

Copyright
by
Sarah Alicia Rush
2019

**The Report Committee for Sarah Alicia Rush
Certifies that this is the approved version of the following Report:**

**Russian Food and Agricultural Policy: How the Country's Hungry
History Shapes its Contemporary Approaches**

**APPROVED BY
SUPERVISING COMMITTEE:**

Joshua W. Busby, Supervisor

Erin Lentz

**Russian Food and Agricultural Policy: How the Country's Hungry
History Shapes its Contemporary Approaches**

by

Sarah Alicia Rush

Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Public Affairs

The University of Texas at Austin

May 2019

Dedication

To my mom, who showed me the joy in learning.

Acknowledgements

I want to thank my supervisors, Dr. Joshua Busby and Dr. Erin Lentz, faculty in the LBJ School of Public Affairs, for their support and insight, and for empowering me to follow my curiosity. Your compelling instruction inspired me to undertake this challenge in the first place. Thank you for your tireless commitment to my—and every student’s—success.

Thank you, also, to all the professors at the LBJ School whose classes I have had the privilege of taking and all who make the institution great. Over the past two years, each of you has played a critical role in stretching my mind, challenging my assumptions, and making me a better person.

Thank you to my family for supporting me and always encouraging me in my pursuits. I am who I am because of you. I am also grateful to my friends who held me up when the going got rough and always brought joy to my life. And finally, my deepest gratitude goes to Stephen for your relentless confidence in me and unstinting love for me.

Abstract

Russian Food and Agricultural Policy: How the Country's Hungry History Shapes its Contemporary Approaches

Sarah Alicia Rush, M.P.Aff

The University of Texas at Austin, 2019

Supervisor: Joshua Busby

When the food price spikes of 2007/8 and 2010-12 occurred, Russia responded with export restrictions on wheat that contributed to short-term panic, price transmission to importing countries, greater long-term price instability and shifting trading patterns. Russia's actions and the subsequent impacts exposed how integrated the formerly-communist country now is and how much the global commodity market has shifted since the early 2000s. Today, Russia is the top exporter of wheat with its leverage in recipient countries growing, along with its ability to take disruptive action through agricultural and food policies. The dramatic shift in global wheat markets makes it imperative to understand the motivations and potential actions of Russian policymakers. Through an examination of Russia's food history from 1922 to the present, the analysis reveals the enduring impulses that shape Russia's contemporary food policy as a facet of national security and foreign policy strategy. The report ends with a brief survey of the circumstances that may impact the country's position as the top exporter and the implications of its dominance for other major exporters and import-dependent countries.

Table of Contents

List of Figures	viii
Chapter I: Rising Bread Prices in Russia	1
Chapter II: Global Price Spikes and the Reactions of Major Exporters	5
Chapter III: Observable Motivations of Russian Food Policy	11
Chapter IV: Agriculture: The Soviet Union's Blessing and Burden	18
Chapter V: Russia's Leaders and the Sisyphean Agricultural Problem	34
Chapter VI: The Outlook for Russia's Global Wheat Dominance	45
Works Cited	51

List of Figures

Figure 1: FAO Annual Food Price Index: Russia (1990-2019).....	5
--	---

Chapter I: Rising Bread Prices in Russia

In July 2007, Russian consumers noticed a sharp increase in the cost of bread. Bread prices, which are significantly lower than in the United States and European Union, had more than doubled during the year, and prices for basic foodstuffs had increased 17 percent.¹ The increases began only a few months before the December 2007 State Duma elections and March 2008 presidential election. They occurred in tandem with state approval for a five-year agricultural development program.² By mid-2008 in Russia, the cost of basic foodstuffs was increasing at a rate three times greater than in Europe and had become the government's greatest political liability.³ Russian officials recognized not only the welfare burden that the price hikes represented for its electorate, but also the memories that it dredged up in a country well-acquainted with food shortages, rationing, and hunger. The Kremlin also has a vested interest in keeping food prices low in cities where approximately 75 percent of its population resides, as this is the demographic most likely to exhibit unrest.⁴

Russia was not experiencing this phenomenon alone. The international price of cereals began to rise in mid- to late-2007. By 2008, the international price of most food commodities had increased by over 50 percent.⁵ Wheat prices increased by 87 percent with a massive spike in March 2008, topping out at \$11.05 per bushel. Prior to 2007, the highest

¹ Galperovich, Danila and Olga Vakhonicheva, "Russia: Bread Price – And Worries – On the Rise," Radio Free Europe / Radio Liberty, July 13, 2007. Accessed March 12, 2019. <https://www.rferl.org/a/1077609.html>

² Galperovich, Danila, "Alexey Gordeev: bread will rise in price, but there is no reason for panic," Radio Free Europe / Radio Liberty, July 12, 2007. Accessed March 12, 2019. <https://www.svoboda.org/a/402047.html>

³ Yasmann, Victor. "Analysis: Global Food Crisis Catches Up with Russia." Radio Free Europe/Radio Liberty, May 16, 2008. <https://www.rferl.org/a/1117497.html>

⁴ The World Bank. *Urban Population (% of total): Russian Federation*. Washington, D.C.: The World Bank. United Nations Population Division, World Urbanization Prospects: 2018 Revision. Accessed April 1, 2019. <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=RU>; Hendrix, Cullen S. and Stephan Haggard. "Global food prices, regime type, and urban unrest in the developing world." *Journal of Peace Research*, Vol. 52, no. 2 (2015): 143-157.

⁵ Tadasse, Getaw, Bernadina Algieri, Matthias Kalkuhl, and Joachim Von Braun, "Drivers and triggers of international food price spikes and volatility," *Food Policy*, Vol. 47 (2014): 117-128. <https://doi.org/10.1016/j.foodpol.2013.08.014>

that wheat prices had climbed was \$6.77 in April 1996. After a brief respite, global prices again rose and fluctuated intensely from 2010 to 2012 with two peaks coming in February 2011 (\$8.67) and July 2012 (\$8.98). Since then, prices have continued unevenly downward, never reaching pre-crisis lows.⁶

That Russia began to feel the pressure of rising prices in early 2007 demonstrates the extent to which the country, a formerly-isolated communist economy, has integrated into the global market. Not only did this reveal a source of vulnerability for Russia, but also a source of influence. In the early 1990s, Russia was a net importer of grains. By the time of the food price crisis of 2008, Russia ranked second in wheat exports, accounting for 13.1 percent of world totals.⁷ The 2007/8 food price spike marks one of the first times that Russia was in a position to impact the global market through its food policy. In late 2007, Russia implemented a wheat export tax that was then increased in July 2008. Russia responded even more stringently in August 2010 when it banned all wheat exports until July 2011, following an intense drought that decimated the country's summer harvest. These restrictive policies were accompanied by other actions such as temporary price freezes on socially important foods, state subsidies to the agricultural sector, farm credit assistance, and food coupons. Russia's unilateral action had impacts on the global economy that played at least some role in domestic food price increases in markets external to Russia. In Russia, even though adequate domestic supply was ensured, producers hoarded grain, processors failed to pass on the price savings to consumers, and panicked buyers created regional variations in supply. As a result, Russia's domestic wheat prices tracked with

⁶ Dollive, Kendall. (2008). *The Impact of Export Restraints on Rising Grain Prices*, United States International Trade Commission Office of Economics (Working Paper No. 2008-09-A)
<https://www.usitc.gov/publications/332/EC200809A.pdf>

⁷ Götz, Linde, Thomas Glauben, and Bernhard Brümmer. "Wheat export restrictions and domestic market effects in Russia and Ukraine during the food crisis." *Food Policy*, Vol. 38 (2013): 217.
<https://doi.org/10.1016/j.foodpol.2012.12.001>; Sedik, David J., Sergeĭ Sotnikov, and Doris Wiesmann. *Food security in the Russian Federation*. Rome: Food and Agriculture Organization (2003). No. 153. 5.

international prices, and retail food prices increased dramatically after the first month of the ban.⁸

In the decade since the 2007/8 price spike, Russia's role in the global wheat and food commodity market has only grown. In 2018, the Russian Federation was the top wheat exporter accounting for 21.1 percent of the global total. This shift has given Russia a new outsized role. More countries have come to rely on its products, and the country's decisions have direct and indirect implications for the stability of global interrelated markets, like cereals and oil. Russia is not the only country that can impact the frequency and intensity of food price spikes, nor the only one that can wield food power as leverage and influence. However, as one of the fastest growing wheat exporters, the Russian Federation's recent ascendancy to the top of the list and its proclivity for restrictive and protectionist policies make it an especially critical actor to understand. In recognition of Russia's promotion to a major player in the global grain market, this paper focuses on the political economy of food and agricultural policies in Russia. The aim is to understand the explicit and unstated motivations for and constraints on their policy decisions now and in the future.

To accomplish this, the analysis first begins with the objectives of Russia's modern food policy where increased food security, exports and global market share, and increased domestic production are presented as a subset of Russia's overall foreign policy and national security strategies. The paper then moves to a historical analysis of Russia's food and agricultural policies to explain how these objectives came to characterize its contemporary strategy. Using wheat to anchor the discussion, the paper argues that Russia's long and disastrous food and agricultural history is integral to understanding its present food policy decisions. The historical analysis begins with the establishment of the Soviet state and progresses through the dissolution of the USSR to the present day. The discussion ends with a discussion of Russia's current status as the top wheat exporter and the prospects for its continued dominance. The intent is not to explore these aspects of

⁸ Welton, George, "The Impact of Russia's 2010 Grain Export Ban", Oxfam Research Reports, GeoWel Research, June 28, 2011. https://www-cdn.oxfam.org/s3fs-public/file_attachments/tr-impact-russias-grain-export-ban-280611-en_3.pdf

Russian history in order to hone them as a political tool, but rather to integrate the realities and interpretations of history into the understanding of Russian political economy of food and agriculture.

Chapter II: Global Price Spikes and the Reactions of Major Exporters

Price spikes and instability are not uncommon, though the 2007-2012 period was marked by unusual instability. As with any globalized phenomenon, the causes of food price spikes and volatility are manifold and interrelated. In Russia, droughts and poor harvests led to lower grain yields and higher prices. Globally, population growth, biofuel demand, and shrinking cereal stocks interacted with rising oil prices, depreciation of the U.S. dollar, and generalized inflation to result in a “perfect storm” that disrupted the market.⁹ Disentangling the relative contribution of each causal factor is likely impossible, but it is reasonable to expect that many factors, from environmental and climatic to macroeconomic and structural, will persist and interact again to create future instability and price hikes. Since the 2007-2012 spikes, food prices have not increased to crisis levels but have shown continued volatility. After a steady decline since 2010, the annual food price index crested in 2017, followed by the cereals price index in 2018.

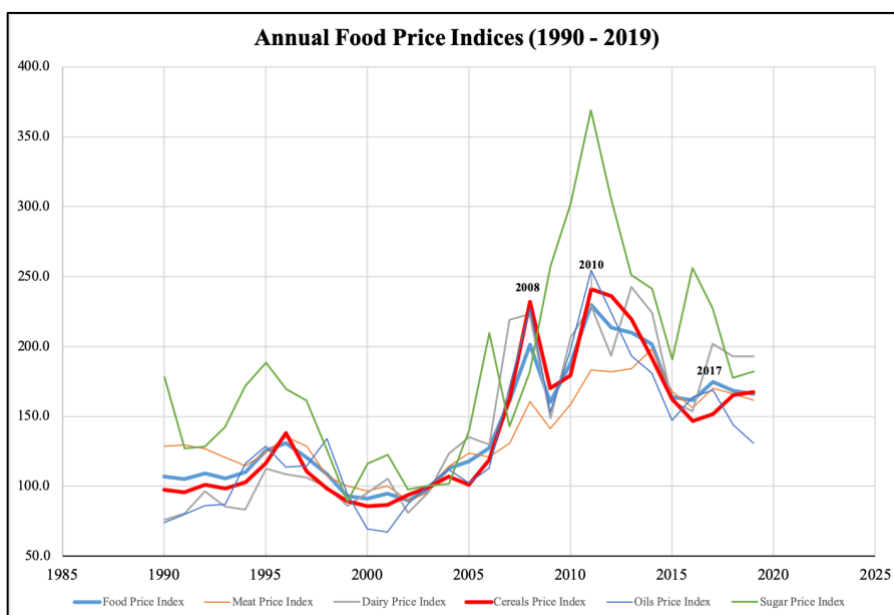


Figure 1: FAO Annual Food Price Index: Russia (1990-2019)

⁹ Wiggins, Steve, Sharada Keats, and Julia Compton (2010), “What caused the food price spike of 2007/08? Lessons for world cereal markets”, UKAID Overseas Development Institute: Food Prices Project Report. <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6103.pdf>

Policy and market reactions to the steep rises in 2007-2012 only intensified the spikes. When major grain producing and exporting states detected price increases, some implemented policies that exacerbated not only the rise in prices but overall market volatility. The USDA estimated that export restrictions accounted for 20 percent of the 2008 wheat price increase.¹⁰ Thirteen countries, including India and China, restricted rice exports, and 15 countries restricted wheat exports.¹¹ Russia implemented a 10 percent wheat export tax in November 2007 that was raised to 40 percent in December and remained in place at its elevated level until July 2008.¹² In April 2008, Russia also banned wheat exports to Commonwealth of Independent State (CIS) countries. In 2010-12, at the sign of trouble, states again took action. International wheat prices had almost doubled by mid-2010, as Russia, the European Union, Canada and other key exporters experienced harvest failures due to droughts, floods, and other production interruptions, and world wheat output dropped by more than 2 percent. A crippling drought shrank Russia's output to only 41.5 million tons down from 62 million tons in 2009, leaving companies unable to fulfill contracts. On August 5, 2010, Vladimir Putin, then Russian prime minister, announced a ban on all grain exports, including wheat and wheat flour, effective on August 15. The ban remained in place until July 1, 2011.

