

A large, light gray, stylized globe is centered in the background. The globe is composed of several curved, overlapping segments that create a sense of depth and movement. The segments are arranged in a way that suggests the continents and oceans of the world, though they are not detailed. The overall effect is a clean, modern, and abstract representation of the globe.

GEOPOLITICAL FORCES SHAPING THE GLOBAL GRAIN MARKET



PERCH
P E R S P E C T I V E S

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EXECUTIVE SUMMARY

The period from 1991 to 2016 was defined not by geopolitics but by globalization. The sudden, shocking end of the Cold War with the collapse of the Soviet Union meant that for the first time since before World War I, there was no longer a contest for global hegemony between rivals and coalitions of great powers. The U.S. emerged triumphant and set about completing the conquest, strengthening multilateral institutions and taking advantage of newly opened free markets.

Globalization generated tremendous wealth — but also tremendous inequality. During this time, geopolitics was never far from the surface. Al-Qaeda's attacks on the United States on Sept. 11, 2001, prompted an American overreaction, including two seemingly endless American wars in the Muslim world. Those missteps, combined with the 2008 financial crisis, sowed the seeds for a crisis of confidence in the U.S. and set the country on a path to a major domestic political reorganization, of which President Donald Trump's election was an initial symptom.

Meanwhile, Russia returned to history, invading Georgia in 2008 to embarrass the U.S. and to reassert its power in its traditional buffer zones. In 2012, Chinese President Xi Jinping

came to power, and it quickly became apparent that Xi was a different sort of Chinese leader, one who would eventually dispense with consensus-based politics and instead focus on making China strong enough to defend its interests in an increasingly competitive world. By 2016, a multipolar world had begun to come into focus.

As a result, the interregnum defined by globalization is over, and geopolitics is once again shaping global affairs. The effect on global supply chains and international trade is already apparent, but there is more to come. Global grain markets in particular now find themselves susceptible to geopolitical forces that until recently had seemed the stuff of history. After all, there is perhaps nothing more important to the day-to-day lives of human beings than what they eat. During times of international competition, like World War II, the Cold War, and the coming decades, grain morphs from a trade issue to a national security one.

This report identifies five key geopolitical forces shaping the global grain market in the short- to mid-term:

KEY GEOPOLITICAL FORCES

1 **Renewed strategic competition for natural resources**, including water and food.

Climate change, urbanization, and demographic trends are conspiring to make food security a primary concern for nation-states. This means both higher levels of demand for grain and more politically volatile markets.

2 **China has risen.**

Contrary to the ill-founded hopes for a Chinese free market democratic transformation, a wealthier and stronger China is now consolidating its gains and attempting to wean itself off of dependence on potential rivals, especially for access to grain and protein.

3 **India is a key wild card.**

India has tremendous economic and agricultural potential but also faces equally formidable challenges of governance, climate change, and national cohesion. By the end of the 2020s, India could be a major agricultural exporter — or it could be dependent on grain imports. Either way, India will shape global demand.

4 **The Muslim world is still at war with itself.**

Even with the U.S. attempting to pull out of Iraq and Afghanistan, conflicts in the Muslim world — whose countries together import more grain than any other grouping in the world — will continue and even be driven by grain scarcity.

5 **The United States' turn inward.**

Internal political issues in the U.S. have made U.S. foreign policy dysfunctional. The U.S. is simultaneously trying to put America First while indulging in the always-present isolationist impulse embedded within its foreign policy tradition. The American grain industry is dependent on exports, and American protectionist policies risk alienating the industry's most important markets.

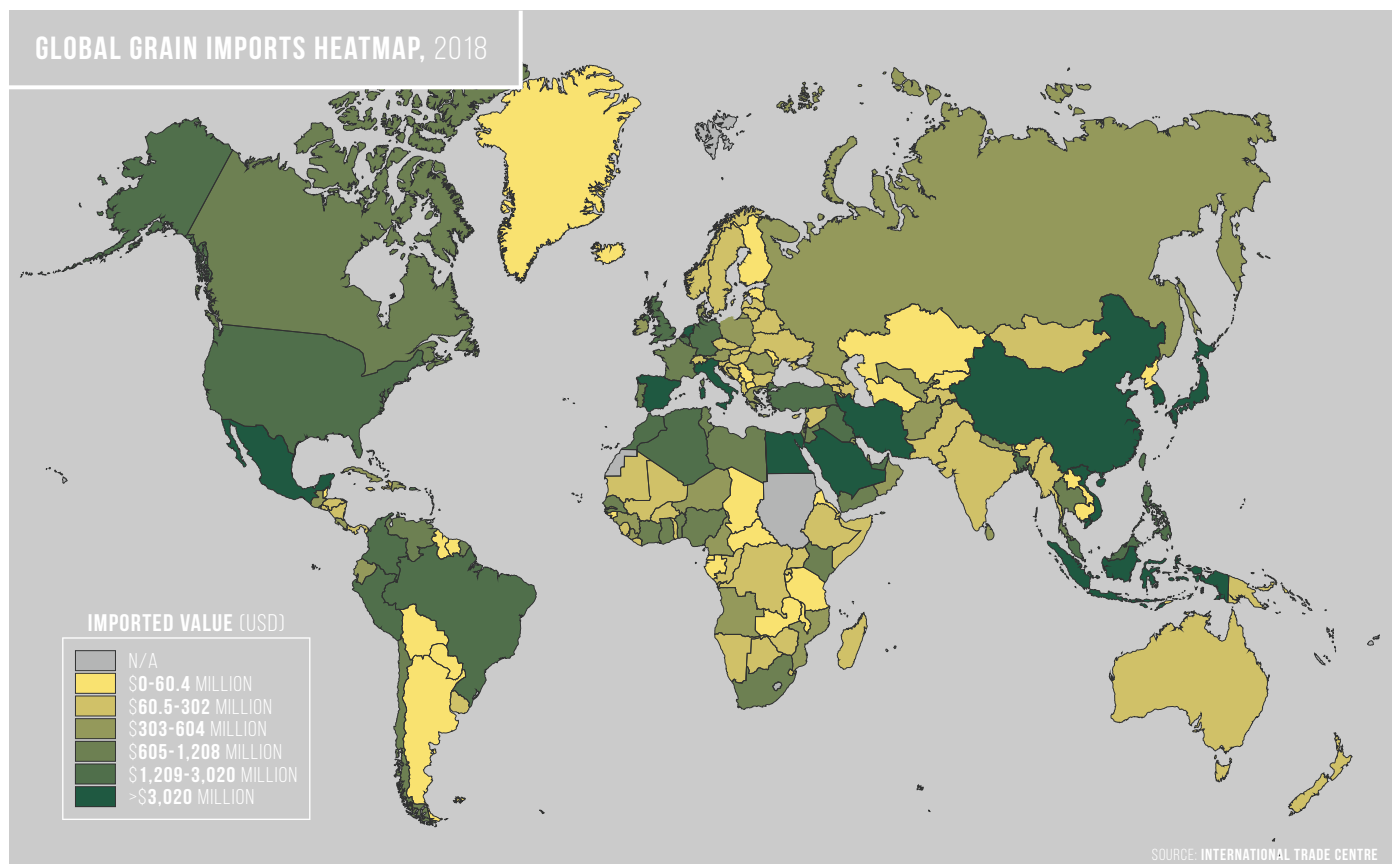
1 RENEWED STRATEGIC COMPETITION FOR NATURAL RESOURCES

Globalization is in retreat. In the future, agricultural markets will be defined by competition between rival states rather than by further economic integration among them. What were recently economic issues will evolve into national security concerns. Food and water will be viewed as strategic resources. For countries dependent on external sources of food and water, trade deals will not be enough. Securing access to these essentials of human life will become paramount. The impact on grain markets will be particularly acute.

