

Casting Bread Upon the Waters:
American Farming and the International Wheat Market, 1880–1920

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Submitted in partial fulfillment of the
Requirements for the degree
of Doctor of Philosophy
in the Graduate School of Arts and Sciences

COLUMBIA UNIVERSITY

2014

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ABSTRACT

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In the late 19th and early 20th century, as wheat production and marketing were transformed in scale and in practice, American farmers tried to make sense of how they were positioned within a rapidly growing and changing international market. They tried to formulate a response that would gain them some sense of control over a market that was described by some as vast and powerful as nature itself, and by others as a playground for the wealthy speculators who supposedly controlled it.

By situating the farmers within the changing international grain market this thesis explains the challenges that they were up against. American farmers understood their plight through narratives of market failure, common enough during the agricultural depression of the 1890s, as well as in the first decade of the twentieth century: declining prices, distant famines, and attempts to corner the wheat market reinforced the notion that supply and demand were not working “properly” to produce prosperity for all. During the Populist period, farmers organized to demand relief, in

the form of government intervention, from what they perceived as a predatory market system that guaranteed profits to speculators but usually left producers with little to show for their labor. They mounted a moral critique of the marketing system, arguing that merchants and middlemen had organized the market in such a way as to control it through unethical and damaging means such as pools and price agreements. These efforts having largely failed, farmers turned increasingly to the cooperative movement to try to exert influence in the marketplace.

The crisis of World War I created a different kind of market failure, one that prompted different forms of government intervention in both wheat importing and wheat exporting countries. In both cases these interventions were designed to stabilize prices through centralized oversight, something the farmers had repeatedly asked for and failed to achieve, but found, in the end, did little to secure their way of life.

In the aftermath of war, in what was for wheat farmers a permanent crisis requiring permanent government intervention, farmers continued to identify the middlemen as their problem, but after 50 years of controversy, the merchants and exchanges had established a relatively well-oiled and highly technical system of marketing and trading to handle commodities in an international market. Farmers were left with little choice but to think of themselves as businessmen dealing with other businessmen, and this position overtook the older moral discourse as farmers sought to

marshal their cooperative strength toward forming their own price-controlling marketing organizations.

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Acknowledgements

I would like to thank my funders, the Newcomen Society of the United States and the Doris E. Quinn Foundation. The Newcomen Dissertation Colloquium at the Business History Conference was instrumental in providing valuable encouragement and feedback on the project. Thank you also to my co-presenters and hosts at the German Historical Institute conference on Feeding and Clothing the World. The staff at Butler Library at Columbia University, the Hoover Institution Library, the National Archives and Records Administration, the Guildhall Library, the National Archives at Kew and the Archives Nationales in Paris have all been helpful in tracking down sources.

I have benefitted enormously from the support and advice of Volker Berghahn, Eric Foner and Barbara Fields at Columbia University. Elizabeth Blackmar has been the most generous of mentors through the long time it has taken to bring this project to completion. She has been the most remarkable of scholars and teachers, and I have been so very lucky to have had the opportunity to learn from her. Any shortcomings of this work are entirely my own.

Many colleagues at Columbia and beyond have discussed the project with me over the years; I'd like to especially thank my colleagues Ramzi Rouighi and Jenelle

Troxell. My parents deserve all the credit for encouraging me to pursue my intellectual dreams, no matter how impractical and unremunerative, and then insisting that I pursue them to the end.

Most importantly, I would never have finished without the persistent and unwavering support, love, encouragement, patience, and labor of my husband Michael Berk, my collaborator in our greatest project of all.

Introduction

In the late 19th and early 20th century, as wheat production and marketing were transformed in scale and in practice, American farmers tried to make sense of how they were positioned within a rapidly growing and changing international market. They tried to formulate a response that would gain them some sense of control over a market that was described by some as vast and powerful as nature itself, and by others as a playground for the wealthy speculators who supposedly controlled it.

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efforts having largely failed, farmers turned increasingly to the cooperative movement to try to exert influence in the marketplace.

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For decades, farmers had fought against the instruments of the modern global market, especially futures trading and options and the unchecked power of exchanges and elevator operators.¹ Farmers began by demanding that the government step in to control “a rampaging capitalism,” by demanding government control of futures trading and the agricultural marketing institutions (warehousing, grading, elevators)—in a way, as Jonathan Levy argues, demanding that the federal government be their hedge against uncertainty. But during the war it was businessmen who successfully captured state power in order to protect their business from the vicissitudes of an unstable wartime market.

¹ Ann Fabian, Card Sharps, Dream Books, and Bucket Shops: Gambling in Nineteenth-Century America (Ithaca: Cornell University Press, 1990); Jonathan Ira Levy, “Contemplating Delivery: Futures Trading and the Problem of Commodity Exchanges in the United States, 1875-1905,” American Historical Review April 111 no. 2 (2006): 307-335. Fabian has argued that American farmers were trying to reconcile their position in a market with rapidly changing norms; Jonathan Levy looks at it as an attempt to deal with the increasing abstraction of what is being exchanged.

Much of what farmers had tried and failed to get the government to do during the Populist period using political pressure—suspend futures and other speculative trading, guarantee farm prices, take over the operation of grain elevators—was temporarily accomplished during the war. The experience of market and price controls during the war helped to bring about in the post-war period some of the reforms that the Populists had sought, but also ushered in a period of government involvement in agricultural markets that has persisted to this day.

In the aftermath of war, in what was for wheat farmers a permanent crisis requiring permanent government intervention, farmers continued to identify the middlemen as their problem, but after 50 years of controversy, the merchants and exchanges had established a relatively well-oiled and highly technical system of marketing and trading to handle commodities in an international market. Farmers were left with little choice but to think of themselves as businessmen dealing with other businessmen, and this position overtook the older moral discourse as they sought to marshal their cooperative strength toward forming their own price-controlling marketing organizations.

The story of how wheat markets developed in the second half of the nineteenth and the first half of the twentieth century is simultaneously a transnational one and an international one. Wheat literally moved across national boundaries, as did the

merchants who bought in countries where it was produced and sold in countries where it was consumed, expanding their businesses across continents along with the expansion of the trade. The control of the trade that started during the first World War, however, was an international process because it was managed by government agencies operating both within their national boundaries and also in cooperation with each other. The war is here a point of rupture: wartime control of wheat certainly signalled the start of a new relationship between the state, business, and populations. Governments enlisted the help of businessmen (the only real experts in the complex machinery of the market) and of civilian populations in order to manage the disruptive effect of war upon global markets. Elizabeth Sanders has argued that “agrarian movements constituted the most important political force driving the development of the American national state in the half century before World War I.”² This observation, however, does not apply to the domain of commodity market control, where farmer activism was much less successful than in any other domain of farmer reform. Lacking the involvement and support of the business community, it was difficult to bring about the market reforms that American farmers wanted.³ Instead, wartime government controls inaugurated the beginning of price supports and farm subsidies aimed at keeping

² Elizabeth Sanders, Roots of Reform: Farmers, Workers, and the American State, 1877–1917 (Chicago: University of Chicago Press, 1999), p. 1.

³ Sanders, p. 304.

global markets fluid and American farmers producing, and American farmers by and large transformed their cooperative institutions into full-fledged business institutions rather than egalitarian alternatives aimed at distributing profits fairly among its own members.

Most of the historiography that discusses farming, the farmers' plight, and the farmers' role in politics has done so largely within the frame of national history—even for a commodity, like wheat, that depended heavily on the existence of international markets. "Country dwellers from Chicago westward, while dependent to a degree on world markets for the disposal of their produce, knew little of what went on outside the United States and cared even less," wrote the agricultural historian Theodore Saloutos in 1951.⁴ That statement is brought into question by the volume of print materials aimed at farmers (whether from the USDA, the farmers' press, or other sources) that discussed conditions of production among competing producers who were threatening American market share, particularly Russia and Argentina. American farmers were aware of what went on in the United States, as were French, Russian, and Argentinian wheat farmers, whose livelihoods were closely intertwined in a global market of which they were certainly aware. If they were not able to successfully control their place within it, it was not for lack of trying.

⁴ Theodore Saloutos and John D. Hicks, *Agricultural Discontent in the Middle West, 1900–1939* (Madison: University of Wisconsin Press, 1951), p. 87.

Historians who have examined World War I price controls for wheat both in the United States and in the United Kingdom have seen them as an early instance of government intervention into the economy. Lois Barnett argues that in Britain, wartime price controls lessened class distinctions, enhanced the prestige of Labour leaders, spurred technological advances in refrigeration, expanded the acceptable limits of government intervention, and were a pre-cursor to later legislation.⁵ Similarly, Tom G. Hall argues that in the United States, price controls for wheat changed the relationship between farmers and the government and that the United States Food Administration set an important precedent for later New Deal policies such as the AAA.⁶ In Hall's view, the USFA's wartime price controls bear out William Leuchtenburg's thesis that, at least in the United States, "World War I was less important for the changes that it wrought than for the precedents that it set."⁷ While the precedents set by wartime food control were certainly important, the ways in which those controls reconfigured the landscape of capital were also important, and, I would argue, set precedents of their own. They helped cement business-government relationships that would continue for many years,

⁵ Lois Margaret Barnett, "Government Food Policies in Britain During World War I," (Phd diss., Columbia University, 1982).

⁶ Tom G. Hall, "Cheap Bread from Dear Wheat: Herbert Hoover, the Wilson Administration, and the Management of Wheat Prices, 1916–1920," (Phd diss., University of California, Davis, 1971).

⁷ William E Leuchtenburg, The Perils of Prosperity, 1914–1932 (Second Edition) (Chicago: University of Chicago Press, 1993), p. 39.

with the large grain firms later taking on government contracts for disposing of surplus grain, itself produced partly by the system of price supports pioneered during the war.

The history of multinational agricultural business is conspicuously missing in agricultural history, business history, and the history of multinational corporations. The body of work produced during the heyday of American agricultural history, in the 1950s and 1960s, provides a grand narrative of American agricultural development, western expansion, and the growth of commercial farming. But all of this work is resolutely American, and its sole interest in international trade is as an external stimulus to American development.⁸ William Appleman Williams, who explained the expansionist outlook of agrarian America and the market orientation of farmers in the nineteenth century, saw a fundamental tension between “metropolitan leaders” and “agrarian businessmen,” but by the early twentieth century, the distinctions between agrarian businessmen and metropolitan leaders were no longer clear, as agrarian

⁸ See Allan G. Bogue, From Prairie to Cornbelt: Farming on the Illinois and Iowa Prairies in the Nineteenth Century (Chicago: University of Chicago Press, 1963), Paul Wallace Gates, Agriculture and the Civil War (New York: Knopf, 1965), Fred A. Shannon, The Farmers’ Last Frontier: Agriculture, 1860–1897 (New York: Holt, Reinhart and Winston, 1966), John T. Schlebecker, Whereby We Thrive: A History of American Farming, 1607–1972 (Ames, Ia.: Iowa State University Press, 1975).

enterprise became bigger, more international, and closer to the centers of power both in the United States and in Western Europe.⁹

The institutional changes in the nineteenth-century grain trade have been analyzed by Morton Rothstein in his unpublished dissertation based on an analysis of grain exchange records in Chicago, New York, Liverpool, and London. Rothstein traced the consolidation of the wheat business and the growing importance of worldwide markets in wheat from the mid-nineteenth century to the beginning of the twentieth. His published work explores the shape of the international wheat market, the responses of American farmers, and the development of exchanges and other marketing mechanisms.¹⁰ Although Rothstein's work provides a good model for further research,

⁹ William Appleman Williams, The Roots of the Modern American Empire: A Study of the Growth and Shaping of Social Consciousness in a Marketplace Society (New York: Vintage Books, 1969).

¹⁰ Morton Rothstein, "A British Investment in Bonanza Farming, 1879–1910," Agricultural History 32 no. 2 (1959): 72–78, Morton Rothstein, "America in the International Rivalry for the British Wheat Market, 1860–1914," Mississippi Valley Historical Review 47 no. 3 (1960): 401–418, Morton Rothstein, "American Wheat and the British Market, 1860–1905," (Phd diss., Cornell University, 1960), Morton Rothstein, "A British Firm on the American West Coast, 1869–1914," Business History Review 37 no. 4 (1963): 392–415, Morton Rothstein, "Antebellum Wheat and Cotton Exports: A Contrast in Marketing Organization and Economic Development," (1966), Morton Rothstein, "West Coast Farmers and the Tyranny of Distance: Agriculture on the Fringes of the World Market," Agricultural History 49 no. 1 (1975): 272–280, Morton Rothstein, "Agricultural Exchanges," Agricultural History 50 no. 1 (1976): 151–155, Morton Rothstein, "Frank Norris and Popular Perceptions of the Market," Agricultural History 56 no. 1 (1982): 50–66, Morton Rothstein, "Centralising Firms and Spreading Markets: The World of the International Grain Traders, 1846–1914," Business and Economic History 17(1988): 103–113.

his body of work is unfortunately scant: aside from his dissertation, he has produced no book-length works. Few historians have picked up on Rothstein's research agenda or framework, with the notable exception of William Cronon, who told the story of the transformation of grain marketing and its institutions in Nature's Metropolis, even if, like most American historians before him, he considered the international dimensions of the grain trade only to the extent that they were a factor in American development.

The international trade in commodities is entirely absent from the business history of the 1960s and 1970s, whether it was about the changing structure of business institutions or about the growth of multinational enterprise. Indeed, this body of work gives the impression that large-scale international business was purely industrial or extractive in nature, focusing on railroads, agricultural machinery, mining, oil, and patent-based manufactured industrial products.¹¹ Business history takes industrial capitalism as its focus because it seeks to explain the growth and development of Western economies, or their transition from rural, agrarian, and commercial, to urban and industrial. As Alfred Chandler argues, the managerial enterprise in its industrial

¹¹ Alfred D. Chandler, The Railroads: The Nation's First Big Business (New York: Harcourt-Brace, 1965), Alfred D. Chandler and Stephen Salisbury, Pierre S. du Pont and the Making of the Modern Corporation (New York: Harper & Row, 1971), Alfred D. Chandler, The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass.: Harvard University Press, 1977).

Leviathans: Multinational Corporations and the New Global History (New York: Cambridge University Press, 2005).

form was the engine of that transformation. However this must not blind us to the development of agricultural multinational enterprise, which developed along different lines than what he calls “managerial capitalism,” characterized by the separation between ownership and decision-making by professional managers. While it is true that Western economies moved from agrarian and commercial to industrial, this does not mean that the agrarian and commercial disappeared: instead, agrarian enterprise, so necessary to Western industrial development, became oligopolistic in nature and came to encompass economies beyond those in Western Europe or North America.

The surprisingly small amount of historical work on the development of multinational enterprise shares an exclusive focus on industrial capital, a shortcoming discussed by D.K. Fieldhouse in an excellent critique of the state of research on the subject, in which he also points out the paucity of empirical research on the subject, and that most of the work assumes, wrongly, that multinational corporations are largely a post-1945 phenomenon.¹²

This misconception seems to be shared by more recent work on the nature of the international grain companies, none of it scholarly. A number of company histories and muckracking accounts of agribusiness companies have appeared since the “food crisis”

¹² Mira Wilkins, The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914 (Cambridge, Mass.: Harvard University Press, 1970), D.K. Fieldhouse, “The Multinational: Critique of a Concept,” in Multinational enterprise in historical perspective (Cambridge University Press, 1986).

of the early 1970s. One of the most frequently quoted is Merchants of Grain, written in 1979 by Washington Post correspondent Dan Morgan, which alleges a shadowy conspiracy among the “Big Five” large grain trading companies to control the world grain trade. Morgan’s work is entirely based on confidential sources and contains no historical research.¹³ Company-sponsored histories of grain companies, such as Wayne Broehl’s two volumes on Cargill can be useful sources of information if not analysis.¹⁴ The little scholarly work on the agribusiness multinationals has been done in South America and focuses on how these companies have come to gain a dominant position in the markets of Argentina, Uruguay, and Brazil.¹⁵

Although the historiography on the organization of the international grain market is very limited, numerous contemporary investigations and reports allow us to

¹³ Dan Morgan, Merchants of Grain (New York: Viking Press, 1979).

¹⁴ Wayne G. Broehl, Cargill: Trading the World’s Grain (Hanover, N.H.: University Press of New England, 1992) and Wayne G. Broehl, Cargill: Going Global (Hanover: University Press of New England, 1998). For an opposing view on Cargill, see Brewster Kneen, Invisible Giant: Cargill and its Transnational Strategies (London: Pluto Press, 2002) which takes a clear position against Cargill’s values and claims to fight for resisters everywhere who “seek justice, equity, diversity, and food for all.”}

¹⁵ Raül Green and Catherine Laurent, Bunge & Born: Puissance et secret dans l’agro-alimentaire (Paris: Publisud, 1985), Raül Green, “Bunge et Born: une transnationale très discrète,” MOCI: Moniteur officiel du commerce international no. 662 (1985), Jorge Schvarzer, Bunge y Born: crecimiento y diversificación de un grupo económico (Buenos Aires: CISEA-G.E.L., 1989), Raül Jacob, “Bunge y Born en Uruguay (1915–1945),” Ciclos [Argentina] 5 no. 1 (1995): 29–54, Ana Maria Kirschner, “Multinationale et capitalisme régional: la conquete d’une position dominante sur le marché du blé au Brésil,” Entreprise et Histoire 8(1995): 75–93.

reconstruct how the international market was formed in order to set American farmers within this wider context and to explore the shifting discourse of how markets should and did operate. It is largely on these primary sources that this dissertation is based. The grain trade was a subject of enormous interest to historians, sociologists, and economists during the period of greatest change from the end of the nineteenth century to the 1940s, both in Europe and in the United States. This literature gives a good picture of the anxieties caused by the development of worldwide wheat markets, as well as the proposed solutions for how to resolve the problems it caused.

Official accounts of the activities of governmental agencies are rich sources that provide both clear and detailed timelines for policies and their implementation, as well as insights into how the administrators themselves viewed them. Shortly after the end of the First World War, and motivated in large part by the impulse to defend Hoover's track record during a period of agricultural depression, Food Administration officials began to publish official accounts of the agency's activities, which often reproduce speeches and correspondence. These sources are particularly interesting for the lengths to which their authors go to stress the patriotism of business and to reconcile the tensions between a belief in unfettered trade and the need for regulation. In 1923, Herbert Hoover set up the Food Research Institute at Stanford University, a permanent institutional home for the statisticians, food scientists, and economists who had worked with him in the Food Administration. Their monthly journal, Wheat Studies, published

between 1921 and 1944, is an outstanding resource for historians and contains analyses of world wheat markets in various periods together with price data, economic outlooks, and policy recommendations.

Hearings in the U.S. Congress and UK Parliament hearings on proposed legislation contain testimony from consumers, farmers, members of the trade, administrators, and elected officials also provide a wide perspective on how policies were devised and received.

Finally, trade journals such as the Northwestern Miller and farmer's papers provide information on how the grain trade and farmers' groups responded to wartime changes, both before, during, and after the period of governmental regulation.

In the work that follows, Chapter 1 describes the growth of the global wheat market after 1860, when the repeal of the Corn Laws opened a rapidly industrializing Britain to duty-free wheat imports. Over the course of the nineteenth century Britain came to rely entirely on imported wheat to satisfy its food needs. Most other industrializing countries in Europe continued protectionist agricultural policies long after Britain had ceased to do so, but even countries that protected their domestic agriculture, such as Germany and France, often needed to supplement domestic production with imports and imported grades and types of wheat that they could not grow themselves. Over time, this stimulated increased production in Russia, the

Danubian principalities, the United States, India, Argentina, Australia, and finally Canada. While there were ever more consumers of wheat in industrializing nations with growing urban populations, the influx of more and more wheat on world markets served to drive prices downwards, alarming producers, who began to organize politically (where they could) to try to agitate for government intervention. At the same time, the structure of the international grain trading business became set, or calcified: a few huge international firms come to dominate the global markets, while formal exchanges with highly complex instruments of trade become standard in the world's main producing and importing countries.

Chapter 2 examines various narratives of the failure of the wheat market before the First World War. Market failures were famines in wheat-exporting areas (such as Russia in 1891 and India throughout the late nineteenth century), or speculative corners on the great commodities markets that resulted in massive global price disruptions. These failures were sometimes understood as failures of policy, other times as illustrations of pure human greed, or even, in the case of Frank Norris' fictional accounts of grain markets, as social forces similar to forces of nature: beyond the power of individuals to control. Since they coincided with American farmers' failed attempts at ameliorating their position in the market through legislative reform, they tended to highlight the degree to which individuals (whether as producers or as consumers) were powerless within the global market system.

The market failures of the 1890s and 1910s, however, were minor in comparison with the market failure brought about by the outbreak of the First World War (discussed in Chapter 3). Far more than a temporary glitch in supplies, the war created a major food supply crisis: with not enough shipping to transport wheat across the Atlantic and the Russian supplies cut off by the German control of the Dardanelles, the food problem threatened to become the decisive factor in the war. Chapter 3 discusses the solutions to the wartime crisis devised in Europe. Britain, long a defender of free trade, moved gradually but decisively to a model of government purchases of wheat supplies. It was joined in this by the European Allies, who had to depend on British shipping--and British capital--to supply their wartime food needs. The wartime solution involved the United States as well, where Herbert Hoover oversaw a market control system that guaranteed prices to American farmers in order to encourage them to produce while also encouraging consumers to limit consumption so as to ensure adequate supplies for the Allies.

Chapter 4 describes wartime control in the United States and the ways in which the political activism of American farmers in the 1890s prefigured it. After decades of populist agitation by American farmers demanding government intervention into wheat markets, the outbreak of the war finally seemed to get them what they had so desperately wanted--and had failed to secure. The system of price controls and

guarantees ensured that American farmers were in a good position to produce heavily for world consumption without fear of declining prices, but the end of the war and the return of other producers to world markets set off a crisis in American farming that was difficult to control. On the other hand, the grain trading firms that had been intimately involved in the government-controlled trading operations came out of the war with greatly increased shares of the United States export markets, and stood poised to expand from simply trading to owning storage, transportation, and processing facilities, pointing to the rise of agribusiness in the latter half of the twentieth century.

Looking at market failure and regulation in an international context before the New Deal helps us understand the structural transformations in agriculture that took place as the global market was in a period of growth and expansion from the mid-nineteenth century onwards.

Chapter 1: The Global Wheat Market

In the second half of the nineteenth century, the international trade in wheat began a fifty-year expansion in volume, value, and geographical scope. A key staple of the Western European diet shifted from local production to being grown in increasingly far-flung regions: first in Russia and Eastern Europe (in the 1850s), then in the United States (in the 1870s), Argentina (in the 1880s), Australia (the 1900s), Canada (1910s). This shift had profound effects on economies around the world, bringing urban factory workers, newly liberated Russian serfs, American homesteaders, Italian emigrants, Chicago speculators, merchant and banking houses, railway and canal builders, agrarian organizations, and many others into a relationship of close interdependence, as international transactions in grain went from being a stop-gap measure during times of harvest failures or war to quotidian events. The expanded global wheat market produced—and depended on—new systems of political organization, new technologies for transportation, and new kinds of business organizations. As the trade in wheat became at the same time larger in volume and more highly technical and specialized, the older merchant partnerships that had previously traded in various imported commodities gave way to large multinational firms that specialized in grains and

integrated to engage not just in trading but in storage and transportation infrastructures in far-flung producing areas.

The long-distance trade of commodities was by no means a nineteenth-century development.¹ Sugar, tobacco, tea, cotton, and rice had been internationally transported and traded for hundreds of years, but these were high-value luxury goods, and subject to different regulations than staple grains. Grain transactions had been highly regulated in European common law from the Roman period until the mid-nineteenth century.² In Rome, the Lex Julia de Annona prohibited attempts at cornering markets, and the law

¹ An extensive literature on the European grain trade before the mid-nineteenth century exists. See, for example, Abbott Payson Usher, The History of the Grain Trade in France, 1400–1710 (Cambridge, Mass.: Harvard University Press, 1913), N.S.B. Gras, The Evolution of the English Corn Market from the Twelfth to the Eighteenth Centuries (Cambridge: 1915), W. Freeman Galpin, The Grain Supply of England During the Napoleonic Period (New York: Macmillan, 1925), Pierre Binet, La réglementation du marché du blé en France au XVIIIe siècle et à l'époque contemporaine (Paris: Librairie sociale et économique, 1939), Susan Fairlie, "The Corn Laws and British Wheat Production, 1829–76," Economic History Review [UK] 22 no. 1 (1969): 88–116, Stephen L. Kaplan, Provisioning Paris: Merchants and Millers in the Grain and Flour Trade during the Eighteenth Century (Ithaca: Cornell University Press, 1984), Bruce M.S. Campbell, "A Medieval Capital and Its Grain Supply: Agrarian Production and Distribution in the London Region, c. 1300," Historical Geography Research Series no. 30 (1993), Judith A. Miller, Mastering the Market: The State and the Grain Trade in Northern France, 1700–1860 (Cambridge: Cambridge University Press, 1999), Karl Gunnar Persson, Grain Markets in Europe, 1500–1900: Integration and Deregulation (New York: Cambridge University Press, 1999), Sheila Pelizzon, "Grain Flour, 1590–1790," Review (Fernand Braudel Center) 23 no. 1 (2000): 87–195, Milja van Tielhof, The "mother of all trades:" the Baltic grain trade in Amsterdam from the late 16th to the early 19th century (Leiden: Brill, 2002)

² Arthur Barker, The British Corn Trade from the Earliest Times to the Present Day (London: Pitman & Sons, 1920), pp. 22–25.

de monopolis et conventu negotiatorum illicito prohibited combinations for the purposes of increasing the price of food, punishing such attempts with perpetual exile. In the later Roman Empire, any combination in which it was agreed not to sell a commodity below a minimum price was prohibited; a prohibition that was extended in the medieval period to the Holy Roman Empire and France. In the England and Wales, statutes that codified common law doctrines punished forestalling (selling outside regular market hours, or persuading others to hold off on sales in hopes of higher prices), engrossing (selling a wholesale purchase to another wholesaler rather than to retailers), and regrating (selling the same grain in the same market more than once). Furthermore, in Britain such actions were not simply statutory crimes but were treated as criminal conspiracies.³

But these would be precisely the practices upon which modern grain trading in the world's great markets at Chicago, Liverpool, and Antwerp was built, and over the course of the nineteenth century they went from being considered criminal conspiracies to legitimate ways to make a profit—though that legitimacy was passionately debated, particularly during periods of scarcity in food supply, whether caused by climate, war, or speculative market activities. Although such market protections were dismantled with the transition to free trade in the nineteenth century, these characteristics of the

³ United States. Congress. House, Hearings on H.R. 13568. Regulation of Prices. January 5-11, 1917 (United States Government Printing Office, 1917), p. 39–40.

“moral economy” were remembered and invoked during times of food shortage and crisis even during the twentieth century.

In pre-nineteenth-century Europe, grain trading was limited not just by laws limiting specific market operations. Prohibitions on exports of essential food commodities aimed at ensuring domestic food security, and tariffs on imports, aimed at protecting domestic agriculture. The French Physiocrats in the 18th century were the first to argue for open markets; Tuscany was the first state to allow the export of grain in 1737, by 1764 it also allowed the import of grain under pressure of a famine. In 1786 the Treaty of Vergennes between France and Britain allowed for an opening of trade between the two nations—though many items remained highly restricted, particularly those with applications to industry; still these restrictions gradually eroded over the course of the nineteenth century: the UK abolished the Corn Laws in 1846, Germany abolished Zollverein duties in 1853, France abolished tariffs on agricultural imports with the Anglo-French Treaty of Commerce in 1860, the Netherlands dropped grain duties in 1862, and Belgium allowed duty-free entry of many foodstuffs in 1871. The tidal wave of cheap grain from the New World threatened European agriculture and prompted many countries to re-establish tariff protections in the late 1870s and 1880s (or

to switch from producing grains to other agricultural products), but by then the pace of urbanization was such that wheat imports continued even in spite of tariff protections.⁴

Before the mid-nineteenth century, trading grain internationally was a highly risky venture, albeit one with potentially high profits. The value of grain relative to its weight and bulk (and therefore to the cost of transporting it) meant that it was difficult to trade it profitably over long distance—except in periods of scarcity or famine, when Western Europeans imported wheat from Eastern Europe, North Africa, or North America. These transactions, handled by non-specialist merchants who usually traded in other goods, could result in great profits, but the amount of time it took to get market and price information from overseas, to assemble a cargo, and for the cargo to reach its destination also made them highly risky. In the two months that it took to sail from Philadelphia to Liverpool in the early nineteenth century, what one grain trader wistfully recalled years later as the “romance of uncertainty” could be extreme for the merchant who had gambled on a speculative shipment of wheat to Europe.⁵ Even when a cargo of wheat reached an overseas port in time to take advantage of favorable market conditions, wheat stored over many weeks in the hold of a sailing vessel could rot or

⁴ C.P. Kindleberger, “The Rise of Free Trade in Western Europe, 1820–1875,” Journal of Economic History 25 no. 1 (1975): 24-5.

⁵ Minneapolis Chamber of Commerce, “American Produce Exchange Markets,” Annals of the American Academy of Political and Social Science 38 no. 2 (1911), p. 246.

germinate (becoming “heated,” to use the trade term) in transit, rendering it unfit for human consumption and therefore worthless by the time it arrived at its destination.⁶

Markets

The expanded international market for wheat in the second half of the nineteenth century was made possible by several factors: the relaxation of tariff regimes and market controls that discouraged the long-distance exchange of staple commodities, large-scale urbanization and the attendant expansion of the non-agricultural population, changes in the dietary preferences of the growing urban working classes (for example, the expectation for bread made from refined flour rather than rye or oats), the opening of vast new areas of rich soil to cultivation in the New World—but also technological advances that allowed new areas to be cultivated on a very large scale and that made transport from field to table—a distance now longer than ever before—faster and much more efficient.

Britain

And, significantly, a policy shift was the key turning point in the establishment of an international grain market — Britain’s repeal of the Corn Laws in 1846. With this landmark change, which removed tariff protections for British agriculture, Britain effectively decided to focus on industrial production and rely on imports for basic

⁶ Morton Rothstein, “American Wheat and the British Market, 1860–1905,” (Phd diss., Cornell University, 1960), pp. 46–47.

foodstuffs. As Britain's appetite for imported grain grew, it remained the single most important customer on world wheat markets for the remainder of the nineteenth century and into the 1920s.

While the end of the Corn Laws and the fact that Britain had the world's largest urbanized industrial population ensured that it would remain an important customer for wheat, its easy access to maritime transport, ports servicing all parts of the world, and well-established trading institutions made English and Scottish cities important entrepôts for grain sales to other parts of Europe. Britain, although the largest customer, was not the only one. In the nineteenth century, ships bearing American grain bound for the market at Liverpool would send a sample of their cargoes ahead to the grain exchange — on the basis of which the cargo would be sold, the ship diverted to its final destination for unloading without ever even docking.