In a globalized world, the policy actions and reactions of governments with a major share of the grain market has far-reaching implications. Unilateral and protectionist action by major wheat-producing countries creates international market instability that translates to domestic food price increases primarily in import-dependent countries. Importing countries must either pay the new higher prices or find new suppliers, and the governments must find ways to shield their own populations from price increases or suffer the political blowback. Even the expectation that an exporter will implement restrictive trade measures

¹⁰ "Export Restrictions: Cereal Offender." *The Economist*, March 27, 2008. Accessed March 13, 2019. <https://www.economist.com/finance-and-economics/2008/03/27/cereal-offenders>

¹¹ Mitra, Siddhartha and Tim Josling. *Agricultural Export Restrictions: Welfare Implications and Trade Discipline*. International Policy Council: Food and Agricultural Trade, January 2009. http://www.agritrade.org/documents/ExportRestrictions_final.pdf

¹² Götz, 217.

can contribute to reactive price changes. Through the transmission of international instability to domestic markets, the policy decisions of major grain exporters have a real impact on the food security of individuals in distant countries. The impact is most intensely felt in low-income countries and by the poor, who spend a higher percentage of income on food staples, in regions like the Middle East and sub-Saharan Africa.¹³ It is also highly disruptive in countries where wheat is a major source of calories and the government uses tools like bread subsidies to gain or maintain legitimacy, as in Libya and Egypt. In 2010, Russia's largest wheat export market was Egypt, followed by Turkey, Syria, Iran, and Libya, countries that all experienced significant domestic price increases.¹⁴ The Arab Spring that unfurled across the Middle East and North Africa in 2011 has been traced back to the period of rising wheat and food prices.¹⁵ Images of bread-wielding protestors are a compelling visual for the judgment that widespread unrest is linked to some degree to rising international and domestic food prices generally and wheat prices specifically.¹⁶ But domestic price increases also often occur in countries that implement the export restrictions, as such policies encourage hoarding, speculation and other destabilizing behavior. Thus, mechanisms like export taxes and bans largely fail to protect a state's own population, especially the poor and rural, from rising domestic wheat and bread prices and shortages.¹⁷

The food price spikes of 2007/8 and 2010-12 are only one example of the impact that major grain producing and exporting states can have on global and domestic markets.

¹³ Hallam, David and Trade and Markets Division of FAO. *The State of Agricultural Commodity Markets 2009*. Rome: Food and Agriculture Organization (2009). <http://www.fao.org/3/i0854e/i0854e.pdf>

¹⁴ Galpin, Richard, "Russia ban on grain exports begins," *BBC News*, August 15, 2010. <https://www.bbc.com/news/business-10977955>

¹⁵ Hendrix, Cullen S. and Stephan Haggard. "Global food prices, regime type, and urban unrest in the developing world." *Journal of Peace Research*, Vol. 52, no. 2 (2015): 143-157.

¹⁶ Bobenrieth, Eugenio S. and Brian D. Wright. (2009). The food price crisis of 2007/2008: Evidence and implications. Paper presented at the Joint Meeting of the Intergovernmental Group on Oilseeds, Oils and Fats (30th Session), the Intergovernmental Group on Grains (32nd Session) and the Intergovernmental Group on Rice (43rd Session), Santiago, Chile. 4–6 November 2009. https://are.berkeley.edu/~bwright/Wright/Publications_files/Panel_Discussion_paper_2_English_only-2.pdf

¹⁷ Götz, 215

Over the past decade, the balance of market share has shifted and, with it, so has the relative influence of each country's policy decisions. As noted, one of the most marked shifts has come in Russia's market capture. In 2018, Russia was the top exporter accounting for 21.1 percent of total wheat exports. The next four top exporters are Canada accounting for 14.2 percent of the global share, the United States at 13.6 percent, France at 10.3 percent, and Australia at 7.7 percent.¹⁸ The proximity of Russia's production to its Black Sea ports provide advantaged positions to Middle East and North Africa markets that have absorbed Russia's rapid increase in exports. Russia is already a leading wheat exporter in the region, which absorbs 80 percent of Russia's exports, and continues to work toward a larger role in that market.¹⁹ Together, Egypt and Turkey account for approximately 40 percent of Russia's exports though the exact balance fluctuates based on market dynamics and geopolitical circumstances.²⁰ Along with Egypt and Turkey, other countries have switched to Russian wheat from their traditional suppliers in North America and the EU.²¹

As Russia's place in the global market grows and as its exports replace those of leading suppliers, the need to understand its motivations and potential policy decisions has become critical. Russia's leverage in these recipient countries is growing, often to the detriment of other grain exporters that Russia may have displaced. Along with it, Russia's capacity to impact trade flows at the expense or to the benefit of those import dependent countries is also growing. The covert expression of economic power through food exports

¹⁸ Workman, Daniel, "Wheat Exports by Country." *Wheat Top Exports*, April 1, 2019. Accessed April 10, 2019. <http://www.worldstopexports.com/wheat-exports-country/>

¹⁹ Ghada Ahmed, Sona Nahapetyan, Danny Hamrick, and Jonathan Morgan (2017), "Russian Wheat Value Chain and Global Food Security", Duke Center on Globalization, Governance and Competitiveness, May 2017; Global Agricultural Information Network. *Russian Federation: Agricultural Economy and Policy Report*. USDA Foreign Agricultural Service, Report No. RS1819. July 19, 2018. http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Economy%20and%20Policy%20Report_Moscow_Russian%20Federation_7-19-2018.pdf

²⁰ Kingwell, Ross, Chris Carter, Peter Elliott, and Peter White. (2016). *Russia's Wheat Industry: Implications for Australia*. Perth; Sydney: Australian Export Grain Innovation Centre. <https://www.aegic.org.au/wp-content/uploads/2016/09/Russia-wheat-industry-Implications-for-Australia.pdf>

²¹ Ahmed, 11.

acts as another avenue toward achieving Russia’s strategic aims and is integral to an understanding of the domestic and foreign policy stances of the country.

WHY WHEAT?

At the heart of this analysis is wheat. In general, cereals provide rich opportunity for analysis. Wheat and rice are major staple food crops and constitute 40 percent of human caloric intake globally. Other grains, such as corn and barley, are critical feed grains that support the livestock sector and directly compete with wheat production for land, capital and labor. Grains also represent a form of “virtual water”²² for countries that are water-poor, such as Egypt. Cereals account for 15 percent of the global virtual water trade.²³

Wheat is traded across borders more than any other cereal, meaning that the connection between international price instability and domestic markets is strong. Wheat accounts for a quarter of global crop acreage and 60 percent of Russia’s grain crops. Both in Russia and its export markets, wheat is a main source of calories. Despite its massive exporting market, approximately 70 percent of Russian wheat is consumed domestically. Wheat markets are intimately connected to energy and financial markets, and wheat prices respond to higher energy prices as agricultural inputs, production, and transportation become more expensive, and currency fluctuations create ripple effects in the agricultural value chain and import and export markets. Demand for bread and other wheat products typically rises in response to economic downturn or lower incomes and decreases as incomes rise and a country experiences economic growth. Perhaps most important, bread enjoys an almost-religious sacredness from Russian consumers. In fact, all over the world, bread, simple and essential, is a central symbol in many cultures, religions, and countries.

²² Virtual water is the water that is used to produce a commodity that is accessible via trade. Keulertz, Martin and Eckart Woertz (2015) “States as Actors in International Agro-Investments.” *Large-Scale Land Acquisitions: Focus on South-East Asia*, International Development Policy Series No.6, Geneva: Graduate Institute Publications, Boston: Brill-Nijhoff, pp. 30–52

²³ Sojamo, Suvi, Martin Keulertz, Jeroen Warner and John Anthony Allan. “Virtual Water Hegemony: The Role of Agribusiness in Global Water Governance.” *Water International*, Vol. 37, 2 (2012), 169–182, DOI: 10.1080/02508060.2012.662734.

Altogether, wheat is politically, economically, and socially significant.²⁴ Understanding wheat is valuable to understanding a country, its people, and its policies.

²⁴ Keulertz, Martin and Eckart Woertz (2015) “States as Actors in International Agro-Investments” in *Large-Scale Land Acquisitions: Focus on South-East Asia*, International Development Policy series No.6, Geneva: Graduate Institute Publications, Boston: Brill-Nijhoff, pp. 30–52

Chapter III: Observable Motivations of Russian Food Policy

Food is an access-point for the government into citizens' lives. As Hendrix explains, "food is an inherently political commodity, affected by subsidies, land policies and other government interventions."²⁵ The political facets of food carry significant sway in the policy development that do not always align with the economic considerations. Modern Russian food and agricultural policy is built on three main objectives: to increase domestic production, increase Russia's share of global grain and food markets, and achieve greater domestic food security.²⁶ The selection of these particular goals and the path to achieving them are influenced by a range of considerations that extend far beyond economic factors. The goals are all pieces of a greater strategy to establish Russian food independence and thus greater international power, at the same time that domestic political legitimacy is preserved. The protectionist policies employed in response to the 2007-2012 food price increases capture the integrated nature of these objectives and reveal the complex motivations behind them. In a 2009 report on agricultural export restrictions, the International Policy Council notes that export restrictions on raw commodities, like wheat, are "basically measures to protect consumers or to win their political support."²⁷ Mobilization in the cities has always presented the greatest political threat to Russian leaders, a lesson learned in the 1917 Revolution. Since 1991, Russia's population has been approximately 75 percent urban, inflating the importance of urban appeasement.²⁸ In line with Hendrix and Haggard's argument that autocrats are more incentivized to protect urban consumers than rural ones, the Kremlin is highly motivated to intervene to keep food prices

²⁵ Hendrix, Cullen. 2015. "In Food Riots, Researchers Find a Divide Between Democracies and Autocracies." *New Security Beat*, February 24, 2015. <https://www.newsecuritybeat.org/2015/02/food-riots-researchers-find-divide-democracies-autocracies/>

²⁶ Wegren, Stephen K. "Russia's Food Policies and Foreign Policy." *Demokratizatsiya* Vol. 18, no. 3 (2010), 189-207. http://demokratizatsiya.pub/archives/18_3_C4W0VN8038PQR45P.pdf

²⁷ Mitra, 3.

²⁸The World Bank. *Urban Population (% of total): Russian Federation*. Washington, D.C.: The World Bank. United Nations Population Division, World Urbanization Prospects: 2018 Revision. Accessed April 1, 2019. <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=RU>

low in cities.²⁹ While the Russian story is certainly more complicated than that, the basic idea is that explicit motivations for policy actions are never as clear as they seem.

FOOD SECURITY AS FOOD SELF-SUFFICIENCY

Greater domestic food security is one of Russia's primary agricultural development goals. Stephen Wegren notes that the term *food security* "has been a part of the [Russian] political discourse since the early 1990s."³⁰ This coincided with market reform under Boris Yeltsin, the first president of the Russian Federation. During that decade, developments in the agricultural sector, including a decline in output and a transition to crops from livestock, interacted with general economic trends and a sharp shift toward market liberalization to raise concerns about food insecurity.³¹ Even as the economic situation improved and agricultural output and consumer purchasing power increased, political anxiety over food security remained, especially at higher strata of government.

In 2010, the Kremlin presented the export ban as an effort to prevent domestic price increases by preserving domestic grain supplies for food staples and animal feed and rebuilding stocks for future years.³² President Medvedev explained that the government's role is to "create conditions when the population of our country, people who live in our country, will be provided food at normal, reasonable prices."³³ In other words, the government intended to ensure bigger domestic grain supply at lower prices to ensure food security of its population. The same rationale applied to the 2008 taxes. But well before either food price crisis, in 2003, the FAO wrote, "Although 'food security' has been used as a justification for protectionist agricultural policies and support for producers, we found no evidence that such policies improved actual food security in the Russian Federation."³⁴

²⁹ Hendrix, Cullen S., and Stephan Haggard. "Global food prices, regime type, and urban unrest in the developing world." *Journal of Peace Research* 52, no. 2 (2015): 146.

³⁰ Wegren, Stephen K. "Food security and Russia's 2010 drought." *Eurasian Geography and Economics*, Vol. 52, no. 1 (2011): 140.

³¹ Wegren (2011), 141.

³² Wegren (2011).

³³ Wegren (2011), 142.

³⁴ Sedik, 93.

The discrepancy in the stated policy intention and the outcome is not because Russian officials are bad at conceptualizing or implementing food policy. Rather, the key to the inconsistency lies in semantics.

In Russian political discourse, the “Russian variant of food security differs from common international usage,” wherein *food security* is defined as “a situation that exists 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.”³⁵ Food insecurity can result in the absence of any piece of this criteria. Russian food security discourse diverges from this and is not a straightforward concern with feeding its population. The country’s application of the food security concept is closer to *food self-sufficiency*: “the extent to which a country can satisfy its food needs from its domestic production.”³⁶ The nearer a country comes to producing 100 percent or more of its consumption needs, the greater its food self-sufficiency ratio. Food security and food self-sufficiency do not necessarily support or enhance each other. Food self-sufficiency is concerned only with food that is produced domestically, not with the ability of its population to access, afford, and otherwise utilize that food. It is possible for a country’s self-sufficiency to increase at the same that its food security decreases.

The *2010 Food Security Doctrine of the Russian Federation* formalized this distinctive approach to food security. Signed on January 30, 2010 by President Dmitry Medvedev, the Doctrine conflates the titular *food security* with self-sufficiency: “Food security of the Russian Federation is the state of the country’s economy that ensures food independence of the Russian Federation, physical and economic availability of foodstuffs to every citizen. . .”³⁷ By defining food security as a characteristic *of the Russian*

³⁵ Vasilii, Erokhin, “Self-Sufficiency versus Security: How Trade Protectionism Challenges the Sustainability of the Food Supply in Russia”, *Sustainability*, Vol. 9, 11 (2017), <https://doi.org/10.3390/su9111939>. 3; FAO, IFAD, UNICEF, WFP and WHO. 2018. *The State of Food Security and Nutrition in the World 2018: Building climate resilience for food security and nutrition*. Rome, FAO (2018). <http://www.fao.org/3/I9553EN/i9553en.pdf>

³⁶ Vasilii, 2

³⁷ Vassilieve, Yelena and Mary Ellen Smith, *Russian Federation: Food Security Doctrine Adopted*. USDA Foreign Agricultural Service, Global Agricultural Information Network Report No. RS1008, February 11, 2010.

Federation, the Doctrine operationalizes the concept as a national metric tied to domestic agricultural performance. One identified criterion to evaluate the level of food security is the share of total commodity resources met by domestic production. The document establishes minimum self-sufficiency targets for most food commodities, including a 95 percent target for grain and potatoes. The country has exceeded the targets for grain, vegetable oil and potatoes every year since 2010, and has only failed to meet its domestic production target for milk and dairy, reaching only 80 percent of the 90 percent goal in 2016.³⁸ Achievement of these food self-sufficiency targets was made possible by a confluence of factors, which are discussed more in Chapter V.