At the global level, there is and will continue to be more than enough grain production to satisfy global demand — on paper, that is.¹ In theory, according to the United Nations' Food and Agriculture Organization (FAO), world average per capita availability of food for human consumption is already more than enough to feed every human being on the planet for the next 30 years, even if the global population reaches 10 billion.² In practice, despite the impressive gains achieved during the era of globalization from 1991 to 2016, over 815 million people, roughly 11 percent of the world's population, suffer from chronic undernourishment.³

It will not matter that overall production is capable of meeting the demands of global consumption. Geography outweighs supply and demand when security becomes more important than profits. Just because the world can produce and supply enough grain in aggregate does not mean nations will do so in practice. Some countries, like the United States, Russia, and Canada, enjoy (or can aspire to) grain self-sufficiency. Others, like China, Japan, and Iran, cannot. Still others, like India and Nigeria, are held back by domestic policy more than anything else.

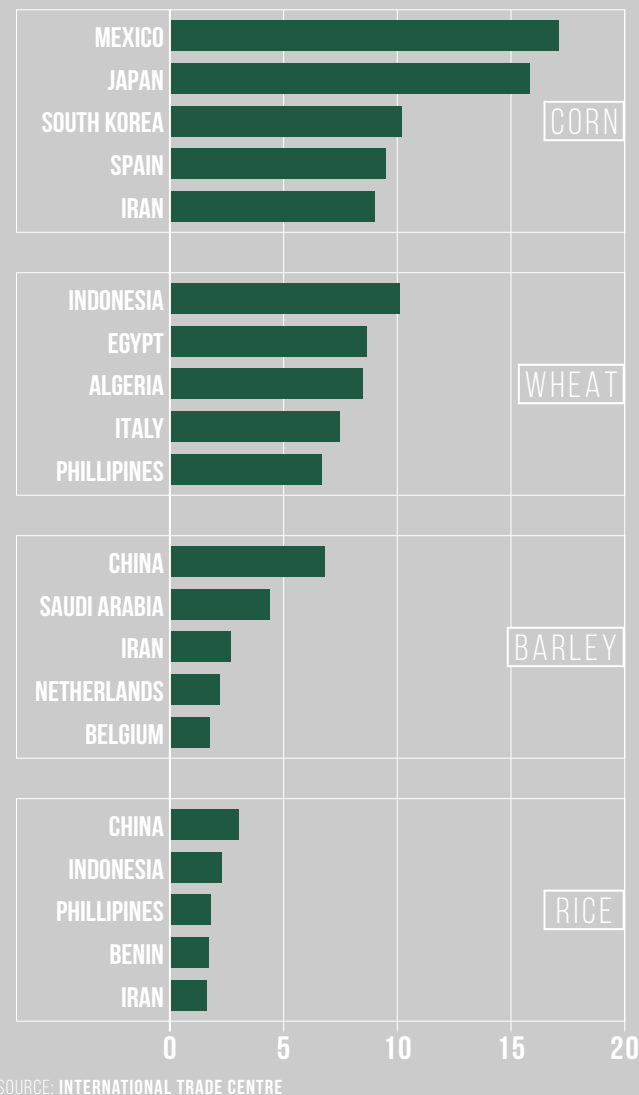
Globalization is receding at a particularly difficult moment for Asia and Africa. Four of the world's five largest wheat importers are either in northern Africa (Egypt and Algeria) or southeast Asia (Indonesia and the Philippines). The story is similar for other major grain staples, such as corn, rice, and barley.⁴ China's appetite continues to define the global grain market, but Africa's demand will make its presence felt in the coming years, with African net food imports estimated to triple by 2025 to \$110 billion.⁵



- 1 OECD/FAO (2020), "OECD-FAO Agricultural Outlook (Edition 2019)", OECD Agriculture Statistics(database), <https://doi.org/10.1787/eed409b4-en> (accessed on 10 March 2020).
- 2 Alexandratos, N. and J. Bruinsma. 2012. World agriculture towards 2030/2050: the 2012 revision. ESA Working paper No. 12-03. Rome, FAO, p. 1.
- 3 FAO, The State of Food Security and Nutrition in the World, 2017 p. 7.
- 4 International Trade Centre and FAO, 2019 Food Outlook - Biannual Report on Global Food Markets - November 2019, Rome.
- 5 African Development Bank Group, "Feed Africa: Strategy for Agricultural Transformation in Africa 2016-2025."

1 RENEWED STRATEGIC COMPETITION FOR NATURAL RESOURCES

TOP 5 IMPORTERS OF SELECT GRAINS, 2018
(MILLION TONS)



SOURCE: INTERNATIONAL TRADE CENTRE

The grain import dependencies of Asian and African nations come as both are disproportionately exposed to land degradation, climate change, and water scarcity. Africa and Asia are vulnerable to desertification, and increased urbanization is exacerbating the threat.⁶ The percentage of

humans living in cities will rise from 55 percent in 2018 to 68 percent by 2050, and 90 percent of that growth will take place in Asia and Africa.⁷ Even in China, with its top-down and effective authoritarian style of government, urbanization is degrading land; this process will be even more destructive in countries like India and Nigeria.⁸

Climate change is also challenging Asian and African food security. Droughts in Africa are becoming more severe and more frequent.⁹ Changing weather patterns in South Asia are making the monsoon season more unpredictable and increasing the frequency of extreme weather.¹⁰ Higher global temperatures are melting the glaciers that serve as a primary source of water for Central Asian and South Asian countries, as well as the Tibetan Plateau.¹¹ Water scarcity was already a major issue for Asian and African countries, which together account for 76 percent of the world's population but just 18 percent of its permanent water resources.¹² The majority of the roughly 2 billion additional humans who will join the world by 2050 will live in these food-stressed, grain-deficient areas.