While France took a protectionist stance toward its wheat producers — whose ranks formed a much more significant portion of the French than the British population — France still needed to import in years when its own crops fell short. Germany, too, was a growing market: in the 1870s, Germany went from a wheat-surplus to a wheat-deficiency region in which imports continued even in spite of tariffs. While Germany satisfied 87% of its own wheat requirements in 1886-1890, it could only supply 64% of

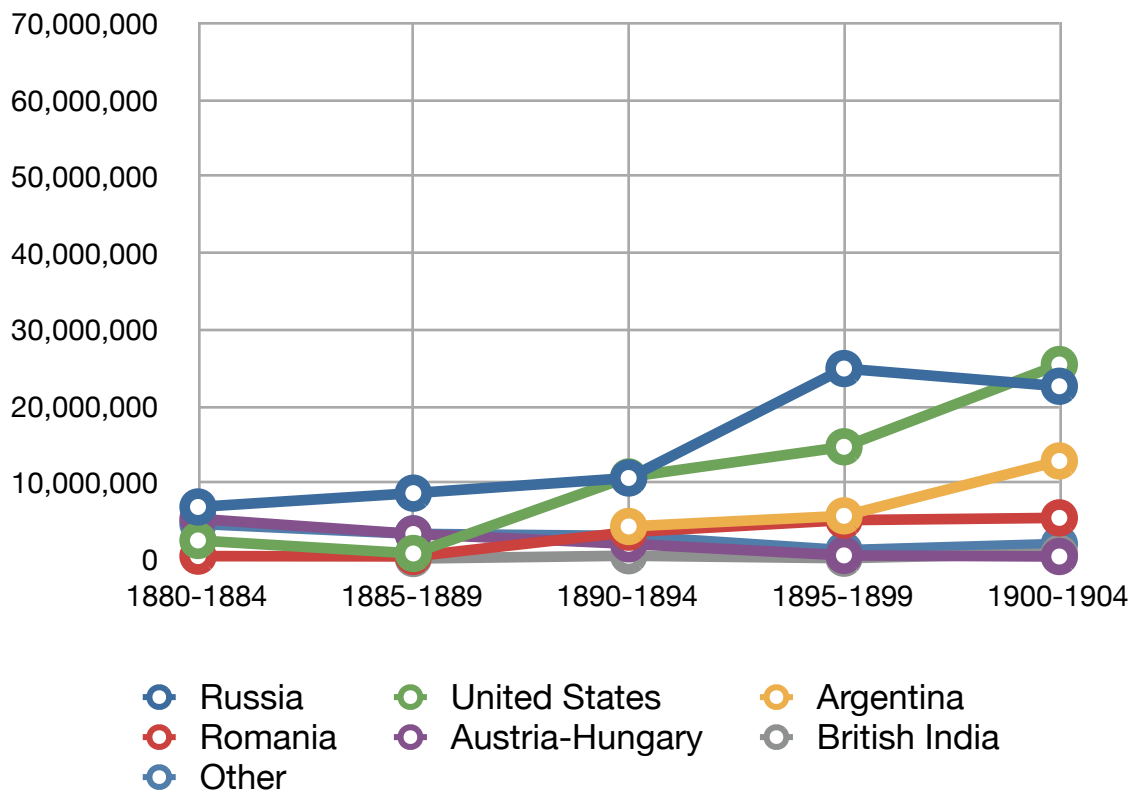
its own requirements in 1901-1905.⁷ (See Figure 1 and Figure 2). The international market for wheat, no longer as vulnerable to wars of uncertain scope and duration or on unpredictable meteorological catastrophes, became far more reliable, and ever-expanding: industrializing Western European nations came to consume more wheat than they produced, both because there were more consumers than producers and because a rise in the standard of living translated into the increased consumption of bread made of wheat rather than cheaper grains. And while import markets were developing in Western Europe, wheat-producing areas elsewhere were increasing their output to meet that demand.

⁷ M.E. Falkus, "Russia and the International Wheat Trade, 1861-1914," Economica November 33 no. 132 (1966): 426.

Figure 1: Imports of wheat into the German Empire, by chief countries of origin, 1880-1906 (in bushels)⁸

	Russia	United States	Argentina	Romania	Austria-Hungary	British India	Other
1880-1884	6,838,500	2,466,900		418,400	5,291,100		4,628,700
1885-1889	8,643,400	765,100		381,100	3,309,900	105,100	3,327,100
1890-1894	10,623,200	10,758,800	4,291,600	3,549,200	2,022,400	470,600	3,053,300
1895-1899	24,915,100	14,697,200	5,680,000	5,117,300	512,900	147,000	1,198,000
1900-1904	22,603,700	25,441,300	12,846,200	5,414,800	368,400	781,900	2,010,100

Imports of wheat into the German Empire, by chief countries of origin, 1880-1906

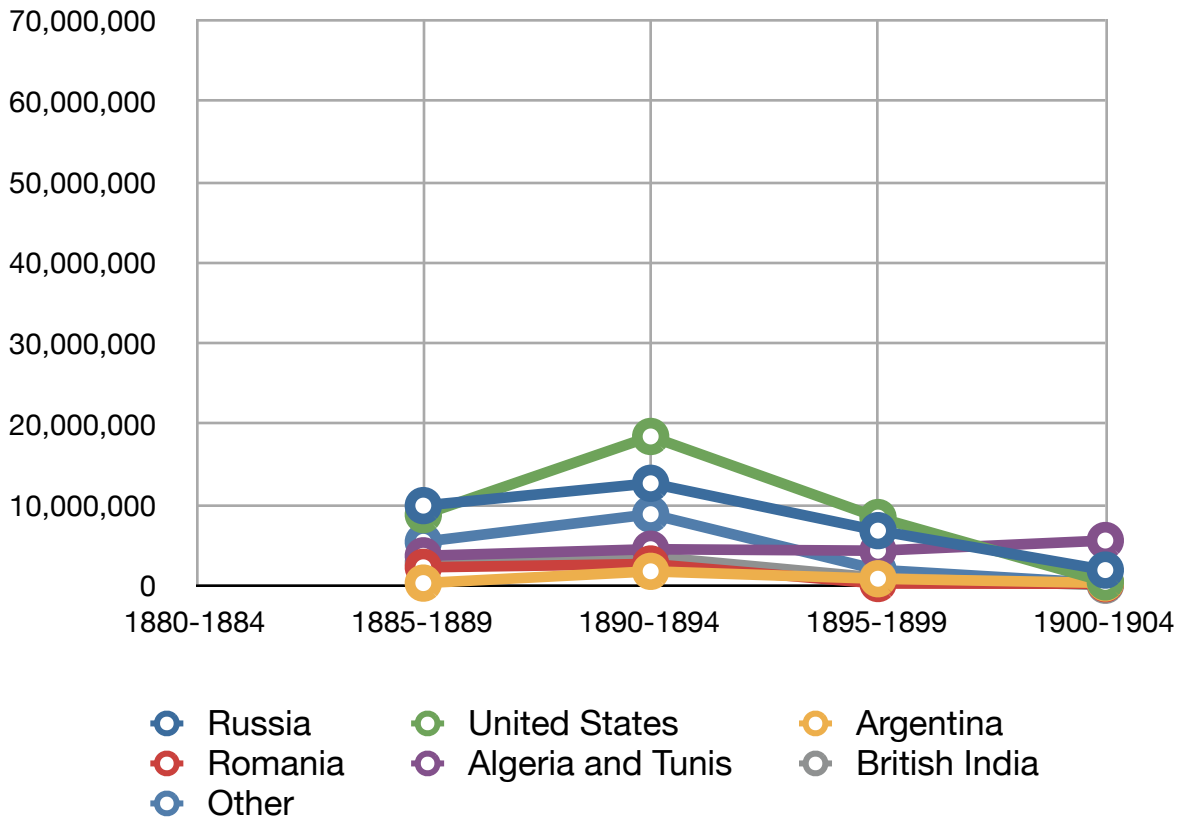


⁸ Isaac Max Rubinow, *Russian Wheat and Wheat Flour in European Markets* (Washington, D.C.: United States Government Printing Office, 1908), p. 36.

Figure 2: Imports of wheat into France, by chief countries of origin, 1885-1906⁹

	Russia	United States	Argentina	Romania	Algeria and Tunis	British India	Other
1880-1884							
1885-1889	9,911,000	8,796,000	317,000	2,273,000	3,696,000	2,867,000	5,428,000
1890-1894	12,676,000	18,473,000	1,775,000	2,684,000	4,512,000	3,593,000	8,848,000
1895-1899	6,812,000	8,433,000	858,000	266,000	4,328,000	979,000	1,964,000
1900-1904	1,930,000	473,000	340,000	242,000	5,589,000	51,000	285,000

Imports of wheat into France, by chief countries of origin, 1880-1906

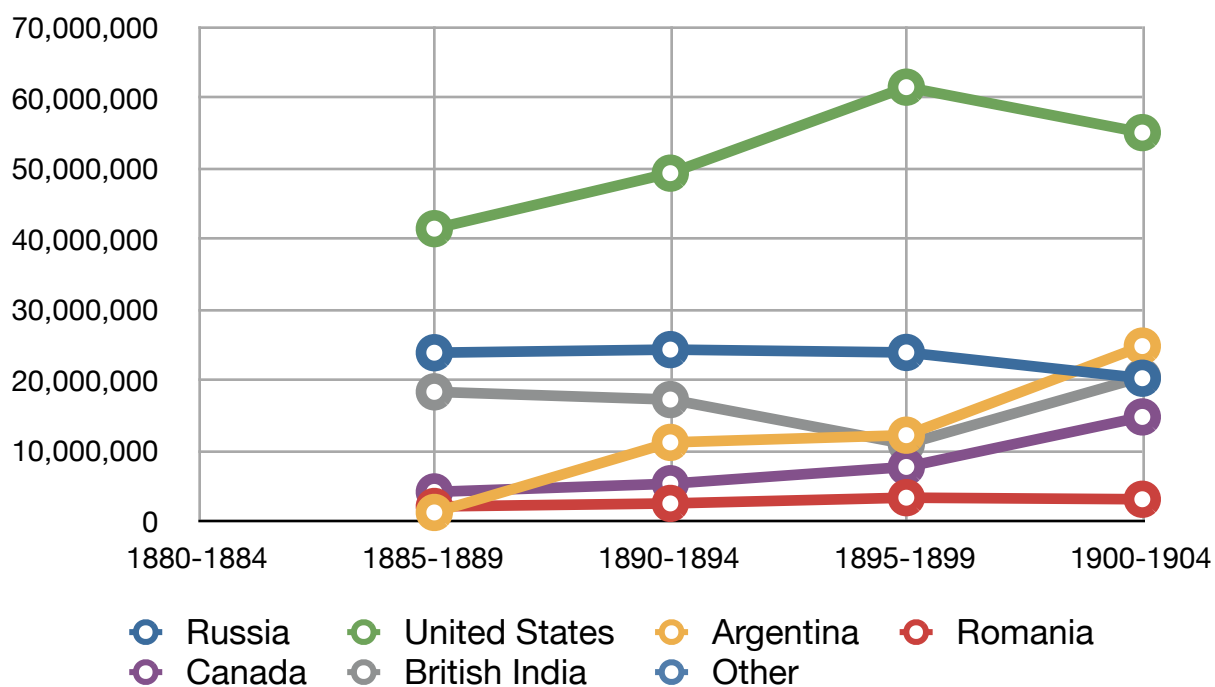


⁹ Rubinow:1908b, p. 43.

Figure 3: Imports of wheat into the UK, by chief countries of origin, 1885-1906¹⁰

	Russia	United States	Argentina	Romania	Canada	British India	Other
1880-1884							
1885-1889	23,878,888	41,479,000	1,212,000	2,061,000	4,127,000	18,327,000	
1890-1894	24,320,000	49,356,000	11,152,000	2,493,000	5,288,000	17,232,000	
1895-1899	23,915,000	61,558,000	12,176,000	3,308,000	7,672,000	10,908,000	
1900-1904	20,259,000	55,110,000	24,819,000	3,085,000	14,767,000	20,436,000	

Imports of wheat into the United Kingdom, by chief countries of origin, 1880-1906



¹⁰ Rubinow:1908b, p. 31-32.

The physical movement of grain continued to pose a significant problem, however, and the solution would be key in making the international trade in wheat possible. There were three main steps involved in moving grain to export markets: from the field to a railroad or internal waterway, from there to a seaport, and then on to its port of destination. Large-scale wheat culture was therefore contingent on the development of a modern transportation infrastructure to move the grain and a credit system to finance those movements.

The development of the business, financial, and legal infrastructure developed in concert with these long-distance transactions (organized grain exchanges, bills of lading, selling by sample or by standardized grading, speculative deals, hedging and futures trading) strikes most of us—as it did contemporaries during the period studied here—as a highly technical and highly complex world unto itself.

Producers

Russia

After the opening of European wheat markets to imports in the 1840s and until wheat production in the Americas provided a higher quality product at a lower price, Russia was Europe's great supplier of wheat, and its most important customer until the 1870s was Britain. There were several reasons for this. First, the Ukraine and southern Russia feature some of the world's most fertile wheat-growing soils in the "black soil" or chernozem belt. Second, by the middle of the nineteenth century, economic

conditions within Russia had become favorable to the development of a cash export crop. Third, Russia's proximity to European wheat consumers in Italy, Greece, and southern France meant that its transportation infrastructure — even though it was woefully underdeveloped compared to its competitors in the latter half of the century — was still adequate. Fourth, Russia and Eastern Europe were the first destinations for Western European and Greek merchant houses seeking to establish beachheads in this growing market.

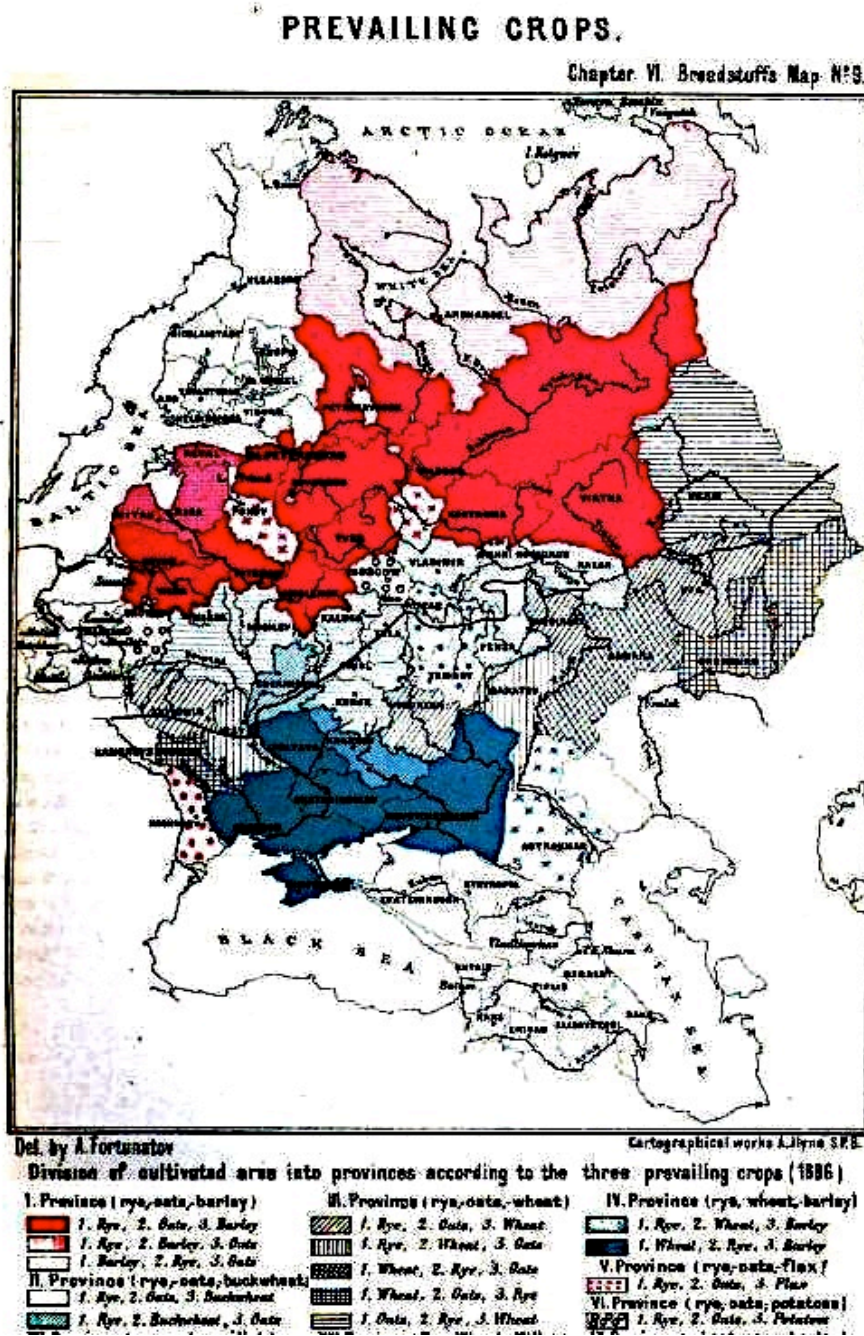
Wheat had never been a staple of the Russian peasant diet, but after the abolition of serfdom in 1861, wheat production for export increased steadily. The main areas of wheat production were in the south, from the Ukraine to the Volga and in parts of the northern Caucasus. Access to the Sea of Azov had been secured during the reign of Catherine the Great, opening up trade routes to the Black Sea. The end of serfdom forced Russian peasants to shift from a subsistence to a market economy in order to pay for their redemption and to pay for land. At emancipation, although peasants were granted the right to use of the land, ownership remained with the nobility. When peasants had the option to purchase their land (at individually negotiated prices), they did so on a wide scale — peasant holdings increased from 5.5% of arable land in 1877 to 27.6% in 1900 — but the cash-poor peasants often paid highly inflated prices.¹¹ The

¹¹ See Barry K. Goodwin and Thomas J. Grennes, "Tsarist Russia and the World Wheat Market," *Explorations in Economic History* 35(1998): 407.

main wheat producing regions in Russia were in present-day Ukraine, within hauling distance of the Black Sea ports of Odessa and Nikolaev, which provided access to international markets. The land under wheat cultivation were also the parts of Russia with the greatest increase in land value from 1860 to 1889: that period saw a three-fold increase in the value of land holdings. (See Maps 1 and 2). Selling produce for the internal market was not really an option: the growth of the urbanized population in Russia was slow until the twentieth century, and lacking a substantial urbanized population, Russia had a limited internal market for agricultural goods. Furthermore, restrictions placed on labor mobility after emancipation kept most of Russia's population agrarian, and its best option for raising cash was the agricultural export market.¹²

¹² See Liashchenko, Petr I. Le commerce des blés en Russie et ses besoins. Paris: 1910; Liashchenko, Petr I. History of the National Economy of Russia, to the 1917 Revolution. New York: Macmillan, 1949.

Map 1: Main grain crops in Russia in 1873 (Wheat areas in blue)¹³

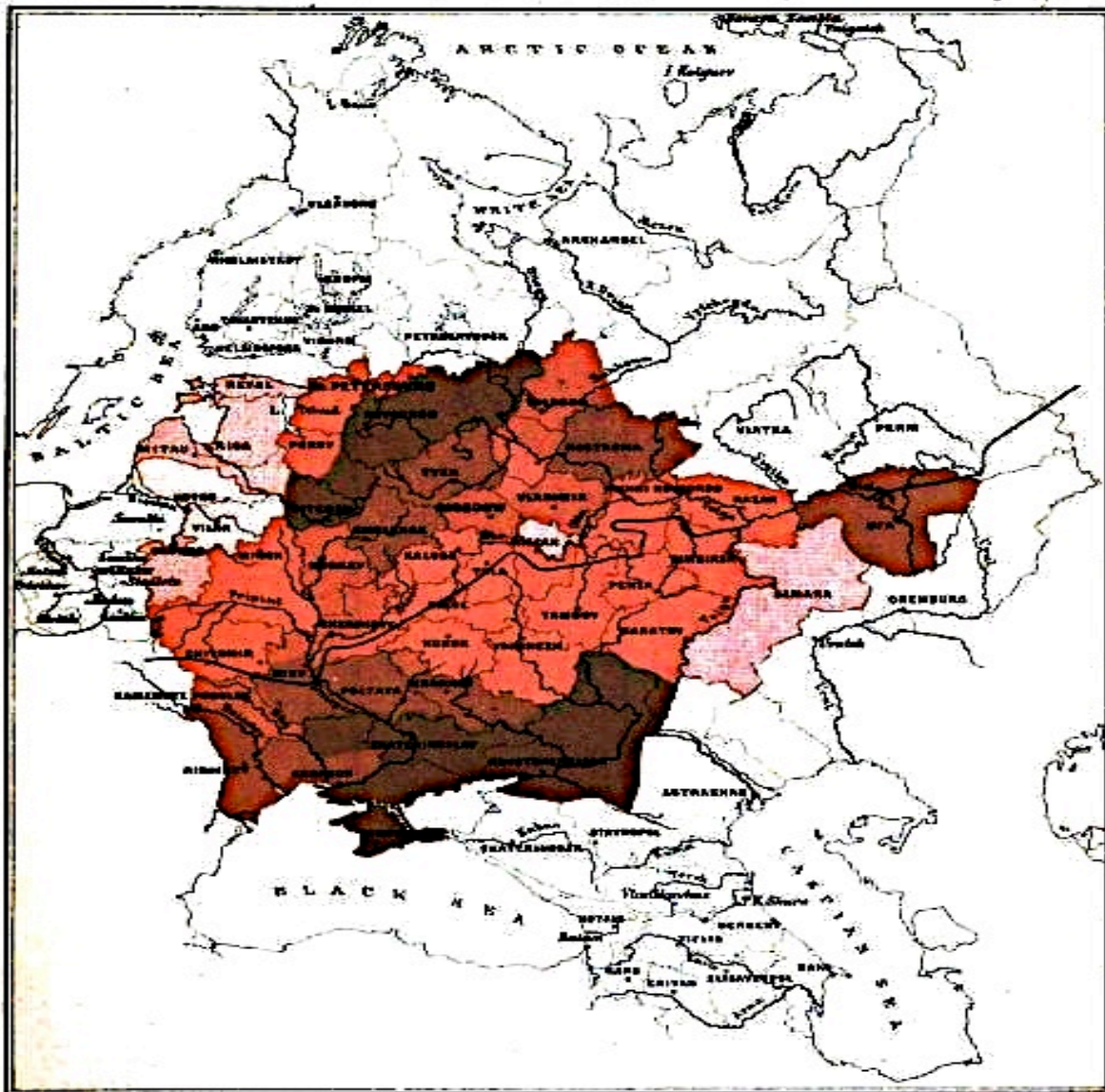


¹³ Kovalevsky, n.p.

Map 2: Increase in the price of land in Russia from 1860 to 1889¹⁴

INCREASE IN PRICES OF LAND FROM 1860 TO 1889.

Chapter XI. Rural Economy. Map No. 2.



O. Semenov, del.

Cartographical works A. Jlyne St Pbg

Selling price per dessiatine since the sixties, increased to 1889.



¹⁴ Kovalevsky, n.p.

The Russian government, needing to service its foreign debt, also had an interest in encouraging the export trade, which it did by supporting a program of railway construction (partly state-financed and partly private), designed to facilitate the expanding export of agricultural products. Although railway construction in Russia had begun relatively early (in 1838), progress was slow. Eight years later, only 17 miles of railroad had been built, and on the eve of emancipation, in 1860, Russia could claim only 988 miles of railroad. The pace of railroad construction picked up significantly in the 1870s: by 1870, railway miles increased to 6,693, and then nearly doubled again by 1875 to 11,742, so that Russia had more miles of railroad than any other European country. Still, it lagged severely behind the United States: railway density in Russia in 1904 was comparable to American railway density in 1866.¹⁵ Nevertheless, even as Russia fell behind the United States in railway construction, Russia's internal waterway transportation system remained important and continued to grow even after the construction of railways had begun in earnest, in large part because waterway transport was cheaper for high-bulk, low-value commodities like grain. In the United States, wheat culture expanded westwards together with the railways, and large-scale wheat

¹⁵ Adjusting this calculation to take into account only the wheat-producing areas in each country shows a similar inequality: in the U.S., one mile of rail served 13.2 square miles in 1880 and 9.7 square miles in 1904; in Russia the comparable figures are 79 square miles and 40 square miles, respectively. Isaac Max Rubinow, Russia's Wheat Trade (Washington, D.C.: United States Government Printing Office, 1908), pp. 32–34.

production developed very differently than in Russia. The difficulty of securing labor in the American west meant that American wheat farming was far more technologically sophisticated and mechanized, while the availability of railroad transportation made the connection between farmer and market much easier, albeit anything but harmonious.

Even so, grain transport in Russia remained difficult, primitive—and seasonal. A large part of Russia's export grain, particularly in the immediate hinterlands of the Black Sea ports, made the journey from field to market in horse-carts. As late as 1886, 12% of the grain delivered to Odessa, 34% of the grain delivered to Rostov, and 38% of the grain delivered to Nikolaev, all major Russian export ports, was delivered by horse-cart. Macadam¹⁶ or gravel roads, where they existed, usually followed the railways or the waterways so that they did not add additional transport capacity for grain. Dirt roads were more abundant, but were often entirely impassable for any purpose during rainy autumn or spring months and unusable for hauling heavy loads of grain for much longer periods of time. Although the poor conditions of road transportation were widely recognized as an impediment to the export trade, peasants often resisted paving and road improvement projects. Better roads were of little use to them because they

¹⁶ See Stuart Thompstone, "Tsarist Russia's Investment in Transport," Journal of Transport History March 19 no. 1 (1998): 55.

were too poor to afford the technology—iron shoes for their horses and cartwheels capable of withstanding a hard road bed—to be able to use them effectively.¹⁷

These conditions shaped the Russian export grain market and the kinds of firms that operated in it. In part because of transport conditions, Russian producers were forced to sell immediately after the harvest, while the roads were still open, thus glutting the market and driving prices down. In some ways they faced the same marketing problems as American wheat farmers, but lacking the network of internal storage and grain movement facilities, or the multitude of buyers, Russian peasants were at even more of a disadvantage. The seasonal decline in prices hurt the peasants first and it hurt them the most; those who could store their grain and wait for higher prices, and had the manpower to clean their grain, could fetch a higher market price, but small peasant producers could afford neither of these. They suffered from the additional handicap of needing to repay their creditors as soon as the harvest was ready. Rushing to haul grain to the nearest town in one-horse carts while the roads were still passable, peasants sold to one of numerous small local merchants (who were sometimes also their creditors), who in turn transported the wheat via waterway or railway to a nearby port for sale to a large merchant who had access to warehousing facilities. Only

¹⁷ Rubinow, *Russia's Wheat Trade*, pp. 55–56.

these larger merchants, with access to warehouses, could hold the grain until prices rose on world markets.

The greater the distance from field to port, the more at a disadvantage a peasant was. Even so, evidence suggests that Russian peasants, in spite of their isolation and backwardness, were aware of the importance of the global market in determining local prices, and that they tried to bargain accordingly. In 1903, a Russian investigator was surprised to discover that illiterate Russian peasants, having hauled their grain to an export port, were quite aware of world prices as they prepared to sell their crops:

On the market place in Nikolaev (one of the most important southern ports) I had an opportunity to observe a fact which a short time ago would have been altogether incredible. The peasants on arrival at the market with their grain were asking: 'What is the price in America according to the latest telegram?' And what is still more surprising, they know how to convert cents per bushel into kopecks per pood.¹⁸

Business organization, 1840s to 1870s

The organization of the Russian grain trade underwent a shift in the late nineteenth century, as new kinds of firms established themselves in Russia. The Russian export grain trade was handled by foreign firms. German firms, such as Schröders, had exported grain to Western Europe via the Baltic as early as the late eighteenth century, along with other Russian exports.¹⁹ But by the nineteenth century, the Russian export

¹⁸ Quoted in Rubinow, Russia's Wheat Trade, p. 65.

¹⁹ Richard Roberts, Schröders: Merchants and Bankers (Houndmills, Basingstoke, Hampshire: Macmillan, 1992).

grain trade was concentrated in Odessa, and was controlled by multinational family-run merchant firms of Greek origin. Originally from the island of Chios, the Greek merchant firms, such as Ralli Bros. and Rodochanachi, operated as a clan of merchant families closely connected by kinship ties. By sharing capital and information, they formed a closely allied (though informally organized and constantly shifting) network of firms and partnerships in locations throughout Europe, the Middle East, India, and America, trading in numerous commodities.²⁰ With the abolition of the Corn Laws in 1846, these firms began to trade British cloth for Russian grain, soon becoming the leading export grain traders in Russia.²¹

The Greek merchant firms played a key part in the collection and transportation of Russian grain from producers to external markets using the older and slower river and canal system of transportation. They possessed sufficient capital to buy small lots of grain from local traders, pay for its transportation, and keep that capital tied up while shipments traveled slowly down the river and canal systems to the seaports, where they

²⁰ For an analysis of the so-called Chiot system of business organization, see Ioanna Pepelasis Minoglou, "The Greek Merchant House of the Russian Black Sea," International Journal of Maritime History 10(1998), Ioanna Pepelasis Minoglou and Stavros Ioannides, "Market-Embedded Clans in Theory and History: Greek Diaspora Trading Companies in the Nineteenth Century," Business and Economic History Online 2(2001), and Gelina Harlaftis and John Thoeotokas, "European Family Firms in International Business: British and Greek Tramp-Shipping Firms," Business History 46 no. 2 (2004): 219–255.

²¹ Stanley Chapman, Merchant Enterprise in Britain: From the Industrial Revolution to World War I (New York: Cambridge University Press, 1992), pp. 155–157.

consolidated their purchases and stored them until they could be advantageously sold. But the expansion of railroads changed this system in an event termed the “democratization” of the grain trade by Russian historians.²²

Railroads, by lowering transportation costs, allowed local traders with little—or even no—capital of their own to enter the trade. These small local traders would buy small lots of grain on credit, load the merchandise immediately into railroad cars headed to the export ports, and then try to sell before the cars reached the ports, thereby recouping their investment (and paying their creditors).

Under these conditions, the Greeks began to shift their business activities. Some took advantage of their wide international networks and their access to capital to switch to higher-profit and higher-risk enterprises, especially cotton and textiles, centered in America and India. By 1866, for instance, the firm of Ralli, Bros. had pulled out of the Russian grain business altogether in order to focus on its cotton-trading businesses in the Americas and India, handing over its Russian business to Scaramangas, another Greek firm, the scale of whose operations was far smaller and which continued to decline.²³ Other Greek firms moved away from Odessa, Nikolaev, and Herson and out

²² Petr I. Liashchenko and Hari Vasudevan, Commercialization and Agriculture in Late Imperial Russia: Essays on Russian Economic History (Calcutta: K.P. Bagachi, 1998).