The conflation of food security and food self-sufficiency makes sense when returning to the three objectives of Russian food policy. Food security when applied as food self-sufficiency supports and interacts with the pursuit of the other two goals, greater domestic production and a greater share of global markets. President Medvedev explains that “Russia should in full measure use its unique agrarian potential, providing itself not only with basic types of food, but also. . . to become one of the leading exporters of food in the world.”³⁹ Taken together, this troika constitutes a view of food and agricultural policy as a critical subset of Russian foreign policy. Through the strategic achievement of its three food policy objectives, Russia seeks to turn its agricultural capacity into hard power.

FOOD SECURITY AS NATIONAL SECURITY

By the time of the food price spikes in 2008, food security had already become an integral component of Russian security thinking. At the World Food Summit in 2008, then-Minister of Agriculture Aleksei Gordeyev said: “Russia is very often perceived throughout the world as a major military power. . . At the same time, and perhaps above and beyond

https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20Security%20Doctrine%20Adopted%20_Moscow_Russian%20Federation_2-11-2010.pdf

³⁸ Stratfor Worldview. “Russia’s Uneven Drive Toward Economic Self-Sufficiency.” *Stratfor*, January 23, 2018. <https://worldview.stratfor.com/article/russias-uneven-drive-toward-economic-self-sufficiency>

³⁹ Wegren (2011), 144.

anything else, Russia is a major agrarian power.”⁴⁰ In January 2010, Minister of Agriculture Yelena Skrynnik argued that food security is “one of the central and prioritized problems in the system of national security.”⁴¹ Food policy—especially the pursuit of food self-sufficiency and import substitution—was not just an essential component of Russia’s global projection of power and a barrier to vulnerability; it was a precondition for it. Russia formalized the role of agricultural and food policy in Russia’s geopolitical strategy by tying the Food Security Doctrine directly to the National Security Strategy of the Russian Federation to 2020 (NSS). Adopted in May 2009, the NSS states that the “safeguarding of food security is ensured through”, among other things, “achieving food independence for the Russian Federation.”⁴² President Dmitry Medvedev was clear that the food security doctrine is “one of the means to realize the National Security Strategy to 2020,” and argued that, “supplying food products is one of the cornerstones of security in general.”⁴³ The NSS explicitly states that dependence on food imports should be decreased with a corresponding increase in domestic production, or in other words, self-sufficiency should be increased, “to achieve economic independence and to strengthen the economic prowess of domestic producers.”⁴⁴

This notion is not a new one, but it is the first time that Russia has actually been positioned to see this policy position come to fruition. In 1970, *Christian Science Monitor* stated, “If Russia has a good harvest, its foreign policy will be bold and aggressive.”⁴⁵ As Dronin and Bellinger note, the USSR’s large food imports and poor harvests throughout the 1960s and 1970s impacted the nature and scope of its foreign policy.⁴⁶ The flip side of

⁴⁰ Kramer, Andrew E. “A land rush in rural Russia.” *New York Times*, August 31, 2008. <https://www.nytimes.com/2008/08/31/business/worldbusiness/31iht-food.4.15776253.html>

⁴¹ Wegren (2011), 142.

⁴² “Russian National Security Strategy, December 2015.” Instituto Espanol de Estudios Estrategicos, Trans. <http://www.ieee.es/Galerias/fichero/OtrasPublicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf>

⁴³ Wegren (2011), 142.

⁴⁴ *Ibid.*

⁴⁵ Dronin, Nikolai M. and Edward G. Bellinger, *Climate Dependency and Food Problems in Russia, 1900-1990: The Interaction of Climate and Agriculture Policy and their Effect of Food Problems*, New York: Central European University Press, 2005. 230.

⁴⁶ Dronin, 230.

this, which Moscow understands, is that greater self-reliance, by way of reduced imports and increased domestic production, grants Russia more leeway in the international arena. Russia has not only recovered from its agricultural slump in the 1990s but has accelerated production since the early 2000s and managed to produce surplus for export. This has alleviated domestic pressures and given Russia greater leverage internationally. In this way, Russia's integrated food policy is a strategic component of its relations with the United States, the Middle East, the EU, and other countries.

That Russia's agriculture interests overlap significantly with its domestic and foreign aspirations and vulnerabilities is a fact that countries like the United States know well from the Cold War era. On January 4, 1980, President Carter attempted to exercise American power through food by imposing an embargo on U.S. grain to the Soviet Union as punishment for Soviet entrance into Afghanistan. The withheld grain, Carter stated, was "not intended for human consumption, but was to be used for building up Soviet livestock herds."⁴⁷ To abridge the story, the embargo, rather than hobble the Soviet Union, demonstrated that the USSR could *and should* survive without United States' grain. Today, Russia's agricultural sector is more productive than ever, and definitely more productive than in 1979 when it managed to produce only 48 million tons of wheat.⁴⁸ In 2017/2018, wheat production reached a record 85 million tons, which far exceeded 43 MT of domestic consumption in 2017.⁴⁹ This success has not been by accident alone. Though some is due to circumstance, such as good weather, a portion of the sustained growth is the result of the intentional pursuit of the three-pronged food policy focus with a larger foreign policy and security stance.

Examined altogether, these cohesive motivations of Russian food and agricultural policy make sense, especially as a prerequisite for effective foreign policy and national

⁴⁷ "Transcript of President's Speech on Soviet Military Intervention in Afghanistan." *New York Times*, January 5, 1980. <https://www.cia.gov/library/readingroom/docs/CIA-RDP90-00552R000101020087-4.pdf>

⁴⁸ Paarlberg, Robert L. "Lessons of the Grain Embargo", *Foreign Affairs*, Fall 1980. <https://www.foreignaffairs.com/articles/united-states/1980-09-01/lessons-grain-embargo>

⁴⁹ "Russian Federation Wheat Domestic Consumption by Year." *Index Mundi*. Accessed April 16, 2019. <https://www.indexmundi.com/agriculture/?country=ru&commodity=wheat&graph=domestic-consumption>

security. The following three sections dig into Russia's history to understand why Russia is preoccupied with achieving self-sufficiency and increasing agricultural production, as well as why food policy falls neatly into place under a national security and foreign policy umbrella. The contemporary economic and political environment exists within a historical framework that impacts what policies and priorities are rational for the government to pursue. The political, social, and cultural food history of the Russian state limit, sway, and otherwise shape the way that the Russian Federation prioritizes and makes domestic and foreign food policy today.

Chapter IV: Agriculture: The Soviet Union's Blessing and Burden

After the Bolsheviks overthrew the Russian Tsar in 1917, the Russian Empire became the Union of Soviet Socialist Republics (USSR) in 1922, a one-party state led by the Communist Party of the Soviet Union (CPSU) under the tutelage of Vladimir Ilyich Ulyanov ("Lenin"). After two revolutions and a five-year civil war, the Bolsheviks inherited a diverse empire and were tasked with uniting it. The long-term survival of the USSR required a gravitational force to hold it together. The initial international aspect of the CPSU that promised a universal communist society was abandoned, and Stalin and other leaders began to focus on perfecting a socialist society within the USSR first. Soviet leaders fostered a strand of patriotism that could support the state's ambitions to abolish capitalism and become a great power. The idea of the nation-state was replaced with the Communist state because "the nation was inextricably connected with a mighty state; indeed, the state was the expression of the nation."⁵⁰ The philosophy of nation as state had lasting implications for the internal structure of the USSR. Soviet communism promoted the preeminence of the state and situated the individuals within it as secondary.⁵¹ The elevation of State interests over those of society is exemplified in Soviet food and agricultural policy, which consistently subordinated the needs and realities of its population to communist ideals. The empire's vast lands always seemed to hold the key to Russia's supremacy, but communism was unable to unlock it. Soviet leaders treated agriculture as the cornerstone that would support the communist state. When it proved feeble, the whole structure swayed, yet they failed to chart a new course.

FORCED COLLECTIVIZATION AND ITS ENDURING BLEMISH

The legitimacy of the Soviet Union depended on its viability as an alternative to the capitalist system. Domestically, the USSR had to demonstrate its ability to achieve a certain

⁵⁰ Tuminez, Astrid. *Russian Nationalism Since 1856: Ideology and the Making of Foreign Policy*. Lanham: Rowman & Littlefield, 2000. 2, 128.

⁵¹ Tuminez, 30-31; Hill, Fiona and Clifford G. Gaddy (2013), *Mr. Putin: Operative in the Kremlin*. Brookings Institution Press: Washington D.C. 36-7.

material standard of living. But this was only part of the equation and then only indirectly. More importantly, the Soviet Union, already lagging behind the United States after WWI, had to remake itself as a global economic dynamo where the measure of success was production, not consumption. The pathway to this was industrialization, the central tenet of communist economic change.⁵² Industrialization required a mass transformation of peasants into workers, and workers required food. Fatefully, more workers in the city meant more mouths to feed but fewer people to produce food. Despite the early worker-peasant alliance in the Bolshevik Revolution, the long-term interests of rural and urban populations were not necessarily aligned. As the communist agenda took shape, the rural population withdrew its support.

When Stalin, an unwavering devotee to the Communist ideology, looked at the pieces before him, he decided on intense collectivization.⁵³ Part of the first Five-Year Plan (1928-1932), collectivization was the forced consolidation of peasant farms into large collective farms. In the name of production and extraction efficiency, control over land and food production was centralized in the state. State-owned collective farms, *sovkhozy*, existed alongside *kolkhozy*, nominally cooperative farms that were very similar to *sovkhozy*, except in the level of state support they received. Collectivization was a political and economic endeavor meant to fuel industrialization and rapidly transform the Soviet Union into a modern power through resource extraction and exploitation of peasants. The policy was a reversal of Lenin's New Economic Policy (NEP) in place from 1922 to 1927. NEP was "first of all a new agricultural policy" that introduced free market principles to farming to incentivize peasants and increase productivity.⁵⁴ In Stalin's view, NEP violated communist principles and created a dangerous new class of wealthy peasants, the kulaks, who benefitted from the low-level capitalism that NEP allowed.⁵⁵ When grain production

⁵² Westad, Odd Arne. *The Cold War: A World History*. Basic Books, 2017.

⁵³ Kotkin, Stephen (2014) *Stalin: Volume I: Paradoxes of Power, 1878–1928*. Penguin Press: New York. 726.

⁵⁴ Timoshenko, Vladimir Prokopovich. *Agricultural Russia and the wheat problem*. Food Research Institute and the Committee on Russian Research of the Hoover War Library, Stanford University, California, 1932, 86.

⁵⁵ Kotkin, 449

dropped dramatically in 1927-28, Stalin and other critics seized the opportunity to dismantle NEP and replace it with collectivization.

During collectivization, no one was above the primacy of state interests, but Stalin-era policies were always as anti-peasant as they were pro-communism. Collectivization meant the systematic food deprivation of peasants in order to feed industrialization. Stalin expropriated as much grain as necessary for transport to the cities even if it left peasants completely without.⁵⁶ Any increase in farm yields was met with increased quotas, keeping the peasants in a constant state of shortage. When total output of collective farms failed to reach expectations, grain for cities was still seized from the productive regions, leaving those who produced the food to starve. The deprived peasants, not the state or even the capricious climate, were blamed for their own misery.

Under collectivization, peasants lost their agency, traditions, and possessions, along with their reason and will to work. They were forced to collectivize or were imprisoned for resisting. The peasant household, as a social unit, was replaced by the collective farm. “They were forced to accept a special legal status, including controls on their movement: all collective farmers, *kolkhozniks*, would eventually need to seek permission to work outside the village.”⁵⁷ An internal passport system developed in 1932 ensured against rural migration to cities in search of food by expressly forbidding peasants from obtaining passports. This system lasted into the 1970s. Peasants were also excluded from the ration card system. Stalin combined collectivization with a de-kulakization program intended to ‘liquidate the kulaks.’ During the first five years of Stalin’s rule, these policies actively contributed to the severe hunger or starvation of nearly 40 million people and the deaths of between 5 and 7 million people.⁵⁸ If rural dwellers survived the first of Stalin’s Five-Year Plans, “they could only try to make the best of things under the new order”.⁵⁹ By stigmatizing them, limiting their mobility, taking their possessions, and creating an

⁵⁶ Applebaum, Anne. *Red Famine: Stalin's War on Ukraine*. Signal, 2017. 194.

⁵⁷ Applebaum, 191.

⁵⁸ Kotkin, 724.

⁵⁹ Service, Robert. *A history of twentieth-century Russia*. Harvard University Press, 1998. 184.

atmosphere of distrust and fear among neighbors, the rural population's early aspirations after the Revolution were truncated.

Such ruthless rural programs were not without consequence. As Lenin found out under the 1918 war communism policy and Stalin also learned, peasants would simply stop producing and even sabotage their land and animals. Peasants' refusal to produce food had dangerous implications for the regime, as it stressed the state's capacity to uphold its contract with the rest of the population and increased its reliance on external support. Thus, it became a central policy priority for post-Stalin leaders to figure out how to coax higher production out of the countryside. The enduring agriculture problem showed force to be an insufficient mechanism for state control and effectiveness in the countryside.

While agricultural policy had always been a piece of Russia's great power equation, collectivization forever enlarged its role. The fate of agriculture became inseparable from the fate of the Soviet Union. As Stalin said in a 1928 visit to Siberia: "The grain problem is part of the agricultural problem, and the agricultural problem is an integral part of the problem of building socialism in our country." Unlike NEP, however, once collectivization took hold, it could not be undone by a reversal in policy. In the decades following Stalin's rule, the institutions that he created—"state and collective farms, the absence of private land ownership, state-dominated procurement and distribution systems, obligatory food deliveries, state-controlled pricing, the lack of a wholesale market, state processing monopolies, and state-directed resource allocation"—continued to dominate and restrict the policy options of future leaders.⁶⁰ However, this intransigence did not lead to consistency in agriculture policy. In 1932, Vladimir Timoshenko wrote presciently: "The conflict between the necessity of developing the productive forces of agriculture on the one hand, and the communist political theory and necessity on the other, gave rise to continued vacillation in the agricultural policy, particularly after 1925."⁶¹ Those words have remained remarkably true through the eight decades since their writing.