In a globalized world, these realities might not have posed a threat to agribusiness but an opportunity. Even as Africa and Asia will see negative impact on their agricultural yields in the next decades, climate change is expected to have the opposite effect in North America, Europe (including Russia), and Australia.¹³ If this were a simple trade issue, grain exporters in these more climatically blessed parts of the world might expect higher profits, while Asia and Africa could at least be assured of access to daily staples. But grain is not going to be a simple trade issue. It is going to be politicized and become a source of geopolitical conflict between nations.

Grain producers have not had to think about international politics this way since 1991 but that is a luxury they will no longer be able to afford. Many of the trade spats proliferating in the world are not temporary disagreements that will be fairly arbitrated to the satisfaction of all parties but zero-sum conflicts over vital resources. The success of grain exporters will increasingly be tied to how well they understand the inherent geopolitical risks in the marketplace. The risks posed by China, India, the Muslim world, and the United States are the most important to understand.

6 United States Department of Agriculture

7 United Nations Department of Economic and Social Affairs and Brookings Institution and the Brookings Institution.

8 Belesky, Paul. (2016). Rice, politics and power: the political economy of food insecurity in East Asia. Research Report Series - University of Queensland. 10.14264/uql.2016.138.

9 Masih, I., Maskey, S., Mussá, F. E. F., and Trambauer, P.: A review of droughts on the African continent: a geospatial and long-term perspective, *Hydrol. Earth Syst. Sci.*, 18, 3635–3649, <https://doi.org/10.5194/hess-18-3635-2014>, 2014.

10 Vaishnavi Chandrashekar, "As the Monsoon and Climate Shift, India Faces Worsening Floods," 17 September 2019, <https://e360.yale.edu/features/as-the-monsoon-and-climate-shift-india-faces-worsening-floods>.

11 Renee Cho, "How China Is Dealing With Its Water Crisis," 5 May 2011, <https://blogs.ei.columbia.edu/2011/05/05/how-china-is-dealing-with-its-water-crisis/>.

12 For some frame of reference, compare this to North America, which accounts for 52 percent of permanent water resources and 15 percent of seasonal water and yet accounts for just 5 percent of world population. See the European Commission Joint Research Centre's *World Atlas of Desertification*, especially Part IV.

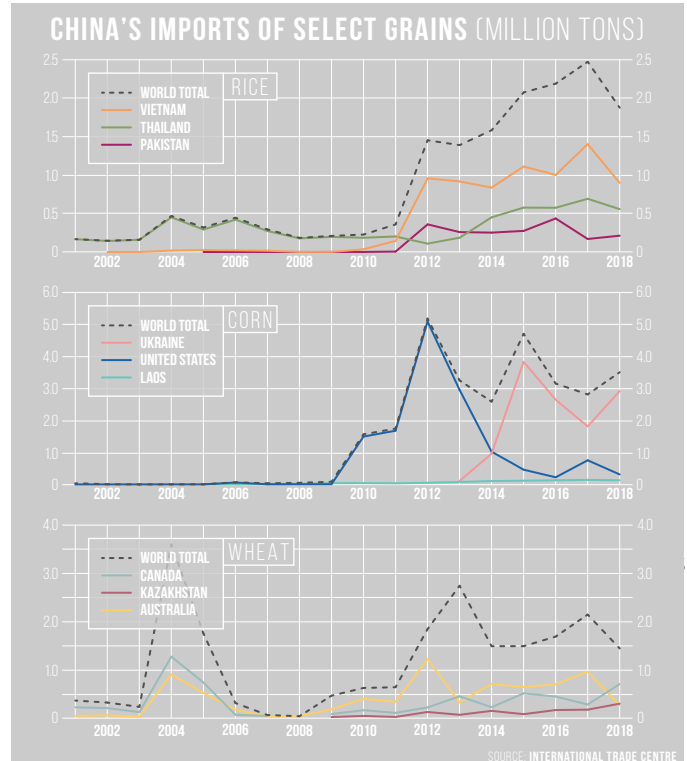
13 FAO. 2018. *The State of Agricultural Commodity Markets 2018*. Agricultural trade, climate change and food security. Rome.

2 CHINA HAS RISEN

China was the engine of globalization. From the early 1990s to the Great Financial Crisis in 2008, China's skilled, disciplined, low-wage workers made China the world's most efficient factory. The sheer size of the Chinese consumer market still makes foreign businesses salivate. The assumption, especially in the Western world, was that China, once exposed to the forces of capitalism and integrated into the international trading system, would transform into a democracy — and that not just China but the world would profit accordingly.¹⁴

The assumption that integration into global supply chains will remake China in the West's image is based on a fundamentally flawed understanding of China's geopolitics, history, and people. China's burgeoning middle class, which is now larger than the entire population of the United States, will consume staggering amounts of products, but access to the Chinese consumer market is not guaranteed.¹⁵ It is controlled by the Chinese government, and it may not be in the Chinese government's interest to fulfill domestic demand with foreign producers or servicers. Foreign producers that continue to base their growth strategies on relatively unfettered access to the Chinese market are engaging in wishful thinking. There are still significant opportunities to sell in China — but on China's terms.

This is especially true when it comes to the future of China's grain imports. It was a matter of Maoist orthodoxy that China should attain food self-sufficiency, and especially grain self-sufficiency.¹⁶ That China was able to achieve something resembling grain self-sufficiency after enduring the disasters of the Great Leap Forward from 1958 to 1962 is impressive considering China has 21 percent of the world's population but just 6 percent of its freshwater and 9 percent of its farmland.¹⁷ The steps China took to industrialize put even more pressure on these limited resources, especially China's water.¹⁸ Meanwhile, higher temperatures have resulted in severe and persistent droughts in northern China, where over half of China's cultivated land is located.¹⁹

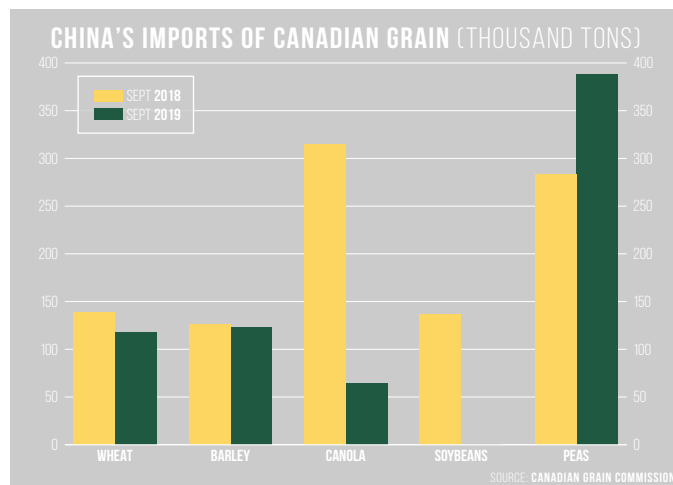


Unable to sustain its ambitious grain production goals, China became an overall net food importer in 2004 and is today the world's leading importer of grain (as well as one of the world's largest producers).²⁰ In 2014, there was even a hint that China was reconsidering its attachment to the principle of grain self-sufficiency.²¹ The reconsideration was short-lived. In 2016, the Chinese government made it official government policy to ensure "basic self-sufficiency in grains and absolute security of supply."²² China plans to reach both goals by 2035.²³ It will achieve basic self-sufficiency in grains by maximizing efficiency, making structural reforms, and utilizing technology.²⁴ It will achieve absolute security of supply by investing overseas and forming tight political relationships with pliable exporters.