²³ See Patricia Herlihy, “Greek Merchants in Odessa in the Nineteenth Century,” Harvard Ukrainian Studies 3/4 no. 1 (1979–80) and Ralli Bros., History and Activities of the Ralli Trading Group: Commodity Merchants for 160 Years (1979).

of the Black Sea trade, establishing themselves in the newer grain-producing areas to the east and in the ports around the Sea of Azov: Taganrog, and Rostov.

The transition from merchant firms to local traders worked to the detriment of Russian grain sales abroad.²⁴ On the markets of Liverpool, London, and Antwerp, Russian grain quickly gained a reputation for being mixed with dirt, straw, and other adulterants. Russian grain deals elicited disputes often enough that several European grain exchanges put in place special arbitration procedures for Russian grain.

A foreign observer explained that Russian banks, in an effort to attract more customers, were freely extending credit to individuals with risky credit histories and questionable business ethics:

“...individuals who possess absolutely nothing. It is they who are absolutely ruining the trade, because, as they possess nothing, they risk nothing. It is clear that in these conditions, a group of traders has formed who are a permanent danger to commerce and a great number of European importing houses have suffered considerably because of them.”

Indeed, they often sold more cheaply than the “honorable” European houses and didn’t hesitate to mix their grain with dirt in order to eke out their profit, or to fail to deliver at all if a deal they made turned out not to be in their favor.²⁵

²⁴ See Patricia Herlihy, Odessa: A History 1794–1914 (Cambridge, Mass.: Harvard University Press, 1986), pp. 213–214 and Vladimir P. Timoshenko, Agricultural Russia and the Wheat Problem (Stanford, Ca.: Stanford University Press, 1932), pp. 433–434.

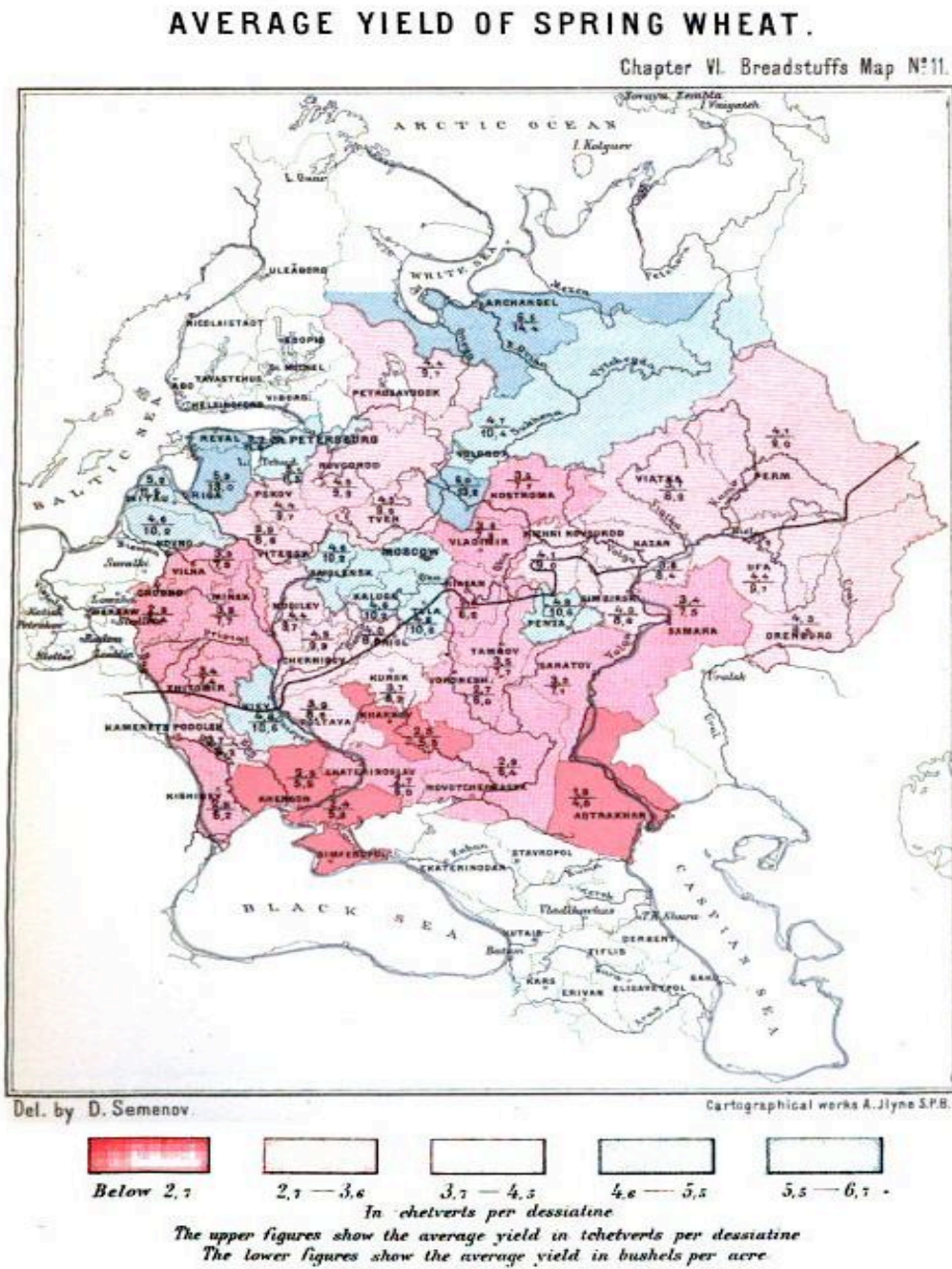
²⁵ Paul Van Hissenhoven, Les grains et le marché d’Anvers (Louvain: Université de Louvain, 1910), pp. 189–192.

Although European traders were convinced that Russians were habitually and constitutionally dishonest, it was also true that Russian agriculture was so short of capital—and revenues to producers were so small—that most small producers simply couldn't afford to clean their grain. For this reason, Russian wheat continued to be sold in Europe on the basis of individual samples rather than grades long after grading had become standard in many other grain-producing regions; as a result, there was never a viable futures market in Russian grain on European markets. Russian grain deals were widely considered to be troublesome and prone to legal difficulties, making it that much easier for buyers to turn to large-scale wheat producers in the Western hemisphere.

Toward the end of its period of ascendancy among world producers of export grain, some of the advantages that had allowed Russia to become one of the world's great exporters turned into liabilities. The abundance of highly productive soils allowed for extensive rather than intensive methods of cultivation, allowing outdated and wasteful agricultural practices to persist with little cost to overall productivity, at least in the short term. Russian wheat yields per acre were among the lowest in the world, and yields per acre were the lowest in the parts of Russia most intensively cultivated with wheat. (See Map 3) As mechanization and advances in agronomy increased wheat yields (and agricultural yields in general) elsewhere, Russian yields of wheat per acre sank to the lowest in the world, with production (and therefore exports) particularly

vulnerable to climactic conditions, so that crops tended to fluctuate significantly from year to year. (See Figure 3) The lack of investment in a transportation infrastructure on a par with those in the United States or South America kept transportation costs relatively high, even in spite of Russia's proximity to its markets.

Map 3: Average yield of spring wheat in Russia, 1873²⁶



²⁶ Kovalevsky, n.p.

Figure 4: Russian Wheat Exports, 1860-1915²⁷

In the 1870s, Russia began to encounter serious competition on British markets from American wheat, and this, combined with the poor reputation for quality that Russian wheat had garnered, resulted in the loss of this most important market. But even then, Russia still accounted for one-quarter of total world wheat production, and in some years as much as one third. After the 1880s and the 1890s, the older pattern of sales of soft wheat to England changed. Now Russia was exporting hard wheat to Southern Europe and soft wheat to Central Europe. The Russian wheat belt continued to expand, into Western Siberia and the Lower Volga, regions amenable to the hard spring wheat demanded by millers and food processors in southern Europe. After 1900, rising urbanization and greater consumption within Russia finally helped to foster an internal market as well.

The most important new market for Russia in the 1880s and 1890s was Germany. In the 1870s, Germany went from a wheat-surplus to a wheat deficiency region as the pace of urbanization and industrialization increased; imports continued in spite of tariffs designed to keep wheat production up in wheat regions of Germany. While Germany satisfied 87% of its own wheat requirements in 1886-90, it could only supply

²⁷ Falkus, p. 227.

64% of its own requirements in 1901–5. Here Russia had a distinct transportation advantage. For German customers, transport costs made American grain was more expensive than Russian grain shipped from the Black Sea through Rotterdam—Ukrainian grain could even go overland by rail. In the 1890s, the chief competitor for Russian grain on German markets had been Hungary, but Austrian demand soon absorbed Hungarian production. (See Figure 1: Imports of wheat into the German Empire, by chief countries of origin, 1880-1906 (in bushels)).

France increased tariffs in 1885, 1887, and 1894 in an effort to resist American wheat, stimulating home production. France could reach equilibrium because there was no great increase in consumption (unlike Germany there was no increase in population, and no great urbanization). France only needed imports in years of crop failures, and then wheat could be brought in duty free from Algeria and Tunisia, so that outside of special grades of wheat needed by millers, little demand for foreign supply existed in normal years.²⁸ (See Figure 2: Imports of wheat into France, by chief countries of origin, 1885-1906)

Danube

The wheat-growing agricultural areas in the Danube region (in modern-day Hungary and Romania) were also among the early suppliers of wheat to Western European consumers. After a long period of Ottoman domination, the Treaty of

²⁸ Falkus, pp. 422–426.

Adrianople (1829) limited Ottoman influence in Romania, increasing trade opportunities in the Balkans and allowing increased Austrian, British, and French navigation along the Danube. Balkan merchants transported animals, salt, wood, fish, and grain by several land and water routes to various Danube ports. International traffic through the ports at Galati and Brăila increased after the repeal of the Corn Laws, as did imports of British merchandise and exports of Danubian grain.²⁹ By the middle of the century, French commercial interests had assembled detailed statistics on harvests, prices, and available ships in the region, and by 1857 had dominated the route linking Brăila, Varna, and Galati with Istanbul. In Brăila, the French overcame local challenges to control sales, trade, and transportation, and created a local bourgeoisie. A period of economic organization from 1860 to 1878 was dominated by foreign investment and an attempt to penetrate foreign markets. From 1878 to 1900, economic development benefitted from the establishment of public utilities, a growing industrial base, but the agricultural sector suffered from a period of increased competition on foreign markets from the United States and Russia. Nevertheless, Romanian wheat production remained high. Belgium was its most important customer, followed by the UK, Germany, and

²⁹ Paul Cernovodeanu, "An Unpublished British Source Concerning the International Trade through Galatz and Brăila between 1837 and 1848," Revue Roumaine d'Histoire 16 no. 3 (1977): 517–531, and B. Cerdoveanu & P. Marinescu, "British Trade in the Danubian Ports of Galatz and Brăila between 1837 and 1857," Journal of European Economic History 8 no. 3 (1978): 707.

Austria-Hungary, which took most of the Hungarian production. In 1893–97, wheat production was exceeded only by corn production (though wheat bread was considered a superior food, corn, in the form of mamaliga, or polenta, was the staple food of the Romanian peasant well into the twentieth century): 35.3% of agricultural lands were devoted to corn, and 27.7% went to wheat, but in both cases, culture was extensive rather than intensive, with the quality of the soil being principal factor of production. Because of this, production tended to fluctuate from year to year due to weather conditions, and although the quality of the soil was high, soil depletion began to take its toll in the early part of the twentieth century.³⁰

While Dreyfus, in its early years, focused on the Russian grain export trade to Southern Europe, other suppliers came into world markets to supply Britain. From the mid-nineteenth century to the beginning of the First World War Great Britain was the focal point for buyers and sellers, and Liverpool, London, and Chicago were the critical markets. As the number of suppliers increased, international traders formed the London Corn Trade Association to standardize shipping documents and clarify arbitration procedures for different producing regions. These changes were accompanied by a shift in the kinds of firms that were operating in the grain trade, similar in some ways to the shift that had taken place in Russia a few decades earlier: by the end of the century,

³⁰ Georges D. Cioriceanu, Roumanie économique et ses rapports avec l'étranger (Paris: M. Giard, 1928).

general merchant shipping firms had left the field to the new integrated grain firms, like Louis Dreyfus, which operated in several widely scattered locales simultaneously.

The expansion of the market also required a different grain marketing mechanism. Problems had already cropped up with Russian grain deals in Britain, as British buyers were saddled with impure, low-quality grain mixed with dirt and stones, giving Russian grain a terrible reputation among British buyers. These deals had initially been done on the Baltic Grain and Shipping Exchange, the oldest of the British exchanges, established in 1744 as an association of merchants specializing in the Russia trade. At the time of the Baltic's establishment, the exchange did not deal in grain at all, as grain was not imported into Britain from Russia; these merchants traded mostly hemp and oilseeds. After 1846, however, the Baltic became the primary exchange for Russian grain in Britain. Markets such as the old Mark Lane market continued to operate but as "spot" markets, specializing in the sale of grain already delivered to the UK.³¹ Grain was sold on the basis of a physical sample of the grain being purchased in this market, and was purchased as an entire cargo of grain at a time. When a ship carrying a consignment of grain came into port at Falmouth, grain merchants would

³¹ On the Baltic Exchange, see Hugh Barty-King, The Baltic Exchange: Baltick Coffee House to Baltic Exchange, 1744–1994 (London: Quiller Press, 1994) and James Arbuckle Findlay, The Baltic Exchange (being a short history of the Baltic Mercantile and Shipping Exchange from the days of the old coffee house, 1744–1927) (London: Witherby & Co., 1927).

board the ship, take samples of the cargo, rush to London to sell it based on the obtained samples, then send instructions back captain to continue the journey to the grain's final destination, whether London, Antwerp, Genoa, or Marseille. The first innovation in the grain trade was the sale of "parcels" in addition to cargoes. Whereas cargoes were much larger quantities (15,000 to 20,000 quarters or more), parcels were subdivisions of a cargo (1,000 to 5,000 quarters) that would be delivered directly to a buyer in London or Falmouth or Marseille.³²

Both the scale and the geographical scope of international grain transactions posed challenges to this system, particularly in getting bank financing for deals and for adjudicating trade disputes across borders. As the volume of the grain trade increased, two innovations, standard contracts and arbitration procedures, were adopted by newer grain exchanges specializing in the imported wheat. While before the 1870s the older markets had served the grain trade well enough, the expansion of the volume of trade made standardized contract terms and an arbitration process imperative.³³ The oldest large grain market in Europe, and one that took an increasing importance as the global trade expanded, was at Antwerp. Beyond its importance as a grain depot, the Antwerp

³² Barker, p. 68.

³³ Such a process had existed since the mid-nineteenth century; first under a system of proxy representation of both parties in a dispute, and then after 1870, under the authority of an Arbitration Committee empowered to resolve disputes for a small fee. The first system was used for most international transactions, while the second was used almost exclusively for Eastern European grain arriving via the Baltic Sea.

market pioneered the standard contract for grain, which equalized the terms under which grain deals were made and instituted procedures for arbitration of trade disputes. Freed of the need to examine the terms of individual contracts with differing terms, banks were far more willing to extend much-needed credit to finance grain transactions.

Export grain was sold (and prices were quoted) in one of two ways: "c.i.f.," i.e. including cost, insurance, and freight to its final destination, or "f.o.b.," free on board, or delivered to its port of embarkation (the point it was loaded into export-bound ships), with the buyer responsible for finding and paying for insurance and freight. How could buyers be sure they were getting quality merchandise until after the deal had been done and they took ownership of their grain? And how to resolve disputes with sellers thousands of miles away? Contracts for these kinds of transactions were written by the grain exchanges and included procedures for arbitration in case the merchandise was not the quality specified in the contract. The newer grain exchanges provided another essential service: they gathered samples from each crop in each producing area in order to determine a sample of "fair average quality" or f.a.q. Contracts were based on these samples, which were made available for all exchange members to inspect should they wish to do so.

These innovations were instituted at the two premier British (and by extension world) markets for grain: London and Liverpool. As steamers took the place of other ships for the transatlantic trade by 1875, the only ports in Britain with facilities for receiving them were Hull, Bristol, London, and Liverpool. With regular transportation service to North and South America and warehousing and elevator facilities, the port at Liverpool was an obvious center for the grain trade between the Americas and the UK. Before the abolition of the Corn Laws, Liverpool had long been the center of the cotton trade with the United States, and an important exchange point for flour imported from Ireland, but by the late nineteenth century, it had become the most important European destination for American grain. Initially established in 1853, the Liverpool Corn Trade Association traded in c.i.f. contracts until 1893, when, following the model of the Chicago Board of Trade, it introduced futures contracts. The first attempt at futures contracts at Liverpool was made in 1886 for California, Karachi, and Delhi wheat. Indian wheat, however, had a very poor reputation for quality, and since futures contracts depend on the ability to deliver a stable and predictable quality of grain, three years later futures contracts were only made on California wheat.³⁴ Without standard

³⁴ For comments on the quality of Indian wheat, see Eugène Serand, Étude agronomique, statistique et commerciale sur les céréales. Le blé. Culture, classification, géographie agricole et commerciale, trafic (2 vols.) (Paris: Rosier, 1891), p. 390, who claimed that Indian wheat had a reputation in England for being mixed with cow dung and other impurities; see also Liverpool Corn Trade Association, The Liverpool Corn Trade Association, 1853–1953 (Liverpool: Northern Publishing Company, 1953), p. 19.

grading, futures trading was difficult, and indeed, futures trading at Liverpool really took off in the 1890s, when the standard grades for American and Canadian wheat from the midwest and the Great Plains were established. During this period, even though Russia supplied large quantities to the Liverpool market, futures trading on Russian wheat was considered unfeasible because of the unpredictable and generally low quality of Russian wheat, which reportedly featured “extravagant quantities of foreign matter,” and which by 1913, Liverpool millers resolved to stop buying altogether until quality improved.³⁵

In 1878, London-based grain traders formed the London Corn Trade Association, which, like Antwerp, issued standard contracts, offered arbitration services, and collected samples in order to establish standards of quality, all with the aim of streamlining a growing business, particularly in Black Sea wheat.³⁶ The association then produced standard contracts for East Indian, Black Sea, and American wheat that called for a shipment of “fair average quality (FAQ) of the season’s shipment at the time of shipment ... 10 percent, more or less as per Bills of Lading ... shipped including Freight and Insurance, calling at Queenstown, Falmouth, or Plymouth for Orders.”³⁷ Each

³⁵ Liverpool Corn Trade Association, pp. 11–13, 16, 25, 30.

³⁶ C. Chattaway, “Arbitration in the Foreign Corn Trade in London,” Economic Journal 17 no. 67 (1907): 428–31, and Barty-King, p. 18.

³⁷ Barty-King, pp. 19–20.

season the association determined what was “fair average quality” for any producing area by examining samples. Although some of the larger traders active in the Russian trade at the time objected to the terms of the standard contracts, they nevertheless accepted them, and within a year, 15,000 standard contracts had been sold for Black Sea grain alone. By 1881, the London Corn Trade Association’s arbitration process was so well respected that it was being asked to arbitrate disputes between firms on the Continent and firms in the U.S. In 1884, the association expanded its contracts to include Australian, Chilean, and Californian wheat, as well as St. Petersburg and Baltic contracts; the association had 32 different standard grain contracts in force by 1888.³⁸

The development of futures trading depended on another key innovation: grain sold based on a certificate of inspection—an important development for buyers all over the world. The grading system was first instituted by the Chicago Board of Trade in 1856, when the CBOT designated three grades of wheat and defined qualities for each: white winter wheat, red winter wheat, and spring wheat. This system was further refined in 1857, when the grades were broken down into various qualities, with ten grades of wheat in place by 1860. The CBOT appointed a grain inspector for the city, whose judgements were legally binding under Illinois law after 1859.³⁹ By the 1890s, a

³⁸ Barty-King, pp. 22–25.

³⁹ Cronon, p. 116-119.

similar system applied to all American and Canadian grain except that from the Pacific, which was still sold according to sample.

The system of inspections and standard grading was very important to farmers in terms of getting their money and financing, which was in turn important for a highly mechanized and investment-intensive agricultural system that was growing on the basis of bringing new lands into cultivation. Grain inspection was also in the interest of foreign buyers, who, when purchasing a lot of grain, knew, by and large, what they were getting. Nevertheless, grain inspectors worked for individual states, and some state grain inspection boards did their job better than others: foreign buyers particularly quibbled with the judgments of grain inspectors in the American South, whom they thought corrupt. Still, graded grain resulted in far fewer trade disputes. The grain inspection system was further refined during World War I, when all American grain destined for export markets became graded by federal graders, thus removing another element of variation from international grain deals.

The United States

In the 1870s, American imports began to gain a larger share on the British market. This was due in no small measure to American systems of transporting and financing crops, which could deliver a product that was more consistent and higher in quality than what Russia could produce. The flow of American grain from farmer's field

to consumer benefitted from specialized transportation systems, storage mechanisms, and trading institutions—all of them well-known, particularly from William Cronon's work on Chicago markets.⁴⁰

The process of transporting grain from the farmer's field to the railroad, from there to a primary market, and then on to export ports was mediated by an elaborate infrastructure and a series of marketing institutions that remained the envy of the rest of the world until well into the twentieth century.⁴¹ Simply put, there were more railroad cars and storage facilities, more credit, more merchants both small and large, and they were far better organized. As a result the flow of grain from farm to consumer was far more orderly and even than it could be in places where such innovations did not yet exist.

The problem of storing much larger quantities of grain than could be consumed locally was solved by the grain elevator, an improvement on the older technology of the grain silo which allowed for the safe storage of grain and its rapid, mechanized loading and unloading directly into large-capacity railroad cars or waterborne vessels. The

⁴⁰ This system is described by William Cronon in William Cronon, Nature's Metropolis: Chicago and the Great West (New York: W.W. Norton, 1991), pp. 109–132. Cronon shows that modern grain-handling systems helped Chicago outdo St. Louis as the commercial center of the American Midwest by the 1860s.

⁴¹ See Antoine Ronna, Le blé aux États-Unis d'Amérique: production, transports, commerce (Paris: Berger-Levrault et Cie., 1880). In Australia, grain was still handled in sacks as late as 1916. See A. R. Callaghan and A.J. Millington, The Wheat Industry in Australia (Sydney: Angus and Robertson, 1956), pp. 374–376.

United States pioneered the grain elevator system beginning in 1842 with the first steam-powered elevator in Buffalo, New York. Grain elevators were the depots at every stage of the transshipment of grain: whether in the country, at a primary urban market, or at the seaboard export markets.

Farmers would sell to a “country elevator” in the hinterland close to their fields and on a railroad line. These were often owned in whole or in part by the railroads, in which case they were called “line elevators,” some were independently owned by local businessmen (the “independent elevators”), and increasingly after the 1880s, farmers began to operate their own “cooperative elevators” in an attempt to circumvent the many middlemen they were convinced were taking an undue portion of the revenue they felt belonged to them as producers. It was not uncommon, in the wheat-producing areas of the West, for a farmer to have a choice of elevators.⁴²

Elevators did not simply facilitate and lower the cost of transportation, however; they also allowed wheat to become a fungible commodity, and allowed for standardized grading, in which many lots of wheat were mixed together to achieve grade. They also served as a sort of deposit bank, and made possible the equally important development of methods of financing crops and their movement. American farmers had the option of selling their grain outright to the local elevators for cash, or else they could simply store

⁴² Siebel C. Harris, “Methods of Marketing the Grain Crop,” Annals of the American Academy of Political and Social Science 38(1911): 40–44.

it (for a relatively small storage charge) for sale later, when prices were more favorable. In addition, elevators made possible the standardization and commodification of grain. Whereas traditionally grain had been sold on the basis of samples from a particular farmer's crop, now the crops of an unlimited number of farms could be combined and sold on the basis of a system of standard grades.⁴³ In this system, the farmer's elevator or warehouse receipt represented the quantity and quality of grain he had sold, but was not tied to his particular lot of grain. The mechanism of standardization was what set American grain apart, and made it easier and cheaper to transport, store, and exchange.

Together with a more sophisticated transport and storage system, the United States had a far more extensive and well-organized system of internal markets than any other grain-producing region. These ranged from local markets in the wheat-producing areas, such as Kansas City (1869), Duluth (1870), or Minneapolis (1881), to important central markets like Chicago (1848), and international markets such as New York (1862).⁴⁴ American commodity exchanges were institutions created and regulated by

⁴³ The process of standardization in the world trade was a long and contentious one, as will be discussed subsequently; grain continued to be sold on the sample basis long into the twentieth century, particularly that which originated in places that lacked the American system.

⁴⁴ See Minneapolis Chamber of Commerce, "American Produce Exchange Markets," pp. 235, 237, 239, George F. Stone, "Board of Trade of the City of Chicago," Annals of the American Academy of Political and Social Science 38 no. 2 (1911): 191, and E.R. Carhart, "The New York Produce Exchange," Annals of the American Academy of Political and Social Science 38 no. 2 (1911): 214.

local businessmen offering members and traders legally enforceable rules and regulations for creating grain grading standards, resolving business disputes without resorting to the court system, and sharing information about prices and production. The participation of a multitude of buyers and sellers (a characteristic notably absent in other wheat-producing areas), and instruments such as futures contracts spread the risks of doing business among many participants, some of whom were pure speculators (that is to say, they never actually took possession of any grain and simply dealt in price fluctuations). By the 1870s, the American market had a highly sophisticated internal grain marketing system, with a much many small local traders or middlemen who carried the crop from when it was purchased from the farmer to storing and transporting it to internal terminal markets, re-selling and hedging it on the exchanges, and selling it to the final consumer or exporter at the large export markets on the seaboard.

Argentina

In addition to the United States, two other major wheat-producing areas started to contribute to world markets in the late nineteenth century: Argentina and Canada. Like the United States, Argentina and Canada brought so-called virgin lands into production in the late nineteenth century, expanding into rich agricultural areas being populated by newly arrived immigrants from Europe. Wheat agriculture developed

later in both, and neither had markets as well-organized as those in the United States. Nevertheless, both were competitors of the older grain-producing areas.

Argentina's agriculture took off in the 1880s, with the a political regime focused on policies supporting public stability in order to attract foreign (British and French) investment, and maintain an agricultural export economy, which was heavily dependent on such investment.⁴⁵ American farmers saw Argentina as an important source of competition for the United States. In 1904, the USDA sent a "Special Agent and Agricultural Explorer" to Argentina to investigate Argentinian wheat production. He found that although Argentina was certainly a competitor, it was at a disadvantage in depending on the labor of Italian immigrants, who were a liability in the "quality of labor" they provided. It was true that Argentinian wheat production depended in large part of migrant labor, attracting laborers who were unskilled and tended to work the harvests and then return to their homelands. In addition, like many of the new agricultural areas, cultivation was extensive rather than intensive, relying heavily on the richness of the soil rather than modern agricultural methods. Agricultural methods were crude and worked only on virgin soil while crop rotation was not efficient.⁴⁶

⁴⁵ On Argentinian wheat production, see James R. Scobie, Revolución en las pampas: historia social del trigo argentino, 1860–1910 (Buenos Aires: Ediciones Solar, 1991).

⁴⁶ Frank W. Bicknell, "Agricultural Development in Argentina," Yearbook of the United States Department of Agriculture (1904): 271–285, and Wheat Production and Farm Life in Argentina (Bulletin No. 27, USDA Bureau of Statistics) (Washington, D.C.: United States Government Printing Office, 1904).

Nevertheless, in the 1910s, Argentina was one of the world's fastest growing economies, and one of the most important wheat growers in the world. That this economic dynamism did not last past the 1920s has been attributed to the system of land tenure in Argentina, whereby agricultural land was held by large landowners and farmed by migrant laborers from Europe or tenant farmers, who were not politically organized. This was due in part to their material conditions—as tenant farmers they tended to move around rather than forming stable communities, and also in part to the lack of a democratic political tradition among Italian peasants, who were the bulk of Argentinian immigrants as a result of Argentina's non-discriminatory immigration policy. Argentina was far more successful than Canada at attracting immigrants: it attracted and retained four times as many immigrants as Canada between 1870 and 1930.⁴⁷ Whether or not Argentina's wheat economy was stymied by the fact that lands were owned by big proprietors has been debated: on study of one of Argentina's largest land-owning families, the Anchorenas, who were merchants turned landowners suggests that they used large landholdings to solve a number of production problems through well-designed managerial techniques to plan production and reduce risks. Nevertheless, although in the early part of the twentieth century both the Argentinian and the

⁴⁷ Carl E. Solberg, "Peopling the Prairies and the Pampas: The Impact of Immigration on Argentine and Canadian Agrarian Development, 1870-1930," Journal of Interamerican Studies and World Affairs 24 no. 2 (1982): pp. 133-4.

Canadian wheat economies were taking off and contributing ever an ever larger percentage of the world's export wheat, in the long run, Canada's wheat economy was far more successful.

Canada

Like Argentina, Canada was an immigrant society that developed in similar ways, with wheat as primary export, where development relied on external capital and external markets.⁴⁸ Wheat has been an important crop in Canada since the colonial period, and had been the principal grain crop of New France.⁴⁹ Unlike other North American settlements, New France planted little Indian corn, largely because it was too cold to grow it. Although the principal crop of the colony, wheat was not as important as furs and fish, or sugar in the West Indies. Inland fur traders largely depended on the Indians for their food supply, and had no need to develop agriculture of their own. In the British colonial period (1760–1850), wheat was the cash crop for pioneer farmers in Ontario, a pattern of settlement that was encouraged by the new international markets,

⁴⁸ Jeremy Adelman, Frontier Development: Land, Labour, and Capital on the Wheatlands of Argentina and Canada, 1890–1914 (New York: Oxford University Press, 1994).

⁴⁹ The Canadian historian Melville Watkins has described Canadian historiography as the history of three commodities (fish, fur, and wheat), citing Harold Innis as a prime example of the first two. There is a long tradition within Canadian historiography of analyzing history through the lens of important commodities—though one that has been criticized as being reductive by some, or as “commodity fetishism” by others. See H.S. Ferns, Ezequiel Gallo, and Melville Watkins, “The Prairies and the Pampas:” A Review Colloquium,” Business History Review Summer 67 no. 2 (1993): 279–299.

which encouraged wheat production in the Great Lakes basin and then in the prairies. But wheat was a difficult base on which to build a thriving economy: new wheat areas had to bear a very heavy cost of infrastructure, while at the same time the rapid development of new areas of cheaper production drove prices down and hurt producers in older areas. Severe fluctuations in wheat prices due to harvest fluctuations combined with inelastic demand, meant that in Canada wheat was always a subject of special government policies aimed at reconciling the conflicting interests of producers and consumers.