⁶⁰ Wegren, Stephen K. "Rural Reform and Political Culture in Russia." *Europe-Asia Studies*, Vol. 46, No. 2 (1994): 215. <http://www.jstor.org.ezproxy.lib.utexas.edu/stable/152703>.

⁶¹ Timoshenko, 91.

KHRUSHCHEV AND BREZHNEV: BETWEEN COLLECTIVIZATION AND PERESTROIKA

Yuri Levada, a Russian sociologist and political scientist, suggests that “Soviet society moved, pendulum-like, between periods of extreme oppression and relative liberalization, as under Khrushchev and early on under Gorbachev [but] in the long run, the cycles ensured the stability of the regime.”⁶² Agricultural and food policy in the Soviet Union epitomize these swings. In the same way that collectivization was Stalin’s response to Lenin’s NEP, each subsequent leader responded to the agricultural policies of the man before him, albeit only in-so-far as the constraints of the communist system allowed.

Nikita Khrushchev, leader of the USSR from 1953 to 1964, responded to collectivization with the Virgin Lands Campaign, a plan to bring 32 million acres of idle and virgin land into production, even if those areas had unfavorable climate and soil.⁶³ Khrushchev also consolidated collectivized farms in search of greater efficiency. During his tenure, the number of kolkhozes dropped from 125,000 to 36,000 giant agricultural producing units or ‘agrotowns’ as Khrushchev imagined them. Khrushchev’s tendency toward arrogance and exploitation betrayed the early gains of his agricultural policy, epitomized in his attempts to expand acreage planted with corn for livestock fodder in lands unsuitable for the task based on the American model of industrial agriculture. The campaign culminated in the food crisis of 1960-63 with a grain deficit of 40 million tons, panicked slaughtering of livestock, and a run on bread in the cities. Facing a critical grain imbalance, Khrushchev did not take the standard approach of using food rations to close the gap. Instead, he chose to purchase foreign grain from western countries, a suspected provocation for his removal the following year. Despite these failures, Khrushchev did achieve widespread industrialization of Soviet agriculture that would contribute to future productivity.

Though Khrushchev was less hostile to rural populations than Stalin, producers continued to bear the brunt of harsh agricultural production and expropriation policies. The ascension of Leonid Brezhnev (1964-1982) marked a shift in the state’s burden-sharing

⁶² Gessen, Masha. *The future is history: How totalitarianism reclaimed Russia*. Granta Books, 2017. 168-9.

⁶³ Dronin, 193.

with agricultural producers. Brezhnev recognized that “the social cost would be too high if food problems were again solved at the expense of the farmers.”⁶⁴ In 1965, the state adopted the convergence of city and countryside as an explicit policy goal.⁶⁵ The state established guaranteed incomes, pensions and other social protections for farmers, eased grain quotas, and raised procurement prices. State spending on agriculture expanded to 18 percent of the budget, compared to America’s five percent, and included monthly wages for kolkhozniks.⁶⁶ In the 1970s, Brezhnev also ended the system that expressly forbid peasants from obtaining passports. Freedom of movement had enormous implications for the rural and urban dynamics, as people flocked to the cities and left rural areas sparsely populated. Brezhnev continued Khrushchev’s amalgamation of farms into larger, vertically integrated complexes, but shifted from a focus on expansion of crop area to intensification. This was accomplished through increased capital investment, mechanization, and use of fertilizer and other technologies. In trying to alleviate state pressure on producers, Brezhnev’s policies made agriculture more state dependent than ever. By 1975, ten years into Brezhnev’s tenure, agricultural product subsidies totaled “17.2 billion rubles, equal to 15 percent of annual retail food purchases.”⁶⁷

Brezhnev tenure would have lasting effects on the trajectory of Russia agricultural production for another reason. During the 1970s, he elevated the livestock sector’s place in Russia’s political economy of food production. After Khrushchev’s corn campaign failed to solve the country’s livestock problem, Brezhnev established large-scale modern breeding complexes and tried to apply the same principles of intensification and modernization of farming to livestock. The ambition was to raise consumer welfare by increasing consumption of animal products. In a departure from the typical focus on production, Soviet planners sought to achieve the “rational norm” of meat consumption per year, set by the state at 70kg. Meat shortages were a persistent irritation to both consumers

⁶⁴ Dronin, 215.

⁶⁵ Wegren, Stephen K. *The Rise, Fall and Post-Soviet Transformation of the Rural Social Contract*. National Council for Eurasian and East European Research, 2002. 5.

⁶⁶ Dronin 221.

⁶⁷ Dronin, 228-9

and politicians, “unpleasant reminders of the failings of a political ideal.”⁶⁸ But increased domestic livestock production was a zero-sum game. More grain for livestock meant less grain for bread. Even when livestock production gains were achieved, prices stayed high, and large quantities of meat were still imported. Reliance on grain imports from other countries was at odds with the Soviet Union’s goal of a complete and sufficient socialist state, but there was no way around it. The state could either produce its own meat or its own wheat; it could not do both. This tension meant that the state had to import “36 million tonnes [of grain] per year in the 1980s,” up from almost zero in 1970.”⁶⁹ From 1986 to 1990, the USSR imported an annual average of 32.2 million tons of grain or 14 percent of total consumption, largely to support the ambitious livestock program.⁷⁰ The emphasis on livestock production—and the tradeoffs that entails—remains at the center of Russian food policy today.

Because of agriculture’s centrality to the success of the USSR, the state was willing to pour seemingly endless money into the sector, but production output was not growing commensurate with investment. From 1961 to 1977, each extra ruble of agricultural capital stock added only a third of a ruble to output, down from half a ruble in 1951 to 1960.⁷¹ In the decade from 1976 to 1985, the picture was even grimmer; despite \$150 billion invested in agriculture, the production increase was zero.⁷² Massive subsidies and heavy-handed price controls distorted the sector and weighed down the state, but any attempts to reform caused negative and magnified waves throughout the industry. Worst of all, system failures had led to Soviet dependence on the West through food aid, grain imports, machinery, fertilizer and other agricultural inputs. By the late 1980s, the USSR’s economic muscle was hollowed out. Its only claim to super power status was its nuclear capacity.

⁶⁸ Thatcher, Gary. “In USSR, more meat is not enough”, *Christian Science Monitor*, November 21, 1984. <https://www.csmonitor.com/1984/1121/112123.html>

⁶⁹ Sedik, 5; Liefert, William M. and Olga Liefert. "Russia’s potential to increase grain production by expanding area." *Eurasian Geography and Economics*, Vol. 56, No. 5 (2015): 505. <https://www.tandfonline.com/doi/full/10.1080/15387216.2015.1101353>

⁷⁰ Wegren (2010), 190.

⁷¹ Dronin, 272.

⁷² Ostrovsky, Arkady. *The Invention of Russia: The Journey from Gorbachev's Freedom to Putin's War*. Penguin Books, New York: 2015. 83.

SUPPLEMENTING STATE SHORTAGES

Because the state was unable to meet the Russian population's basic needs and changing consumption demands, the USSR had to supplement its own supply with both external and internal resources. Throughout the Cold War, the United States and the Soviet Union maintained a trade relationship on basic commodities as the latter regularly suffered shortfalls due to failed crops and incompetent agricultural policies. Khrushchev's scorned receipt of food aid in 1963 was not the first nor the last time that the country would receive significant assistance from western countries. By the mid-1970s, the Soviet Union was reliant on western grain, particularly from the United States, a relationship that was formalized in the 1975 Long-term Grain Agreement. In 1972, in an incident that became known as the 'great grain robbery', the Soviet Union bought a quarter of the US wheat harvest at subsidized prices to supplement the USSR's own grain failure. The purchase emptied out U.S. wheat supply and caused global commodity prices and U.S. consumer prices to skyrocket. The incident demonstrated the potential for a profitable and mutually beneficial arrangement between the two countries, but also exposed the vulnerabilities that such a relationship could produce in a globalizing market.

This was the food dependency that the United States attempted to exploit with the 1980 grain embargo, which again revealed the complex and intertwined interests of the major powers. In response to the embargo, Brezhnev announced an ambitious Food Program in 1981 to reduce reliance on farm product imports from capitalist countries. A 1982 CIA Intelligence Assessment describes the program as "essentially a continuation of past policies" with production goals that are "untenable both because of the political and bureaucratic conflicts inherent in the program and because of its failure to come to grips with more fundamental problems."⁷³ The Soviet Union remained committed to its livestock program and also its burdensome approach to centrally controlling agriculture at every

⁷³ Directorate of Intelligence. *The Brezhnev Food Program: An Intelligence Assessment*. Central Intelligence Agency, SOV 82-10130, September 1982. <http://www.cia.gov/library/readingroom/docs/CIA-RDP83T00853R000100140002-9.pdf>

stage. And so, from President Herbert Hoover's assistance during the 1921 famine to the dissolution of the Soviet Union, the USSR would have to rely on outside help.

To close the gap between supply and demand, the state found itself also reliant on resourceful urban and rural populations within its own borders. Soviet officials showed themselves willing to turn a blind eye to food production and consumption that occurred outside of the centrally-controlled system. Bialer explains that "deviant economic behavior" was less dangerous than deviant political behavior. Allowing Soviets to channel their activities into sub-market economic aspirations "to some extent performs the function of a safety valve for the pent-up dissatisfaction of broad strata of Soviet society."⁷⁴ For this reason, the sub-economy that emerged was integral to the survival of the primary state system. Soviet officials were aware of and tolerant of these subversive activities because knew that the existence of private or informal economic activities moderates what might otherwise be rebellious inclinations.

Throughout the USSR's existence, collectivized peasants maintained private plots that contributed more than thirty percent of total agricultural output. In 1966, out of the USSR's total gross production, these private producers contributed 64 percent of potatoes, 43 percent of vegetables, 40 percent of meat, 39 percent of milk, and 66 percent of eggs.⁷⁵ Eighty percent of this production was consumed by the producer family itself, and the remaining 20 percent was sold in private markets.⁷⁶ City dwellers found other ways around the insufficient food provided by the state, including dachas and subsistence plots, and bartering with rural populations. Despite the risk, private markets flourished. These markets were points of exchange between rural and urban populations, where peasants sold their food to the city in exchange for material and consumer goods. This second economy system produced the illusion, and sometimes even the reality, of higher living standards and material wealth than the state could provide of its own capacity.

⁷⁴ Bialer, Seweryn. "The Sources of Stability of the Soviet Regime." Columbia University: Final Report to National Council for Soviet and East European Research, 627-9, February 1985. 6.

⁷⁵ De Pauw, John W. "The Private Sector in Soviet Agriculture." *Slavic Review*, Vol. 28, No. 1 (1969): 63.

⁷⁶ De Pauw, 63.

The informal food system was still thriving during the tenure of Mikhail Gorbachev, the last leader of the Soviet Union. In a June 1990 article, journalist Richard Parker describes a meal he had with friends in Moscow. The extravagant meal came not from the empty grocery store, but from the hosts' dacha garden, a private market, an enterprising neighbor who sold baked goods on the side, and through bartering. The host continues, "We Russians have a saying: *To, schro ne videsh v magazinakh, videsh na stok.* What you don't find in the store, you find in the home."⁷⁷

RESTRUCTURING, OPENNESS AND THE END OF THE SOVIET UNION

Mikhail Gorbachev (1985-1991) became the general secretary of the CPSU after the quick terms of General Secretaries Yuri Andropov (November 1982 – February 1984) and Konstantin Chernenko (February 1984 – March 1985). By the time Gorbachev took office, it was clear that agriculture was the millstone weighing down the sagging Soviet economy. The Soviet Union was isolated from and lagging behind the capitalist world. The ideology that had devised collectivization was proving no match for the capitalist farming systems elsewhere. Years of confused agricultural policies had layered on thick bureaucracy and inefficiencies. Living standards, productivity, and technological advancement had stagnated. The USSR was at a breaking point.

Gorbachev, born in 1931, grew up in Stavropol Krai, a town devastated by collectivization. The newest leader of the Soviet Union was a man who had encountered first-hand its harshest policy interventions. Gorbachev pursued a career in agriculture, attending Stavropol State Agricultural Academy, before being appointed in 1978 as the secretary for agriculture in the Central Committee. As leader of the Soviet Union, Gorbachev was the first to propose structural reforms to the entrenched agricultural system. With training and professional experience in agriculture, he was well-acquainted with the inefficiencies of collectivized agriculture. The agricultural sector was the most logical

⁷⁷ Parker, Richard. "Inside the Collapsing Soviet Economy", *The Atlantic*, June 1990 Issue.
<https://www.theatlantic.com/magazine/archive/1990/06/inside-the-collapsing-soviet-economy/303870/>

starting place to inject market incentives and decision-making power back into the system. Gorbachev sought to elevate small and individual family farms through an “autonomous link” system that paid based on output, not work. Thus, individual farms could be run more like private businesses with incentives directly linked to efficiency and performance. Throughout Soviet history, autonomous links had been tried intermittently but had been routinely suppressed by the country’s bureaucracy. Despite its clashes with Soviet ideology and power structures, Gorbachev pursued it as a critical piece of Soviet recovery. But, he found, small change was not possible with the agro-industrial system, rigid with political power of those who managed collective farms and cumbersome communist ideology. He was frustrated at every turn. In 1987, Gorbachev said: “There is something that prevents us from moving forward. . . We have passed more than sixty decrees on agriculture since April 1985.”⁷⁸ And yet change did not come, both because the people did not buy into it and because the bureaucracy in charge of implementing the decrees would not allow it.

Because of this, Gorbachev had to make his agricultural reforms part of a more systemic push to address corruption, inefficiencies, and redundancies. In 1985, General Secretary Gorbachev promoted political and economic liberalization through dual policies of perestroika and glasnost. In doing so, he hoped to reestablish the legitimacy of the communist state, not dismantle it. Perestroika, “restructuring,” intended to reform the Soviet economy. His vision was an economy built on market mechanisms, consumer goods, and global economic integration, and otherwise diminished artificial borders. In many ways, perestroika did not just fail to save the Soviet Union from its economic woes; it made the situation worse. The economy floundered between the old command economy and the new liberalized one.⁷⁹ While revenues and export earnings fell and inflation grew, price controls and subsidies remained in place. The budget deficit reached crisis levels. Endemic inefficiencies and corruption in Soviet agriculture and industry exacerbated the discrepancy. Standard of living backslid, food became scarcer, and rationing was

⁷⁸ Ostrovsky, 58.