- 14 For a few particularly embarrassing examples of this, see Henry S. Rowen's "The Short March: China's Road to Democracy" in the Fall 1996 addition of the *National Interest* or Bruce Gilley's "China's Democratic Future: How It Will Happen and Where It Will Lead" from 2004.
- 15 For more on Chinese middle class, see <https://chinapower.csis.org/china-middle-class/> and <https://www.mckinsey.com/industries/retail/our-insights/mapping-chinas-middle-class>.
- 16 Kueh, Y. Y. "Mao and Agriculture in China's Industrialization: Three Antitheses in a 50-Year Perspective." *The China Quarterly*, no. 187 (2006): 700-23. Accessed March 10, 2020. www.jstor.org/stable/20192660.
- 17 FAO. 2011. AQUASTAT Country Profile – China. Food and Agriculture Organization of the United Nations (FAO), Rome, Italy
- 18 World Bank. 2018. Watershed: A New Era of Water Governance in China.
- 19 Zhang, J., Chen, H. & Zhang, Q. Extreme drought in the recent two decades in northern China resulting from Eurasian warming. *Clim Dyn* 52, 2885-2902 (2019). <https://doi.org/10.1007/s00382-018-4312-2>.
- 20 See Lucy Hornby, "China Scythes Grain Self Sufficiency," *Financial Times*, 11 February 2014 <https://www.ft.com/content/6025b7c8-92ff-11e3-8ea7-00144feab7de> and Guoqiang Long, "Will China Liberalize Its Grain Trade?" 1 September 1999. <https://www.brookings.edu/research/will-china-liberalize-its-grain-trade/>
- 21 Ibid.
- 22 Outline of the 13th Five-Year Plan for National Economic and Social Development of the People's Republic of China, http://www.gov.cn/xinwen/2016-03/17/content_5054992.htm
- 23 Press Release of the "2018 Global Food Policy Report" and "China Agricultural Industry Development Report," <http://cn.ifpri.org/archives/5342>
- 24 Weida Li, 29 June 2018, "China to be self-sufficient in grain by 2035, says report," <https://gbtimes.com/china-to-be-self-sufficient-in-grain-by-2035-says-report>

2 CHINA HAS RISEN

Whether China will be able to pull off this feat remains to be seen. The FAO projects that beginning in 2020 China will no longer be able to maintain self-sufficiency in wheat and that the situation will become worse as the decade progresses.²⁵ As for security of supply, China's military forces are still not capable of projecting enough force globally to do so. In the interim, China will continue to be a major importer of grains and oilseeds. China understands that this is a double-edged sword. China's dependence on grain is simultaneously a source of national weakness and a point of Chinese leverage in its relations with other countries. Indeed, China has already used this leverage — just ask Canadian canola and soybean farmers.



On Dec. 1, 2018, Canadian authorities arrested Meng Wanzhou, the chief financial officer of the Chinese telecoms company Huawei. In retaliation, China arrested two Canadians about a week later, including Michael Kovrig, a former Canadian diplomat. But China's revenge did not stop there. Claiming detection of "pests," China instituted new import controls, effectively halting Chinese imports of Canadian canola and soybean products in 2019.²⁶ For the Canadian government, Meng's arrest was a simple rule of law issue. A New York court issued a warrant for arrest and extradition; Canada was asked to comply. China did not interpret Canada's actions that way. China read the incident as inherently political and a demonstration that Canada was unwilling to protect or incapable of protecting China's interests.

This admittedly minor political episode is not an isolated incident. To achieve "absolute security of supply" in grain and food, China must ensure that its trading relationships are strategically beneficial political relationships as well. From China's perspective, this is no less than a matter of national life and death. The last time a foreign power (the British Empire in the 19th century) took advantage of access to the Chinese market, it resulted in the Opium Wars, the collapse of the Qing dynasty, and decades of Chinese humiliation and destruction.²⁷ The Chinese Communist Party will pay a significant premium for grains and other imports to ensure the political reliability of the supplier.

Globalization has not made China like the rest of the world. It has simply made China stronger. Grain exporters to China should take note and not get caught in the same trap that many policymakers did, namely, expecting China to behave in the way they wanted instead of the way China has historically behaved. China's eventual goal is to become as self-sufficient as possible and as strong as necessary to protect its interests. As a result, the economic opportunities for grain exporters to the Chinese market will be marked by volatility and heightened risk of sudden disruption due to political developments like the Meng arrest in the decade ahead. The long-term viability of grain exports to the Chinese market from countries with uncertain political relations with China is questionable at best.

²⁵ OECD-FAO Agricultural Outlook 2019-2028, accessed 10 March 2020, https://stats.oecd.org/viewhtml.aspx?datasetcode=HIGH_AGLINK_2019&lang=en

²⁶ Naomi Powell, "Canadian soybean exports to China plunge 95% after hitting record high, as diplomatic dispute continues," 16 Mar 2019, Financial Post, <https://www.cbc.ca/news/business/china-justifies-canadian-canola-ban-1.5044661> and <https://business.financialpost.com/business/canadian-soybean-exports-to-china-plunge-95-after-hitting-record-high-as-diplomatic-dispute-continues>

²⁷ Jacob L. Shapiro, "The Third Opium War," <https://geopoliticalfutures.com/third-opium-war/>

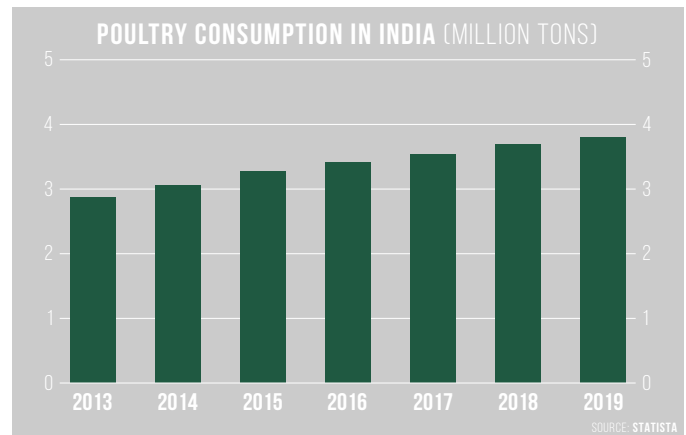
3 INDIA IS A KEY WILD CARD

India is the biggest geopolitical wild card affecting the future of global grain markets. If the Indian government is able to implement major structural reforms in the agricultural sector, India could become not just self-sufficient in grains but a major exporter of them.²⁸ (It is already the second-largest producer and the largest exporter of rice in the world.)²⁹ India, however, faces daunting challenges, including increased levels of meat consumption by its growing population, climate change leading to water scarcity, and the Modi administration's political dependence on the votes of Indian farmers. If the Indian government is not equal to these challenges, India could just as easily become a major importer of wheat, corn, and other grains.