The abolition of the Corn Laws, to which Canadian wheat had been subject, combined with a “colonial preference” for Canadian wheat encouraged an increase in Ontario wheat acreage and the beginnings of commercialized agriculture. As cheaper wheat from the American West came onto international markets, Ontario shifted away from wheat and into dairy production (much like Wisconsin in the United States, or Denmark).⁵⁰ By 1883, Dominion Lands Policy and the transcontinental railway were in place, both aimed at encouraging settlement in the West in order to grow the tax base and resist American expansion. Nevertheless, large-scale settlement did not begin in the western provinces of Saskatchewan and Alberta until 1900. Historians have attributed this delay to lack of knowledge about dry farming techniques, poor access to markets,

⁵⁰ F.W. Burton, “Wheat in Canadian History,” Canadian Journal of Economics and Political Science May 3 no. 2 (1937): 210–217.

inadequate branch lines, high railway freight charges, lack of manpower and machinery necessary to cultivate on a very large scale.⁵¹

It took around a decade for wheat to assume the economic importance it was to have for the rest of the twentieth century: in 1910, wheat was still of minor importance in terms of generating export income, but by 1920 it rose to 1/3 of income from exports.⁵² The shortages of World War I stimulated Canadian wheat production: wheat acreage increased in 1915.⁵³ Canada challenged US dominance of the wheat trade after the turn of the century because of changing economic and social conditions in the United States, booming expansion of Canadian wheat areas geared specifically for the export market (the domestic market was far smaller than in the United States), and Great Britain's role as a primary dealer in grain favored Canada. Government interest and support of an orderly development of wheat lands, quality control of exports, and support for transportation facilities played a major role in the Canadian challenge to the United States.⁵⁴ Canada benefitted from similar technological and market innovations as the

⁵¹ Tony Ward, "Origins of the Canadian Wheat Boom, 1880–1910," Canadian Journal of Economics/Revue canadienne d'Economie 27 no. 4 (1994): 886–5–6.

⁵² G.E. Britnell and V.C. Fowke, "Development of Wheat Marketing Policy in Canada," American Journal of Agricultural Economics 31 no. 4 (1949): 627–642.

⁵³ V.C. Fowke, "Economic Effects of the War on the Prairie Economy," The Canadian Journal of Economics and Political Science/Revue Canadienne d'Economie et de Science politique August 11 no. 3 (1945): 373–387.

⁵⁴ Bruce Richard, "The North Atlantic Triangle and Changes in the Wheat Trade before the Great War," Dalhousie Review 55 no. 2 (1975): 263–271.

United States—grain grading was adopted first by the state of Ontario in 1863 according to the model already in place in Chicago.

Canada's homesteading policy allowed for the creation of family farms and highly settled communities made more homogenous by the fact that Canada had preferential immigration policies for northern Europeans, who were thought to have more experience with democratic institutions than immigrants from southern and eastern Europe. The weight of the farmers in provincial politics was such that provincial legislation made it possible for farmers to create marketing organizations that they owned and controlled themselves and that were able to participate on equal terms on the international grain exchanges.⁵⁵ Carl Solberg argues that even though Argentina was better suited environmentally for wheat growing than Canada, it ultimately did worse because in the end because meat was more important economically than wheat. Ranching encouraged a mobile, rootless, and propertyless workforce in an environment hostile to the family farm. The lack of such a homesteading policy in Argentina meant that by the 1930s export wheat production was waning.⁵⁶

⁵⁵ Ferns, p. 298.

⁵⁶ Carl E. Solberg, The Prairies and the Pampas: Agrarian Policy in Canada and Argentina, 1880–1930 (Stanford, Ca.: Stanford University Press, 1987).

Firms

The late nineteenth-century revolution in the nature, scope, and mechanisms of the grain trade transformed the types of firms active in the international trade. Whereas in the 1850s, most firms were merchant traders and temporary partnerships, as the business became more competitive and one of higher volumes and lower profit margins, traders became increasingly specialized in one commodity. As the multitude of partnerships declined, they gave way to a new kind of firm, like Dreyfus and Bunge, that began to emerge in the 1850s and took form at the same time as the expanding market: the large multinational operating dozens of offices worldwide, owning its own elevators and shipping facilities, and able to buy in one market and simultaneously sell in another across the world. A look first at the firms operating as part of the Liverpool Corn Trade Association, and then at the new multinationals shows this transformation.

Liverpool Firms

The oldest firms in the Liverpool Corn Trade Association, millers and commission merchants, were usually organized as evolving partnerships. At retirement, principals would take their capital with them while at the same time setting up sons or younger male relatives as stakeholders in the business. Some of these partnerships consisted of members of the Liverpool's leading families, but many were immigrants from Scotland and Ireland who were specialists in the Irish flour trade, at its peak from

1848 to 1860, but waning by the 1880s.⁵⁷ It was not uncommon for commission merchants who traded grain to also deal in cotton, invest in railways, own mills, or trade in provisions, hops, and other commodities. Many of these partnerships petered out as the market changed, but some adapted and expanded with the changing market conditions. John Patterson, born in 1822 in Londonderry, founded Patterson Brothers & Company in 1848 to trade oatmeal, tallow, and provisions with Northern Ireland, but after the establishment of free trade he switched to grain and moved the firm to Liverpool. A man with some political ambitions, Patterson was a supporter of the Liberal Party and a vocal supporter of the Union during the American Civil War, later becoming chairman of the Liverpool Corn Trade Association and a member of the Council of the Liverpool Chamber of Commerce. In 1863 his sons established branch houses in New York and New Orleans to export American flour, wheat, and corn; by the 1880s the firm encompassed the original founders' sons and grandsons, all of them involved in managing the Liverpool grain trade and eventually serving on the Royal Commission of Wheat Supplies during World War I.⁵⁸

In the 1890s, traders entered the market who had a different kind of training: they first apprenticed in the larger firms and then went on to form their own partnerships. The career of E. Vivian Couche is illustrative: born in 1875, he apprenticed

⁵⁷ Broomhall, Corn Trade Memories, p. 47.

⁵⁸ *Ibid.*, pp. 129–134.

with the firm of Richard Cornelius & Co. (a firm specializing in American wheat imports and French flour imports) in 1891, then worked for Pillitz Stein & Co. (agents for Louis Dreyfus on the Liverpool market, and specialists in Russian grain), and then formed a partnership with Harrison Johnston in the Argentine trade, serving as the Liverpool agents for Bunge. Harrison Johnston had a similar background: apprenticed to Wm. Vernon & Sons, he spent five years employed by a brokerage firm (Kirby & Co.) before entering the partnership with Couche. Both men became leaders of the Liverpool Corn Trade Association, each serving as directors and Couche serving as president in 1929.⁵⁹ It was not unusual for this generation of traders to have extensive experience in international business as employees before going into business for themselves: J.K. Housden began in 1873 in London as an apprentice in the firm Frangopulo Angelopoulos, then worked for Liechtenstein & Co., one of the first London firms to buy American wheat for sale to Continental Europe. His next employer, Tenbosch & Clerc, sent him to San Francisco in 1876; after returning to Liverpool in 1878, he set up his own brokerage business specializing in Argentine and Danubian grain.

Sanday

A number of large firms with international offices in disparate producing areas played an important part in the Liverpool grain trade. In the 1870s, Samuel Sanday was an employee in the British grain trading firm of John Bingham in New York. After nine

⁵⁹ Ibid., pp. 80–82.

years with the firm, Sanday returned to Liverpool and founded Sanday & Co. in 1880. Seven years later, Sanday “made his big move” by sending a representative to Bombay just as Indian wheat was coming on the European market, and then moved to buy in the Karachi market in 1890. He and his three partners in the firm each took turns running offices in New York and India for two to three years at a time; by 1896 they had expanded their operations to Argentina, and by 1906 to Winnipeg. The various partners in the firm held the presidency of the Liverpool association in 1892, 1903, 1907, and 1916 and in 1916 transferred their headquarters to London and became the British government’s buying agents in Canada, serving on the Royal Commission for Wheat Supplies. After decontrol, “the firm continued to work with further agencies which it had been rather forced into by its activities under the Government,” until 1923, when the partners running the various foreign offices split the business among themselves.⁶⁰

Balfour Williamson

Another multinational, Balfour Williamson was founded in Liverpool in 1851 as a firm specializing in exports of British manufactures to Valparaiso, Chile and importing wheat, guano, and copper to Britain. Over the next forty years, the firm established itself in the American Pacific Northwest, first in San Francisco in 1865, then in Portland in 1876, Seattle in 1893, and Los Angeles in 1895. Although in the beginning their

⁶⁰ Ibid., pp. 156–159.

American operations were heavily skewed towards grain, the firm quickly began to diversify into related areas, as insurance brokers, shipping agents, owners and brokers of storage and transport facilities, flour mills, grain sacks and other services related to the grain trade. After the 1890s, as the California wheat boom began to fade, they expanded their operations further still to mortgage loans, land investments, fruit farms, mining, cement, and fishing operations. In short, although grain deals continued through the history of the firm, it became deeply involved in many facets of the regional economy in the Pacific Northwest, and its grain deals served as a conduit into related regional investments. After World War I, at the instigation of the British government, the firm took over the businesses of departing Germans in Ecuador, Bolivia, Colombia, Freetown, Lagos in addition to taking over a German-owned metal smelting plant in the UK.⁶¹ Balfour Williamson was politically well-connected; Stephen Williamson, “a strong Liberal supporter of Mr. Gladstone and much opposed to socialism,” was an MP, as was Williams’ son, Lord Forres.

Ross T. Smyth/Rathbone

Also headed by the Liverpool political and social elite, the firm of Ross T. Smyth had very deep roots in Liverpool. The firm was a venture of the Rathbone family, best

⁶¹ Wallis Hunt, Heirs of Great Adventure: The History of Balfour Williamson (London: 1960), 107–127; Lord Forres, Balfour, Williamson & Company and Allied Firms: Memoirs of a Merchant House (Balfour, Williamson, 1929); Broomhall, Corn Trade Memories, pp. 59–62.

known as social reformers, philanthropists, and Liberal politicians. Quaker (later Unitarian) merchants and shippers, they had established themselves as cotton merchants in the late eighteenth century and were said to have been the first Liverpool house to have received a consignment of American cotton. In the 1830s, Rathbone Bros. & Co. was mainly involved in the American cotton trade, which became highly volatile and even unprofitable by the 1840s. Looking for opportunities to expand to more profitable businesses, the Rathbones took advantage of several developments—the end of the East India Company’s monopoly in 1834, the increase in the number of Chinese treaty ports after the Treaty of Nanking in 1842, and the repeal of the British Corn Laws in 1846—to expand their businesses into Chinese tea and American wheat. Although cotton, tea, wheat, and shipping were the largest sources of profits for Rathbones, they were by no means specialists, and at different times traded in a wide variety of commodities all over the world, including salt, railway iron, lead, wool, sugar, linseed, hops, guano, lard, apples, petroleum, rice, and coffee in trading activities that included India, the Far East, South America, South Africa, the Philippines, America, Australia, and Europe.⁶²

In the wheat trade, Rathbone Bros. & Co. bought and sold on their own account but also on joint account as the firm Ross T. Smyth, a partnership formed in 1839

⁶² Sheila Marriner, *The Rathbones of Liverpool, 1845–1873* (Liverpool: Liverpool University Press, 1961), pp. 14, 3, 22–23.

between William Rathbone, the fifth and Ross T. Smyth, a Londonderry flour merchant. Throughout the nineteenth century, however, the partnership was run by a succession of Rathbones, as Smyth took an active part in the business only during its very early days. In 1842, William Rathbone Jr. became the principal partner, and at his retirement in 1882, the business was taken over by his sons, and later by his nephew, Hugh Reynolds Rathbone.

Initially the partners had little experience or knowledge of the business (on the other hand, neither did anyone else, as long-distance and large-volume trades were still relatively new at that point). In the 1850s, grain was second in importance only to cotton among the commodities entering Liverpool, and Rathbones increased their involvement in the trade, particularly during the American Civil War, when cotton supplies were scarce. Although it appears that the partnership incurred steady overall losses until 1864, by 1869 the firm's American agents, Rusk & Jevons, could say that as far as the American grain trade was concerned, "we think no one in the trade can compete with us at it."⁶³

Indeed, Ross T. Smyth was perhaps the leading British grain firm into the twentieth century. In the 1870s and 1880s, it established a number of foreign agencies in Spain, Trieste, Odessa, and Karachi, in addition to its existing ones in New York. In 1914, the firm was appointed the sole buying broker for the British government for the

⁶³ Broomhall, p. 174, 178 and Marriner, Rathbones, pp. 18–20.

duration of the war, and the British buying agency in the United States, the Wheat Export Company, was literally Ross T. Smyth re-incorporated under another name, with Samuel Sanday's operation added on later when it became apparent that purchases would be too large to be handled by Ross T. Smyth alone. During the war the firm's senior partners, Hugh Reynolds Rathbone and Herbert Robson, served on Britain's wartime Royal Commission for Wheat Supplies, and the firm supplied five presidents of the Liverpool Corn Trade Association.⁶⁴

Herbert Robson started in the grain business in 1895, going to Karachi in 1899, where he became head of the Karachi Chamber of Commerce, and member of the Bombay Legislative Council. Having been made a partner of the firm, left India to return to Liverpool. In 1914 he was sent on a secret mission to Argentina to purchase wheat for British government, then in 1916 went on a similar mission in New York. Robson was appointed to run the American operations of British wartime wheat agency, a feat for which he was made Chevalier of Legion of Honor in 1919 and a Knight of the British Empire in 1920. Returning to London, in 1930 he became Vice President of the London Corn Trade Association and a director of the Baltic Exchange.⁶⁵ In spite of his deep involvement in government grain control during the First World War, he became a great defender of free markets free of government interference, insisting that

⁶⁴ Broomhall, p. 172–189; 245.

⁶⁵ Ibid.

speculation should be allowed on the grounds that it was a public good and even that “no large fortunes have ever been made either by a single man or by a group of men from speculating or trading in grain.”⁶⁶

Even though the growth of the Liverpool market was due to international imports, merchants and business leaders in Liverpool were part of a tight-knit community. Foreign firms were in almost all cases represented by local agents, and the number of actual foreigners trading in Liverpool seems to have been both small and remarked upon. Indeed, the Liverpool market was considered by one observer as the “best organised business of the kind in the world, inasmuch as every care was taken to discourage as much as possible the participation of mere outsiders.”⁶⁷ Emil Montag, a Swiss broker who had apprenticed in Antwerp and worked for Pillitz, Stein before going into business for himself was described as “one of the very few members ... of foreign birth.”⁶⁸ Besides a handful of other Swiss traders specializing in the continental European trade, a couple of Scandinavians specializing in the Baltic trade, and the French firm of Louis Dreyfus, the Greek grain traders maintained a presence in Liverpool, though only two Greek firms were members of the Liverpool exchange by the end of the nineteenth century: Ralli and Spero Georgala, an agent for Ralli’s Indian

⁶⁶ Herbert T. Robson, “The World’s Wheat,” Edinburgh Review (1926): 286–292, p. 290.

⁶⁷ Barker, p. 92.

⁶⁸ Broomhall, Corn Trade Memories, p. 122; 231-236.

wheat. That the Greeks were viewed as less than fully respectable can be seen in the following description of Spero Georgala:

In 1871 he won a very heavy bet on some matter about cotton prices, and having announced that intention, if he was successful he and Madame Georgala proceeded to engage the Philharmonic hall for a fancy dress ball. All his friends in Brunswick street and on the Cotton Exchange were invited and the Greek ladies came in very fine attire: one remembers Madame Negroponte as "Venice" with the Lion of St. Mark artistically displayed. ... As may be imagined, Spero Georgala was a personage of large ideas, and his expenses bore witness to this trait. He could not have repeated his interesting hospitality in later life.⁶⁹

In the early twentieth century, the number of brokers and commission merchants operating on the Liverpool market continued to decline as partnerships gave way to limited liability companies. Some old partnerships transformed themselves in the early part of the century: Procter, Garratt, Marston Ltd., founded in 1912, was a continuation of Robert Procter & Sons, one of the oldest grain dealing firms in Liverpool, specializing in American and Argentinian grain.⁷⁰ A similar transformation took place for Shipton, Anderson, & Co., Ltd., also in the transatlantic business with U.S., Canada, and

⁶⁹ Ibid., p. 93-94.

⁷⁰ Ibid., p. 140-144.

Argentina.⁷¹ The large multinational firms took on an increasing importance, while single brokers faded out. In the view of some futures traders, these firms replaced “the great loss caused by ‘Pools,’ amalgamation of milling businesses and direct buying, all tending to eliminate alike brokers, importers, and merchants.”⁷²

Dreyfus

Together with these new areas of cultivation came new business organizations that financed the movement of the grain and sold it in foreign markets. As we have already seen, the availability of railroad transportation in Russia opened up the local Russian grain trade to smaller, less capital-rich traders, and thus multiplied the number of middlemen between producer and consumer. At the top of this chain of merchants came a new kind of firm that developed along with the new international grain markets. An key example is the firm of Louis Dreyfus. Founded in 1850, it expanded its operations along with the global expansion of producing areas, and established itself as one of the major international grain trading companies for the next 150 years.

The firm had its beginnings when, at the age of seventeen, Léopold Dreyfus, the son of an Alsatian Jewish cattle trader, left his village school to help his father in the cattle trading business. According to family legend, the young Dreyfus showed a precocious inclination toward arbitrage sales in grain: several times a week, he would

⁷¹ Ibid., p. 167-168.

⁷² Ibid., p. 170.

buy a cartload of wheat from one of the peasants near his village and haul it for sale in Basel, fifteen miles away and across the Swiss border. Before long, Dreyfus left home and set up his business in Basel with a ten-thousand franc loan from a local bank. Since he was not yet of legal age, Léopold used his father's first name, Louis, to establish his business.⁷³

The house of Louis Dreyfus grew rapidly, and Léopold expanded his dealings, moving his headquarters to successively larger cities: Bern in 1857, then Zurich in 1864. He had begun to buy wheat further afield, and established his first foreign buying agency, at Szeged in Hungary, in the 1860s. A railroad line to Szeged had opened in 1854, and the city's location at the confluence of the Maros and Tisza rivers was an ideal collection point for wheat grown in Austria-Hungary. After being brought in from the hinterlands by rail, the merchandise could then be shipped to Western Europe via the Danube, via newly inaugurated river steamships.

Léopold Dreyfus began to expand his business into Russia in the 1860s, often buying crops before they were even harvested. Specializing in the newer agricultural areas to the east and south, near the Sea of Azov, Dreyfus could invest the capital necessary to move the crops from producer to export port. As American wheat came onto international markets and replaced Russian wheat in the British market in the

⁷³ A l'occasion de son centenaire, la Maison Louis Dreyfus & Cie rend hommage à son fondateur qui reste présent dans son oeuvre (Montrouge: Draeger, 1951).

1880s, Russia continued its export production, supplying new and growing markets in Germany and in southern Europe, where transport costs made American grain more expensive.⁷⁴ Freight rates from Rostov and Taganrog were lower to Marseille than they were to Western Europe in the mid-1880s, giving Russian grain a price advantage, and it was this area of the business that Dreyfus came to dominate first. Even after France strengthened protective tariffs against American grain, food processors needed specific varieties of wheat for biscuit and pasta making that could only be obtained abroad, and these “special” grades could be admitted duty-free, strengthening the market for Russian grain in France. In addition, regions of France where wheat didn’t grow—the south of France in particular—took advantage of the cheap cost of transport to Marseille, importing cheap Russian wheat in spite of the tariff. A market for imported wheat also existed in Italy, itself a major wheat producer, but one with a growing urbanized population in the North.⁷⁵

In Russia, Dreyfus stepped into the breach left by the departing Greek merchant houses and was the buyer at the export ports. He set up the business in Russia on a model different than either the Greeks or the local traders, focusing on numerous large-volume deals with small profit margins. As a Louis Dreyfus company publication has it,

⁷⁴ While neither France nor Germany were net importers of wheat for home consumption during this period, French and German millers exported flour milled from foreign wheat.

⁷⁵ Falkus, pp. 422–426.

“At Marseille, the trade in Russian wheat was then rich with promise, but the Greek houses, who had had a monopoly of the trade, did not bring to it a rational organization. It was to create that organization that Léopold Louis-Dreyfus, persuaded that he could be useful as much for the producer as for the consumer, went to Russia.”⁷⁶

Léopold Dreyfus moved the firm to Marseille, now his most important port, and one located in France—a move that coincided with his choice of French nationality after the defeat of France in the Franco-Prussian war and the loss of Alsace to Germany. Léopold Dreyfus’ firm expanded along with the global market, and became one of the most successful grain trading firms in Europe, with headquarters in Paris (where Dreyfus moved the firm soon after moving to Marseille), purchasing agencies throughout Russia, Romania, and Hungary at the end of the nineteenth century and selling agencies in all the major markets of Europe. In the early twentieth century, the firm expanded into producing areas farther afield: India (in the 1890s), Argentina (in 1902), the United States (in 1909), and Australia, with dozens of branches on six continents, an international bank, and its own fleet of river steamers. The firm was never short of credit, and during its expansion into Argentina the British London and River Plate Bank allowed them an overdraft of £300,000, in spite of the apparently anti-Semitic advice of the Kleinworts credit reporting service: “These people draw very

⁷⁶ Louis Dreyfus & Cie, (n.p.).

largely on Europe ... We quite agree ... that care is necessary in dealing with people of this [Jewish] class."⁷⁷

Dreyfus's political alliances were many, both in the countries where his firm operated and in France: he developed a close personal friendship with King Carol I of Romania and was appointed Consul of Romania to France; his son Louis Louis-Dreyfus eventually inherited that position. Léopold was several times elected to the French National Assembly on the Radical Republican ticket. The French government awarded him with successively higher medals in the French Foreign Legion; numerous governments in countries that had commercial dealings with his firm did the same. He had personal relationships with French prime ministers, was sometimes received unannounced, and in an inversion of the customary relationship between the state and business, his firm supplied the French foreign ministry with monthly reports on political and economic conditions in all the grain-producing areas of the world where he had agencies.⁷⁸

But, as will be explored in more detail in a subsequent chapter, as an Alsatian Jew and someone with close ties to the business elite all over the world, Dreyfus was repeatedly under fire, his loyalty to the French republic questioned at times of crisis, and the fundamental business activity of his firm—arbitrage—variously read as a

⁷⁷ Chapman, *Merchant Enterprise in Britain*, p. 206.

⁷⁸ "Rapports de Louis Dreyfus & Cie.," F12/7444, Archives Nationales, Paris.

patriotic service to the republic or a treacherous and crass attempt to profit in a time of need. Léopold Dreyfus legally changed his name to Léopold Louis-Dreyfus in 1896, presumably to distance himself from any association with Alfred Dreyfus. Although contemporaries and fellow Alsatian Jews born no more than fifty miles apart, both of whom declared French citizenship, Louis-Dreyfus always insisted that Alfred Dreyfus was in no way a relation.

The personnel for these companies was highly cosmopolitan, but also chosen from within a relatively narrow network of personal and family connections. The example of one young self-described “merchant prince” is illustrative. John Haussmann was born in Brăila, Romania in 1902, the son of an Alsatian-Jewish grain trader and a British mother who were members of the foreign business community in that grain port. Educated in the UK, Haussmann traveled all over Europe as a child, and upon finishing his education was taken in by a Senor Katz in Argentina, a Romanian Jewish trader with a wheat-growing operation in Argentina who had been a friend of his father’s. After spending a year on an Argentinian estancia run by other Romanian Jews and worked by gauchos and Italian and Spanish sharecroppers, Haussmann was hired by the grain trading firm Wm. H. Pim in the Baltic Exchange in London, where he was trained as an apprentice. In 1925, a manager at the Swiss company Continental Grain, who had known Haussmann’s father in Brăila, offered him a job in New York. Trained again from

ground up, he was sent to Chicago, Kansas City, and Winnipeg to learn the North American business. At the end of that apprenticeship, Haussmann decided to start his own partnership instead, Oceanic Grain Corporation, a decision viewed by his father's old business associates as treasonous. The Great Depression puts an end to Haussmann's career: in 1929, after being called into the New York Produce Exchange's arbitration room to face his creditors and explain why his debts were 30 times his assets, he decided to forgo the business, becoming an actor instead.

Bunge y Born

A similar trajectory can be seen in the development of the leading South American grain firm, Bunge y Born. The firm of Bunge was founded by a German merchant in Amsterdam in 1818 as traders in colonial products, including wood, spices, rubber, and cotton, but moved to the port of Antwerp soon after. The founder's U.S.-educated grandson, Eduoard Bunge, began trading in grains on the Antwerp market in 1884. His older brother Ernest had gone to Argentina in 1876 to set up a branch of the firm and after establishing a bank in Buenos Aires (the Banco de Tarapaca y Argentina), he formed a partnership with another German merchant from Antwerp, George Born. Bunge y Born, as the firm was known, went into business as cereal exporters in 1884, just as Argentinian wheat production began to expand beyond the demand of the domestic population composed of Italian immigrants then settling in Argentina. Through their bank, Bunge y Born became heavily involved in mortgage lending and

financing of cereal crops, while through their grain trading business, they came to single-handedly dominate the export of Argentinian grain. Closely tied to and dependent on European and British capital investment, the Bunges cemented their local ties by marrying into the families of local elites.⁷⁹ Along with their great competitor Louis Dreyfus, Bunge y Born began opening foreign offices in Australia and, later, in North America. At the same time, the European branch of Bunge expanded its trading activities in the Belgian Congo as the agent for ivory, rubber, coffee, and cocoa imports for the Société Anversoise du Commerce du Congo, in Malaysian rubber plantations, and in China with the Société Générale Africaine.⁸⁰ After World War I, Bunge y Born began a program of expansion, buying American grain firms (a process that intensified during the Great Depression) in order to gain a foothold on the internal American market, at the same time also expanding into Uruguay and Brasil.⁸¹

⁷⁹ Jorge Schvarzer, Bunge y Born: crecimiento y diversificación de un grupo económico (Buenos Aires: CISEA-G.E.L., 1989).

⁸⁰ Raül Green and Catherine Laurent, Bunge & Born: Puissance et secret dans l'agro-alimentaire (Paris: Publisud, 1985), pp. 10–31; see also Raül Green, "Bunge et Born: une transnationale très discrète," MOCI: Moniteur officiel du commerce international no. 662 (1985); Raül Green, La lucha entre multinacionales. Bunge & Born frente a Cargill, Nestlé y Unilever (Paris: INRA, 1990); and Ana Maria Kirschner, "Multinationale et capitalisme régional: la conquete d'une position dominante sur le marché du blé au Brésil," Entreprise et Histoire 8(1995): 75–93.

⁸¹ Raül Jacob, "Bunge y Born en Uruguay (1915–1945)," Ciclos [Argentina] 5 no. 1 (1995): 29–54.

The multinational grain company operating in multiple markets at once—whether Dreyfus, Ross T. Smyth, or Bunge y Born—had a distinct advantage in an expanded world market dependent on contingencies in far-flung parts of the world, whether the conditions of productions or the needs of consuming nations. Successful grain dealings, whether on a local or on a global scale, depended on knowing (or guessing) the conditions of supply and demand as accurately as possible. In a worldwide market grain transactions were inherently riskier because the amount of information necessary to gauge the direction of prices was vast and difficult to come by. Trading in a circumscribed local market offered steadier opportunities for profits because those involved knew the local conditions well enough to estimate the amount of grain coming to market during a given growing season. When prices were influenced by production in many parts of the world, however, this kind of knowledge was much more difficult to come by, and the large multinational grain firms had a distinct advantage by being in many markets at the same time.⁸² Dreyfus owned its own telegraph lines, was the single biggest customer of the French postal system, and had its own internal system of market reporting that was highly confidential, but shared with

⁸² Henry Crosby Emery, "Futures in the Grain Market," Economic Journal 9 no. 33 (1899): 45–67.

the French foreign ministry in order to keep the French government appraised of commercial conditions around the world.⁸³

Only the biggest traders could afford their own private internal market reporting service, however, and the numerous smaller traders were served by a new knowledge economy that sprang up along with the expansion in world markets. In the 1850s, Dornbusch's Floating Cargoes Evening List was published in London to inform merchants which cargoes were headed to the UK—an invaluable bit of information for purchasers of spot wheat. As the market expanded, the sources and types of information expanded as well. In 1869 the Beerbohm Evening Corn Trade List was added as a new source reporting prices, and in 1888 Broomhall's Corn Trade News appeared, distinguishing itself by covering, by cable, not just price and cargo information, but events all over the world that might have a bearing on the international grain trade, especially general statistics pertaining to grain supplies all over the world.⁸⁴ The expense in setting up cabled information was significant in the late nineteenth century, and the value of Broomhall's Corn Trade News was therefore immense. There is no doubt that being a large multinational had significant advantages in an economy in which information was valuable—and scarce.

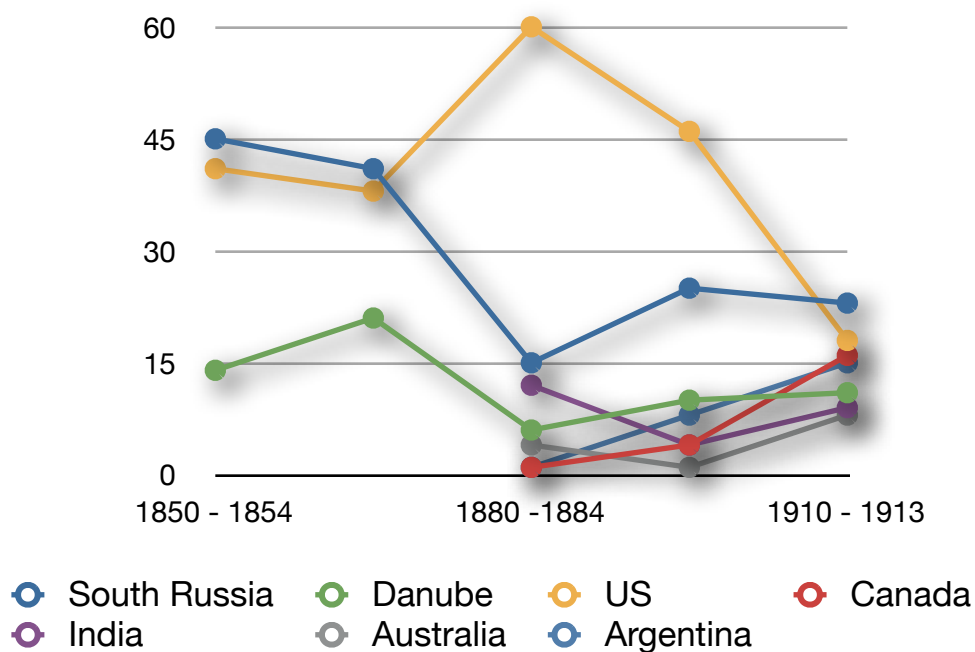
⁸³ These can be found in F12, Box 7444 Archives Nationales, Paris.

