral working groups on quality supervision, inspection and quarantine on agriculture. At the same time, the bilateral Consultative Committee on Agriculture between the two ministries of agriculture served as a good mechanism for technical-level discussions on NTB issues. Brazil's need to negotiate the approval of GM varieties with China seems similar to that of Canada, as both countries depend on imported seeds. The engagement approach is also similar. The latest authorization of Canadian canola varieties by China (BASF's RF3 and Bayer/Monsanto's MON 88302) was reportedly a result of the China-Canada Economic and Financial Strategic Dialogue in November 2018. Therefore, establishing a high-level bilateral political dialogue with China and setting priorities and deliverables seem to help advance specific NTB barriers. A close political relationship between the two countries was essential for finding mutually beneficial solutions both in the case of trade remedies and regarding new product approval as evidenced by new GM crops.

Broader political cooperation also proved to have merit. When the U.S.-China trade war escalated, Brazil took a pragmatic approach and chose not to take sides. But, throughout the year, as Brazil's dispute with the E.U. over environmental issues grew (and China supported Brazil's standpoint) and as the U.S. proved to be less cooperative than Brazil had expected, Brazil and China got closer. While the general shift towards an alignment with the U.S. since Bolsonaro's presidency remains in place today, Brazil's relationship with China evolved from a pragmatic and cautious alliance into a closer relationship due to Brazil's growing economic dependence on exports to China. Brazil and China reaffirmed their commitment to the global strategic partnership in 2019 with new bilateral agreements in areas such as politics, trade and economy, customs, inspection and quarantine, energy, technology and education.[54] The two countries also agreed to update the existing Joint Action Plan (2015-2021), complemented by the 10-Year Cooperation Plan (2012-2021), which defines the objectives, goals and directions for the bilateral cooperation in the defined period with a view to broaden and deepen bilateral cooperation in all areas. Specifically, several key objectives are outlined:[55]

- Strengthen political consultations and promote coordination on bilateral and multilateral issues of mutual interest, thus cementing the political foundation of the global strategic partnership.
- Monitor the activities of institutional mechanisms and the implementation of cooperation initiatives in all areas of the global strategic partnership.
- Increase coordination in multilateral organizations and international fora, especially in issues related to the contribution of emerging countries to global governance and the strengthening of multilateralism so as to promote the democratization of international relations.
- Take a strategic view on bilateral relations, in the medium and long term, vis-à-vis the developments in the international arena.

Despite not having a comprehensive free trade agreement, Brazil and China have several bilateral agreements and cooperation in place to facilitate the relationship, which is important to note.

[54] May Zhou, 'China's relations with Brazil have grown for 45 years', China Daily. 13 November 19. https://www.chinadaily.com.cn/a/201911/13/WS5dcaebfca310cf3e35576eaf.html

[55] 'BR-CN - Join Action Plan Brazil and China 2015-2021', defesanet. 20 May 2015. https://www.defesanet.com.br/en/br_cn_e/noticia/19181/BR-CN%E2%80%94-Joint-Action-Plan-BRAZIL-and-CHINA-2015-2021/#:~:text=The%20Joint%20Action%20Plan%2C%20complemented,2021%20with%20a%20view%20to

Finally, Brazil supported China's candidacy for the 2019 presidency of FAO, which helped the on-going agricultural negotiations. In November, the Brazilian government welcomed China's proposal to make more than US$100 billion available through its public investment funds to invest in Brazilian infrastructure and to increase financing of the Brazilian agricultural and industrial sectors through Chinese banks. Brazil also suggested the possibility of initiating broader trade talks with China. Today, Brazil is by far the biggest beneficiary of the Agri-trade shift caused by the U.S.-China trade war.

Quid pro quo

Like Australia, recognizing the need to play by Chinese rules and providing reciprocity on China's terms has led to successful negotiations. In the case of beef suspension, it meant approval of greater Chinese exports of fish and animal intestines to the Brazilian market. It meant agreeing to a new sanitary protocol for immediate suspension of beef exports on detection of new cases of disease even if atypical. By offering China a pre-listing system of authorization for its fish and animal intestine producers to export to Brazil, the reciprocity principle has also been the main negotiating strategy for Brazil to enhance the Chinese authorization of Brazilian meat packing plants. Brazil gave more to receive what it wanted and accepted that what Brazil can offer to China may not necessarily be equally reciprocated.

Concurrent negotiations and "the customer is always right"

China's terms are driven by prevention and risk management, and thus more similar to the E.U. in terms of regulations compared to the U.S.[56] China sees perceived risk from GM crops and adopts rules that are stricter than the ones agreed upon by countries at the Codex Alimentarius Commission (e.g. China's zero-tolerance policy for the use of beta-agonists in animal production). From this perspective, "the customer is always right" mentality needs to be considered in dealing with China. For example, in the case of maximum residue levels for poultry Brazil negotiated immediately to protect its entire industry rather than waiting for scientific and investigation results. Brazil conducted investigations simultaneously with negotiations to offer additional guarantees to reinforce and uphold Chinese confidence.

Understanding Chinese needs

The sudden speedy approval of meatpacking plants in response to China's domestic supply constraints from swine fever and the U.S.-China tension are examples of China's need for guaranteed food supplies. However, although China wants to have reliable permanent suppliers, it also does not want to rely on just one supplier. A single predominant supplier of Chinese imports creates concern. This is the case for soybeans, poultry and sugar from Brazil, and canola from Canada. For security purposes, China also maintains stockpiles of critical supplies. These stockpiles permit China to cut off suppliers abruptly without risking shortages, as it did with canola seed from Canada. China's focus on self-sufficiency targets import substitution for only a few crops: rice, wheat, corn, soy and oilseed.

[56] China's Food Safety Law, introduced in 2015, establishes that "food safety shall first be subject to prevention, risk management, and full process control, as well as social governance, so as to establish a set of scientific and stringent supervision and administration system."

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