India's water crisis is particularly acute. The Indian government estimates that 600 million Indians face extreme water stress and that 200,000 Indians die annually due to lack of access to water. By 2030, India's water demand is projected to be twice available supply. More relevant is that the areas facing the highest risks account for as much as 30 percent of India's agricultural output.³⁰ Due to a combination of mismanagement and urbanization, groundwater levels are declining across the country, a catastrophe waiting to happen for Indian farmers dependent on irrigation.³¹ Meanwhile, the 60 percent of Indian agriculture that depends on the South Asian monsoon season is at risk due to the effects climate change is having on India's rain cycle.³²

The appetites of young, urbanized Indians, meanwhile, are changing. Overall consumption of poultry in India increased by 33 percent from 2013 to 2019, to 3.8 million metric tons from 2.9 million metric tons.³³ Despite averaging annual gross domestic product growth around 6.6 percent for the last two decades, Indians still consume less meat per capita compared to the

world and far less than any of the other top 10 countries in the world by economic size.³⁴ It has taken longer for the shift in Indian diets to occur than it did in other developing countries, but more than half of Indians aged 15-34 responded to a 2016 national survey saying they ate meat.³⁵ The increased demand for meat is already leading to increased demand for feed grains that India has not been able to meet.



In 2016, for instance, because of two years of consecutive droughts, lack of investment in agriculture, and shifting demand, India began importing corn for the first time in 16 years.³⁶ In 2018, a lack of rainfall and an armyworm infestation caused a similar shortfall in domestic Indian corn production, leading to still more corn imports.³⁷ 2019 brought record Indian corn purchases to satisfy demand for feed grain for poultry consumption.³⁸ The shortage in corn at one point became so significant that Indian feed manufacturers started buying wheat as a substitute.³⁹ While numerous studies project that India will produce surpluses of wheat, coarse cereals, and food grains in the decade ahead, in practice India is already coming up short.⁴⁰

28 <https://www.downtoearth.org.in/news/food/india-claims-to-be-self-sufficient-in-food-production-but-facts-say-otherwise-62091>

29 FAO. 2019 Food Outlook - Biannual Report on Global Food Markets. Rome.

30 NITI Aayog, "Composite Water Management Index," June 2018 https://niti.gov.in/writereaddata/files/document_publication/2018-05-18-Water-index-Report_vs6B.pdf

31 Tien Shiao, Andrew Maddocks, Chris Carson and Emma Loizeaux, "3 Maps Explain India's Growing Water Risks," 26 February 2015, World Resources Institute, <https://www.wri.org/blog/2015/02/3-maps-explain-india-s-growing-water-risks>

32 Sunil Amrith, "Pollution in India Could Reshape Monsoons," The Atlantic, 21 January 2019 <https://www.theatlantic.com/science/archive/2019/01/indias-monsoon-powerful-agent-climate-change/579940/>

33 <https://www.statista.com/statistics/826711/india-poultry-meat-consumption/>

34 OECD (2020), Meat consumption (indicator). doi: 10.1787/fa290fd0-en (Accessed on 10 March 2020) and World Bank data.

35 Tani Khara, "Vegetarian India's Secret Love Affair with Chicken," 12 September 2018, Quartz India <https://qz.com/india/1387151/vegetarian-indias-secret-love-affair-with-chicken/>

36 Mayank Bhardwaj, "Food imports rise as Modi struggles to revive rural India," 1 February 2016, Reuters, <https://www.reuters.com/article/india-farming/food-imports-rise-as-modi-struggles-to-revive-rural-india-idUSKCN0VA3NL>

37 Reuters, 27 February 2019, <https://in.reuters.com/article/asia-grains-corn/india-expected-to-import-up-to-1-million-t-of-corn-in-2019-traders-idINKCN1QH0H8>

38 Pratik Parija and Megan Durisin, "More meat-loving Indians mean chicken feed imports are surging," 29 July 2019, The Economic Times, <https://economictimes.indiatimes.com/news/economy/foreign-trade/more-meat-loving-indians-mean-chicken-feed-imports-are-surging/articleshow/70431193.cms>

39 Business Standard, 29 July 2019, https://www.business-standard.com/article/current-affairs/corn-import-for-chicken-feed-surges-as-more-indians-start-eating-meat-119072900781_1.html

40 For two such studies see: Demand vs Supply of Food in India - Futuristic Projection, Praduman Kumar, P K Joshi, and Surhabi Mittal and USDA FAS December 2017 Report on "India Agricultural Trade: Expanding Export Opportunities Amid Persistent Limitations," https://www.fas.usda.gov/sites/default/files/2016-12/india_iatr_final.pdf

3 INDIA IS A KEY WILD CARD

The issue of grain production is also inextricably linked to the Modi government's domestic political legitimacy. Despite the fact that Indian farmers oppose grain imports, Prime Minister Narendra Modi's government has had no choice but to loosen at least some control on imports to meet domestic demand.⁴¹ Thus far, the Modi government has managed to walk this tightrope without suffering too great a decline in public support (a January 2020 poll estimated Modi's overall approval rating was holding relatively steady at 68 percent).⁴² Both foreign and Indian media sources have focused on the Modi government's aggressive moves in Kashmir and the controversial Citizenship Amendment Act, but the sentiments of India's farmers are more important to Modi and the Bharatiya Janata Party's future.

In order to make the structural economic reforms necessary for India to continue growing and to build a political infrastructure to support Modi's vision of India as a more unified, coherent, Hindu political entity, the Indian government faces an impossible choice between reform and political expediency. If the Indian government reforms the agricultural sector, it will disrupt the daily lives of Indian farmers. If the Indian government fails to make reforms, it will lead to grain shortages that will require significant additional inputs — which will also raise the ire of Indian farmers.⁴³ The geopolitical consequences of this dilemma are already apparent: Despite the fanfare around U.S.-India relations, "Howdy Modi" and "Namaste Trump" failed to produce a trade deal to either side's liking. While the U.S. pushes for preferential access to Indian agricultural markets, India is wary of being used once more by an English-speaking power to support its global ambitions.⁴⁴

India has managed to defy the odds by maintaining relative grain self-sufficiency during the explosive period of overall growth in the last 20 years.⁴⁵ Whether India can maintain grain self-sufficiency in the next 20 comes down ultimately to whether the government can implement the necessary policies to allow India to harness its potential, which, despite the forces of urbanization, climate change, and increased meat consumption, could theoretically meet Indian demand. Theories, however, cannot feed human beings or poultry stocks. Depending on the Indian government to implement policies — even an Indian government as well-supported and strong as the current one — is an uncertain proposition at best.