⁸⁴ Barker, p. 87–91.

Figure 5: Wheat Exports, Selected Countries, Selected 5-year Averages, 1850-1913 (Percentage)⁸⁵

	1850 - 1854	1865 - 1869	1880 -1884	1895 - 1899	1910 - 1913
South Russia	45	41	15	25	23
Danube	14	21	6	10	11
US	41	38	60	46	18
Canada			1	4	16
India			12	4	9
Australia			4	1	8
Argentina			1	8	15

Wheat Exports, Selected Countries, Selected 5-Year Averages, 1850-1913 (Percentage)

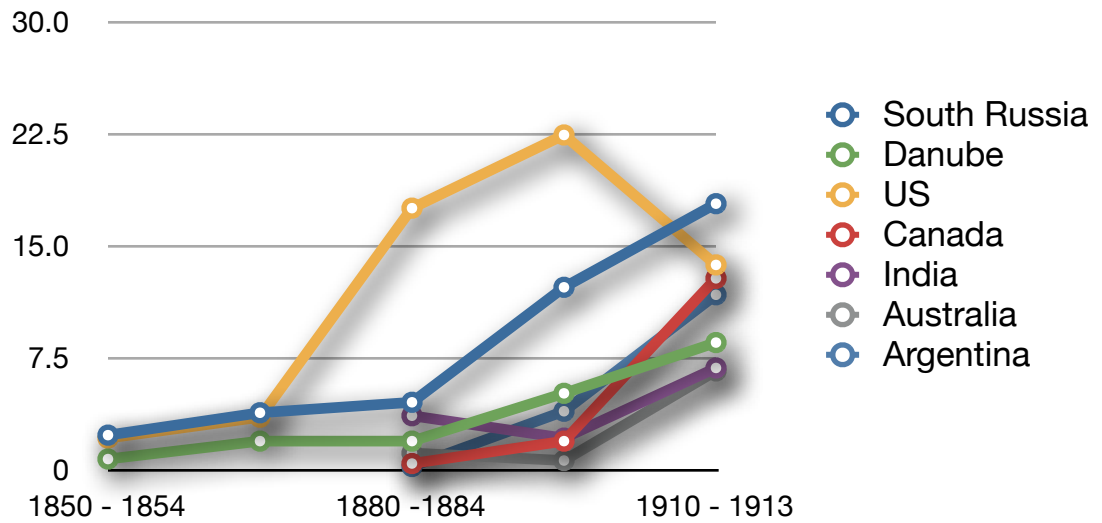


⁸⁵ C. Knick Harley, "Transportation, the World Wheat Trade, and the Kuznets Cycle, 1850-1913," *Explorations in Economic History* 17 no. 3 (1980): 227.

Figure 6: Wheat Exports, Selected Countries, Selected 5-Year Averages, 1850-1913 (Millions of Quarters)⁸⁶

	1850 - 1854	1865 - 1869	1880 -1884	1895 - 1899	1910 - 1913
South Russia	2.3	3.8	4.5	12.2	17.8
Danube	0.7	1.9	1.9	5.1	8.5
US	2.1	3.5	17.5	22.4	13.7
Canada			0.4	1.9	12.8
India			3.6	2.1	6.8
Australia			1.1	0.6	6.6
Argentina			0.2	3.9	11.7

Wheat Exports, Selected Countries, Selected 5-Year Averages, 1850-1913 (Millions of Quarters)



⁸⁶ Harley, 227.

Chapter 2: The Nature of the Market

The globalization of the wheat market involved permanent dismantling of old market protections in favor of increasingly free trade, characterized by complex and unfamiliar processes like futures trading, which to some represented an opportunity for profit and the very proof of progress, but for many others seemed to be little more than gambling, a reflection of the venality and greed of capitalists, undertaken at the expense of producers and workers.

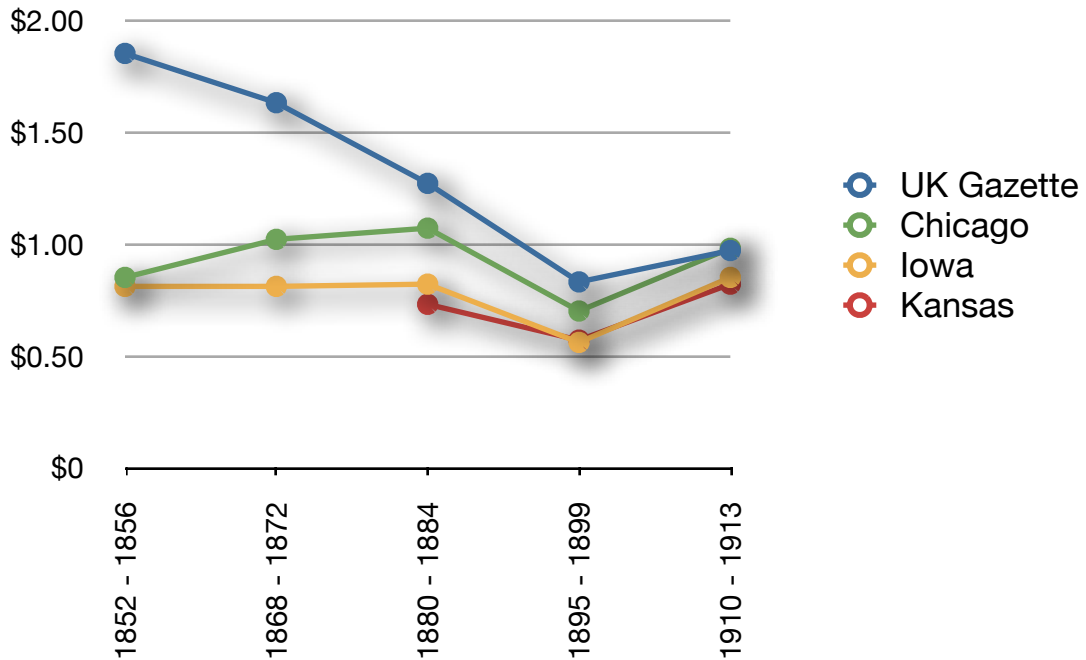
The period of global expansion of the wheat market was a complicated one for American farmers. On one hand, American farmers were expanding into the west to produce a cash crop with a ready market, the demand for which was soaring around the world. On the other, even as they saw demand increase, prices declined steadily through the last decades of the nineteenth century, and the market share of American wheat abroad declined. Even as the amount of American wheat heading to export markets increased from 17.5 to 22 million quarters from 1880/1884 to 1895/1899, the percentage market share of American wheat plummeted from 60% to 46%; declining to 13.7% in 1910/1913. (See Figure 4: Wheat Exports, Selected Countries, Selected 5-year Averages, 1850-1913 (Percentage), and Figure 5: Wheat Exports, Selected Countries, Selected 5-Year Averages, 1850-1913 (Millions of Quarters)). This was due not just to increased competition from new growing areas but also to the robust domestic demand

from a growing urbanized industrial population. But these trends were also accompanied by a protracted slide in prices in the late nineteenth century, which was just beginning to look like it was reversing in the first decade of the twentieth. (See Figure 6: Wheat prices in the UK, Chicago, Iowa, and Kansas (1852-1913)) The upward trend in prices was not to outlast the First World War, however. Government price guarantees during the war encouraged large-scale wheat planting and drove up the price of wheat lands accordingly; after the war, a seemingly permanent agricultural crisis encouraged American farmers to marshal their organizational strength in the form of marketing cooperatives.

Figure 7: Wheat prices in the UK, Chicago, Iowa, and Kansas (1852-1913)¹

	UK Gazette	Chicago	Iowa	Kansas
1852 - 1856	\$1.85	\$0.85	\$0.81	
1868 - 1872	\$1.63	\$1.02	\$0.81	
1880 - 1884	\$1.27	\$1.07	\$0.82	\$0.73
1895 - 1899	\$0.83	\$0.70	\$0.56	\$0.57
1910 - 1913	\$0.97	\$0.98	\$0.85	\$0.82

Wheat prices in the UK, Chicago, Iowa, and Kansas, 1852-1913



¹ Harley, p. 220.

While grain traders, many operating in multiple markets at once, were clearly aware of the shape of the worldwide market, so were its many other participants, who tried both to understand their positions within it and to control or ameliorate the effects of globalization on their businesses and lives. While some commentators saw the worldwide wheat market as a vast and powerful force which was stronger than human will, many others believed that legislation, cooperation, protection, or science could help individuals and nations to survive and thrive in it. Agrarians, both in the United States and in Europe, began to put in place an educational infrastructure (in most cases state-sponsored) to teach scientific farming and economic principles to farmers who they felt were rapidly falling behind the expanding industrial sector. Agricultural cooperatives for purchasing seed, machinery, and fertilizers--and for marketing crops--were organized in an attempt to avoid middlemen, viewed by farmers as little more than parasites living unjustly off the labor of others. In the United States, many of these cooperatives eventually adopted the same organizational models and business strategies as their commercial counterparts. Because the relationship between the agricultural and industrial economies determined the subsistence level of urban workers, the questions of how to negotiate international food markets and how best to assure a steady supply of cheap bread to an industrial workforce were of great interest to labor leaders.

Producers and politicians were also highly attuned to the possibility of finding new consumers for the United States' constantly expanding agricultural output. As William Appleman Williams has discussed, American farmers were well aware of the shape of international markets in the late nineteenth century, and fashioned their political alliances with an eye towards expanding international markets for their ever-increasing produce.²

In this context speculation was seen as the cause of rising consumer prices in the cities and falling sales prices in the countryside. Farmers were irate at the combination of decreasing farm prices and vast fortunes being made on the floor of the Chicago Board of Trade—money that they felt should rightfully be theirs. The specter of the rapacious middleman making profits at the expense of honest farmers and honest workingmen was a common presence in popular literature and film. At the same time, however, merchants and boards of trade defended futures trading as a necessary aspect of the modern world market, and published their own manuals and textbooks explaining the business both to critics and to potential new participants in it. To many contemporary observers, the distinction between legitimate market operations and pure gambling was less than clear.

² William Appleman Williams, The Roots of the Modern American Empire: A Study of the Growth and Shaping of Social Consciousness in a Marketplace Society (New York: Vintage Books, 1969).

The American Grain Marketing System

The American grain marketing machinery was the envy of the wheat-producing world. American wheat farmers were better served by railways, were the first to have at their disposal elevator facilities both within the growing areas and at the terminal markets. The United States had an extensive network of markets where crops could be sold, from local markets to the large regional markets in growing areas (Minneapolis and Duluth were two of the largest ones), to Chicago (the Chicago Board of Trade), to the great export market in New York (the New York Produce Exchange). The American system of elevator storage, inaugurated in Buffalo in 1843, was studied and emulated by other wheat-growing regions, in which wheat continued to be loaded into sacks for transport to market, then dumped out for loading onto export-bound ships well into the twentieth century. The elevator system and the system of state inspection and grading of wheat meant that American wheat had an advantage on world markets: international buyers had a reasonable expectation of quality that was reliable, an aspect that was missing in wheat from other regions. The elevator system and the state inspection and grading system turned wheat into a fungible commodity, equal to currency and traded in much the same way—on the basis of slips of paper representing a farmer’s “deposit” of a certain grade and quantity of wheat in an elevator, which was essentially a grain bank.³

³ This is famously discussed by William Cronon in Nature’s Metropolis.

The elevator was thus a key point in the exchange system. Smaller “country” or “line” elevators existed close to the farmer’s fields; larger ones at railway interchanges and transshipping points, and even larger ones at the large terminal markets such as Chicago, New York, or Galveston. Although farmers could pay the local elevator a storage fee to store his grain until the farmer wanted to sell, in reality the farmer was almost always forced to sell immediately after the harvest in order to pay the mortgage on his farms.

Local elevators were rarely independently owned; large merchants often owned dozens of country elevators (the Bartlett Frazier company, for example, owned several hundred country elevators in the 1890s), and sometimes they were cooperatively owned by local farmers. The terminal elevators were often owned by railroads or by the largest grain traders—P.D. Armour in Chicago built the largest elevators then in existence on the Chicago River to handle his grain business and earn commissions carrying the business of others. The farmers saw in this type of arrangement an inherent conflict of interest and argued that warehousemen should not be allowed to trade on their own account at all, a fight that they never managed to win. The control or ownership of elevators was a major bone of contention for farmers, as it conveyed some key advantages in the grain trade. First, country elevators were the first buyers—farmers, being tied to a location, did not often have a choice of elevator. Second, elevator owners

knew how much grain was in store in a given area, and were thus in the best position to figure out the going local prices, and this advantage was magnified by owning many elevators. Third, elevator operators could mix grain of different qualities, thereby profiting from mixing cheap low-grade grain with higher grades, a privilege that the Chicago Board secured for warehousemen through a State law passed in 1871.⁴

Farmer's cooperative elevators did not solve the problem of elevator ownership because until 1921 cooperatives were denied seats on the exchanges and could therefore had to depend on the merchants to sell their grain for them. One key aspect of the famers' fight against the marketing system was to remove the advantage that merchants had through the ownership of elevators. Famers demanded federal inspections of grain to remove the problem of mixing, and representation of farmer cooperatives on the exchanges.

Farmers also took issue with futures trading, for the reasons outlined above.

Futures contracts were not invented in Chicago, nor were they new in the mid-nineteenth century. Futures contracts specified a price, a quantity, a quality, and a date of delivery, and furthermore specified that at its date of delivery, the transaction could be settled in one of two ways: either by the delivery of the commodity at the due date, which the buyer could demand, or by the settlement of the difference in price between the price in effect at the time the contract came due and the price agreed to on the future

⁴ United States. Congress. House, Grain exchanges: Hearings before the Committee on rules, House of representatives, Sixty third Congress, second session, on H. res. 424 (Washington: Govt. print off., 1914), p. 193.

contract. On the Chicago market, less than 10 percent of futures trade were actually satisfied by the exchange of grain for money. The rest were simple settlements of price differences effected through the CBOT's clearinghouse.

Farmers objected to the influence on prices of these contracts, which did not involve the exchange of anything other than money. But futures contracts were not, as farmers insisted, purely speculative instruments. The main practical application for futures contracts was in hedging, which served to reduce the risk of owning a commodity whose value fluctuated on a daily. A miller, for instance, sells flour at a \$0.50 per bushel margin for operating costs and profits. He buys his raw materials on the Chicago market \$1/bushel, and makes a contract to sell his flour at \$1.50 per milled bushel. But what if the next day the price of wheat goes to \$0.75 a bushel? He has to sell his flour for \$1.25 a bushel and he's just lost half of his margin. To protect against this, at the same time that he buys his grain for \$1.00 (or goes long, in the parlance of the traders) he sells a future contract for an equivalent amount of grain for \$1.00 (takes an opposing position, or goes short). When he sells his flour, he gets the \$1.25 at the current price, of which he keeps his \$0.25 margin, and buys a \$0.75-bushel of wheat to fulfill his obligation for the hedge (or, more likely, settles for the \$0.25 price difference in his favor.) He has thus made sure he has made his \$0.50 margin, even though the market has moved against him. In this way, the futures market had a built-in mechanism to

transfer risk to those who wanted it—the speculators. Hedging was used by most participants in the market: commission merchants, millers, exporters, even farmers: anyone who had to hold a quantity of a commodity and wanted insurance against price fluctuations. In order to make this insurance system possible, however, there had to be a class of investors who would take on the risk of ownership, and this was the much-reviled class of speculators.

Some speculators were in the market purely to try and profit by these price differences—scalpers, as they were known, held contracts for days or even hours, and sought to make profits from short-term changes in prices. They were not grain dealers and never took possession of the grain. Other speculators, like James A. Patten, who was part of the grain firm Bartlett Frazier, were also “legitimate” dealers whose business it was to undertake or facilitate actual transactions for others or who bought on their own account and also sometimes speculated. Some of the big grain firms (such as Dreyfus, for example) insisted that they never engaged in market speculation, which was simply not part of their business plan, but simply hedged their positions at all times and in all markets in order to be assured of their profit from actual transactions, which were in the form of arbitrage between markets.

As far as the farmers were concerned, the question of futures trading was a moral one, and it had two aspects. First what determined commodity prices? Were they determined by supply and demand for actual wheat, as was “natural,” or was prices set

by speculators? Speculation meant that the same bushel of wheat was sold 8 to 10 times on the exchange without it actually ever moving an inch, so did the prices on the exchanges assume that there was 8 to 10 times as much wheat as there actually was, driving prices down? This was what farmers referred to as “wind wheat” involved in “fictitious” [need to explain better] sales, and their contention was that repeated sales inflated the amount of wheat on the market and prices adjusted accordingly. A secondary issue, and one that became more pronounced as time went on, was that speculation encouraged moral decay and financial ruin for the small-time bettor who hoped to somehow make a quick fortune like the Wheat Kings. The village simpleton who hoped to make a killing on wheat but instead ended up mortgaging the rest of his life in debt without even realizing that he never actually bought any wheat at all but simply bet on a price movement was a common trope among those who condemned the proliferation of speculative opportunities. The great villains in the western argument against futures trading were Chicago, New York; the victims, the western farmers.⁵

Market Failures

One way that American farmers and grain merchants encountered the logic of international markets was through market failures, or moments when the laws of supply and demand did not work as predicted to provide wheat to consumers who

⁵ David F. McFarland, “The Ingalls Amendment to the Sherman Anti-Trust Bill,” Kansas Historical Quarterly May 11 no. 2 (1942): 179.

needed it. Famines and corners were examples of market failures that informed opinions on international grain markets for producers, consumers, and policymakers, often for many years to come. The pressures caused by an increase in competition on world markets forced farmers, merchants, and consumers to try and position themselves in a shifting world market such that they might survive the fissures and perhaps even profit by them.

Famines

In August of 1891, the summer social season in London came to its official end when the Prince of Wales departed for Hamburg. The season had been a dull one, as the Chicago Tribune complained; “the influenza, general poverty, and the Baring failure have had a great effect on society.” As a result the London society papers had little to report other than gloating that the season had been a poor one for American girls in the market for British nobility, and speculating that the ascendance of the Yankee heiress might finally be over.

Among the prominent Americans who were spending the summer of 1891 abroad was Chauncey Depew, who had just returned to London after months of travel with his friend and employer Cornelius Vanderbilt. After a six-thousand-mile trip through the United States in the spring, Depew and Vanderbilt had sailed for Europe to tour France, Germany, Austria, Switzerland, Serbia, Romania, and Turkey. Depew’s observations concurred with what the newspapers were starting to report: three weeks

before the harvest, reports were coming in that the European wheat crop was going to be short, while the United States was about to harvest the largest crop of wheat ever raised. "This is the greatest opportunity America has had for a decade to get rich," Depew stated, warning that such wealth could only come about if wheat speculators stood aside and allowed the market to work "in a natural, normal way." Depew held speculators responsible for the fact that American wheat had competition from new growing areas. In his view, England had been forced to look to other sources of wheat in Russia, India, and Egypt in order to avoid speculative price fluctuations in America, particularly those caused by the 1888 Hutchinson corner in wheat. But now that the Russian crop was going to be seriously deficient, America could redeem itself and once again become the world's great wheat supplier--and, most importantly, it could finally "get back all the gold that has come to Europe in consequence of the excess of exports."⁶

Depew's comments, coming on the eve of the great Russian famine, addressed the main themes which would recur throughout the last decade of the nineteenth century in discussions of the wheat market: famines, speculation, and the possibility of

⁶ Depew, a lifelong Republican, also thought that these favorable conditions were sent by Providence to favor the Republican administration: "The American people have a magnificent prospect, but they would not have had it if a Democrat had been at the head of the government. I am a believer in a special Providence, and feel that Providence, having witnessed the effect of the last democratic administration, sent a good crop in America and a bad crop in Europe in order that the blessings of a Republican administration might be continued." Chicago Tribune August 23, 1891, pp. 1-2.

great profits for farmers if only the market could take its “natural” course. These appear in newspapers and popular magazines, in novels, films, and educational works, all seeking to explain how a world market works, and why it sometimes failed to work.

Periods of famine and grain scarcity were distressingly common during the late nineteenth century. It seemed that a new food crisis developed every few years in some part of the world, from Kansas and Oklahoma, to Palestine, Turkey, India, Ireland, Russia, and China. Newspaper coverage of these crises was sparse before the 1870s. When Kansas settlers faced serious food shortages in 1860, a relief effort was begun in New York, spearheaded by abolitionist Thaddeus Hyatt, who first traveled to the state to make sure the crisis was real.⁷ Farther afield, famine in the Cape Verde islands in 1864 resulted in contributions of “two or three hundred dollars” to the American Consul there.⁸

When the drought of 1865-66 resulted in a famine which killed a third of the population of the Indian state of Orissa in one year,⁹ the event barely registered a mention in the American newspapers, but by 1873, when famine plagued Bengal, the

⁷ Chicago Tribune November 6, 1860, p.2.

⁸ Chicago Tribune June 28, 1864.

⁹ One million people died of starvation and cholera in 1866, and four to five million within the next two years.

crisis was widely covered in the press.¹⁰ The fact that people in some of the world's most important producers of agricultural exports were starving was not lost on contemporary observers. "Growing the most magnificent harvests of wheat, rice, opium, indigo, they themselves starve on the coarsest millets, and are as poor and miserable as can be conceived," one journalist wrote in describing the exploitation of Bengali peasants by money-lenders and landowners.¹¹

Recurring Indian famines over the next thirty years garnered increasing attention and increasingly larger efforts at relief, as awareness grew regarding India's entry as a competitor in the world grain market. Questioning the wisdom of driving up prices of wheat on the Chicago exchange as new wheat-producing areas were entering that market, a Chicago newspaper commented about India in 1884, "It is very curious that the country so sadly famous for the frequency of its famines should step to the front rank of the world's feeders," pointing out that the cost of production of Indian wheat was 36 cents a bushel versus 80 cents for American wheat. Australia was producing record yields and Argentina was sending cargoes to Europe as well, while "every new mile of railroad built in India, Australia, and Russia brings several thousand bushels to

¹⁰ One of the few times that the Orissa famine was covered in the American press, conditions in the city of Balasore were described as deplorable and similar to a charnel-house. So serious was the situation that illness even affected some European families, and Europeans considered sending their dependents home. Daily Phoenix (Columbia, S.C.) November 10, 1866.

¹¹ "The Famine in Bengal" Chicago Daily Tribune December 25, 1873.

market.”¹² Newspapers recounted harrowing tales of starvation and want, and often held British officials responsible for failing to provide adequate relief measures, describing them as too focused on selling grain for export as they let their colonial charges starve. In 1887, newspapers reported with outrage that a cargo of food aid donated by American benefactors was received with little enthusiasm, as British officials at Calcutta imposed duties on the ship’s cargo and told the captain of the ship that “he would have done better to have brought a cargo of guns, with which to kill off the native Indian population.”¹³

By far the most widely covered famine of the late nineteenth century, and the one that garnered the most widespread response among the American public, was the Russian famine of 1891—1892. Reports surfaced in June and July of 1891 that Russia was experiencing one of the worst crops on record, caused by a prolonged draught in some of Russia’s prime grain-growing regions along the Volga River. In some districts, the only food available was oatmeal mixed with tree bark, and that children were being put up for sale.¹⁴ By the end of September, reports were coming in of peasants eating bread made of straw, bran, dried dung, powdered tree bark, and pigweed, and either

¹² “New York” Chicago Daily Tribune 21 April, 1884.

¹³ Morning Oregonian (Portland) 4 November, 1887.

¹⁴ “Hard Times in Russia” Atlanta Constitution June 30, 1891, p. 1 and “Famine Appears in Russia” New York Times July 1, 1891, p. 6.

committing suicide or allowing wildfires to burn their villages.¹⁵ Sensationalized newspaper reports of the famine in Russia, recounting tales of “murder, death, and suicide,”¹⁶ “crimes of violence,”¹⁷ insanity, cannibalism, and other horrors, were reprinted in newspapers in towns and cities large and small and across the United States.¹⁸ Amidst the surge in production around the world, American newspapers devoted countless column inches to the Russian famine, printing lurid stories, and sending correspondents to report back on conditions, and speculating, like Depew, on its effect on American agriculture. Harold Frederic, whose reporting from Russia for The New York Times was widely reprinted, pointed out the similarities between Russian and American agricultural areas, at the same time emphasizing the backwardness of Russian agriculture when compared to American:

“The traveler, making his way over the vast, sprawling, sparsely settled continent called Russia, is struck by nothing else so much as the weird likeness presented everywhere to the more backward agricultural districts of the United States. The fine dry air, the splendid sunsets, the majestic movement of the rolling clouds, are all American, so, too, are the unspeakable country roads, the

¹⁵ “Sore Distress in Russia” Washington Post September 30, 1891; “Russia’s Dire Distress” New York Times September 30, 1891.

¹⁶ “Russia’s Big Famine” Chicago Tribune November 24, 1891, p. 10; “The Wolf at her Door” Los Angeles Times November 29, 1891, p. 16.

¹⁷ Los Angeles Times March 2, 1892

¹⁸ See “Crazed by Hunger: The Woeful Ravages of Famine in Germany and Russia,” North American (Philadelphia, Pa.) March 1, 1892; Milwaukee Journal March 1, 1892; Atchison (KS) Champion March 2, 1892; Atchison (KS) Daily Globe March 8, 1892; Bismarck (ND) Daily Tribune March 6, 1892.

gray, old, unpainted wooden houses and sheds, the well-curbs with long reaches, and the huge piles of cordwood bordering every road.”¹⁹

Perhaps as a result of such widespread publicity, the relief effort organized in the United States exceeded that mounted for earlier famines, and made a special appeal to American farmers to donate to help their Russian brethren and competitors on world markets. But as at Calcutta in 1887, donations were not always welcome. The Russian government initially rejected attempts at private foreign relief, preferring instead to have the starving peasants work on the Siberian railroad for wages with which they could buy food.²⁰ Meanwhile, Russian officers swore off champagne at their banquets, pledging the money they would have spent to the starving peasants, while wealthy Russians followed the example of the Czar in demonstrating solidarity with those stricken by famine by giving up parties for the duration of the winter.²¹

But by December, the situation had become so dire that foreign philanthropy was welcome. On December 3, the American flour-milling trade paper, the Northwestern Miller, sent out an appeal to millers all over the United States to gather a shipment of flour as relief for the starving Russians. The relief effort soon became nationwide.²² At the end of December, the governor of Iowa issued a proclamation calling upon Iowans

¹⁹ Harold Frederic, “An Indictment of Russia” New York Times 28 September 1891, p. 1.

²⁰ Chicago Tribune 22 October, 1891; New York Times 19 November, 1891.

²¹ Los Angeles Times 7 October, 1891.

²² “Help for Famine Stricken Russia” Chicago Tribune 12 December 1891, p. 1.

to contribute to the Russian famine relief effort, and appointed a committee to be in charge of organizing a state-wide charity effort.²³ Soon the appeal went out to governors nationwide, and although support for Russia was couched in terms of gratitude for Russian aid for the Union cause during the Civil War, even the governor of Georgia responded to the call.²⁴ In New York, after Charles S. Smith, the president of the New York Chamber of Commerce, visited Russia and reported on the dire conditions there, the Chamber passed a resolution to appoint a relief committee consisting of Abram S. Hewitt, J.P. Morgan, C.P. Huntington, Austin Corbin, Cornelius Vanderbilt, Andrew Carnegie, John D. Rockefeller, and William Steinway, among others.²⁵ In Philadelphia, Mayor Stuart, chairman of the Russian Famine Relief Association, ordered 5,000 pounds of flour from a Minneapolis miller, which was sent out in a train that was “handsomely decorated and placarded and marked ‘rush’” for loading onto a Russia-bound steamer.²⁶ The first American aid shipment left Philadelphia aboard the steamer Indiana on February 22, arriving in Libau on March 16, its contents distributed in the famine

²³ Chicago Tribune 23 December 1891, p. 1.

²⁴ Atlanta Constitution 4 February 1892, p. 4.

²⁵ “New York Will Relieve” Boston Daily Globe 5 February 1892, p. 8; “Russian Relief Fund” Washington Post 5 February 1892, p. 2.

²⁶ “Food for the Starving” Atlanta Constitution 14 February 1892.

areas by the British-American Church of St. Petersburg and the Jewish relief committee.²⁷

The motivation for the relief effort was in large part humanitarian, but there were other motives at play as well. Depew's hope that the worldwide shortage would catapult the United States back to the forefront among wheat exporting nations was shared by many. When the Russian government declared a ban on wheat exports in November 1891, the excitement in the United States was palpable, as newspapers around the country announced that the American farmer would have a practical monopoly in world markets for the year, perhaps even exporting wheat to its great rival on the market.²⁸ The excitement spread to the American South, where Georgia, South Carolina, and Mississippi farmers started to plant wheat instead of cotton in the hope of finally planting a profitable crop after what they called a succession of disastrous cotton years—alas not a long-term strategy for success, as climate and soil conditions in the American south are not well suited to wheat culture.²⁹ European wheat traders seemed to agree. "American farmers ought to realize they have the whole world under their

²⁷ New York Times February 27, 1892.

²⁸ "The Czar's Ukase" Chicago Tribune November 24, 1891, p. 4 and "Russia's Great Shortage" The Wall Street Journal 25 November, 1891, p. 1.

²⁹ "Wheat Planted!" Atlanta Constitution 26 November 1891, p. 4.

thumb,” Sidney Klein of William Klein & Sons, a wheat trading firm operating in Chicago and London, told the Chicago Tribune.³⁰

Indeed, Secretary of Agriculture Rusk saw in the wheat shortage an opportunity not just for the US to recover its position as the leading wheat exporter, but to promote the use of another leading American agricultural product: corn. Outside Romania and parts of Italy, where corn was a staple of the peasant diet, corn was considered a food appropriate for pigs. Most Europeans preferred wheat and rye, and tended to believe that corn was not fit for human consumption—rumors that corn had given Italian soldiers a disease and Mexican soldiers “a sort of itch” had some traction in western Europe. Part of the American task in increasing wheat exports to Europe was a marketing task as well, in convincing consumers of the healthfulness of corn. On the heels of the Russian famine, the USDA sent an agent to Europe to convince governments to adopt the use of corn for military provisioning. Col. Charles J. Murphy, or Cornmeal Murphy, as he was known, traveled around Europe to trade fairs for eight years, demonstrating how to combine corn with rye flour in bread baking to make “Murphy bread.” He gave free cornmeal to orphanages while American ambassador to Germany William Walter Phelps served cornbread to Bismarck at a formal dinner. Murphy pinned his hopes on the adoption of cornmeal by the army, arguing that it

³⁰ CITATION!

would bring the United States a major new customer for agricultural exports. In Germany, since almost every family had a member in the army, he thought returning army veterans would bring the habit of eating corn, acquired in the army, back to the civilian population.³¹

Some relief efforts were consciously directed at increasing market share for American wheat on international markets. In calling for millers to contribute to Russian relief efforts, Northwestern Miller editor W.C. Edgar's spoke both to their good-will and generosity and to their fervent desire to improve their position on world wheat markets. "The millers of America are not dumb. Today they are supplying the world with food and they are being paid for it. We want to send some of it—just one load—to those who have nothing to pay with," went the first appeal in December, 1891.³² The following week Edgar elaborated on the soundness of the relief plan:

"Philanthropy and business may walk and in hand and they do in this instance. Our one free shipload will simply call world-wide attention to our plenteous store, and many a paid shipload will follow it, and these will, in all probability, be ordered from the very mills which gave away a sample cargo free... This is not a high moral way of looking at the matter, but it is one way."³³

³¹ Frank G. Carpenter, "Our Corn in Europe" Los Angeles Times 20 November 1892, p. 9-10.