⁷⁹ Richard Parker, “Inside the Collapsing Soviet Economy”, *The Atlantic*: June 1990 Issue.
<https://www.theatlantic.com/magazine/archive/1990/06/inside-the-collapsing-soviet-economy/303870/>

intensified in part because Soviet subsidies made food vastly underpriced and thus created excess demands. At the end of 1988, “meat was rationed in twenty-six out of fifty-five regions of the RSFSR.”⁸⁰ One year later, “milk, tea, coffee, soap and meat had vanished from state retail outlets even in Moscow.”⁸¹ Soviet authorities and society were not interested in waiting for the reforms to prove their worth. Feeling the pressure, the elites and the party-state that benefited from the old system dug in. Gorbachev could not back pedal or move forward, so he too dug in. Eventually, in 1991, he was forced to resign.

The second of Gorbachev’s policies was more difficult to contain once it began. Glasnost, meaning openness, encouraged transparency of state operations, reduced corruption and censorship, and allowed political discourse and criticism of the government. Gorbachev also began to speak of universal human rights and values, freedom of movement, civil rights, and renunciation of force. In time, he also welcomed a reevaluation of the country’s past and its Stalinist history. While the movement of information, truth and even people into and out of the Soviet Union had been increasing since the 1960s and had never been obstructed fully, Gorbachev’s policies accelerated the pace and offered state approval and protection. All of this entailed a flood of material flowing more unencumbered than ever before about the operation and condition of the Soviet state and its past deeds, surprising even party officials and Gorbachev himself with the reality.⁸² The Glasnost period taught the Russia population not only of its own misery, but also the state’s role in creating it. It invited society to reevaluate the way it understood its relationship to the state.

Either policy, perestroika or glasnost, on its own may not have been so powerful. However, the simultaneous attempts to liberalize and democratize the countries gained momentum that exceeded Gorbachev’s efforts to control it. The social and political impacts of Glasnost made the failures of perestroika explosive. As Goldman argued: “The lifting

⁸⁰ Service (1998), 470.

⁸¹ Service, 472.

⁸² Service, 448; Goldman, Marshall I. *What Went Wrong with Perestroika*. WW Norton & Company: New York. 1992. 98-9.

of strict political controls after seventy years of often ruthless enforcement was bound to cause excesses.”⁸³ He goes on to explain the magnitude of these reforms:

For that matter, any changes that might have broken the implicit social contract between the state and the general population would have been considered provocative. Although there was no formal document spelling out the rights and obligations, beginning in the late 1920s the Soviet public had gradually come to accept the idea that in exchange for full employment and little or no inflation, they would put up with a shortage of consumer goods and an overzealous police state. Anyone threatening that order had better not be only ambitious and self-confident but willing to risk the viability of the contract itself. (Goldman, 68)

What Gorbachev was doing went beyond reform. He was rewriting the social contract between the Soviet state and society, and in the process, it shattered. The Russian people had never known anything but authoritarian rule, and their expectations for the social contract were relative to their own experience.⁸⁴ When Gorbachev’s policies began, Soviet citizens witnessed their situation deteriorating. A *New York Times* article the day after Gorbachev resigned as USSR president puts it this way: “Mr. Gorbachev had given people a new freedom. But the Soviet Union had also given them something tangible—the pride of superpower. . . Now that was being taken away, too, and how the humiliation would play out, especially in conditions of hunger and poverty, was among the troubling questions for the future.”⁸⁵ Greater freedom and openness also meant greater insecurity and uncertainty about the USSR’s place in the world. His frustrated attempts at agricultural reform were just a microcosm of how the system would react to more substantive changes. It is no surprise that a man who made agriculture his expertise rose to lead the USSR at the age of 49; nor is it a surprise that his devotion to communist ideology and the entrenched policies and ideologies of the past got in the way of true success.

⁸³ Goldman, 125.

⁸⁴ Bialer, 37.

⁸⁵ Schmemmann, Serge. “End of the Soviet Union; The Soviet State, Born of a Dream, Dies.” *New York Times*, December 26, 1991. <https://www.nytimes.com/1991/12/26/world/end-of-the-soviet-union-the-soviet-state-born-of-a-dream-dies.html>

BREAKING DOWN AND REBUILDING THE SOCIAL CONTRACT

A 2005 survey found that 42 percent of Russians “wanted the return of a ‘leader like Stalin.’” The rate rises to 60 percent for citizens over the age of 60, who would have been at least seven years old when Stalin died.⁸⁶ As Figes explains, the nostalgia for Stalin is not political or ideological. It is a longing for “the legendary period of their youth when the shops were full of goods, when there was social order and security, when their lives were organized and given meaning by the simple goals of the Five-Year Plans.”⁸⁷ During Stalin’s totalitarian regime, society tolerated to some degree the oppressive regime because Stalin managed to industrialize and modernize the country, educate them, win World War II, raise urban standards of living, and lower the price of bread.⁸⁸ But even his totalitarian regime was susceptible to the pressure from the populace. At a July 1928 meeting of Bolshevik leaders, Anastas Mikoyan, Minister of Foreign Trade throughout Stalin’s reign, said, “We made the Revolution in order to eat more than just black bread. . . Even the fact that we began to sell grey bread provoked dissatisfaction among the workers.”⁸⁹ Having given up so much to the communist state, the population did not expect to be poorly fed. Unfortunately, communism made the state’s guarantees difficult to uphold. Thus, of course, Stalin compensated with coercion where voluntary compliance was low.

When Stalin died, Khrushchev began to soften the regime’s hard approach to authority and legitimacy, a process that Brezhnev continued. Certainly, both retained repressive approaches and did not seek open and democratic governance, but each attempted to revise the harshest of Stalin’s policies. If the USSR was going to become a modern nation-state on equal or superior ground to the Western world, legitimacy had to be built on more than intimidation. Each time the price of food was raised, meat disappeared from the shops, or rationing was reinstated, society saw itself as worse off than

⁸⁶ Figes, Orlando. "Private life in Stalin's Russia: family narratives, memory and oral history." *History Workshop Journal*, 65.1, 132. Oxford University Press, 2008. <https://doi.org/10.1093/hwj/dbm073>.

⁸⁷ Figes, 132.

⁸⁸ Figes, 133.

⁸⁹ Nérard, François-Xavier. "Variations on a Shchi Theme: Collective Dining and Politics in the Early USSR." *Gastronomica: The Journal of Critical Food Studies*, Vol. 17, No. 4 (2017): 39. DOI: 10.1525/gfc.2017.17.4.36

before, a sentiment that threatened popular support. Thus, Gorbachev's radical reforms themselves did not induce discontent from the Soviet population. But when the effects of the reform impacted their consumption, he had gone too far.

Perestroika took away social protections, such as food subsidies and price controls, at the same time that Glasnost took away the state's tools for forcing compliance. A letter from a Soviet student in February 1991, ten months before the USSR dissolved, says this: "Last week I was standing in a terrible line for meat. . . We had lines (as you know) but they were not so big, and we stood in those lines not for everything. But now we have lines for everything."⁹⁰ In 1991, as always, Russian society interacted with the state through food. Food transformed the success or failures of communism into a consumable object and allowed Soviet citizens to assess both the state's adherence to its contract and the legitimacy of its leaders. The difference under Gorbachev's reforms was that coercion was less permissible and the monopoly on information less complete. After Gorbachev, the legitimacy of the state seemed to depend more than ever on the ability to actually uphold the social contract.

The authors of a 2005 report, *Climate Dependence and Food Problems in Russia, 1900-1990*, summarize an inherent flaw in Russian agriculture: "As with any farming in marginal climate conditions, Russian agriculture should have been developing according to a 'survivor' rather than an 'advancer' model. . . for the former, success means being able to reproduce the basic living cycle, while the latter aims to raise the standard of living."⁹¹ The state chose advancement. The communist ideology made industrialization an immediate priority ahead of agriculture's sustainable development, and Stalin ignored the hand that Russia's unstable and adverse climatic conditions dealt, believing that communism would emancipate the land. Soviet leaders were determined to situate Russia as a modern power and a legitimate alternative to capitalism, and agrarian power became key to that positioning. In the end, the great ambitions of the socialist state would themselves undermine their achievement. Ironically, when trying to overcome these

⁹⁰ Goldman, 14.

⁹¹ Dronin, 335.

dysfunctions, Gorbachev would only undermine the basis for the Soviet Union's existence. Stalin's policies and programs and those that his successors layered upon them were so entrenched that not even radical reform or dissolution of the USSR could erase the canvas. Russian leaders and policymakers must still contend with these legacies when crafting food and agricultural policy today.

Chapter V: Russia's Leaders and the Sisyphean Agricultural Problem

Throughout its history, the Soviet state held agriculture and food completely under its purview. The state penetrated society, dictating work, where they lived, and what they believed; it also controlled what it ate through state-standardized recipes, where it ate (in communal kitchens and public canteens), and how much it ate. In exchange for such intrusion, society expected the state to deliver a certain level of welfare. The uneven relationship persevered through purges, famine, hot and cold wars, and other trauma because of the power of the strong leader. From Stalin to Gorbachev, each leader embodied and used the state's historical narrative and its ambitions to solidify his power. All ideas and actions were conveyed from his office with few checks on power, and he, whoever he is, positioned himself as the sole guarantor of the state's geopolitical position. In doing so, he also left himself without a scapegoat when the situation turned sour. His power is also his vulnerability. Once Communist leaders made food and agriculture a proxy for understanding the overall system's strength, the connection between political power and food was fixed. The Soviet Union's collapse did not wipe the slate clean. Robert Service explains that any new leader of the Russian Federation would have to accept the durability of the Soviet order: "The sediment of various stages of history lay upon the Russian mind. . . no reforming regime could expect simply to turn Russia back on to a path of development abandoned in 1917."⁹² The next leader would have to prioritize food policy if he was going to maintain stability while ushering in capitalism and prosperity.

THE TRANSITION: YELTSIN AND THE MARKET ECONOMY

By 1990, the year before the USSR dissolved, Soviet agriculture was a bloated system of irrational pricing, inefficiency, low producer incentives, waste and corruption. When Gorbachev resigned and the Soviet Union dissolved on December 25, 1991, Boris Yeltsin (1991-1999) assumed the presidency of the Russian Federation along with the responsibility to transition Russia from a communist economy to a capitalist one. Soon

⁹² Service, Robert, *Russia: Experiment with a People*. Harvard University Press, Cambridge, Massachusetts. 2003. 529, 59.

after, he began an economic “shock therapy” program and began to contend with this long history. While this led to seemingly significant changes in Russia’s agricultural and food policy, “in certain respects Russian agriculture during transition has been marked more by continuity than change.”⁹³ This section examines both the changes and continuities that have made Russia’s rise to a major wheat exporter possible and preserved some fundamental pieces of its agricultural problem.

Yeltsin’s primary agricultural goals of transition were to achieve stable productivity alongside a reduction in the fiscal burden of agriculture on the state. This entailed cutting producer and consumer subsidies and price supports simultaneously. Free-market prices were introduced for consumer goods, and state price fixing was ended as initial steps in a longer process to privatize the entire economy. The policies had immediate consequences. Retail food prices rose “2,670 percent in 1992, 940 percent in 1993, and 330 in 1994.”⁹⁴ For decades, to uphold the communist myth, the Soviet Union had heavily subsidized the price of retail and wholesale food, elevating demand for products that were priced well below what market price would have been. As subsidies for farmers and producers disappeared, large scale production levels fell steeply too: “From 1991 to 2000, Russian agricultural output dropped by almost two-fifths, while production of livestock products was cut in half.”⁹⁵ While painful, this contraction, which lasted until 1999, represented a necessary rebalancing in production and consumption volumes after decades of distortionary policies were removed.

This decade of decline—or adjustment—compelled an increase in food imports, primarily cheap poultry from the United States, along with livestock products. For five of the years from 1990 to 2000, Russia received food aid from the United States and the European Union. Aid peaked in 1999 after a financial crisis hit Russia in late 1998. During

⁹³ Liefert, William M., and Olga Liefert. "Russian agriculture during transition: performance, global impact, and outlook." *Applied economic perspectives and policy*, Vol. 34, 1, (2012). 37. <https://doi.org/10.1093/aep/p046>

⁹⁴ Wegren (2010), 189

⁹⁵ Liefert (2012), 46.

this time, food security language entered the political vernacular in Russia.⁹⁶ The population began to fear the deeper welfare losses that the economic reforms would bring. Old strategies of personal commerce resurged; rural and urban populations alike began producing food on private plots and dachas, bartering, hoarding and trading in informal markets.⁹⁷ At the end of the first decade of the transition, private plots accounted for over half of the country's total agricultural output.

In addition to price liberalization, privatization—the transfer of land to private individuals and companies—was a critical piece of the transition to market-based agriculture. However, the attempt to privatize was incomplete and superficial. Changes in ownership and production were mostly nominal. Because privatization was not coupled with institutional reform that clarified or enforced ownership and property rights, smallholders and individuals were often precluded from obtaining and owning land. In 1990 there were around 25,000 “collective” farms. By 2003, most of Russia's 221 million hectares of farmland was still “controlled by Soviet-era collective farms: inefficient, debt-laden behemoths struggling to survive.”⁹⁸ These farms averaging 4,800 hectares, or 11,861 acres, in size were owned by managers “who are holdovers from communism” with strong financial interest in preventing further division.⁹⁹ The Soviet era firmly consolidated political and economic interests, who were then able to lobby and otherwise pressure Yeltsin's team to keep their interests in mind. This, combined with the fact that implementation of agrarian reform often fell to local and regional bureaucracy that often stood to lose from reforms, stunted the intended effects of privatization.

Despite moves to privatize and liberalize, state support for the agricultural sector continued in many ways. The state retained control over areas of the agricultural value chain besides farmland, such as transportation and distribution, bailed out failing farms, gave tax breaks to producers, and otherwise afforded preferential treatment to collectivized

⁹⁶ Wegren (2010), 193.

⁹⁷ Service (1998), 510.

⁹⁸ Feifer, Gregory, “Russia: Farmland Reform May Prove Putin's Lasting Legacy”, Radio Free Europe / Radio Liberty, February 14, 2003. Accessed March 20, 2019. <https://www.rferl.org/a/1102228.html>

⁹⁹ Feifer, “Russia: Farmland”

farmers. These domestic supports were complemented by trade policy that promoted Russian commodities and made them more competitive on the global market, such as tariff rate quotas and sanitary and phytosanitary restrictions (SPS) on meat imports, policies that continue today.