India will likely become a major importer of grains (besides rice) in the 2020s despite its best efforts. Even so, the Indian government's reliance on the support of farmers will make it cautious of dealing with any exporting country that pushes for preferential treatment or tries to tie food exports to politics (which the United States has a history of doing with India).⁴⁶ Global demand forecasts are not accurately pricing in increased levels of Indian demand despite increasingly clear evidence that one of the byproducts of India's growth will be an inability to maintain grain self-sufficiency until it is able to implement massive reforms.⁴⁷

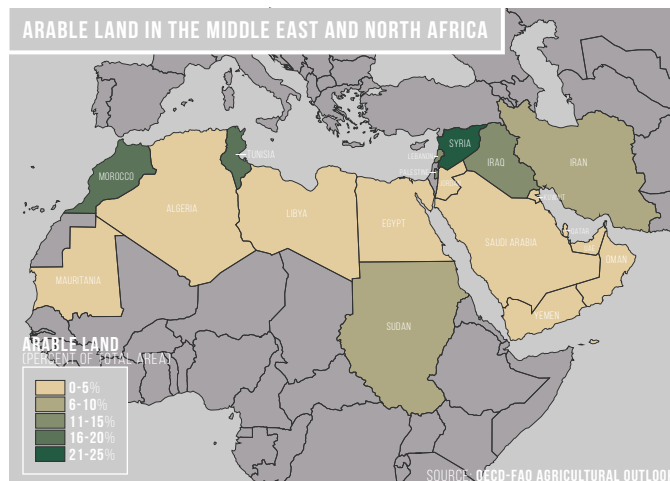
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- 41 Mayank Bhardwaj, "Food imports rise as Modi struggles to revive rural India, 1 February 2016, Reuters, <https://www.reuters.com/article/india-farming/food-imports-rise-as-modi-struggles-to-revive-rural-india-idUSKCN0VA3NL>
- 42 India Today, "Economy and CAA protests hurt, but Narendra Modi's chest size almost intact: Mood of the Nation 2020," <https://www.indiatoday.in/mood-of-the-nation/story/economy-and-kaa-protests-hurt-but-narendra-modi-s-chest-size-almost-intact-mood-of-the-nation-2020-1639562-2020-01-23>
- 43 Manish Chandra Mishra, Indian farmers unhappy with Trump's India tour, call India-US trade deal 'anti-farmer', threaten to hold protest, 14 February 2020, <https://indianews.com/2020/02/14/indian-farmers-unhappy-with-trumps-india-tour-call-india-us-trade-deal-anti-farmer-threaten-to-hold-protest/>
- 44 Jacob L. Shapiro, "India's Fate Is in Its Own Hands," 29 September 2019, <https://geopoliticalfutures.com/indias-fate-is-in-its-own-hands/>
- 45 G. S. Bhalla, Peter Hazzell, and John Kerr, "Prospects for India's Cereal Supply and Demand to 2020," November 1999, 2020 Brief 63, <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/125919/filename/125950.pdf>
- 46 AHLBERG, KRISTIN L. "'Machiavelli with a Heart': The Johnson Administration's Food for Peace Program in India, 1965-1966." *Diplomatic History* 31, no. 4 (2007): 665-701. Accessed March 10, 2020. www.jstor.org/stable/24916200.
- 47 Ashnok Gulati, "Will India become a big importer of food?" *The Hindu Business Line*, 23 April 2019, <https://www.thehindubusinessline.com/opinion/columns/will-india-become-a-big-importer-of-food/article26923750.ece>

4 THE MUSLIM WORLD IS STILL AT WAR WITH ITSELF

The Muslim world is the largest grain importing region in the world. Spanning from Morocco to Indonesia east to west and from Kazakhstan to Nigeria north to south, the Muslim world transcends multiple continents and disparate geographies. By itself, just the Middle East and North Africa region is one of the world's largest net food importing regions; add to this places like Indonesia, Malaysia, and Bangladesh (among others) and the Muslim world's demand for grain outpaces any other group in the world.⁴⁸ According to the FAO, the world's three top wheat importers from 2019 to 2028 will be Egypt, Indonesia, and Algeria — all majority Muslim countries.

The Muslim world is also to greater and lesser degrees fighting a war with itself. This war has many fault lines, like the Sunni-Shiite sectarian conflict, which manifests most prominently in Iranian-Saudi saber rattling; the Turkish-Arab competition for regional leadership in the Sunni Arab world; and conflict between radical Islamism and more secular-minded Muslim regimes, most prominently today in Syria, Afghanistan, and the Sahel region of north-central Africa. Conflict is also festering beneath the surface in Central Asia, where decades of repression of Muslim identity by authoritarian, Soviet-style dictatorships have sown the seeds of discontent.

The Muslim world is only now truly attempting to define for itself the appropriate relationship between mosque and state.⁴⁹ The parts of the Muslim world where this question is being contested most violently are also the places where food security is most tenuous. In the lead-up to Syria's ongoing civil war, which brought the religiously fascist Islamic State to the cusp of real political power, Syria experienced one of its worst droughts on record. Between the 2006-07 and 2007-08 growing seasons, overall wheat and barley yields dropped by 47 and 67 percent, respectively, as a result.⁵⁰ The subsequent rising food prices, internal migrations, and cascading crop failures became the tinder for the most destructive global conflict of the 2010s.



Iran is another major flashpoint in the Muslim world and represents arguably the most volatile and dangerous fault line in the world. The 1979 Islamic Revolution pitted the secular, Western-backed Pahlavi dynasty against a hodgepodge coalition of religious fanatics and Iranian nationalists fed up with foreign interference in Iranian affairs. Their suspicion of foreign influence drove the Islamic Republic to attempt to achieve grain self-sufficiency, which is having disastrous effects on Iranian water resources and is now boiling over into serious anti-regime protests inside the country. Iran's current experience mirrors Syria's pre-civil war reality to an uncomfortable degree.⁵¹

48 OECD (2018), "The Middle East and North Africa: Prospects and challenges", in OECD-FAO Agricultural Outlook 2018-2027, OECD Publishing, Paris, https://doi.org/10.1787/agr_outlook-2018-5-en, p. 68

49 Bernard Lewis, "The Roots of Muslim Rage," *The Atlantic*, September 1990, <https://www.theatlantic.com/magazine/archive/1990/09/the-roots-of-muslim-rage/304643/>

50 Drought Vulnerability in the Arab Region: Syria Case Study, UN ISD, Arab Center for the Studies of Arid Zones and Dry Lands, April 2011.