³² Northwestern Miller 32 no. 23 (4 December 1891): 781.

³³ Northwestern Miller 11 December 1891 Vol. 32 No. 24, p. 817.

Sending cash instead of grain would have been far more economically sound, and the millers' insistence to the contrary garnered them some criticism, since the cost of transportation sometimes exceeded the value of the donated grain. After Clara Barton of the Red Cross made a public appeal for funds to cover transportation costs, New York social reformer Charles Stover calculated the value of the cargo versus the cost of shipping and concluded that rather than sending \$25,000 worth of grain and paying \$25,000 for shipping, the grain should be sold and \$50,000 worth of grain be bought in Europe.³⁴ Although the Red Cross undertook to distribute the donated grain in Russia, the organization decided to accept only cash for future efforts at famine relief, thereby alienating Edgar and the American millers.³⁵

In spite of the calamitous domestic situation in Russia, the export wheat market continued to function: Liverpool traders recollected years later that shipments of wheat from the Black Sea were being made even as famine relief funds were being collected.³⁶

Even though the famines showed that the invisible hand of the market did always not work to provide food to those who needed it, Depew and others were convinced that were it not for the speculators who disrupted the "natural," self-

³⁴ "Why Not Cash?" New York Times 5 February 1892, p. 8.

³⁵ Marian Moser Jones, "Confronting Calamity: The American Red Cross and the Politics of Disaster Relief, 1881-1939," (Phd diss., Columbia University, 2008).

³⁶ Liverpool Corn Trade Association, The Liverpool Corn Trade Association, 1853-1953 (Liverpool: Northern Publishing Company, 1953), p.19.

regulating market, American agriculture would take its natural, superior place on the world market. When the Czar expelled speculators at the height of the Russian famine in the summer of 1891, The Northwestern Miller opined, “We wish it were possible for the mighty tsar to rule over this country long enough to inaugurate this novel, but very radical system to discourage speculation.”³⁷

Corners

More notorious and more sensationally covered by the popular press than the famine crises of the late nineteenth century were the “deals in wheat” which provoked gallons of spilled ink in newspapers across the country. The so-called “Wheat Kings” who undertook risky large-scale market operations were admired, emulated, envied, and reviled, and reached a level of near-celebrity, their actions on the Chicago Board of Trade often reported on as if pit trading were a spectator sport.

Technically a market corner is an attempt to gain control of the entire supply of a particular commodity with the aim of establishing such a dominant market position that the owner of the commodity can set prices at will. Of course, because of the sheer size of the wheat-growing hinterland of Chicago, attempts at market corners were rare and spectacular. But opportunities presented themselves to those with enough cash and enough courage to attempt such manipulations. Big market operations were almost always attempted by bulls, or those who were betting on prices going up. The usual

³⁷ Northwestern Miller 7 August 1891, Vol. 32, No. 6, p. 169.

method was to observe, before others did, some condition of the world market that suggested future scarcity and/or increased demand (poor growing weather, crop blight, war), and then quietly start buying as many futures contracts as possible. If the predicted conditions came true, as others became aware of them prices would increase. By the time the contracts came due, the price increase would be enough that the mounter of the corner would make a large profit. On more spectacular corners, the mounter of the corner would have bought so much grain and so many futures contracts that the counterparties to the futures contracts would have to fulfill their obligations by buying from him—and he would essentially be in a position to set whatever price he wanted. On several occasions, such as the Leiter corner in 1898, the attempt to fulfill contracts as they came due led to an all-out attempt to scour farms for any wheat left in the farmers' hands; those farmers who had held on to their produce could then benefit from a bear corner. But in most cases the grain had long since left the farmer's hands, and farmers could simply watch as a speculator made a vast fortune even as the farmer had collected another year of falling profits.

To many, the actions of the speculators were a malignant force in the world market, artificially controlling prices and supplies solely for their selfish benefit. While farmers saw a protracted decline in wheat prices from the 1860s to the 1900s, they saw that pit operators made instant fortunes, and if wheat was reaching high prices, it was

for the most part long after they had received their cash at the farm. Millers and bakers, forced to raise their prices to consumers, felt like they had to bear the brunt of popular discontent.

Three famous deals on the Chicago Board of Trade, in particular, were discussed and remembered by traders and policymakers for decades, and remained in the public imagination for years to come through novels, plays, games films: the Hutchinson corner of 1888, the Leiter corner of 1897-1898, and the Patten corner of 1909.

Old Hutch

Benjamin Hutchinson, or “Old Hutch” as he came to be known on the ‘change and in the papers, started his speculative activities on the Chicago Board of Trade, upon which he bought a \$10 seat a year after its founding. Within thirty years he had become a celebrity, believed by some to control the movement of prices on the Board of Trade by sheer individual will.³⁸ At the high point of his career in the 1880s, before he died penniless, ruined, and alone, the irascible Hutchinson gained the status of a celebrity, his movements on the Chicago Board of Trade followed by daily papers all over the country; in one instance, rumors of his death caused an immediate decline in wheat prices. While The Chicago Tribune described Old Hutch as “unique” and “wonderful,” and called him “the most picturesque man in America,” the Farmers’ Alliance paper The Western Rural called him “a man with whom no self respecting man would

³⁸ “He Rules the Roast” Chicago Daily Tribune 9 January 1890, p. 1.

exchange places for twenty four hours for all the wealth he possesses. His time is divided pretty evenly between drinking rum and plotting on the Board of Trade. He is ... pitiable alone in the midst of seven hundred thousand people.”³⁹

Hutchinson was an uneducated boot and shoemaker from Reading, Massachusetts. In 1856, at 27 years of age, he headed west. He began his first operations on the Chicago Board of Trade in the 1860s. Noticing that the price of wheat mirrored the movements in the price of gold, he capitalized on the upward price trend by buying as many futures contracts as he could. As prices rose, he quietly sold, netting a profit. When those contracts came due, the counter-parties to the contracts he had left were forced to settle for the price difference, netting him a fortune. Audaciously, however, he played both sides of the market: after prices had reached a certain level he switched tactics and began selling futures contracts short, fulfilling his obligations months later with cheaper wheat when prices had come back down. This kind of large-scale operation playing both sides of the market (successfully!) netted him notoriety (and cash) early on. He insisted that nothing more was involved in these operations than the “horse-sense” of a country boy in the right place at the right time, but by the 1870s he owned the Corn Exchange Bank, which financed other merchants on the Board of Trade,

³⁹ Chicago Tribune 27 September 1891, p. 7 and Western Rural (Chicago) 13 October 1888, p. 652 cited in Jonathan Lurie, The Chicago Board of Trade, 1859-1905: The Dynamics of Self-Regulation (Urbana, Ill.: University of Illinois Press, 1979), p. 91.

and dominated the BOT from 1880 to 1885. In 1888, his son Charles assumed the position of President of the Chicago Board of Trade.⁴⁰

Hutchinson played both sides of the market, at different times angering consumers (who resented bulls driving up the price of foodstuffs) and farmers (who resented bears driving prices down). When the price of wheat went to \$1.75 a bushel in October of 1888, Hutchinson began to be publicly condemned. A Presbyterian minister called his actions illegal in the eyes of God (if not in the eyes of the law), while a rabbi condemned him for speculating in the necessities of life.⁴¹ In New York, the Central Labor Union denounced Hutchinson's "murderous work" in "cornering the necessities of life." "With the daring of an outlaw this man has set to work to control the wheat market ... Within a few weeks he has been enabled to accumulate \$3,000,000, every dollar of which is booty. He is but one of a too numerous class."⁴² Terrence Powderly, railing against food speculators, called on the Knights of Labor to write the President demanding that institutions that gamble in food be abolished.⁴³

⁴⁰ "B.P. Hutchinson Dead" New York Times 17 March 1899; Charles R. Geisst, Wheels of Fortune: The History of Speculation from Scandal to Respectability (New York: J. Wiley & Sons, 2002) pp. 12, 19.

⁴¹ "Old Hutch's Methods" Atlanta Constitution 7 October 1888, p. 14.

⁴² "'Old Hutch' Bitterly Denounced" Chicago Tribune 8 October 1888, p. 3.

⁴³ "Powderly Denounces Corners" Chicago Tribune 11 October 1888, p. 1 and "Is There a Remedy?" Atlanta Constitution 13 October 1888, p. 1.

Hutchinson also incurred the ire of traders who happened to be on the wrong side of deal. By January 1890, Chicago brokers were complaining that Hutchinson's position on the Chicago wheat market was too large; his choke hold on the market was driving prices up, and they worried that it was keeping both country dealers and foreign buyers away: "Country dealers and foreign buyers will not send in orders on a market that fluctuates only occasionally and then at the dictation of one man and in the narrow range he permits."⁴⁴ In a period of falling prices and a declining market share on world wheat markets for American wheat (See Figure 6) this was a serious charge. One broker referred to him as "the greatest calamity now afflicting the Board of Trade" and thought he was "bigger than the market." "If there was more business he could not control the market as he does." It was even said that if the Board of Trade suspended Hutchinson, he would start his own trading organization and would likely be joined by many other speculators.⁴⁵ Hutchinson claimed that he had tried to warn fellow traders in the pit that prices were going up, and later recounted bitterly

"They call me an old hog, but I haven't called any margins on these men nor on any of the smaller ones. I saved two or three firms from going under yesterday and I saved one today. Every one knows that I don't want to be hard with the boys, but they must learn not to fool with the old man. I bought the wheat because I thought it was worth the money and I believe so yet. I think it is going to sell every month from now on at higher prices than they have been

⁴⁴ "He Rules the Roast" Chicago Daily Tribune 9 January 1890, p. 1.

⁴⁵ "War on Puts and Calls" Chicago Daily Tribune 26 July 1888, p. 2.

paying for it. Look here! I get up in the morning and read four or five papers before the rest of these men are out of bed, and I know what is going on.”⁴⁶

Charles Hutchinson, Old Hutch’s son and the president of the Chicago Board of Trade insisted that there was no more speculation in wheat than in any other domain, and that at the CBOT “the farmer may always sell his product, and get in solid cash a fair price for it every day in the year.” At a debate between representatives of labor and capital in Chicago, critics demanded to know whether the CBOT did not, by its actions, serve to “draw prices from their natural standard.”

Hutchinson, like the other Wheat Kings, always insisted that speculation was to the advantage of the farmers because it provided farmers with cash on demand for their crops, as well as the highest possible prices.⁴⁷ Hutchinson consistently denied that he had manipulated the market, and in fact denied that market manipulation was even possible, claiming that the world market was far too big to be manipulated by individuals, who “may take measures to influence it, but they cannot positively control it.” Using an image later used by the novelist Frank Norris in describing the global

⁴⁶ “Two Dollars a Bushel” Chicago Daily Tribune 30 September 1888, p. 2.

⁴⁷ “But if there were no speculation, the farmers could only sell their grain to local buyers, who would be liable to get full and stop buying, and then the farmer would be compelled to wait for customers; and in the meantime a mortgage might be foreclosed on his farm, even while the wheat in his bins would more than satisfy the mortgage, if converted to cash. But speculation, flashing its news over the wires from one side of the world to the other, keeps the market always open to him.” Benjamin P. Hutchinson, “Speculation in Wheat,” North American Review 153 no. 419 (1891): 414-419.

wheat market, Hutchinson explained his effect on the wheat market like this: “We can influence the waterpower of Niagara; but let us find the man or men who can stop the cataract.”⁴⁸

Although financially destitute in the last decade of his life (caused by a combination of alcoholism and an addiction to reckless gambling on the ‘change, according to his contemporary and fellow wheat market manipulator James Patten), Old Hutch lived on in popular culture as a paragon of capitalist greed and speculative profits.⁴⁹ In 1895 a play based on his life, Other People’s Money, ran at Hoyt’s Theatre in New York City, while in 1929, Edward Dies published a popular biography of the speculator.⁵⁰

Young Leiter

Joseph Leiter could not have been a bigger contrast to the self-made Old Hutch. While Hutchinson was portrayed as a cunning old operator, Joseph Leiter was a 29-year-old son of fortune: his father, Levi Z. Leiter, was a well-known Chicago real estate magnate and Marshall Field’s partner in the dry goods business. Educated at Harvard, and with plenty of opportunities in front of him, Joe Leiter supposedly tossed a coin to

⁴⁸ Hutchinson, “Speculation in Wheat.”

⁴⁹ James A. Patten, In the Wheat Pit (Curtis Publishing Co., 1927), p. 11; “Benjamin Hutchinson Dead” New York Times 17 March 1899.

⁵⁰ Edward J Dies, The Plunger: A Tale of the Wheat Pit (New York: Covici, Friede, 1929).

determine whether he should buy the all stock of the Atchison, Topeka and Santa Fe Railroad or try his hand at cornering the wheat market instead.⁵¹ He decided on the latter. Although he had no experience in the grain business, he did have access to almost limitless funds—arguably a more important asset than experience when trying to buy up a season’s entire supply of wheat. In the spring of 1898, Leiter began buying up all the futures contracts he could get his hands on. Like the Hutchinson corner of 1888, the Leiter corner ten years later garnered an enormous amount of publicity.⁵² “Since young Mr. Leiter began dazzling the speculative world by his famous deals, millions of people have been thinking and talking wheat who before were placidly indifferent to the ups and downs of this sprightly cereal,” reported the Chicago Evening Post in the spring of 1898, as Joseph Leiter was mounting his corner.⁵³

The opportunity seemed to present itself in the wake of a short crops in Europe, India, and the United States in 1896. When he began buying in the spring of 1897, he was paying around seventy cents a bushel, but at the end of September it had reached over \$1.03. Leiter planned to export his grain holdings to Europe, thereby increasing the

⁵¹ Harper Leech and John Charles Carroll, Armour and His Times (New York: Appleton-Century-Crofts, 1938), p. 203.

⁵² “Hundreds, perhaps thousands of young men who were born in 1897, rejoice in the initials ‘J.L.’ There is a presumption today in the wheat belts that a middle aged man whose initials are ‘J.L.’ was born in the years that Joseph Leiter ... almost cornered wheat.” Leech, p. 305.

⁵³ “The Wheat Industry” Current Literature Vol. 23 No. 5 May 1898, p. 430.

scarcity in the U.S. and keeping prices high. But by late September it became clear that his opponent on the market was the great P.D. Armour, who had decided to meet his obligations with grain rather than with cash. Accordingly, Armour sent his agents into the countryside to buy up any grain remaining there, thereby making farmers who had held on very happy. A continued drought through the fall kept prices up, and it looked as though Armour would indeed be caught short for December contracts, with obligations to deliver wheat to Chicago but no possibility of transporting grain from the hinterlands over the Great Lakes, which were rapidly freezing over. But being P.D. Armour, he hired ships and tugboats from Duluth to Chicago after the navigation season had closed, managing ten ships that brought 1,000,000 bushels to Leiter—to be stored in Armour's own grain elevators, several of which he had built at record speed just to receive these shipments. Once Armour had fulfilled his contracts, Leiter was left with a vast quantity of grain on his hands, much of it stored in Armour's elevators, to whom he now owed storage fees for as long as it stayed in Chicago.

Leiter was now stuck with the classic problem affecting those who mounted corners: how to dispose of the grain, or "the corpse" as it was known in the trade, before the next harvest came in. In May of 1898, the Spanish-American war made wheat prices spike to \$1.85 a bushel, but as the following harvest came in, it dropped to \$0.62. Leiter's failure was reportedly due to his inexperience in the grain market: although he

managed to sell some of the grain, instead of taking payment from European buyers when their grain was delivered at Chicago, he allowed them to pay upon delivery in Europe, not knowing, as more experienced grain dealers did, that European buyers were known to repudiate contracts when prices broke and they could get their wheat cheaper elsewhere.⁵⁴ He quickly lost \$10,000,000, all of which was covered by his father.

The New York Times claimed that it was “nature, in her prodigality, and to the inestimable benefit of mankind” that defeated him—along with shipments from India, the Argentine Republic, France, and the American West, which came in before he could close out his contracts.⁵⁵

The upheavals caused by the Leiter corner were significant, and memorable. Consumers worldwide were irate. In Europe, riots in Spain, barricades in Italy, and threats of discontent in France were blamed on the rise in prices brought about by the Leiter corner.⁵⁶ American farmers, on the other hand, rejoiced at the spike in prices, a bright spot in a decades-long downward price trend. Kansas farmers offered to donate one cent for every bushel of wheat raised in Newton County to assist Leiter in

⁵⁴ Leech, p. 307.

⁵⁵ “Happenings at Chicago” New York Times 19 June 1898, p. 13.

⁵⁶ “Censure for Leiter” New York Times 14 May 1898, p. 5.

recovering the financial losses from his deals.⁵⁷ In Sedgwick county, one farmer started a chain letter, each letter to contain fifty cents to be sent to Leiter.⁵⁸

With his father footing the bill for Leiter's \$10,000,000 loss, Leiter switched pursuits: he tried to organize a milk trust in Chicago, bought a locomotive company in Providence, mines in southern Illinois, a gas company in Washington, D.C., planned to buy the Great Wall of China, was taken to court for refusing to pay a bill for 111 pairs of \$12 socks, and engaged in a protracted legal battle with his sister over his father's \$30,000,000 estate.⁵⁹

But it was the memory of his wheat operations that years later struck fear into the hearts of British policymakers planning for food provisioning in the case of war: would a situation of scarcity, such as one brought about by a global war, set the perfect stage for someone like Leiter to come along and disrupt global markets at will?

James Patten

"Because I was in the cash grain business, I never was troubled by the possibility of a great stock of grain at the end of a deal. I knew how to sell grain at the end of a big deal," boasted James A. Patten 20 years after he had ceased running "deals" on the

⁵⁷ "Farmers Would Help Leiter" Chicago Daily Tribune 6 August 1898, p. 7.

⁵⁸ "To Help Joe Leiter" Atlanta Constitution 19 August 1898, p. 1.

⁵⁹ Lowrie, H.R. "Chicago's Youthful Wheat King." Leslie's Illustrated Weekly 86 (6 January 1898): 10.

Board of Trade. Although Patten ran a successful corner in 1909, he was not just a speculator, like Leiter, but also someone who made his business in buying, selling, and transporting actual grain as partner in the firm of Bartlett Frazier. Although he retired from speculative activities after coming out ahead in his 1909 deal, he continued to be involved in the grain business. Born in the Chicago hinterlands near Sanwich, Illinois, the grandson of farmers, he portrayed himself as having the utmost respect for the farmer, and insisted that trading never did move prices either up or down, but simply reflected worldwide conditions in the grain market. If someone like him had managed to make a fortune from speculating, it was only because he saw conditions earlier and more clearly than others; but it was those conditions and not his own actions that had influenced prices. He had simply made a very informed bet on the condition of the market, and, as important, he knew when to stop gambling (unlike old Hutch). He described his approach to market information in language that seems to be taken almost verbatim from the novels of Frank Norris:

I think I see conditions in pictures, rather than in tables of statistics. Brother George used to add up to the columns of the crop reports. As for me, I saw reflected in the dark surface of the quotation board many scenes: The sun shining in Texas; reapers in the Kansas fields; farmers in the Dakotas, frantic at the discovery of black rust; shivering Indians on the on the pampas; grain ships from Australia sinking in the Indian Ocean. War, famine, pestilence, and sometimes plenty are mirrored on the quotation board for the man who can see beyond the ticker machine.⁶⁰

⁶⁰ Patten, p. 14.

Furthermore, he insisted, speculators were the “shock-absorbers” of the global grain market, reducing price volatility rather than increasing it. After all, weren’t wheat farmers who insisted on monoculture also speculating in grain? If they weren’t they would be planting other things as well.s

Opinions on Patten were divided. Because the corner seemed to be affecting the price of loaves of bread, he was widely reviled for making a profit out of the misfortune of others. Cartoons showed helpless women and children looking at empty cupboards or cutting tiny slices of bread. But some saw Patten as a sympathetic figure: a deacon of his Church, family-oriented, and a philanthropist, and most importantly, a booster and patriot because of his belief that American wheat prices were always going up.⁶¹

Patten consistently denied that he had cornered wheat, insisting that he had forseen the very real wheat shortage by informing himself of world production and distrusting the figures published by the Department of Agriculture, whose agents he called “the biggest joke going.” Furthermore, he argued, by “bulling” wheat he kept it out of the hands of European buyers, keeping it on American shores for domestic use.⁶²

⁶¹ Warren M’Intyre, “Patten Himself: Personality of the Wheat King” Los Angeles Times 17 April 1909, p. I5.

⁶² Frank Fayant, “Patten’s Deal and Its Meaning” New York Times 18 April 1909, p. SM4.

The Information Economy

The literature on the international wheat market was not limited to coverage of distant famines or sensationalized coverage of the “Wheat Kings.” Another type of literature explained the global market and educated readers: manuals and didactic books on wheat production and marketing. Published both in the United States and in European countries, such books were written and disseminated by trade associations, scholars of political economy, and journalists. Some sought to explain the mechanics of wheat trading, particularly its more technical aspects. Some books aimed simply at familiarizing readers with the expanded landscape of wheat production around the world, and were part travelogue, part treatise on political economy. Others had particular agendas: the raising or lowering of tariffs, an increased emphasis on rural education or fiscal responsibility, the encouragement of the cooperative movement.

Faced with the reality of inexpensive foreign imports, French authors produced these works particularly early, both as a way to train merchants in the methods of the business and as attempts to influence trade and agricultural policy. An 1882 volume provided methods and exercises for calculating prices and volumes in grain transactions from New York, to London, to Odessa.⁶³ The following year, Edouard Lecouteux published a treatise on the wheat market in which he argued for an increased

⁶³ H Lefèvre, Traité pratique du commerce des céréales en France et à l'étranger (Paris: Librairie des halles et marchés, 1882).

emphasis on national sufficiency in the production of wheat, with international trade to be reserved exclusively for years in which unpredictable weather conditions might cause shortages in some areas and an abundance in others.⁶⁴ Like other French authors, Lecouteux couched the importance of France's self-sufficiency in wheat as part and parcel of its status as a civilized country: "la France est un pays à blé," he insisted, citing political economist Michel Chevalier's speech to the Collège de France: "la civilisation parut, un épi à la main."⁶⁵ A similar theme appears in Eugène Serand's two-volume book on the wheat market, published in 1891, in which he maintains that wheat is "la plante colonisatrice qui crée les premiers capitaux, la première prospérité pour les peuples naissant à la civilisation des zone tempérées."⁶⁶ Wheat was an essential part of both traditional French rural life and France's mission civilisatrice, both of which appeared threatened by the American entry into world markets in the 1870s and 1880s.⁶⁷ Serand's position was in favor of free trade, arguing that the best response to the influx

⁶⁴ Édouard Lecouteux, Le blé, sa culture intensive et extensive, commerce, prix de revient, tarifs et législation des céréales (Paris: Librairie agricole de la Maison Rustique, 1883), p. 4.

⁶⁵ Lecouteux, Le blé, p. xi.

⁶⁶ "the colonizing plant that created the first capital, the first prosperity for the people born in the civilizations of the temperate zones." Eugène Serand, Étude agronomique, statistique et commerciale sur les céréales. Le blé. Culture, classification, géographie agricole et commerciale, trafic (Volume 1) (Paris: Rosier, 1891), p. 131.

⁶⁷ "...pendant les dernières années, l'agriculture américaine a jeté la perturbation dans tous les calculs de l'ancienne économie rurale de l'Europe." Serand, Étude agronomique, Vol. II, pp. 552—553.

of cheap American wheat was not a tariff wall but transportation improvements, legal reforms to favor agricultural credit, and social services for agricultural workers. In addition, Serand was convinced that successful competition with the United States in wheat production required a full knowledge of agricultural production figures and production methods all over the world:

La connaissance aussi parfaite que possible des faits agricoles dans les divers pays de production est aujourd'hui la base de tout progrès et l'acheminement vers la solution économique la plus favorable aux intérêts généraux, comme à l'amélioration de la situation des agriculteurs eux-mêmes. ... N'est-il pas incontestable, étant donné l'impossibilité d'éviter les conséquences de la civilisation moderne, qui a ouvert, par des voies rapides, des communications de tout genre entre les peuples, n'est il pas certain, dis-je, que la première chose à faire pour l'agriculture est de s'instruire des conditions réelles de la production sur tous les points du globe? C'est seulement en partant de cette connaissance que nous pouvons trouver des améliorations à apporter dans nos exploitations et les moyens les meilleurs pour tirer parti d'une situation dont il n'est au pouvoir de personne de modifier le point de départ, ni les grandes lignes.⁶⁸

Accordingly, Serand provided an exhaustive overview of production and marketing methods in every wheat producing region of the world, pointing out that in

⁶⁸ "The best possible knowledge of agriculture in the various producing countries is today the basis of all progress and the way forward toward the best economic situation in the general interest, as well as to the improvement of the situation of the farmers. . . Is it not incontestable, given the impossibility of avoiding the consequences of modern civilization, which has opened, by very quick means, communications of all sorts between peoples, is it not certain, I say, that the first thing to do for agriculture is to study the real conditions of production in all parts of the world? It is only with this knowledge that one can find improvements in our agricultural life and the best way to take advantage of a situation which is beyond anyone's power to change." Serand, *Etude agronomique*, Vol. II, p. 594.

the newly integrated world wheat market, it is harvest time somewhere in the world at all times..⁶⁹

American authors took similar approaches to explaining global wheat markets, sending correspondents on voyages to producing areas around the world from which they described agricultural practices and marketing facilities. The resulting books were often quite non-technical in nature and read much like travelogues, though focused on cereal production. William C. Edgar, editor-in-chief of the Northwestern Miller and the organizer of the plan to send aid to the starving Russians in 1891, published The Story of a Grain of Wheat in 1903. Like his French counterpart Serand, Edgar viewed wheat as a civilizing factor: “The story of a grain of wheat tells the story of ... the emergence of mankind from savagery,” while the expansion of wheat cultivation into the northwestern United States and Canada brought “civilization and law and order and justice” with it, “wherever man emerged from barbarism, wheat followed in his footsteps.”⁷⁰ Edgar goes to great pains to place wheat culture in the history of classical civilization, and refers to wheat as both ancient and noble, perhaps as a way of appealing to his readers, who are in the business of buying, milling, and selling the grain. But the main focus of the book is a look at the competitive situation between

⁶⁹ Serand, Etude agronomique, p. 7.

⁷⁰ William C. Edgar, The Story of a Grain of Wheat (New York: D. Appleton & Co., 1903, pp. 10, 14, 45.

different wheat producers and the needs of the world's greatest wheat importers (most notably the United Kingdom) in the years to come, with detailed sections on Russia, Argentina, the United States, Canada, and markets in China and Japan. Edgar concluded optimistically that the United States and Canada were sure to be the world's greatest providers of wheat. Because of the same conditions that produced the famine in 1891 (land ownership problems, inefficient and outdated cultivation methods that could not compensate for less than ideal weather conditions), Russia would probably never again be Europe's primary wheat supplier, while the Argentine farmers, not unlike the Russian peasants, were "a lazy crowd ... they simply scratch the surface and then expect the seed to take root and the plant to be strong and healthy."⁷¹ [...] Wheaten bread is the universal food of civilization, and whatever happens in the race for ascendancy in the world's markets, this seems assured: the Anglo-Saxon controls the key to the world's wheat supplies at present, and is apt to hold it against all comers, at least during the twentieth century."⁷² Tariffs and corners, in Edgar's view, were the greatest obstacles to what he believed was the natural course of the global wheat market.

In 1908, Rollin Esson Smith published a similar, although far more comprehensive volume, Wheat Fields and Markets of the World, half of which consisted of an examination of all the world's producing regions, and half of which presented a

⁷¹ Ibid., p. 77.

⁷² Ibid., p. 191.

detailed description of marketing methods and the institutions which govern grain marketing around the world—with chapters on all the major grain exchanges in both the United States and in Europe. Like Edgar and Serand, Smith saw wheat as a civilizing force, which funded westward expansion and left behind it “prosperous farming communities, towns and embryo jobbing centers.”⁷³

The USDA contributed to this genre with a number of books seeking to help with wheat marketing in a competitive global context: writers travelled through Argentina and Russia to describe, in detail, agricultural and marketing conditions and the comparative advantages and disadvantages of other growing regions on world markets.⁷⁴

Guides to world grain market institutions appeared in other countries involved in the grain trade as well: in 1908, a German guide to the grain business appeared, and in 1910, the first of an oft-revised guide to the Antwerp grain market was published in Belgium.⁷⁵ By the 1920s, similar kinds of books on the grain trade changed in character, and instead of providing travelogues or opinions on tariff and agricultural policy, they

⁷³ Smith, Wheat Fields, p. 7.

⁷⁴ See the various reports on European, Russian, and Argentinian grain consumption, production and marketing by Frank Rutter, Isaac Max Rubinow, and Frank W. Bicknell.

⁷⁵ See Eugen Fridrichowicz, Die Technik des internationalen Getreidehandels (Berlin: Verlagsbuchhandlung Paul Parey, 1908) and Paul Van Hissenhoven, Les grains et le marché d’Anvers (Louvain: Université de Louvain, 1910).

became much more technical in nature. Subsequent editions of Hissenhoven's Les Grains et le marché d'Anvers became increasingly pedagogical and focused on the technicalities of transactions.⁷⁶ Other books taught how to hedge and trade on futures markets, or provided literal reprints of documents as a way of teaching prospective traders their business.⁷⁷

These books served to familiarize readers—whether millers, traders, farmers, or the general public—with the intricacies of the world grain trade, helping to put their intended audience in the context of a competitive and rapidly changing market and sought to create a sense of order by providing an encyclopedic source of information about disparate economic systems, agricultural practices, and societies all seemingly tied together in the same system of exchange.