Even with this support, investment in agriculture during Yeltsin's tenure declined from \$39 billion in 1990 to \$2 billion in 2000. Farm debt rose as profitability dropped because producers could not afford inputs, machinery repairs or updates, infrastructure improvements, or management and operations enhancements. The loss of investment, combined with inflation, ruble fluctuation, and rising staple food prices, was too much to overcome. Thus, Yeltsin's tenure had another critical impact: it paved the way for the next leader to reverse his withdrawal from agriculture.

PUTIN'S FIRST TWO TERMS AND THE REVIVAL OF RUSSIAN AGRICULTURE

Market reform was never expected to be easy and in fact had made some progress in transitioning from the communist economy. However, the state failed to prepare the population generally and the agricultural sector specifically for an effective transition to capitalism. Yeltsin's initial shock therapy and subsequent withdrawal left Russians and the Russian economy wanting. In 2000, Vladimir Putin assumed power with agrarian reform as a high priority. This entailed a reversion to market intervention and government support for the sector, not a refinement of free market principles. Post-1998 economic recession, Putin was able to take advantage of high energy prices that provided the government with much needed revenue to implement major reforms and inject money back into the agricultural sector.

In July 2000, at the beginning of Putin's first term, Minister of Agriculture Aleksei Gordeyev released the "Basic Directions of Agrofood Policy to 2010" document that set agricultural policy priority as "increasing domestic food production and lowering reliance on food imports, with the goal of improving the nation's food security in particular and

economic security in general.”¹⁰⁰ Wegren notes that the policy prescriptions in the document were actually pursued, saying that the “document was much more than rhetoric (unlike during the Yel’tsin administration).”¹⁰¹ Whereas Yeltsin had regularly failed to meet the state’s promised allocations to the agricultural and food sectors, Putin demonstrated a commitment to fulfilling these obligations both in policy and in action. In 2000, Putin created Rosselkhozbank, a state-owned agricultural bank, that grants loans to producers at rates subsidized by the government. In 2002, Putin signed a law that provided financial relief to large farms whose debt kept them from making investments, paying workers, and maintaining labor. Both actions finally gave farms the ability to access loans and credit, invest in capital improvements, and increase production. Other facets of Putin’s agricultural policy included the simplification of the agricultural tax, introduction of a price support system for grain crops, direct production subsidies for animal products, a government-run program that lends machinery and livestock to farmers at subsidized rates, and state subsidization of fertilizer purchases.¹⁰² From 2005 to 2010, state support for agriculture tripled.¹⁰³

Agricultural production began to rebound. From 1998 to 2013, “total agricultural output in Russia increased by about 50 percent.”¹⁰⁴ From 2000 when Putin took power to 2008 when food price spike hit, wheat production increased from 34.5 to 63.8 million tons, a 54 percent increase.¹⁰⁵ Agricultural enterprises (former state and collective farms) were the main recipients of Putin’s attention. They received support in a variety of forms, including tax breaks, trade restrictions, debt relief, subsidized credit, and purchase price supports. The government also supported them indirectly through third parties that provide subsidized equipment, loans, and other supports at rates subsidized by the government.

¹⁰⁰ Wegren, Stephen K. "Russian agriculture during Putin's first term and beyond." *Eurasian Geography and Economics*, Vol. 46, No. 3, (2005): 226. <https://doi.org/10.2747/1538-7216.46.3.224>

¹⁰¹ Wegren (2005), 227.

¹⁰² Wegren (2010), 196.

¹⁰³ Liefert (2012), 50.

¹⁰⁴ Rada, Nicholas, William M. Liefert, and Olga Liefert. “Agricultural Recovery in Russia and the Rise of Its South.” *Amber Waves Magazine*. USDA ERS, April 25, 2017. <https://www.ers.usda.gov/amber-waves/2017/april/agricultural-recovery-in-russia-and-the-rise-of-its-south/>

¹⁰⁵ Welton, George, 6.

Fixed capital investment and foreign direct investment in the sector has also increased many times over from 2000 to 2015. The influx of capital led to the emergence of *new agricultural operators*, firms that own and manage massive vertically integrated farming operations in Russia. These operators have overcome persistent hurdles in Russian agriculture through significant investments in machinery, inputs, and technological advancements, specialization, and operational and managerial improvements.¹⁰⁶ Opinion is mixed on whether NAOs represent the best approach to efficient and sustainable production; nonetheless their influence has grown and altered the landscape of Russian agriculture. Overall, larger enterprises have experienced a consolidation of economic and political power, along with an accumulation of capital and land.

The other two types of producers in Russia today—household plots and private family farms—are finding their formal market presence and political power diminished. From 1990 to 2013, agricultural land used for household plots increased from 3 percent to 16-20 percent.¹⁰⁷ Altogether, smallholders only produce approximately one percent of the state's grain, but account for a disproportionate amount of agricultural production. In 2014, these subsidiary plots produced 80 percent of potatoes, 69 percent of vegetables, and 47 percent of milk.¹⁰⁸ Despite smallholders' importance to overall productivity of Russian agriculture, state support is largely unavailable to them, going instead to the large operators who produce the bulk of Russia's grain. Instead of acting as a true auxiliary system as they did in the Soviet era, today household plots are in competition with the massive enterprises. As Russia has pushed to become a global agricultural player, industrialized agricultural production reigns. Russian food policy priorities, as a subset of domestic and foreign policy, are pursued entirely within the realm of these enterprises, thereby making it difficult

¹⁰⁶ Liefert, William M. and Olga Liefert. 2015. "Russia's Economic Crisis and its Agricultural and Food Economy." *Choices*, 30.1 (2015). <http://choicesmagazine.org/choices-magazine/submitted-articles/russias-economic-crisis-and-its-agricultural-and-food-economy>

¹⁰⁷ Rada, 6.

¹⁰⁸ Goncharov, V. "The Production Potential of the Russian Agro-Industrial Complex." *Problems of Economic Transition* (2018), Vol. 60, 5/6: 356-371. DOI: 10.1080/10611991.2018.1547591

for smaller producers to access formal market opportunities within the modern capitalist system.

PUTIN’S FOOD POLICY FROM 2012 TO PRESENT

When Putin’s third term as President began in 2012, the state had a clear vision for its agriculture and food policy. The three objectives – to increase domestic production, increase Russia’s share of global markets, and achieve food self-sufficiency—were established in the 2010 Food Security Doctrine and firmly situated within its foreign and domestic policy via the National Security Strategy of the Russian Federation to 2020. The state’s agricultural recovery during the first decade of the twenty-first century had, for the first time, shown Russia that its aspirations were achievable. The reaction, in line with wider Russian actions, was to pursue the goals even more aggressively.

Shortly after Putin returned to the presidency for his third term, the Kremlin announced the State Program for Development of Agriculture and Regulation of Agricultural Commodities Market in 2013-2020. The State Program 2013-2020, together with the 2010 Food Security Doctrine, form the basis of Russia’s current agricultural policy. The program stresses accelerated food import substitution and production volume, quality improvements in agriculture, technical and scientific support and modernization of agriculture, and rural development. State allocations for the development of agriculture and food markets during the eight-year period were set at 2.28 trillion rubles or \$76 billion.¹⁰⁹ While the program has been amended multiple times since its adoption, the lesson is the same: despite market reform and capitalist ventures, the Russian economy is still an appendage of the state. From Gorbachev’s initial attempts at restructuring to today, the preponderance of Russian agriculture in the international market remains integral to the way that the state conceives of and projects its power internationally and asserts its legitimacy domestically. The influence of this principle can be seen in many of Russia’s

¹⁰⁹ Vassiliev, Yelena. *Russian Federation: Agriculture Development Program 2013-2020*. USDA Foreign Agricultural Service, Global Agricultural Information Network Report No. RS1270, November 6, 2012. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agriculture%20Development%20Program%202013-2020_Moscow_Russian%20Federation_11-6-2012.pdf

economic and political decisions whereby it prioritizes the protection and projection of its food power above other aims.

Trade protectionism has come to define Putin's agrarian policy even as he made accession to the World Trade Organization a primary goal in the early years of his administration.¹¹⁰ Russia's agricultural lobby, led largely by Gordeyev, strongly opposed WTO accession, which places a cap on state aid to agriculture and otherwise theoretically limits the state's ability to implement market-distorting policies and practices. Under political pressure, Putin slowed down his WTO ambitions and reverted back to strong centralized authority, especially as Russia's GDP grew from "\$200 billion in 1999 to some \$960 billion in 2006," which diminished the urgency of WTO membership.¹¹¹ Despite this growth, only a few years later, it became clear that unless Russia opened itself up to foreign investment it would never achieve the growth and competitiveness that it sought. On August 22, 2012, one month after the State Program 2013-2020 was released, Russia finally entered the WTO. This bound Russia's tariff rate at 11 percent for agricultural products and 7.1 percent for non-agricultural products. Russia decreased both import tariffs and quotas on meat and livestock, which increased its imports, and tariffs on agricultural machinery and fertilizers.

However, in March 2014, soon after Russia's WTO accession, the United States, the European Union and other countries imposed sanctions on Russian individuals and businesses, including Rosselkhozbank, the state-owned agricultural bank; Sodrugestvo, a vertically-integrated agricultural enterprise; and VTB bank that in 2019 purchased one of the largest grain export terminals at the Black Sea Port of Novorossiisk. Russia retaliated soon after with much broader counter-sanctions on almost a thousand agricultural products, banning foods from Australia, United States, the European Union, Norway and other countries. Many of the embargoed foods, such as beef, vegetables, and fruits, are those that are least accessible to Russia through domestic production. The sanctions and counter-

¹¹⁰ Wegren (2005), 234

¹¹¹ Aslund, Anders. "Testimony at the Hearing on EU Economic and Trade Relations with Russia, Committee on International Trade, European Parliament, Brussels." Peterson Institute for International Economics. November 21, 2006. <https://piie.com/commentary/speeches-papers/russias-wto-accession>

sanctions, and other non-tariff barriers like SPS measures, have mitigated the effects of WTO accession.

Ostensibly, the embargo on Western foods was a response to the Western sanctions, but it was actually in line with Russia's long-term policy of import substitution, promotion of domestic production support, and economic sovereignty aims. The speed with which the specific import bans were announced raised suspicion that the state had already deliberated such restrictions. Citing the 2010 Food Security Doctrine and the State Program 2013-2020, the Bank of Finland's Institute for Economics in Transition stated, "The groundwork for anti-sanctions was also laid well before events in 2014. . . Russia's food security policy reflects a worldview in which dependence on imports is considered dangerous."¹¹² Russia's counter-sanctions appear an almost inevitable expression of its food policy posturing. The sanctions accelerated the shift in Russia's agricultural focus from self-sufficiency to economic growth, as the country now assesses the entire sector based not only on self-sufficiency goals but also on export potential. This has allowed Russia to diversify its economy away from energy. For those products that Russia cannot easily provide through domestic production, Russia has shifted trading relationships to other countries, such as Argentina and China.

Much like the impact of WTO accession, the true impact of the sanctions on Russia's economic performance generally and wheat production and exports specifically is difficult to assess because of simultaneous developments. In 2014, Russia experienced other shocks, namely the collapse of oil prices, a financial downturn and ruble devaluation, in large part due to capital flight and a decrease in foreign investment encouraged by western sanctions. As a result of the extended financial trouble, the state "lacks the financial means and technology to modernize [the energy and agricultural sectors] and instead devotes only enough resources to them to maintain their stability."¹¹³ Russia's

¹¹² Korhonen, Iikka, Heli Simola and Laura Solanko, "Sanctions, counter-sanctions, and Russia: Effects on economy, trade and finance." Bank of Finland: Institute for Economics in Transition, BOFIT Policy Brief No. 4 (2018): 5-6. <https://helda.helsinki.fi/bof/handle/123456789/155105-6>.

¹¹³ Stratfor Worldview. "Trade Profile: Russia Guards Against its Vulnerabilities." *Stratfor*, January 9, 2018. <https://worldview.stratfor.com/article/trade-profile-russia-guards-against-its-vulnerabilities>

reliance on energy exports makes it especially vulnerable though the state has attempted to diversify away from energy toward sectors like agriculture. However, agriculture itself is susceptible as ruble depreciation and global oil price drops have made their way into higher prices for agricultural inputs and investments. The devaluation of the ruble also made Russian exports more competitive on the global market, so producers began looking outward in greater volume. This has placed tremendous demand on the entire agricultural sector from input acquisition to export logistics. At the same time that cost of food production rose, Russian consumers experienced a significant decline in income that depressed overall food expenditures and altered their basket of goods toward cheaper and even counterfeited foods.

This impact on the Russian population is the most easily observable effect. At the onset of sanctions, Russia was a net food importer. Despite growth in wheat and commodity exports, the state imports high value products, such as meat, nuts and fruits. Because of this trade balance, sanctions and counter-sanctions have significant implications for the consumption and welfare of Russian citizens: “Of Russia’s \$39 billion total agricultural and food imports in 2013, \$23.5 billion were in the product categories affected by the ban.”¹¹⁴ Availability and consumption of higher value goods has decreased but the supply of wheat and other staples for which Russia is an exporter has not declined significantly. While Russia produces enough staples to meet the caloric needs of its population, except for meat and dairy, Russia’s domestic demand for imported goods has increased, most of which came from the EU prior to 2014. Russia’s agricultural sector is unlikely to find a way to meet the diversity demands of consumers, who have seen their options in markets markedly reduced.

Nevertheless, Russia has extended the food embargo through the end of December 2019 and remains optimistic about the ability of its food and agriculture sectors to rise to the challenge. In April 2019, the Ministry of Economic Development projected an 11

¹¹⁴ Liefert, “Russia’s Economic Crisis.”

percent increase in agricultural production over the next five years.¹¹⁵ Despite the sanctions, drop in energy prices, and ruble volatility, Russia emerged from its two-year recession in 2017 with gross agricultural output increasing 2.4 percent. The record high grain harvest was key to this growth and was due to the “combination of improving supply inputs, financing availability, state support, and very favorable growing conditions for both winter and spring crops.”¹¹⁶ The production of poultry and pork has also expanded though beef production has declined. It is clear that Russia plans to maintain its agricultural dominance as it has afforded it leverage and respect on the international stage, as well as a new dimension of national security.