51 Xander Snyder, "Iran's Water Pressure: Droughts, Floods, and a Looming Crisis," <https://geopoliticalfutures.com/irans-water-pressure-droughts-floods-and-a-looming-crisis/>

4 THE MUSLIM WORLD IS STILL AT WAR WITH ITSELF

Egypt, one of the largest grain importers in the world, is a ticking time bomb. Egypt's population has tripled since 1960 and surpassed 100 million this year.⁵² On a map, Egypt looks like a geographically formidable country. In practice, only 3 percent of Egypt's land is arable.⁵³ The country's increasingly young, unemployed, and impoverished population lives in an area roughly the size of Ireland. Only the heavy-handed power of the Egyptian military allowed Egypt to weather the country's Arab Spring pangs in the form of a coup d'état against Mohammed Morsi, the democratically elected Islamist president of Egypt from 2012 to 2013. Algeria is more stable than Egypt for now but is facing an uncertain leadership transition, while Central Asian states like Uzbekistan are running out of water because of accelerated melting of the glaciers that are its source.

And then there is Turkey, itself no stranger to drought and the need to turn to imports to meet domestic demand for grains.⁵⁴ As Iran's ability to project power wanes, and as the Arab world continues to seethe, Turkey will try to fill the void and reclaim its position as leader of the Sunni world and, more importantly, as a regional power in the Mediterranean. The Turkish military is already present in places like Syria, Libya, Somalia, and Qatar, and in the strategic areas where the Turkish military is not present, Turkey is focusing on political and economic levers to strengthen its position. In the Black Sea region Turkey finds itself once more as Russia's rival, while in southern Europe, especially in the Balkans, Turkish ambitions are creating elevated risks of trade disruption and heightened levels of political and security uncertainty.

Of course, the Muslim world is not all aflame. Indonesia, the world's largest Muslim country and a major grain importer, has managed to avoid the violence that has characterized Islamic politics in recent decades. Countries like Oman, Morocco, and Bangladesh are examples of relatively well-governed Muslim countries located on the periphery of Islam's most violent internal struggles. Even so, grain exporters find themselves in an awkward position, as the Muslim world represents their single biggest customer and also their most unstable one. As the Syrian civil war has shown, the risk is less that exporters will be blocked from entering markets ravenous for grains than that demand from important consumers might collapse suddenly due to war or revolution — and that, ironically, heightened demand for grain imports is a precursor to exactly those sorts of risks.

52 Al-Jazeera, 12 February 2020, <https://www.aljazeera.com/news/2020/02/egypt-booming-population-hits-100-million-200212080933972.html>

53 OECD (2018), "The Middle East and North Africa: Prospects and challenges", in OECD-FAO Agricultural Outlook 2018-2027, OECD Publishing, Paris, https://doi.org/10.1787/agr_outlook-2018-5-en.

54 Chris Lyddon, "Focus on Turkey," 12 September 2019, <https://www.world-grain.com/articles/12995-focus-on-turkey>

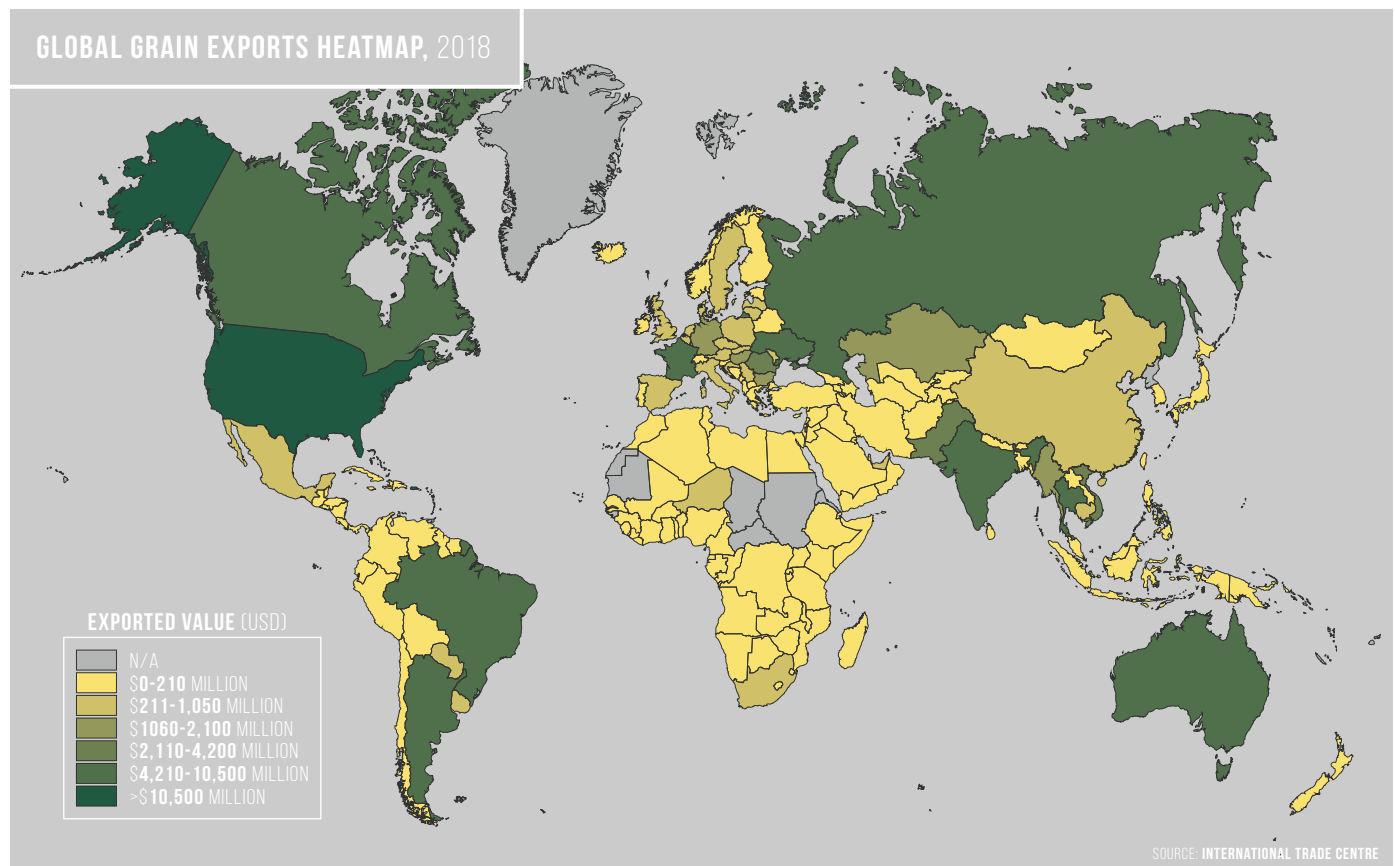
5 THE UNITED STATES' TURN INWARD

What the U.S. government thinks is in the best interest of U.S. national security is not always in the best interest of American grain farmers. U.S. grain farmers are dependent on exports: Roughly half the United States' annual wheat production and roughly 20 percent of annual corn and other feed grain production is exported abroad.⁵⁵ That makes the U.S. a major player in global grain markets — indeed, overall, the U.S. was the largest exporter of cereals and oilseeds in the world in 2018, with roughly 20 percent of world exports. That makes the U.S. almost as significant an exporter of grains as OPEC is of oil (32 percent in 2018).⁵⁶