Frank Norris

In the spring of 1899, the young writer Frank Norris wrote to his mentor William Dean Howells, "I've got an idea as big as all outdoors. . . . My Idea is to write three novels around the one subject of Wheat. First, a study of California (the producer), second, a study of Chicago (the distributor), third, a study of Europe (the consumer)

⁷⁶ Paul Van Hissenhoven, Le commerce international des grains (Paris: Société d'Éditions Géographiques, Maritimes & Coloniales, 1923) and Le mouvement des grains dans le monde (Bruxelles: Editions Ceres, 1938).

⁷⁷ See G. Wright Hoffman, Hedging by Dealing in Grain Futures (Philadelphia: 1925) and Samuel Knowles Thorpe, Grain Trade Documents (Liverpool: Northern Publishing Company, 1924)

and in each to keep the idea of this huge, Niagara of wheat rolling from West to East. I think a big Epic trilogy could be made out of such a subject, that at the same time would be modern and distinctly American."⁷⁸ The first volume, The Octopus, about California wheat growers fighting the railroad monopoly, was published in 1900. The second, The Pit: A Story of Chicago, the account of an attempt to corner the wheat market based on the infamous Leiter Corner of 1898, appeared in 1902, posthumously, after the 32-year-old Norris died of appendicitis in San Francisco as he was preparing for a voyage to India and Europe to research the third volume, The Wolf, which was to have as its subject the relief of European famines with American grain shipments.⁷⁹

As other scholars have shown, Norris' understanding of the dynamics of the world wheat market was not particularly nuanced; in his view, big business (represented by the Southern Pacific Railway in The Octopus) and speculators (represented by Curtis Jadwin in The Pit) were responsible for the many ills of both farmers and workers. Indeed, in his short story "A Deal in Wheat," written as a preliminary sketch for the trilogy, a Kansas farmer is driven into bankruptcy by the

⁷⁸ Cited in Morton Rothstein, "Frank Norris and Popular Perceptions of the Market," Agricultural History 56 no. 1 (1982): 50-66, p. 50; although he cites Donald Pizer, The Novels of Frank Norris (New York: Haskell House Publishers, 1973), p. 113 as the source of this quote.

⁷⁹ Frederic Taber Cooper. "Frank Norris." Bookman, 16 (December 1902), 334-35, reprinted in Joseph L. McElrath and Katherine Knight, Frank Norris: The Critical Reception (New York: Burt Franklin & Co., 1981), p. 183.

constantly falling price of wheat, driven down by speculation. Forced to give up his farm and move to the city, the ex-farmer then waits fruitlessly in a bread line ended by the high price of wheat, driven up by speculators. "The farmer—he who raised the wheat—was ruined upon the one hand; the working-man—he who consumed it—was ruined upon the other. . . . The great operators, who never saw the wheat they traded in, bought and sold the world's food, gambled in the nourishment of entire nations, practised their tricks, their chicanery, and oblique 'shifty deals,' were reconciled in their differences, and went on through their appointed way, jovial, enthroned, and unassailable. In⁸⁰ The Pit, Norris essentially repeats the same analysis: speculators who don't care about the product they're trading destroy the lives of both farmers and

⁸⁰ Rothstein, Frank Norris, p. 63; for a good analysis of the degree to which Frank Norris based his work on actual facts, see Charles Kaplan, "Norris's Use of Sources in The Pit," American Literature 25 no. 1 (1953): 75-84.

workers by wreaking havoc with prices, which, in the absence of speculation, would be “at an average, legitimate value.”⁸¹

True to his intention of depicting the wheat trade as a “Niagara,” Norris characterizes the wheat harvest as “a vast flood from West to East,” “a world-force, a primeval energy, blood-brother of the earthquake and the glacier.” The Chicago Board of Trade, on the other hand, is “a great whirlpool, a pit of roaring waters, sucking in the life tides of the city, sucking them in as into the mouth of some tremendous cloaca, the maw of some colossal sewer; then vomiting them forth again, spewing them up and out, only to catch them in the return eddy and suck them in afresh.”⁸² In the face of these uncontrollable forces, men, both producers and consumers of wheat, as well as the

⁸¹ “. . . They call it buying and selling, down there on LaSalle street. But it is simply betting. Betting on the condition of the market weeks, even months, in advance. You bet wheat goes up. I bet it goes down. Those fellows in the Pit don’t own the wheat; never even see it. Wouldn’t know what to do with it if they had it. They don’t care in the least about the grain. But there are thousands upon thousands of farmers out here in Iowa and Kansas and Dakota who do, and hundreds of thousands of poor devils in Europe who care even more than the farmer. I mean the fellows who raise grain and the other fellows who eat it. And right between these two comes the Chicago speculator, who raises and lowers the price out of all reason, for the benefit of his pocket. . . It’s like this: If we send the price down, the farmer suffers, the fellow who raises it; if we send it up too far, the poor man in Europe suffers, the fellow who eats it. And food to the peasant on the continent is bread—not meat or potatoes as it is with us. The only way to do so that neither the American farmer nor the European peasant suffers is to keep wheat at an average, legitimate value. The moment you inflate or depress that, somebody suffers right away. And that is just what these gamblers are doing all the time, booming it up or booming it down. . .” Frank Norris, *The Pit: A Story of Chicago* (New York: Grove Press, c1903), p. 97.

⁸² Norris, *The Pit*, p. 62-3..

hubris-emboldened speculators, are crushed. Curtis Jadwin ends up a broken man, morally defeated by his inability to stop speculating. Or, as Norris put it in a letter, a great and resistless force moving from west to east, from producer to consumer; benevolent and beneficent as long as it is unhampered, but destroying all things and all individuals who attempt to check or divert it.”⁸³

Norris clearly has a weak grasp on the intricacies of the speculative wheat market; much of his information on the workings of the stock market reportedly came from his friend the novelist Edwin Lefevre, author of the novel Wall Street.⁸⁴ The son of wealthy parents, educated at Berkeley and at Harvard, Norris had no direct experience of either farm life or speculation. He was not especially political, and in fact denied in relation to the trilogy that “[it is] within the province of the novelist to furnish solutions for existing problems, or to point the way to a solution. The novelist, by nature, cannot be a political economist.”⁸⁵

⁸³ Isaac F. Marcossou, “Frank Norris’ Last Book: Lamented Young Novelist at His Best in ‘The Pit’—The Wheat Motive Again.” Louisville Times, January 3, 1903, p. 7, section 2, reprinted in McElrath, Frank Norris, pp. 186-188.

⁸⁴ “Frank Norris and Edwin Lefevre.” Bookman, 16 (January 1903), 441-42, reprinted in McElrath, Frank Norris, p. 186.

⁸⁵ G.H.S., “Books of the Day: The Pit: Frank Norris’s Last Novel” Boston Evening Transcript, January 21, 1903 as reprinted in McElrath, Frank Norris, p. 214.

The critical reception for the book was mediated by the author's tragic death. Some hailed it as the book of the decade, perhaps even the great American novel,⁸⁶ while others praised him for making a highly technical subject like futures trading interesting.⁸⁷ One critic, while maintaining that the book had obvious faults, praised it as an indicator that great writing was possible in the New World, and even that great drama could be found in an American culture dominated by business.⁸⁸ The New York Times criticized Norris for being a preacher "of elementary sociology and economics," who should have taken writing more seriously than he did.⁸⁹ But the book's popular appeal was undeniable: the book was serialized in the Saturday Evening Post in 1902–1903, and when it was published as a novel it went through two reprintings even before its first day of publication. First year sales reached 95,000, and the book was made into a Broadway play in 1904, a silent film in 1917, and a Parker Brothers card game in 1919.⁹⁰

⁸⁶ "Books of the Week" New York Herald, January 10, 1903, p. 12, reprinted in McElrath, Frank Norris, pp. 191.

⁸⁷ George Hamlin Fitch, "God Reading" San Francisco Chronicle, January 11, 1903, p. 18, reprinted in McElrath, Frank Norris, p. 198.

⁸⁸ "A Significant Novel," Outlook, 73 (January 17, 1903), 152–3, reprinted in McElrath, Frank Norris, p. 202.

⁸⁹ "The Pit: A Dispassionate Examination of Frank Norris' Posthumous Novel." New York Times January 31, 1903, p.66 cited in McElrath, Frank Norris, p. 237.

⁹⁰ Sacvan Bercovitch, The Cambridge History of American Literature: Volume 3, Prose writing, 1860-1920 (Cambridge University Press, 2005).

D.W. Griffith's A Corner in Wheat (1909) dramatizes the great Patten corner in a Biograph feature which is a dramatization of the great speculative corners. The film opens with a poor farmer sowing a crop of wheat by hand in an image reminiscent of a painting by Millet—a complete anachronism in an period of highly mechanized commercial farming, but one which conveys a romantic notion of the farmer close to the land. While the hardscrabble farmer struggles to scratch a living out of the soil, the Wheat King throws a lavish party celebrating his triumph in the Pit. In Griffith's telling, the speculator is a figure of pure greed and evil, and one who gets his just deserts: the film ends with him being crushed in an avalanche of wheat at the bottom of a grain elevator, though this does nothing to restore the farmer's livelihood. The portrayal of both the farmer and the speculator are pure products of fantasy in this film, but they do articulate the way that the farmers tended to see themselves in the pre-war period: not as businessmen, but as stewards of the land projected into a very distant past in which individuals scratched at the earth with their bare hands to eke out a living. Similarly, the speculator comes to a bad end—as we know, quite the opposite of what happened in real life to Patten, who lived for many years to enjoy his wealth and was a frequent and respected commentator on commodities markets long after he stopped speculating.

This stock narrative changes with the experience of World War I. By 1919, the participants in the production and financing of wheat are portrayed very differently. Zane Grey's 1919 wheat-themed potboiler, The Desert of Wheat, takes the wartime

equation of wheat production and patriotism to its logical conclusion. In the new moral economy of the war, the landowner is purified by the sacrifices he endures in support of the war effort, and the central conflict in the wheat production system is not between farmer and capitalist, or between the producer and an inexorable global marketing system that benefits no one but the speculator, but between farmer and labor. Young Kurt Dorn, a tenant wheat farmer in the Columbia River Valley, is the only child of a German immigrant and his (now dead) American wife. The patriotic Kurt is deeply at odds with his father over which side to support in the war. Beset by a wave of Wobblies who radicalize their farmhands, burn down wheat crops, and sabotage grain elevators, Dorn joins forces with his tough-talking but good-hearted landlord and creditor, Mr. Anderson, to whom he and his father have owed \$30,000 that they can't seem to clear in year after year of wheat farming. Anderson's beautiful daughter Lenore, along for the ride when Anderson drives up to the Dorns' plot to call in his loan, is drawn to Kurt's passion for farming and for wheat: "Yes, I'd like to hear every word you can say about wheat," she tells him. The young Kurt, self-educated but passionate about farming, proceeds to quote, from memory, a thousand-word passage from an agronomy textbook on smut (the crop fungus), causing Lenore Anderson to fall instantly in love. The rest of the plot follows Kurt and Lenore as they fight against the Wobbly threat to the wheat crop, the nation, and the civilized world. Here it is the labor agitators who are evil; the

indebted tenant farmer and his creditor, the landowner, put their differences aside to join together in winning the war with bread bullets.

Chapter 3: The End of Business as Usual: Wheat and the War in Europe

The outbreak of war made private merchants highly reluctant to engage in trade and effectively brought the complex machinery of the global grain trade to a standstill. In normal times, American grain was sold with “c.i.f.” contracts, meaning that prices were quoted including the grain, shipping, and insurance. With the outbreak of war, American sellers were only willing to sell “f.o.b.” grain (freight on board, or merchandise delivered to the port of shipment), leaving the buyer to find and pay for shipping and insurance.¹ With shipping directed toward military needs and U boats at sea, freight and insurance were prohibitively expensive, and tended to paralyze grain movements. With the outbreak of war, sales of the Argentinian crop came to a standstill and reports were that “business has been more or less paralysed during the week through the world-wide disorganization caused by the European war.” Whereas Argentina shipped 101,500 quarters of wheat during the first week of August 1913, in the first week of August 1914 the volume of exports stood at less than half that amount. By the end of August, a correspondent to the London Times was calling on the corn trade to do its “duty” and purchase much needed wheat for September delivery.

Russian stocks, in better times considered of inferior quality but certainly adequate in times of emergency, were unavailable because the main shipping route for Russian wheat was closed by the closing of the Dardanelles. Re-opening that shipping

¹ Barker, p. 102.

lane was a major reason that the Dardanelles campaign was so strategically important for the allies—but it failed, and that avenue was not restored for the duration of the war. Australia had available wheat, but the amount of time it took to get to Europe meant that it put too great an imposition on shipping tonnage. In five or six months a steamship took to make a round-trip journey from the UK to Australia, it could make five or six round trips from Liverpool to New York, thus requiring five or six times less shipping tonnage to transport the same amount of grain.

American wheat remained the main source for British and Allied consumption, but the pressure that European demand put on American wheat drove prices ever higher. The continued rise in prices through the fall and winter months of 1914 to 1915, predictions in January 1915 of a worldwide crop shortages, and Germany's announcement that merchant ships were not immune to submarine attacks made the food situation look serious. By 1917, British buyers had inadvertently cornered wheat on the Chicago Board of Trade, tripling normal prices, American consumers were demanding an embargo on all wheat exports, and American exporters were reluctant to take the risks of sending American wheat on dangerous trans-Atlantic voyages. Contrary to what free traders had asserted when preparing for the war, wartime high prices did not stimulate sales, and it appeared that the free market would not solve the wartime provision problem.

The solution to the wartime supply problem came to be a coordinated effort to control prices on global grain markets. How two of the major buyers—the United Kingdom and France—came to participate in this system illustrates how two countries with vastly different political contingencies and needs vis a vis their own agriculture came to the same solution.

Control in the UK

We have been driven bit by bit against our will.—Walter Runciman²

Britain, always the leading customer on global grain markets in the nineteenth century remained so in the twentieth. Even during periods of agricultural depression in the late nineteenth century, the UK remained committed to a non-interventionist agricultural policy. To British free traders, cognizant of Britain's status as the world's greatest naval power, the dependence on imported breadstuffs seemed to make sense. But the experience of war forced a re-evaluation of Britain's laissez-faire agricultural policies. Although opponents of free trade in grain had long argued that a reliance on imported foodstuffs would prove to be dangerous in wartime, the consensus among policy-makers remained that Britain's naval power and colonial sources of food would be ensure its access to continued food imports. During the course of the first world war, this attitude changed drastically, and the British government went from defending free

² Hansard, House of Commons Debates, 15 November 1916, c863.

trade to imposing food control. This progression and its implications form the main thrust of this chapter.

Many of the solutions to a potential war-induced world wheat shortage proposed prior to World War I were deemed too interventionist or anti-business to be taken seriously or to be implemented. However, the war changed all this, and slowly even the intervention-averse British adopted them. By the 1930s, the same kinds of measures came to be taken worldwide in response to economic crisis. But for now, they seemed extreme.

The possibility of a major war was, of course, on the minds of British policymakers long before World War I broke out. Hypothetical plans and preparations for this supposed war were therefore constantly made and re-made. A Royal Commission appointed in 1903 to investigate the measures that might be taken to ascertain the supply of food and raw materials in the eventuality of war recognized that for Britain, wheat was the single most important imported commodity. The commission estimated that from 1870, when wheat imports accounted for 40 percent of total British consumption, to 1903, the percentage of wheat consumed in Britain that came from imports doubled, to 80 percent. Given the importance of bread as a source of calories and as a budget item for working people, ensuring a constant supply of wheat,

whether from imports or home-grown, was seen as vitally important, particularly for supporters of the laboring classes. Looking at history as its guide, the commission was concerned about two potential scenarios. First, the potential impact of a wartime rise in prices driven by “psychological” factors—as had happened on the eastern seaboard of the United States upon the outbreak of the Spanish American War. Second, the possibility of another corner on American markets, specifically a scenario similar to the Leiter corner of 1898. These fears were somewhat allayed by the fact that the source of British imports of wheat appeared to be diversifying, with the United States losing British market share in favor of South American and British colonial sources, thus diluting the effects of an American corner. While in 1871 the United States had provided 40 percent of British wheat imports, by 1904 that percentage had dropped to just 16 percent; at the same time, imports from South America and the British colonies combined increased from 20 percent of British wheat imports in 1871 to 60 percent by 1904.³

The 1903 commission considered four main proposals for stabilizing grain markets in case of a wartime emergency: government ownership and storage of stocks of wheat, providing inducements to millers and traders to keep larger than normal

³ See Royal Commission on the Supply of Food and Raw Material in Time of War, Report of Royal Commission on Supply of Food and Raw Material in Time of War Vol. 1. (London: H.M. Stationery Office, 1905), pp. 7, 28, and 59.

supplies on hand, increasing home production of wheat by providing incentives to British farmers, or providing free storage facilities in order to encourage foreign grain owners and traders to store (and then presumably sell) their grain in the UK. These measures were specifically designed to avert the possibility of a corner in wheat (“a deterrent to speculators who otherwise might take advantage of war conditions to endeavor to ‘corner’ the available supply of wheat,”) but after extensive discussions, none of the recommended measures were adopted because they were thought to interfere too greatly with the freedom of the grain trade. Government ownership of stocks of grain, in particular, seemed to the commission to create more problems than it would solve, both rendering the private trade “almost impracticable” and interfering with the free market. This opinion was informed by testimony from many of Britain’s most important grain traders, who argued strongly against interference in the private grain trade. Naturally, they viewed an increase in grain prices caused by scarcity favorably, and argued that that high grain prices in Britain would actually be good for national security: they would attract more grain from international markets while at the same time encouraging consumers to be parsimonious with a scarce commodity.⁴

Given that a large percentage of the caloric intake of the poorest classes consisted of bread, certain of the commission’s witnesses warned that price increases would

⁴ Royal Commission on the Supply of Food and Raw Material in Time of War, pp. 45–46, 52.

disproportionately affect the poor, but the commission dismissed such claims with some indignation, writing in its final report that it believed the British working classes were “ready to bear with fortitude, for the good of the country, hardships as great as were ever borne by their forefathers.”⁵

While the report was not without its dissenters, many of whom believed the commission had not taken the threat to the food supply seriously enough, it recommended only the possible adoption of schemes of maritime insurance or indemnification of freight cargoes in the eventuality that such cargoes were threatened by war, concluding that the Navy could secure the supply chain and that given the diversity of grain sources, complete blockage of incoming shipping by any hostile maritime power was highly unlikely. The question came up again several times prior to the outbreak of war. The idea of government purchases of emergency supplies of wheat were discussed again in 1910, but Herbert Asquith vetoed the proposal, and in 1912, the Committee on Imperial Defence postponed the question, recommending only that a central bureau be set up to deal with questions of food in case of war.⁶ Thus by the time Britain declared war on Germany on August 4, 1914, debates on the question of wartime food supply had been going on for years, but there was no clear plan in place.

⁵ Royal Commission on the Supply of Food and Raw Material in Time of War, pp. 39, 43.

⁶ Samuel Justin Hurwitz, “State Intervention in Great Britain: A Study of Economic Control and Social Response, 1914–1949,” (Phd diss., Columbia University, 1949), p. 205.

The consensus in the early part of the war was, as Home Secretary and chairman of the Cabinet Committee on Food Supplies Reginald McKenna put it, to “not interfere with ordinary trade at all, but to leave the traders to conduct their own business.”⁷ But this position was challenged almost as soon as the war broke out on account of immediate increases in the price of food.

The anticipated increase in the price of food materialized as soon as war broke out, though initially the spike in food prices was caused by hoarding rather than by any real shortage in supplies. In an attempt to calm fears, the Board of Agriculture immediately announced that no less than five months’ supply of wheat was on hand: the 1914 British crop, about to be harvested, provided half that amount, while old import stocks supplied the rest. A recommended scale of maximum prices for basic foodstuffs such as sugar, butter, cheese, lard, margarine, and bacon was implemented on a temporary basis after consultation with large retail dealers; meanwhile the Times inveighed against “well to do persons” who bought far in excess of their needs, thus forcing the poor to pay higher prices. To facilitate continued imports, the British government told the London Corn Trade Association that it would insure wheat and

⁷ Reginald McKenna, House of Commons Debates, 8 August 1914, vol. 65, c2217.

flour shipments from Atlantic and Canadian ports against war risks, thus removing one important obstacle to the continuation of the trade.⁸

And on August 8, only four days after the declaration of war, Walter Runciman, the president of the Board of Trade, introduced legislation in the House of Commons against “unreasonable withholding of foodstuffs,” noting that while a panic exacerbated by “the greed of better-to-do people” was most likely over, a more protracted rise in prices would still likely follow. Runciman, like the members of the 1903 commission, thought high grain prices in the UK were not a bad thing, because they would encourage sellers around the world to sell to British buyers, thus assuring a supply of wheat.⁹ This opinion was widely shared; even John Maynard Keynes, then a young economist at the Treasury, argued that price control would result in a diversion of trade away from the UK, and was thus to be avoided.¹⁰ But even while insisting that free trade would prevail, it seemed that Britain was inching ever so slowly away from it, and on the same day a bill was proposed that would give the Board of Trade the right to requisition foodstuffs in order to stabilize markets: “if it were understood that our

⁸ “Our Food Supplies” Times (London) 4 August 1914, p. 2, col. B, “Five Months’ Supply of Breadstuffs” Times (London) 8 August 1917, p. 3 col. B, “The Food Supply” Times (London) 7 August 1914, p. 7 col. E., and “Grain Exports Paralysed” Times (London) 4 August 1914, p. 3 col. C; “England Insures Wheat” New York Times 4 August 1914, p. 4.

⁹ House of Commons Debates, 8 August 1914, vol. 65, c2213.

¹⁰ Lois Margaret Barnett, “Government Food Policies in Britain During World War I,” (Phd diss., Columbia University, 1982), p. 29.

powers were only to be used where there was deliberate or unreasonable withholding of supplies we have been advised, and it is our unanimous opinion, that it would not in any way check the present salutary movement of foodstuffs to this country.”¹¹

But beyond the problem of hoarding, food prices in the UK increased steadily for the duration of the war. A rise of 20 percent took place immediately after the declaration of war; prices soared by 130 percent by November 1918. Grain imports were hindered by the difficulty of insuring transatlantic cargoes in wartime, but more importantly, the normal machinery of the global grain market seemed to have become suddenly dysfunctional. Sources of supply were already limited: the Dardanelles was closed to allied shipping, thus cutting off the Russian and Eastern European supply, the Australian crop had failed, the Indian surplus was being used in India to avert price spikes there, and rumors were circulated that the United States, faced with high domestic prices, might embargo its crop.¹²

Within a week of the beginning of hostilities, an organization was set up to handle potential problems with provisioning: the Cabinet Committee on Food Supplies. It immediately instructed the Royal Navy to seize British grain-carrying ships en route to enemy ports and divert them and their cargoes to British ports. But this activity was

¹¹ House of Commons Debates, 8 August 1914, vol. 65, cc2213.

¹² “Grain Lower On Fears Of Export Embargo.” Times (London) Friday, Feb 26, 1915; pg. 14; Issue 40788; col B; “Debate on Food Prices,” Times (London) February 1915, pg. 7; Issue 40781; col A.

met with strong protest from American grain dealers, and since it was in Britain's best interest to maintain good relations with American suppliers of wheat, the outright seizure of cargoes was hastily called off.¹³

Instead, a Grain Supplies Committee established in November of 1914 was charged with arranging secret grain purchases to build up state-owned reserves of wheat and flour, to be slowly released on British markets in 1915 in order to stabilize prices.¹⁴ The secrecy was necessary in order to keep prices low, and made it impossible for the British government to buy on its own account. Charged with buying 1.5 million tons of wheat and 500,000 tons of flour for the government and then slowly releasing the grain on the market throughout 1915, both buying and selling were handled for the British government by the firm Ross T. Smyth.

February 1915

Ross T. Smyth bought heavily in Argentina, paying high prices from December to January, a problematic strategy given that the aim of the purchasing program was to slowly release grain at low prices in order to keep prices under control. The Treasury put a temporary stop to the purchases, objecting to the high prices, which had been

¹³ See Kathleen Burk, "Wheat and the State during the First World War," in Strategy and Intelligence: British Policy During the First World War (London: Hambledon Press, 1996), p. 118 and "Sees No Chance of Food Famine in British Isles; Board of Trade Leader of Cargoes in Port and on Way to London," Chicago Daily Tribune August 9, 1914.

¹⁴ Burk, "Wheat and the State," p. 121

driven up in part by competitive Allied buying. In fact, competitive buying by the Allies proved to be a serious problem that would eventually require a cooperative solution. For now, though, the British government continued its buying spree, and purchasing resumed in February 1915. At this point the large purchases that Ross T. Smyth was making were beginning to be noticed. At a time when most traders had stopped buying in anticipation of an imminent victory in the Dardanelles campaign, Ross T. Smyth oddly kept up their high-priced purchases in Argentina, raising suspicions that it was in fact buying on behalf of the British government.¹⁵ These purchases alarmed the Liverpool Corn Trade Association, which suspected the truth, and feared that the purchases would be used to drive prices down, thus incurring losses for grain traders who were buying at current prices. "It is thought that in view of possible scarcity the government may be merely assuring supplies for the forces, but merchants feel that they should be informed."¹⁶

At the same time, British grain traders were increasingly coming under attack by Labour politicians, who blamed the rise in prices on speculation and attempts at cornering markets. To this the London Corn Trade Association replied indignantly that while "there is no doubt that speculation has taken place in America . . . We can

¹⁵ Burk, "Wheat and the State," pp. 122–4.

¹⁶ "State Wheat Ships." Times (London) 11 March, 1915; pg. 5, Issue 40799; Col B.

definitely state that no ‘corners’ or ‘rings’ have been attempted in this country.”¹⁷

George Broomhall, editor of Broomhall’s Corn Trade News remarked that the price of a loaf of bread in New York was almost twice what it was in London, thus explaining the rise in prices in the UK.¹⁸ The government also took umbrage at these accusations, and rejected Labour calls for price caps or other interventions. Rising prices meanwhile prompted the Labour party to organize protests in Trafalgar Square and renew its calls for price caps on wheat and coal.¹⁹

In fact, the government steadfastly denied that it was buying grain at all, and Walter Runciman, the President of the Board of Trade, went so far as to lie to the House of Commons when asked about the American purchases, insisting that such a policy would be inconsistent with the policy of depending on the private sector for provisioning.²⁰ The grain traders were right to be suspicious of government action, and though the Board of Trade pledged to buy only as much as it thought necessary to have on hand in case of a serious shortage, traders were leery of buying in such an uncertain business climate. In June and July of 1916, wheat prices in the United States dropped.

¹⁷ “No Wheat ‘Corners’ in Britain,” Times (London) February 1915:pg. 5; Issue 40780; col A.

¹⁸ “The Price of Bread,” Times (London) February 18, 1915:pg. 11; Issue 40781; col E.

¹⁹ “Labour Demonstration against Dear Food,” Times (London) 15 March 1915; pg. 5; Issue 40790; col A.

²⁰ Hansard, House of Commons Debates, 5th Series 17 February 1915, cols. 1178-1179

The British government, now under public scrutiny and having promised to stay out of markets could not buy openly and take advantage of the drop in prices, and grain traders refused to buy not being sure what the government was really doing, thus losing out on the opportunity to acquire reasonably-priced grain. Half-measures didn't seem to be working very well.²¹

January 1916

In 1916, not only the government's pretense but its actual policy changed, from non-intervention to active participation in grain markets. The Allied military campaign in the Dardanelles campaign turned out to be unsuccessful, thus cutting off the Russian wheat supply for the duration of the war. Furthermore, the government purchases of reserve stocks made grain traders hesitate to buy stocks of wheat of their own in a risky market that they knew could be influenced by the sale of the government-owned wheat stocks. Prices were going up, and the British government, far from retreating from government purchases was forced to engage in them ever more heavily. These purchases came to be coordinated through a department of the Board of Agriculture, the International Joint Committee, whose mission was to coordinate purchasing for the British reserve program, the Italian government, and the French War Department. The aim here was to reduce competitive buying on foreign markets and the price spikes that

²¹ "British Government and Wheat Prices" Northwestern Miller, Volume 108, November 29, 1916, p. 594 (reprint of an article in London Spectator, November 14, 1916.)

went along with it, nevertheless, the French Department of Commerce (which regulated imports for civilian use) refused to participate and continued to make competitive purchases (in spite of the participation of the French War Department, which bought for military use).

To summarize, there were three problems. One problem was that prices were increasing. The International Joint Committee did something to alleviate competitive buying by unifying the European Allies' buying strategy, thus mitigating the rise in prices caused by it. But this did not solve the price problem entirely: all indications were that the harvests were going to be poor in 1916 and thus that supplies were going to be shorter and prices even higher. Second, shipping was increasingly scarce, largely due to German attacks on merchant vessels: between October 1916 and January 1917, the Germans sunk 1.4 million tons of Allied shipping, and in February 1917 announced that submarine warfare would be henceforth unrestricted. And third, British grain buyers were having an increasingly hard time obtaining foreign currency with which to pay for foreign purchases of grain.²² British MPs were increasingly anxious about the food situation, and discussions about the state of food supply became ever more heated. The solution to these problems came to be increased government involvement in the grain trade, not just for the British government but for all Allied powers. Indeed, in the space

²² "U.S. Grain Ship Blown Up" Times (London), Mar 12, 1915; pg. 8; Issue 40800; col A

of a few years, Walter Runciman moved from being a staunch advocate of free trade to arguing for the need to appoint a Food Controller (called by some in Parliament and in the press a food dictator, a title later applied to Herbert Hoover as well) to coordinate state control of imports, transportation, domestic prices, and consumption.

For the duration of the war, the Royal Commission on Wheat Supplies, established on October 10, 1916 under the chairmanship of Lord Crawford, president of the Board of Agriculture, managed British purchases of wheat on international markets, thus making public what was already practice, and doing so on a new scale. Walter Runciman, on announcing the formation of the commission in the House of Commons, pointed out that this step was being taken because private traders weren't buying enough:

“The possibility of large quantities of wheat, which are at present locked up in some grain exporting countries, being freed as the result of military operations, has led to a disinclination on the part of the trade to hold more stocks than an absolute minimum, and it has become clear that the supplies during the coming year cannot safely be left to private enterprise.”²³

The Royal Commission sought to cut out as much of the grain trade as possible and to eliminate competitive buying altogether by setting up buying agencies in the purchasing countries, aiming to “purchase as near to the farmer as possible.”²⁴

²³ Hansard, House of Commons Debates, HC Deb 10 October 1916 vol 86 cc18-21.