¹¹⁵ Center of Agroanalytics. “Ministry of Economic Development expects agriculture to grow by 11% by 2024.” Ministry of Agriculture of the Russian Federation. <http://www.specagro.ru/#/news/one/1276708/>

¹¹⁶ Ibid.

Chapter VI: The Outlook for Russia's Global Wheat Dominance

After decades of compounding food policy missteps, Russia has managed to become the world's largest wheat exporter and accomplish much of its import substitution and self-sufficiency agendas. The simple story of Russia's transformation into a major exporter throughout the 2000s is increased output due to intensification and yield growth and a flood of state and private investment. Between 1990 and 2014, total cultivated area for grains decreased to 46 million acres from 63, but wheat cultivation increased by 2.4 million acres. In 2017, Russia produced 85 million tons of wheat, a 14 percent increase over 2016 and a 28 percent increase over 2015.¹¹⁷ Since the turnaround in 2000, Russian wheat yields have averaged 2.19 metric tons per hectare. For the same period (2000-2019), wheat yields for the Ukraine averaged 3.11 mt/ha, the United States averaged 2.94 mt/ha, and the EU averaged 5.3 mt/ha, 40 percent higher than Russia.¹¹⁸ Russia's wheat yield is low for international standards but is trending upward with substantial room for growth. The country managed to exceed its average yield consistently after 2013 with record harvests from 2016 to 2018, even though the harvest in 2018 suffered from unfavorable weather. The country remains a net food importer, but food imports dropped to their lowest level in 2017 to 12.7 percent as a share of total imports down from 28.5 percent in 1999, though the 2017 figure does not include illegally imported or smuggled goods prohibited by the embargo.¹¹⁹

Such success did not come through a reversal in state intervention or control, nor through radical reformation of the sector and the entire agricultural value chain. Even as the Soviet successor has managed to overcome its seemingly inexorable fate, the state still faces barriers to long-term productivity and profitability. As Russia has relied primarily on

¹¹⁷ Maixner, Ed. "Farm Exports: A starring role in U.S. agriculture's profitability." *Agri-Pulse*, April 16, 2018. <https://www.agri-pulse.com/articles/10851-farm-exports-a-starring-role-in-us-agricultures-profitability>

¹¹⁸ United States Department of Agriculture Foreign Agricultural Services. "PSD Online." <https://apps.fas.usda.gov/psdonline/app/index.html>

¹¹⁹ This figure does not include the illegal import of foods that were banned by Russia's counter-sanctions

short-term fixes over structural change, certainly the future of Russian agriculture and food production will encounter many vulnerabilities and opportunities.

Some factors are unavoidable, like climate and weather, and will continue to be a stumbling block regardless of changes in Russia's food policy. The unpredictability and harshness of Russia's climate alone can undermine policy in bad years, and in good years, can make it seem like the country is on the rise again. Other factors present opportunity for policy action or inaction that can act to promote stability and growth – or to reverse the state's progress. To this end, the centrality of food policy to Russia's national security and foreign policy agenda is a double-edged sword. The agricultural and food sector receives outsized attention and investment from the state and private industry because it is as vital to the legitimacy of Russia as a global authority as it was in the first years of the Soviet Union. But this attention also results in short-sighted policy in pursuit of isolated goals, such as increased wheat or meat production, instead of focusing on the efficiency and sustainability of the entire food system. It also becomes a tool in a larger geopolitical struggle, as in the 2014 counter-sanctions.

When Putin came to power, he kept the favorable pieces of Yeltsin's market reforms and scrapped the rest. From the start, he revived large-scale state support for agriculture and reasserted its centrality to the overall aspirations of the state. Since Khrushchev, the political economy of food and agricultural policy has been constrained by the framework built by Stalin's communist ambitions. It still suffers some of the same afflictions, including waste and production inefficiencies, competition between livestock and grain, underinvestment in the full agricultural value chain, and overbearing protectionism that fails to materialize obvious benefits. But the state has also shown itself able to adapt and overcome. For instance, in 2018, Russia managed to move massive amounts of grain from its interior agricultural regions to its Black Sea ports, despite doubts from international observers about the infrastructural capacity. Additionally, Russia now has what the Soviet Union did not – private industry, multinational firms and massive agricultural enterprises that have helped to fill some of the gap left by inefficient government approaches.

Framed as a facet of national security and foreign power projection, the motivations for state preoccupation with agriculture and food production have not changed. Russia has simply managed to –temporarily or not – alter the balance of power in its favor. The history of food production in the country has taught leaders and society alike that success can be fleeting if steps to ensure long-term viability are not taken. It is too soon to tell if Russia’s rapid climb to the top of the wheat market is the new status quo or a fleeting victory, but Russia certainly will continue to pursue and defend it aggressively and with its full weight behind it.

LEVERAGE AND BALANCE IN THE GLOBAL WHEAT VALUE CHAIN

As Russia settles into its position as a leading exporter, the rest of the world is left to wonder how to respond to Russia’s resurgence in agriculture, especially when it endows the country with the power to disrupt world food commodity prices. While there is no guarantee that Russia will unlock its full productivity and profitability potential, it is likely, given the centrality of food to its overall policy position, that it will remain a major long-term player. Both wheat-importing countries and wheat-exporting competitors must contend with Russia’s newfound success and the uncertainty that its protectionist approaches bring. More broadly, all actors are left to manage the uncertainty inherent to the global market for wheat and other cereals that is vulnerable to financial and energy market fluctuations, weather and climate, and other shocks and phenomena.

In 2018/19, global production dropped four percent from the 2017/18 levels to the lowest level in four years.¹²⁰ Of the eight top wheat exporters, five – Russia, Australia, the Ukraine, Kazakhstan, and the European Union – experienced droughts and other weather phenomena that lowered output. The other three major players, United States, Canada, and Argentina, achieved modest production increases. In response to this shrinking global supply, the price of wheat has increased. This has given some producers, like Argentina, incentive to grow more, but absent catalyzing events like a global economic crisis, the

¹²⁰ Office of Global Analysis. “Wheat: Overview for 2018/19.” U.S. Department of Agriculture Foreign Agricultural Service. April 2019. <https://apps.fas.usda.gov/psdonline/circulars/grain-wheat.pdf>

supply contraction has not metastasized into a global price spike. But it does convey similar lessons to the 2007/8 and 2010-12 food price spikes that were also caused, in part, by simultaneous supply contractions due to damaging weather and climate.

First, both exporters and importers must be prepared for supply to fluctuate, as a result of natural causes or due to policy interventions. Weather and climate-related instability are a consistent piece of this puzzle. Every major exporter is vulnerable to some degree to future weather and climate disruptions that increase the cost of agricultural production and decrease yields. Russian agriculture may benefit from warmer temperatures, which extend the growing season and open up previously unfavorable land for investment, but heavy rains, the second leading cause of crop failure in Russia, are also likely to increase due to climate change.¹²¹ Climate change will make future harvests more variable not only in Russia but worldwide. Beyond weather-related disruptions, export restrictions and other trade policies pursued unilaterally by states will affect global supply pose market challenges.

The second lesson then, arising from the interdependence of the global food market, is that international cooperation and adaptability in the market for wheat and other agricultural products is critical. As seen from 2007 to 2012, volatility in grain supply and price has effects that ripple out from the exporting countries. The stability of the wheat market is about not only the amount produced in each individual nation, but also the amount produced and made available globally. If any major supplier reduces global supply due to weather, export restrictions, or otherwise, importers, vulnerable to supply and price fluctuations, are forced to look elsewhere. The deficit must be made up by another producer. The ability to respond to those changing needs is crucial to avoiding price shocks, instability, and increasing food insecurity, especially in recipient countries.

Disruptions in supply not only affect the global price of wheat but also trading patterns. Indeed, Russia's rise to the top can be considered a disruption that realigned trade relationships in its favor. Through the Black Sea, Russia has privileged access to markets

¹²¹ Kirilenko, Andrei and Nikolai Dronin. "Climate change, food stress, and security in Russia." *Regional Environmental Change* (2011), 11: 167-178. DOI 10.1007/s10113-010-0165-x

in the Middle East and North Africa, which represent an easy and politically valuable outlet for its growing production. Demand for wheat is also expected to grow over the next decades in the MENA region where, in many countries, steady access to wheat and staple products is essential to political stability. The proximity and low-cost of Russian wheat enabled Russia to undercut and push out other suppliers in the region to become an important supplier for countries including Egypt, Turkey, Libya, Lebanon, Syria and Iran. However, Russia's advantage in this realm is not absolute or permanent.

The primary advantages of Russia's wheat export market are low wheat prices due to large supply, high stocks, low oil prices and a weak ruble, along with state support in various forms, including export restrictions. Both may prove to be unreliable in the long-term. The first, low wheat prices, relies on unpredictable factors in the energy and financial markets to remain in Russia's favor. Additionally, year-to-year output in Russia is highly contingent on weather. The second advantage - state support - is also a liability. Russia's proclivity for export restrictions and other trade mechanisms strains international relationships and makes Russia an undesirable trading partner. Even fear that Russia may resort to its usual tools has distorted the market, as producers hurry to export grain and usual price signals are dampened. Together, the unpredictability of Russian wheat prices and its food policies, may entice recipient governments to diversify their food sources or to abandon Russia entirely to avoid major shocks. Further, because the country's focus on livestock production has incentivized growing low-quality grain, it does not always meet the standards of importing countries. Some countries, including Saudi Arabia, which would be a strategically important market for Russia, reject Russian wheat due to quality issues. In 2018/19, Egypt, which has a national program for subsidized bread, rejected several Russian wheat cargoes due to high levels of ergot, a wheat fungus. Egypt also began buying wheat from other suppliers as Russia's supplies contracted and its wheat became more expensive.

Market reactions may induce Russia to foster a more favorable and stable policy environment as the competitiveness of its wheat declines, and to adjust production practices at home. Already, the Kremlin has shown some willingness to do so, especially as it relies

on a growing market to absorb its increased output. Since the 2010 ban, Russia has not imposed any wheat export restrictions even during the disappointing 2018/19 harvest when Russian officials reassured the market that it would not resort to the same tactics. Russia's accession to the WTO also limits its instruments for state support, which will affect its price competitiveness in the global market. Even without such tools, Russia has demonstrated the ability to expand its wheat market. Its competitiveness diminishes beyond the Black Sea as transport makes Russian wheat more expensive. Nevertheless, the country is managing to make inroads in distant markets. This includes Mexico, a natural market for U.S. wheat, that has recently pivoted to import some Russian wheat. Additionally, Russia has found new trading partners to fill the hole left by the embargo that Russia cannot meet with domestic production. Notably, food and agricultural trade between Russia and China has surged with China providing Russia with vegetables and fruit in exchange for wheat, cereals, and frozen seafood, among other goods.

Russia's unique advantages and aggressive growth policy, which have allowed its ascent as an exporter, may abate over time. However, it would be imprudent to underestimate the staying power of Russian wheat and the extent to which its supply is necessary to meet world demand for wheat. It is unlikely that the state will abandon altogether its guiding principles that situate agricultural policy as an extension of foreign policy and national security. But it is also unlikely that either Russia or other exporters can continue without increased cooperation and revised agricultural policy if future instability is to be contained. As time goes on and Russia transitions from a newcomer to a deeply integrated player in the global food and agricultural market, it is reasonable to expect that Russian food policy will also become more bound by the system. In the meantime, trade relationships are likely to continue shifting as importing countries react to the wheat prices and policy environments of each supplier. Other leading exporters should be prepared to respond to sudden changes in supply, especially as demand from importing countries responds to instability.

Works Cited

- Ahmed, Ghada, Sona Nahapetyan, Danny Hamrick, and Jonathan Morgan (2017), “Russian Wheat Value Chain and Global Food Security”, Duke Center on Globalization, Governance and Competitiveness, May 2017. <https://gvcc.duke.edu/wp-content/uploads/2017/05/CGGC-Russia-Wheat-Value-Chain.pdf>
- Applebaum, Anne. *Red Famine: Stalin's War on Ukraine*. Signal, 2017.
- Aslund, Anders. “Testimony at the Hearing on EU Economic and Trade Relations with Russia, Committee on International Trade, European Parliament, Brussels.” Peterson Institute for International Economics. November 21, 2006. <https://piie.com/commentary/speeches-papers/russias-wto-accession>
- Bialer, Seweryn. “The Sources of Stability of the Soviet Regime.” Columbia University: Final Report to National Council for Soviet and East European Research, 627-9, February 1985.
- Bobenrieth, Eugenio S. and Brian D. Wright. (2009). The food price crisis of 2007/2008: Evidence and implications. Paper presented at the Joint Meeting of the Intergovernmental Group on Oilseeds, Oils and Fats (30th Session), the Intergovernmental Group on Grains (32nd Session) and the Intergovernmental Group on Rice (43rd Session), Santiago, Chile. 4–6 November 2009. https://are.berkeley.edu/~bwright/Wright/Publications_files/Panel_Discussion_paper_2_English_only-2.pdf
- De Pauw, John W. "The Private Sector in Soviet Agriculture." *Slavic Review*, Vol. 28, No. 1 (1969): 63-71
- Devitt, Polina and Michael Hogan. “Update 2-Leading Russian state bank tightens grip on Black Sea grain export hub.” *Reuters*, February 14, 2019. <https://www.reuters.com/article/russia-grains-exports-vtb/update-2-leading-russian-state-bank-tightens-grip-on-black-sea-grain-export-hub-idUSL5N2095AO>
- Directorate of Intelligence. *The Brezhnev Food Program: An Intelligence Assessment*. Central Intelligence Agency, SOV 82-10130, September 1982. <http://www.cia.gov/library/readingroom/docs/CIA-RDP83T00853R000100140002-9.pdf>
- Dollive, Kendall. (2008). *The Impact of Export Restraints on Rising Grain Prices*, United States International Trade Commission Office of Economics (Working Paper No. 2008-09-A). <https://www.usitc.gov/publications/332/EC200809A.pdf>
- Dronin, Nikolai M. and Edward G. Bellinger, *Climate Dependency and Food Problems in Russia, 1900-1990: The Interaction of Climate and Agriculture Policy and their Effect of Food Problems*, New York: Central European University Press, 2005.
- “Export Restrictions: Cereal Offender.” *The Economist*, March 27, 2008. Accessed March 13, 2019. <https://www.economist.com/finance-and-economics/2008/03/27/cereal-offenders>