In the past, the U.S. has attempted to use its agricultural heft as a lever of national security. Under President Jimmy Carter's administration, for example, the U.S. placed a grain embargo on the Soviet Union in response to the 1979 Soviet invasion of Afghanistan. The grain embargo backfired badly. The Soviet Union imported what it needed elsewhere and began to develop its domestic agricultural base such that Russia is now the second-largest exporter of wheat in the world. The embargo also failed to achieve the desired foreign policy

end and was eliminated by the Reagan administration — but not before irreparable damage was done to U.S. farmers and U.S. global market share and not before the U.S. government paid billions to farmers to compensate them for their losses.⁵⁷

If this is beginning to feel like *déjà vu*, it should. The U.S. is repeating this approach under the Trump administration with China, attempting to use American agricultural might to weaken a perceived global rival (and pry open access to the Chinese market to boot). American soybean farmers have borne the brunt of this approach thus far, as they saw exports drop a calamitous 74 percent from 2017 to 2018 for their top customer. China shifted to importing from Brazil and now seems poised to invest heavily in Brazilian infrastructure — which is the only way Brazilian agriculture could ever hope to compete with U.S. exports on the global stage.⁵⁸ American soybean farmers are hardly alone. Chinese imports of corn, wheat, sorghum, and other U.S. grains have also dropped considerably, with the decline actually beginning during the Obama administration.



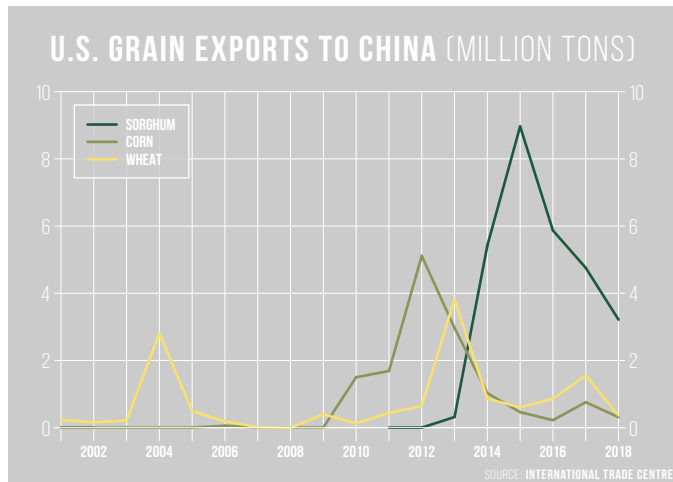
55 United States Department of Agriculture, Economic Research Service, <https://www.ers.usda.gov/topics/crops/corn-and-other-feedgrains/feedgrains-sector-at-a-glance/>

56 Organization of the Petroleum Exporting Countries, 2018 Annual Report.

57 Mikkel Pates, "Like Russian grain embargo of 1980s, China trade war again taking its toll," AGWEEK, 16 September 2019, <https://www.agweek.com/business/agriculture/4658187-russian-grain-embargo-1980s-china-trade-war-again-taking-its-toll>

58 Americas Quartely por Robert Muggah e Adriana Erthal Abdenur, em 27 de setembro de 2017, <https://igarape.org.br/chinas-strategic-play-in-brazil/>

5 THE UNITED STATES' TURN INWARD



Two other factors are driving U.S. behavior on the world stage. The first is its addiction to debt. At both the state and private levels, the U.S. is spending money at an astronomical rate. Even under a Republican administration, the U.S. federal deficit has ballooned to over \$1 trillion a year.⁵⁹ Meanwhile, U.S. household debt now exceeds pre-2008 financial crisis levels. Non-housing-related debt is one of the main culprits, having increased by 60 percent compared to the \$2.62 trillion figure in the fourth quarter of 2007.⁶⁰ The British Empire exhibited a similar affinity for debt-driven spending in the decades before its hegemonic status on the world stage came crashing down in 1914. The second factor is that the U.S. is no longer dependent on foreign sources of hydrocarbons.⁶¹ The shale revolution has rendered what used to be one of the strongest tethers tying U.S. interests to global developments unimportant.

59 William B. English, "Should We Worry about the Trillion-Dollar Deficit?" Yale Insights, 7 February 2020, <https://insights.som.yale.edu/insights/should-we-worry-about-the-trillion-dollar-deficit>

60 Federal Reserve Bank of New York, Household Debt and Credit Report (Q4 2019) <https://www.newyorkfed.org/microeconomics/hhdc.html>

61 U.S. Energy Information Administration https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbldpd_a.htm

The result is a United States that is putting America first, not by strengthening U.S. alliances and a more general liberal world order conducive to the long-term pursuit of U.S. interests, but by demanding instant gratification. This has meant the U.S. turning its back on free trade agreements like the Trans-Pacific Partnership and instead renegotiating trade deals at the bilateral (or in the case of NAFTA, the trilateral) level. The isolationist impulse in U.S. foreign policy has the U.S. focusing more on domestic industry even as American grain farmers have based their livelihoods on exports. In some of the United States' most important markets, like Canada, Japan, and Mexico, this is good news. But for reaching new markets, especially those in China and Russia, or even in China and Russia's spheres of influence, it is a foreboding sign.

The phase one trade deal between the U.S. and China does not augur imminent improvement in U.S.-China relations. Indeed, the "trade deal" is barely worthy of the name. It is a purchase agreement for goods China was going to buy anyway — and which China will source from non-American countries if it deems it necessary. Meanwhile, the decimation of the Chinese pork industry as a result of African swine fever has reduced China's need to import U.S. feed grains — good short-term news for the pork industry, but exceedingly bad news for U.S. farmers hoping to regain access to Chinese markets.

In this era of multipolarity and renewed great-power competition, U.S. grain exporters will be caught in the crossfire, and to minimize risk they need to understand how U.S. politics will evolve in the coming decade — and the opportunities and risks that will come as a result.

A large, light gray, stylized globe is centered in the background. The globe is composed of several curved, overlapping segments that create a sense of depth and movement. The segments are arranged in a way that suggests the continents and oceans of the world, though they are not detailed. The overall effect is a clean, modern, and abstract representation of the globe.

**GEOPOLITICAL FORCES
SHAPING
THE
GLOBAL GRAIN MARKET**



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