- FAO, IFAD, UNICEF, WFP and WHO. 2018. The State of Food Security and Nutrition in the World 2018: Building climate resilience for food security and nutrition. Rome, FAO (2018). <http://www.fao.org/3/I9553EN/i9553en.pdf>
- Feifer, Gregory, “Russia: Farmland Reform May Prove Putin’s Lasting Legacy”, Radio Free Europe / Radio Liberty, February 14, 2003. Accessed March 20, 2019. <https://www.rferl.org/a/1102228.html>
- Figs, Orlando. "Private life in Stalin's Russia: family narratives, memory and oral history." *History Workshop Journal*, 65.1, 117-137. Oxford University Press, 2008. <https://doi.org/10.1093/hwj/dbm073>
- Galperovich, Danila, “Alexey Gordeev: bread will rise in price, but there is no reason for panic,” Radio Free Europe / Radio Liberty, July 12, 2007. Accessed March 12, 2019. <https://www.svoboda.org/a/402047.html>
- Galperovich, Danila and Olga Vakhonicheva, “Russia: Bread Price – And Worries – On the Rise,” Radio Free Europe / Radio Liberty, July 13, 2007. Accessed March 12, 2019. <https://www.rferl.org/a/1077609.html>
- Galpin, Richard, “Russia ban on grain exports begins,” *BBC News*, August 15, 2010. <https://www.bbc.com/news/business-10977955>
- Gessen, Masha. *The future is history: How totalitarianism reclaimed Russia*. Granta Books, 2017.
- Global Agricultural Information Network. *Russian Federation: Agricultural Economy and Policy Report*. USDA Foreign Agricultural Service, Report No. RS1819. July 19, 2018. http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agricultural%20Economy%20and%20Policy%20Report_Moscow_Russian%20Federation_7-19-2018.pdf
- Goldman, Marshall I. *What Went Wrong with Perestroika*. WW Norton & Company: New York. 1992.
- Goncharov, V. “The Production Potential of the Russian Agro-Industrial Complex.” *Problems of Economic Transition* (2018), Vol. 60, 5/6: 356-371. DOI: 10.1080/10611991.2018.1547591
- Götz, Linde, Thomas Glaubien, and Bernhard Brümmer. "Wheat export restrictions and domestic market effects in Russia and Ukraine during the food crisis." *Food Policy*, Vol. 38 (2013): 214-226. <https://doi.org/10.1016/j.foodpol.2012.12.001>
- Hallam, David and Trade and Markets Division of FAO. *The State of Agricultural Commodity Markets 2009*. Rome: Food and Agriculture Organization (2009). <http://www.fao.org/3/i0854e/i0854e.pdf>
- Hendrix, Cullen. 2015. “In Food Riots, Researchers Find a Divide Between Democracies and Autocracies.” *New Security Beat*, February 24, 2015. <https://www.newsecuritybeat.org/2015/02/food-riots-researchers-find-divide-democracies-autocracies/>

- Hendrix, Cullen S. and Stephan Haggard. "Global food prices, regime type, and urban unrest in the developing world." *Journal of Peace Research*, Vol. 52, no. 2 (2015): 143-157.
- Hill, Fiona and Clifford G. Gaddy (2013), *Mr. Putin: Operative in the Kremlin*. Brookings Institution Press: Washington D.C.
- Keulertz, Martin and Eckart Woertz (2015) "States as Actors in International Agro-Investments." Large-Scale Land Acquisitions: Focus on South-East Asia, International Development Policy Series No.6, Geneva: Graduate Institute Publications, Boston: Brill-Nijhoff, pp. 30–52
- Kingwell, Ross, Chris Carter, Peter Elliott, and Peter White. (2016). *Russia's Wheat Industry: Implications for Australia*. Perth; Sydney: Australian Export Grain Innovation Centre. <https://www.aegic.org.au/wp-content/uploads/2016/09/Russia-wheat-industry-Implications-for-Australia.pdf>
- Kirilenko, Andrei and Nikolai Dronin. "Climate change, food stress, and security in Russia." *Regional Environmental Change* (2011), 11: 167-178. DOI 10.1007/s10113-010-0165-x
- Korhonen, Iikka, Heli Simola and Laura Solanko, "Sanctions, counter-sanctions, and Russia: Effects on economy, trade and finance." Bank of Finland: Institute for Economies in Transition, BOFIT Policy Brief No. 4 (2018): 1-24. <https://helda.helsinki.fi/bof/handle/123456789/15510>
- Kotkin, Stephen (2014) *Stalin: Volume I: Paradoxes of Power, 1878–1928*. Penguin Press: New York.
- Kramer, Andrew E. "A land rush in rural Russia." *New York Times*, August 31, 2008. <https://www.nytimes.com/2008/08/31/business/worldbusiness/31iht-food.4.15776253.html>
- Maixner, Ed. "Farm Exports: A starring role in U.S. agriculture's profitability." *Agri-Pulse*, April 16, 2018. <https://www.agri-pulse.com/articles/10851-farm-exports-a-starring-role-in-us-agricultures-profitability>
- Liefert, William M., and Olga Liefert. "Russian agriculture during transition: performance, global impact, and outlook." *Applied economic perspectives and policy*, Vol. 34, 1, (2012): 37-75. <https://doi.org/10.1093/aep/046>
- Liefert, William M. and Olga Liefert. "Russia's potential to increase grain production by expanding area." *Eurasian Geography and Economics*, Vol. 56, No. 5 (2015): 505-523. <https://www.tandfonline.com/doi/full/10.1080/15387216.2015.1101353>
- Liefert, William M. and Olga Liefert. 2015. "Russia's Economic Crisis and its Agricultural and Food Economy." *Choices*, 30.1 (2015). <http://choicesmagazine.org/choices-magazine/submitted-articles/russias-economic-crisis-and-its-agricultural-and-food-economy>

- Maixner, Ed. "Farm Exports: A starring role in U.S. agriculture's profitability." *Agri-Pulse*, April 16, 2018. <https://www.agri-pulse.com/articles/10851-farm-exports-a-starring-role-in-us-agricultures-profitability>
- Mitra, Siddhartha and Tim Josling. *Agricultural Export Restrictions: Welfare Implications and Trade Discipline*. International Policy Council: Food and Agricultural Trade, January 2009. http://www.agritrade.org/documents/ExportRestrictions_final.pdf
- Nérard, François-Xavier. "Variations on a Shchi Theme: Collective Dining and Politics in the Early USSR." *Gastronomica: The Journal of Critical Food Studies*, Vol. 17, No. 4 (2017): 36-47. DOI: 10.1525/gfc.2017.17.4.36
- Ostrovsky, Arkady. *The Invention of Russia: The Journey from Gorbachev's Freedom to Putin's War*. Penguin Books, New York: 2015.
- Paarlberg, Robert L. "Lessons of the Grain Embargo", *Foreign Affairs*, Fall 1980. <https://www.foreignaffairs.com/articles/united-states/1980-09-01/lessons-grain-embargo>
- Parker, Richard. "Inside the Collapsing Soviet Economy", *The Atlantic*, June 1990 Issue. <https://www.theatlantic.com/magazine/archive/1990/06/inside-the-collapsing-soviet-economy/303870/>
- Rada, Nicholas, William M. Liefert, and Olga Liefert. "Agricultural Recovery in Russia and the Rise of Its South." *Amber Waves Magazine*. USDA ERS, April 25, 2017. <https://www.ers.usda.gov/amber-waves/2017/april/agricultural-recovery-in-russia-and-the-rise-of-its-south/>
- "Russian Federation Wheat Domestic Consumption by Year." Index Mundi. Accessed April 16, 2019. <https://www.indexmundi.com/agriculture/?country=ru&commodity=wheat&graph=domestic-consumption>
- Russian National Security Strategy, December 2015." Instituto Espanol de Estudios Estrategicos, Trans. <http://www.ieee.es/Galerias/fichero/OtrasPublicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf>
- Schmemmann, Serge. "End of the Soviet Union; The Soviet State, Born of a Dream, Dies." *New York Times*, December 26, 1991. <https://www.nytimes.com/1991/12/26/world/end-of-the-soviet-union-the-soviet-state-born-of-a-dream-dies.html>
- Sedik, David J., Sergeĭ Sotnikov, and Doris Wiesmann. *Food security in the Russian Federation*. Rome: Food and Agriculture Organization (2003). No. 153.
- Service, Robert. *A history of twentieth-century Russia*. Harvard University Press, Cambridge, Massachusetts. 1998.
- Service, Robert, *Russia: Experiment with a People*. Harvard University Press, Cambridge, Massachusetts. 2003.

- Sojamo, Suvi, Martin Keulertz, Jeroen Warner and John Anthony Allan. "Virtual Water Hegemony: The Role of Agribusiness in Global Water Governance." *Water International*, Vol. 37, 2 (2012), 169–182, DOI: 10.1080/02508060.2012.662734.
- Stratfor Worldview. "Trade Profile: Russia Guards Against its Vulnerabilities." *Stratfor*, January 9, 2018. <https://worldview.stratfor.com/article/trade-profile-russia-guards-against-its-vulnerabilities>
- Stratfor Worldview. "Russia's Uneven Drive Toward Economic Self-Sufficiency." *Stratfor*, January 23, 2018. <https://worldview.stratfor.com/article/russias-uneven-drive-toward-economic-self-sufficiency>
- Tadasse, Getaw, Bernadina Algieri, Matthias Kalkuhl, and Joachim Von Braun, "Drivers and triggers of international food price spikes and volatility," *Food Policy*, Vol. 47 (2014): 117-128. <https://doi.org/10.1016/j.foodpol.2013.08.014>
- Thatcher, Gary. "In USSR, more meat is not enough", *Christian Science Monitor*, November 21, 1984. <https://www.csmonitor.com/1984/1121/112123.html>
- Timoshenko, Vladimir Prokopovich. *Agricultural Russia and the wheat problem*. Food Research Institute and the Committee on Russian Research of the Hoover War Library, Stanford University, California, 1932, 86.
- "Transcript of President's Speech on Soviet Military Intervention in Afghanistan." *New York Times*, January 5, 1980. <https://www.cia.gov/library/readingroom/docs/CIA-RDP90-00552R000101020087-4.pdf>
- Tuminez, Astrid. *Russian Nationalism Since 1856: Ideology and the Making of Foreign Policy*. Lanham: Rowman & Littlefield, 2000. 128
- United States Department of Agriculture Foreign Agricultural Services. "PSD Online." <https://apps.fas.usda.gov/psdonline/app/index.html>
- Vasilii, Erokhin, "Self-Sufficiency versus Security: How Trade Protectionism Challenges the Sustainability of the Food Supply in Russia", *Sustainability*, Vol. 9, 11 (2017), <https://doi.org/10.3390/su9111939>.
- Vassilieve, Yelena and Mary Ellen Smith, *Russian Federation: Food Security Doctrine Adopted*. USDA Foreign Agricultural Service, Global Agricultural Information Network Report No. RS1008, February 11, 2010. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20Security%20Doctrine%20Adopted%20_Moscow_Russian%20Federation_2-11-2010.pdf
- Vassilieve, Yelena. *Russian Federation: Agriculture Development Program 2013-2020*. USDA Foreign Agricultural Service, Global Agricultural Information Network Report No. RS1270, November 6, 2012. https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Agriculture%20Development%20Program%202013-2020_Moscow_Russian%20Federation_11-6-2012.pdf

- Wegren, Stephen K. "Rural Reform and Political Culture in Russia." *Europe-Asia Studies*, Vol. 46, No. 2 (1994): 215-41.
<http://www.jstor.org.ezproxy.lib.utexas.edu/stable/152703>.
- Wegren, Stephen K. *The Rise, Fall and Post-soviet Transformation of the Rural Social Contract*. National Council for Eurasian and East European Research, 2002.
- Wegren, Stephen K. "Russian agriculture during Putin's first term and beyond." *Eurasian Geography and Economics*, Vol. 46, No. 3, (2005): 224-244.
<https://doi.org/10.2747/1538-7216.46.3.224>
- Wegren, Stephen K. "Russia's Food Policies and Foreign Policy." *Demokratizatsiya* Vol. 18, no. 3 (2010), 189-207.
http://demokratizatsiya.pub/archives/18_3_C4W0VN8038PQR45P.pdf
- Wegren, Stephen K. "Food security and Russia's 2010 drought." *Eurasian Geography and Economics*, Vol. 52, no. 1 (2011): 140-156.
- Wegren, Stephen K. "The "left behind": Smallholders in contemporary Russian agriculture." *Journal of Agrarian Change*, 18, No. 4 (2018): 919.
- Welton, George, "The Impact of Russia's 2010 Grain Export Ban", Oxfam Research Reports, GeoWel Research, June 28, 2011. https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-impact-russias-grain-export-ban-280611-en_3.pdf
- Westad, Odd Arne. *The Cold War: A World History*. Basic Books, 2017.
- The World Bank. *Employment in agriculture (% of total employment) (modeled ILO estimate)*. Washington, D.C.: The World Bank. International Labour Organization, ILOSTAT database. Data retrieved in April 2019.
<https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=RU>
- The World Bank. *Urban Population (% of total): Russian Federation*. Washington, D.C.: The World Bank. United Nations Population Division, World Urbanization Prospects: 2018 Revision. Accessed April 1, 2019.
<https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=RU>
- "Wheat Prices – 40 Year Historical Chart" *Macrotrends*. Accessed March 12, 2019.
<https://www.macrotrends.net/2534/wheat-prices-historical-chart-data>
- Wiggins, Steve, Sharada Keats, and Julia Compton (2010), "What caused the food price spike of 2007/08? Lessons for world cereal markets", UKAID Overseas Development Institute: Food Prices Project Report. <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6103.pdf>
- Workman, Daniel, "Wheat Exports by Country." Wheat Top Exports, April 1, 2019. Accessed April 10, 2019. <http://www.worldstopexports.com/wheat-exports-country/>
- Yasmann, Victor. "Analysis: Global Food Crisis Catches Up With Russia." Radio Free Europe/Radio Liberty, May 16, 2008. <https://www.rferl.org/a/1117497.html>