²⁴ Cited in Burk, p. 51

Runciman announced that a large purchase of Australian wheat had already been made and was on its way to the UK—a sign of how desperate the supply situation was in October of 1916. The bulk of the commission's activity, however, was in America. In the fall of 1916, the South American wheat crop was disastrous: in Argentina the crop was as much as 40% below expectations due to drought and locusts, and Uruguay prohibited exports that year due to shortages. Prices for Argentine wheat rose by 70% between July and October 1916.²⁵ That left North America. In the United States the British buying agency was the Wheat Export Company, in fact a re-incorporation of two leading British firms long active on the American market in New York: Ross T. Smyth and Samuel Sanday. As Walter Runciman put it, "Government buying is badly done, and I have often admitted that. I do not think the Government are good buyers and private firms do it better, and the Government[s] do better when they employ private firms whom they can trust to buy for them."²⁶

The new rules did not make private grain imports or trading illegal—
theoretically it could proceed as exactly before. In practice, however, the establishment of the Royal Commission made private business practically impossible. First, private firms could not compete with government purchases, especially because these

²⁵ "Argentine Crop Losses," Northwestern Miller, November 15, 1916, Volume 108, p. 447; "Argentina, Facing Crisis," Northwestern Miller, November 22, 1916, Volume 108, p. 516; "Argentine Corn Figures" Northwestern Miller October 26, 1916, Vol. 108, p. 233.

²⁶ Hansard, House of Commons Debates, HC Deb 15 November 1916 vol 86 cc855.

purchases were transported in government-requisitioned ships at a fixed rate of freight. Second, the Royal Commission had the right to requisition grain imports at a fixed price, so that no grain trading firm could reasonably undertake the risk of buying at market prices only to have its merchandise requisitioned at a lower fixed price determined by the government. On the other hand, the internal distribution of grain, from the ports to British consumers, could proceed unchanged, thereby minimizing the effect of wartime control on that part of the business.²⁷

Putting British wheat purchasing under government control assured as much as possible a steady supply of grain in a market that seemed too risky for many private traders. But it did not solve the problem of competitive Allied buying driving up prices on international markets, a problem solved two months later, in December of 1916, with the formation of the Wheat Executive, a British-led organization which used the Wheat Export Company to purchase all wheat supplies for the Allies, and in addition, allocate those purchases among the Allied powers and, perhaps most importantly, organized transport.²⁸

These institutions worked through the end of the war to organize purchasing, allocation, and shipping, but the American entry into the war in April 1917 resulted in

²⁷ C.F.G. Raikes, "Great Britain's Control of Food," Northwestern Miller November 108 no. 6 (1916): 377-8.

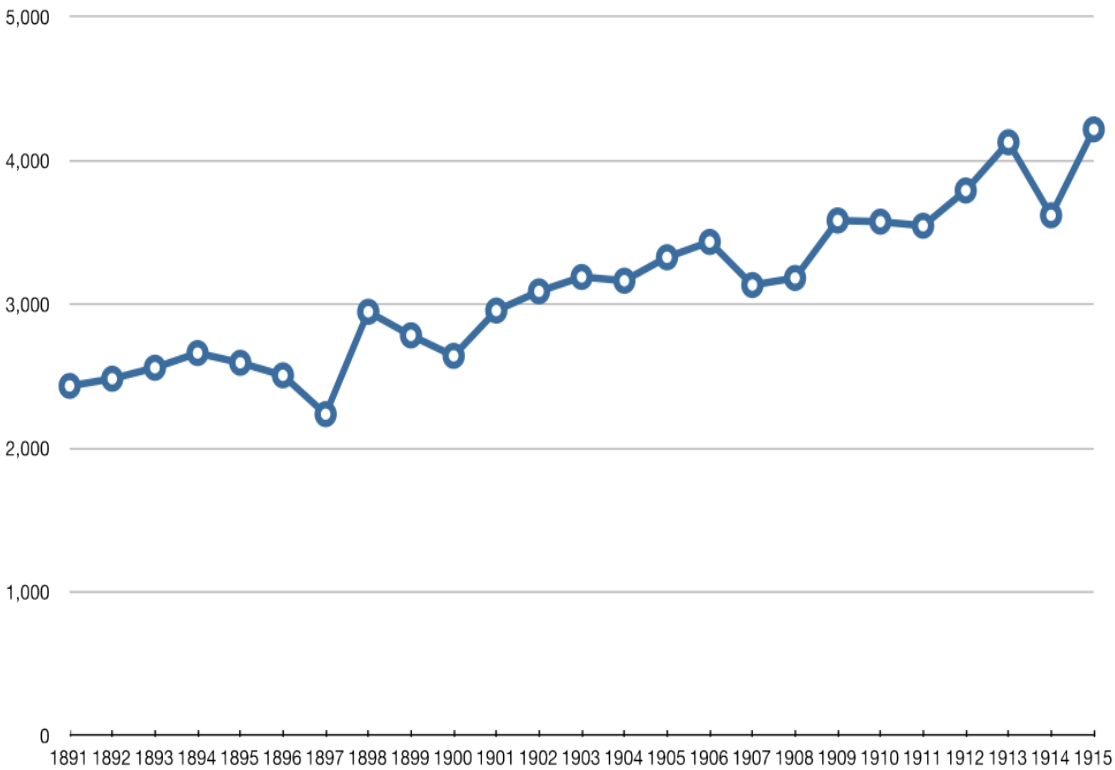
²⁸ Burke, 1984, p. 53.

the extension of control not just to the buying Allies, but to the American suppliers as well.

The process of transitioning to government control was a gradual one that took place in stages between the beginning of hostilities in August 1914 and the entry of the United States into the war in April 1917—first secret purchases on behalf of the government, then government control of imports, then a coordinated interallied effort at purchasing, and finally control not only in the buying countries, but also by the major seller, the United States.

Although by all accounts government control of the wheat market during the war was successful—in that it kept prices steady and provided a steady supply of food—government control was dismantled soon after the end of the war, in 1919, under the assumption that things would go back to a normal peacetime economy. Nevertheless, some of the ideas discussed and implemented during the wartime years were later brought back when markets seemed to fail in the economically tumultuous years of the 1920s and 1930s. Ideas like government purchasing of stocks of wheat to keep in reserve in order to balance out volatile markets were made part of the International Wheat Agreements of the 1920s and afterwards.

Figure 8: World Wheat Yields 1891-1915²⁹



France

France, with a very different political landscape and agricultural landscape, and facing very different pressures than the UK comes to the same arrangement, albeit with considerable reluctance. Since the expansion of the world wheat market in the nineteenth century, French agrarians and political leaders had expressed great anxiety about France's place as a largely agrarian nation in a world of cheap agricultural imports. A much-invoked fear of nineteenth century agrarian reformers, particularly in

²⁹ Compiled by International Agricultural Institute at Rome, reprinted in Northwestern Miller Vol. 108, October 25, 1916, p. 233.

France, was the issue of food security, or the necessity of protecting and nurturing national agriculture in the eventuality of war. Although French agrarians had tried to resist the influx of foreign wheat, shortages produced by wartime conditions put them in a precarious position. As the war dragged on, an increasingly large proportion of France's agricultural labor force joined the military, while France's richest and most productive wheat-producing areas in the north were either battlefields or under enemy occupation. In France, the experience of the war brought up questions of the role that private business ought to take in supplying the state, the degree to which it ought to be controlled in the interests of the nation, what kind of profit was acceptable in a time of national emergency, and how to supply a population under duress while also protecting French agriculture.

Unlike in the UK, land-tenure patterns in post-Revolutionary France were dominated by a bourgeois class of small holders that never developed the kind of large-scale commercial agriculture more typical of large landowners. Like most Western European countries between 1846 and 1870, France liberalized its grain markets, opening itself to cheaper foreign grain imports.³⁰ These imports became more difficult to sustain after 1870, when cheap mass production of wheat really took off abroad,

³⁰ France abolished tariffs on agricultural imports with the Anglo-French Treaty of Commerce in 1860, the UK abolished the Corn Laws in 1846, Germany abolished Zollverein duties in 1853, the Netherlands dropped grain duties in 1862, and Belgium allowed duty-free entry of many foodstuffs in 1871.

because they ran the risk of destroying domestic agriculture. Practically self-sufficient in wheat in 1871, by 1880 France imported 10% of its wheat, and 20% between 1882 and 1892, contributing to the collapse of French wheat prices, which halved between 1880 and 1895. This collapse in agricultural prices had significant economic, social, and political effects on an economy dominated by agricultural production, not the least of which is that it pushed agricultural workers off the land and into cities, where they joined a growing revolutionary underclass. The challenge in setting agricultural policy, of course, was to balance the needs of the urban laboring classes for cheap food with the need of the rural laboring classes for high prices for agricultural products. This calculation played out quite differently in France than in the UK, which effectively abandoned the interests of the rural poor in favor of its industrial base. But in France, the rural peasantry was far more important politically than in Britain. After the suppression of the Paris Commune in 1871, the Third Republic (1871-1939) attempted to balance the urban left with the more conservative rural class of small-holders. As Jules Ferry put it in 1885, "We have conquered universal suffrage in the countryside, let us keep it, let us not worry it, let us not disappoint it. In the countryside is an immense power on which rests the security of our society, on this population of small holders so numerous that they constitute on their own a majority of this Nation."³¹ The rural

³¹ Paul Robiquet, "Discours de Bordeaux, du 30 aout 1885," in Discours et opinions de Jules Ferry (Paris: Armand Colin, 1898), p. 7. (translation mine).

population, therefore, was politically necessary as a counterbalance to a demanding urban proletariat, and keeping this rural population satisfied required a disconnect from global grain markets, which drove agricultural prices ever downwards. Nationalist feelings stirred by the Franco-Prussian war also encouraged the protection of French agriculture.

The agricultural policy of the Third Republic had three main features: a return to protectionism, beginning in 1880s; a focus on peasant organization in the form of syndicates and cooperatives, fostered both by the state and by the Catholic church; and finally a focus on slowing the rural exodus.³² France began to increase tariffs in 1881, and the 1892 Méline tariff increased protection to both agriculture and industry, a protective program that remained unchanged until the beginning of World War I. Jules Méline, like Ferry, had political reasons for supporting rural France, and argued for a “retour à la terre.” Another frequently-cited reason for a return to protectionism was the need for food security in a time of war (France lacked the extensive colonies and overwhelming naval power that allowed Britain to insist that it could supply itself with wheat even during wartime). Rural organization in France was largely right-wing, supported by the

³² See M. Marloie “Les changements dans la régulation du marché des céréales en France depuis la fin du XIXe siècle,” in Céréales et produits céréaliers en Méditerranée (Montpellier: CIHEAM-IAMM, 1986), pp. 221-230, and Michael Tracy, Government and Agriculture in Western Europe, 1880–1988 (New York: New York University Press, 1989).

Catholic church, and an effective way to keep rural political power under control. The Société des Agriculteurs de France, the largest rural organization, was founded in 1860 and had 10,000 members by 1890—a club of distinguished landowners with interests in grain, they were derisively called “les marquis du pain cher” by free traders. Its Republican counterpart, the Société Nationale de l’Encouragement à l’Agriculture was spearheaded by Léon Gambetta, who also inaugurated the Ministry of Agriculture when he came to power in 1881, and was led by radical politicians of middle-class origins: doctors, lawyers, and landowners.

But in both cases, the so-called cooperative movement was led by those outside the rural laboring classes. Peasants had almost no involvement in these organizations, and lacked the education to participate anyway. Of course, slowing down the decline in the price of agricultural products would also slow down the exodus of rural workers into cities that were poorly prepared to employ them, thus eliminating a leading cause of social instability and leftist agitation.³³ On the left, the Socialists also tried to rally the peasant classes to their side, with a socialist program announced at Marseilles in 1892 intended to attract workers with minimum wages, the assistance of agricultural experts, old-age pensions, sickness insurance, experiment stations, and communal purchase of machinery. Socialists throughout Europe had long grappled with the

³³ Michael Tracy, Government and Agriculture in Western Europe, 1880–1988 (New York: New York University Press, 1989), p. 72.

problem of small peasant proprietorship, and although French socialist leaders had insisted that they would not support private ownership of land, they made an about-face on that position in the 1880s and 1890s, arguing that “the small field is the tool of the peasant.”³⁴

Contemporary commentators in France blamed the agricultural crisis on foreign competition. There was also sometimes an element of anti-Semitism in the analysis of agricultural prices aimed at the grain merchants that was common in many European countries, though less so in the United States.³⁵

As soon as the war began, governments on both sides of the conflict started trying to secure overseas sources of grain imports. In Argentina, the British and French governments were trying to organize purchases through several large firms: Dreyfus, Sanday, and Harris Brothers among others. These firms sold to their own governments, but also to neutrals, being careful to first obtain permission from their governments for such sales.³⁶ Argentine producers had hoped to make record profits with the increased

³⁴ Gilbert Giddings Benjamin, “German and French Socialists and the Agrarian Question,” The Journal of Political Economy June 34 no. 3 (1926): 349–376.

³⁵ See Joseph Imbart de La Tour (comte), La crise agricole en France et à l'étranger: étude de ses causes techniques, économiques, politiques et sociales et de leurs remèdes (Paris: Imprimerie L. Cloix, 1900).

³⁶ Paul Cambon telegram, 22 May 1916. Ministère des Affaires étrangères, Paris; Série Guerre 1914–1918; 1299 “Achats de la France à l'étranger; Ravitaillement dans divers pays.” (Hereafter MAE-1299) [MAE1299-2]

demand for cereals, but while prices kept rising for purchasers, it seemed that producers weren't seeing much of the benefit and that they were blaming "combinations" of European purchasers, who they thought were conspiring to keep prices low.³⁷ In the spring of 1916, after protests from Argentine producers, it seemed like the Argentine government might step in to control cereal exports and set minimum export prices. But by August, prices in Argentina finally started to rise, in large part because crop reports from Canada and the United States were beginning to show a shortage in those countries. The rumor on the Buenos Aires exchange, however, was that Dreyfus single-handedly caused a rise in prices.³⁸

Dreyfus's relationship to the French government was a complicated one. On the one hand, government authorities relied on the company's superior information network as to the state of worldwide grain markets. On the other, the company was widely distrusted and often blamed for engineering price increases that cost French taxpayers money. After the French consul in Buenos Aires reported that recent increases in commodity prices in Argentina were said to be the work of Dreyfus agents, the French Foreign Minister personally followed up on the allegations with Léopold Dreyfus in Paris. Dreyfus was personally very well connected within government

³⁷ Louis Dreyfus to Aristide Briand, 25 May 1916. MAE 1299.[MAE1299-3]; H. Jullemier to Aristide Briand, 16 June 1916. MAE 1299.[MAE1299-4]

³⁸ H. Jullemier to Etienne Clémentel, 7 August 1916. MAE 1299.[MAE1299-7]

circles in the metropole, however, and the Foreign Minister took his side, demanding of the Argentinian consul who had made such accusations against the grain trader, and suspecting that it had been the work of Dreyfus's competition.³⁹ The accusations against Dreyfus seem to reflect the distrust of grain dealers as speculators that were common with consumers everywhere. Distrust of the grain traders' relationship with the government seemed to be rife, and probably justified. Two deals in August 1914 came to particular scrutiny.

On August 5, 1914, just two days after Germany declared war on France, French grain traders, millers, and commission merchants met in Paris to offer the the Ministry of War their contracts for 300,000 quintals of American wheat at cost, that is, without making a profit, because they felt that business conditions had become highly risky—and American sellers demanded to be paid immediately. Two thirds of this amount was to be sold by a large milling enterprise, Les Grands Moulins de Corbeil, one of France's largest flour millers located in an industrial suburb to the south of Paris. While the traders paid Frs 18.50-20 per quintal, the sale ended up being made at Frs 26-30—hardly at cost. A year later, an investigation was launched to determine why, when a number of smaller traders had offered grain to the French government at cost, the Ministry of War

³⁹ H. Jullemier to P. de Margerie, 25 August 1916. MAE 1299.[MAE1299-10]; Etienne Clémentel to H. Jullemier, 9 September 1916. MAE 1299.[MAE1299-12]; H. Jullemier to Etienne Clémentel, telegram, 15 September 1916. MAE 1299.[MAE1299-14]

bought instead from a large miller at a highly inflated price. The conclusion was that government bureaucrats had missed the opportunity for a “good deal” out of their own ignorance of market conditions and business methods, and that the Grands Moulins de Corbeil made a profit of 800,000 Fr. The report also remarked that for many years, since 1907, the Société des Grands Moulins de Corbeil “had been considered by many people to be one of those firms which had little that was French about it. It was thought that the management, capital, material, and even the labor force were German.” Not only that, but the company’s agent for the state, M. Baumann, was an Alsatian who declared French nationality in 1907. Baumann had a history of dealing with the French government: in the years prior to the war, he had informed the Ministry of War about market conditions, the possibility of getting greater yields out of milled grain, and about large German purchases in the United States. Baumann had garnered a reputation as a champion of German causes not only because he was an Alsatian, but because he had been hired to re-build the mills owned by Corbeil, and had done so by bringing in German machinery, German engineers, and German workers to build it.

Louis Dreyfus sold several large shipments of grain to the French government, both civilian and military. Among these sales, three in August 1914 later came to be investigated, since the sales for were Frs 27-30 per quintal, a price far higher than prevailing market rates, and paid in gold rather than in currency. Dreyfus’ defense was

that although prevailing prices at the time ranged from Frs 24 to Frs 25 per quintal, the house was entitled to a Fr 2 supplement for transport, and that the price it charged was the replacement price rather than the purchase price of the grain.⁴⁰ The government investigator pointed out that Dreyfus had every interest in getting rid of the merchandise, as Germany had already begun invading and other merchants were seeking to unload their obligations on the state. The house was found guilty of “defending [its] interests with zeal, anxious to earn the maximal profits with the same ease of conscience as he would have in peacetime. It did not, in times of war, suspend the rules of international business.”⁴¹ The reporter reasons that most people would think that if a merchant sells dear, it is because he has bought dear, but that if he buys cheap and sells dear, he is guilty of making excessive profits. The question these episodes raised was, what was the right price in circumstances (like the beginning of the war) in which markets were too volatile to provide a reliable price index? The price at which the commodity was bought was the only stable indicator.

Among these accusations of disloyalty (and possibly treason), the conclusion was that the Ministry of War paid far more than it should have for wheat, revealing “a total

⁴⁰ Victor Boret, “Mémoire sur les marchés de blés,” 9 December 1915, Archives Nationales, Paris. F12 / 8017: Commerce et Industrie. Guerre de 14–19. Service des stocks et réquisitions. Mobilisation civile. Vie Chère, 1914–1919. Approvisionnements. 1914–1919.

⁴¹ Boret:1915

lack of business preparation” among government administrators, a fact which placed them at a disadvantage in conducting delicate operations in purchasing abroad. The recommendation was that a special body made up of professionals needed to be created to buy provisions abroad—let alone that it was precisely these kinds of professionals who had managed a major profit out of a sale “at cost.”

As in the UK, and later in the United States, the expertise of the professional traders was considered essential in an undertaking as complicated as buying grain on world markets. Although attempts were made to make such purchases under the direction of government officials, they quickly resulted in politically unacceptable conditions. As the war progressed, the global wheat supply situation became ever tighter, such that France was ultimately forced to join the centralised Allied purchasing organization directed by Britain.

Chapter 4: American Farmers and the International Market

In the United States, wartime debates about how to handle a global market gone wrong were informed by a thirty-year legacy of Populist agitation on the wheat marketing system. In the 30 years prior to the imposition of wartime government control, Populists had sought to compel the federal government to curb the abuses that the expanding market was imposing on producers. These attempts were in the form of proposed legislation, lawsuits, and Congressional hearings in which farmers demanded various types of relief from a grain marketing system they characterized as oppressive and injurious to the interests of both producers and consumers, and therefore to national prosperity writ large.

One major thrust of the farmer's reform movement was the attempt to limit futures transactions by taxing the profits made on such transactions. Legislation to this effect came close to being put into effect in the 1890s. By 1905, the legitimacy of futures contracts was reinforced in the Supreme Court decision that also eliminated bucket shops—part of the exchanges' response to political pressures to limit speculative transactions. As the slide in prices began to reverse after 1909, the main thrust of farmer resistance to the domination of the grain marketing system by merchants came in the form of cooperative organizing, which assumed a progressively more important role from the turn of the century onwards. From the organization of farmer-owned

cooperative grain storage facilities in the hinterlands, farmers moved on to try to occupy a space in the grain marketing system akin to that occupied by the larger merchants. If merchants and middlemen lived off the spread between the price paid on the farm and the prices paid by exporters, why couldn't farmers themselves come to control that profit source? Eventually farmer cooperatives came to be organized just like the larger business concerns, with vertically-integrated operations both in the hinterlands and in the larger cities. Far from critiquing price-control organizations as they had done in the 1890s, in the post-war period farmers came to adopt a cartel strategy, aiming, through the sheer size of their number, to one day exert the kind of weight in the marketplace that they was rightfully theirs.

The farmers' grievances came about because of the protracted slide in wheat prices through the end of the nineteenth century. The years of great speculative activity coincided with a worldwide agricultural depression and a period during which the world grain market was expanding and new producing areas were contributing new bumper crops to the market every year. The resulting decline in grain prices was attributed by farmers to the well-publicized machinations of the grain gamblers, and the agitation against them was strong in the Western wheat-producing states beginning in the 1880s.¹ In 1887, W. A. Peffer, editor of the Kansas Farmer and later a Populist

¹ The Kansas Farmer was at the forefront of this campaign in 1887 and 1888.

senator active in the anti-futures and anti-options legislative fights, attacked the grain gamblers. "They are all bad men," he wrote, "every one of them, meriting punishment under the laws of the people whom they defy." His analysis of the exchange speculators as highway robbers who act with impunity struck a cord with farmers:

Millions have been as feloniously abstracted from the pockets of the people as if they had been stolen by the aid of the bludgeon, the revolver or the jimmy. In point of moral culpability, the speculator who robs through the agency of a board of trade or a stock exchange is a far more dangerous member of society than the other species of malefactor who compels his victim to stand and deliver on the highway. . . . The fact that the law punishes the highwayman and the burglar, while offering no molestation to the speculator in his schemes, presents a grotesque commentary on the spirit of fairness and justice which is popularly supposed to form the basis of modern civilization.²

Far from seeing the exchanges as providing a service in the global wheat system, the farmers complained that the exchanges were monopolistic and dominated by the biggest merchants who also owned the biggest elevators and who worked in concert with the railroads, allowing them to charge fictitious carrying charges that were defrayed with preferential rebates. In their view, futures transactions overestimated the amount of wheat on the market thereby mostly depressing the price to the farmer. The marketing system, dominated by buyers and elevators working in concert with the bigger merchants, forced farmers to sell at low prices, and the cooperative farmer's elevators were ineffective as long as they were not allowed to trade on their own

² Quoted in David F. McFarland, "The Ingalls Amendment to the Sherman Anti-Trust Bill," Kansas Historical Quarterly May 11 no. 2 (1942), p. 174.

account on the exchanges. Furthermore, any legal relief at the state level was ultimately impossible to enforce on account of the political power of the large traders and the exchanges. The farmers' critique of the agricultural marketing system coincided with the agricultural depression, and from 1885 through the beginning of the First World War farmers engaged in a protracted battle to exert some control over the shape of the market. Three main practical proposals were in play prior to the war: calls for limiting futures trading by taxing any transaction that did not result in delivery of grain (or by abolishing futures trading altogether³, though these never came close to being passed), and establishing cooperatives to try to establish a marketing presence on behalf of farmers. Exchanges, on the other hand, responded to political pressures by seeking to make illegal gambling on exchange price quotations.

Taxing Futures

Attempts to regulate futures markets came on the heels of the major corners in grain markets. Two years after the Hutchinson corner of 1888, the Butterworth Bill, introduced in the fifty-first congress, on January 20, 1890; sought to curb speculative market transactions by taxing proceeds from futures and options contracts.⁴ The

³ A good synopsis of attempts at controlling options and futures markets through legislation is found in United States. Congress. House, Report of the Industrial Commission on Agriculture and on Taxation in Various States. Second Volume on Agriculture. Volume XI of the Commission Reports (Washington, D.C.: United States Government Printing Office, 1901), pp. 1-50.

⁴ See "War against Options," Weekly Northwestern Miller, April 25, 1890, p. 462-4.

proposed legislation was not limited to wheat—it also applied to corn, oats, cotton, pork, and other farm products; it would have required dealers to pay an annual \$1,000 tax, as well as an additional 5 cents per pound and 20 cents per bushel on option sales. This proposed solution was one pursued repeatedly for years to come: taxing futures contracts so as to make them unprofitable. While the measure was widely supported by western farmers, who resented that market operations in “fictive” produce should determine the prices they were paid on their very real produce, it was strongly resisted by the exchanges. Millers seemed divided on the legislation: many supported it wholeheartedly on the grounds that eliminating the speculators would eliminate competitors on the grain markets, but others pointed out that futures transactions were necessary in order to move crops and, more specifically, that outlawing them would make it impossible for millers to hedge their purchases in the market. Bankers and businessmen tended to concede that speculation in food was a particularly egregious activity that ought to be made illegal, but they condemned the Butterworth Law for being too sweeping, and hurting not just speculators but those who were making legitimate purchases for future delivery.⁵

The House committee on Agriculture reported favorably on the bill, it never came up for debate. Meanwhile on March 21 Senator Ingalls of Kansas, who due to an

⁵ Bankers' Magazine, Volume 44, p. 841, 1890.

18-year career in Congress during which he was perceived to have done nothing at all for the western farmer, had gotten on the wrong side of the Farmers' Alliance, proposed an amendment to the Sherman Anti-Trust Bill that copied the language of the Butterworth Act exactly, cementing the relationship in the popular imagination between option-dealing and trusts and monopolies, but the amendment was buried in committee.⁶

As far as the farmers were concerned, the question of futures trading was a moral one, and it had two aspects. First what determined commodity prices? Were they determined by supply and demand for actual wheat, as was "natural," or was prices set by speculators? Speculation meant that the same bushel of wheat was sold 8 to 10 times on the exchange without it actually ever moving an inch, so did the prices on the exchanges assume that there was 8 to 10 times as much wheat as there actually was, driving prices down? This was what farmers referred to as "wind wheat" involved in "fictitious" sales, and their contention was that repeated sales inflated the amount of wheat on the market and prices adjusted accordingly. A secondary issue, and one that became more pronounced as time went on, was that speculation encouraged moral decay and financial ruin for the small-time bettor who hoped to somehow make a quick fortune like the Wheat Kings. The village simpleton who hoped to make a killing on

⁶ McFarland, p. 198.

wheat but instead ended up mortgaging the rest of his life in debt without even realizing that he never actually bought any wheat at all but simply bet on a price movement was a common trope among those who condemned the proliferation of speculative opportunities. The great villains in the western argument against futures trading were Chicago, New York, and Liverpool; the victims, the western farmers.⁷

The western press was not unanimous against the grain gamblers, sometimes recognizing that the bulls on the Chicago exchanges raised prices, as well—sometimes to as much as \$1 a bushel, a boon to the farmer who had managed to keep part of his crop off the market long enough to benefit by the price rise. Marsh Murdock, editor of the Wichita Daily Eagle started out as a staunch defender of the idea that supply and demand set prices in spite of futures trading, but later wrote a piece which showed that he had changed his mind. At the heart of the complaint is that futures trading interferes with the laws of supply and demand, which, had they been allowed to do their work, would have ensured higher prices and guaranteed prosperity to the farmer:

Yes, and but for the manipulation of option dealers in the trade centers and their brother thieves and gamblers in Liverpool, who work in concert with them, wheat in the United States would be bringing, today, two dollars per bushel. This selling crops while yet unsown by the bears, this manipulation of “longs” and “shorts” controls the price of wheat and other commodities without any reference to the cost of their production or to the law of supply and demand. People can say what they please about such a system making cheap bread for the poor. The truth is few communities or classes are burthened on account of the

⁷ McFarland, p. 179.

price paid for bread, and the further truth is, if the farmers, the producers of this country, understood the hellish workings of this option dealing, really understood the power and far reaching influences of the tentacles of this devil-fish which sucks into its maw the profits of their labor, they would take every legislator in the country, including Congress, by the throat and never let go until the infernal business was wiped out. If the farmers of the United States were permitted to have their products subjected only to the law of supply and demand in three years a mortgaged farm would be the exception.⁸ . .

The 52nd Congress, which began in December 1891, was “deluged with petitions and memorials from private citizens” demanding that something be done along the lines of the Butterworth bill. By February 1892, five bills in the House and three in the Senate had been introduced to tax profits on futures contracts. After a series of hearings in the House Committee on Agriculture, the bills were combined into the Hatch Anti-Option bill, championed by William Hatch of Missouri and by William Jennings Bryan.⁹ Much like the Butterworth bill, the Hatch bill stated that every futures or options trade that was settled in any way other than by the delivery of the goods specified (it applied to both grain and cotton) incurred a special tax. In addition, anyone dealing in “fictitious”

⁸ Quoted in McFarland, p. 175.

⁹ See Congressional Serial Set, Issue 4341, 1901. Has summary of previous legislation/ testimony on the subject of “fictitious dealings in agricultural products.”

contracts was required to pay an annual tax, post a \$3,000 bond, and report all their transactions to the exchange.¹⁰

Widely derided by the commercial interests as “class legislation” (a member of the New York Produce Exchange wrote the New York Times to complain against this “hayseed legislation” was “based entirely on ignorance,”) they also argued that disabling futures transactions would place the farmer at the mercy of the miller or the exporter, who could simply buy cheaply at harvest.¹¹ Indeed the defense of the commercial interests was always that options and futures trading represented capital that was willing to take on the risk of ownership during times of market uncertainty, and that this provided a service to the farmer, even a kind of insurance against price fluctuations caused by the seasonal nature of crop marketing, which meant a glut on the market at every harvest time. Sure, money could be made (or lost), but either way, the farmer was freed from the burden of incurring market risks and carrying costs associated with selling throughout the year.¹² Many exchange representatives supported

¹⁰ Cowing, pp. 5-23, gives an excellent and detailed summary of the arguments for and against the Hatch bill, as well as of its political fate; see also Fabian, p. 150-177, and Jonathan Lurie, The Chicago Board of Trade, 1859–1905: The Dynamics of Self-Regulation (Urbana, Ill.: University of Illinois Press, 1979).

¹¹ “Hatch’s Anti-Option Bill; A Measure Both Foolish and Unconstitutional. Either Designed Solely to Catch the Vote of the Farmers or Born of Sheer Ignorance of Commercial Conditions—How it Would Injure Those Who Are Urging It.” New York Times, July 18, 1892, p. 10.

¹² Cowing p. 21.

the bill in its action against options but not for futures. Millers were in favor (in fact one of the sponsors was Washburn from Minnesota, of the Washburn-Pillsbury milling business); their opponents alleged that with the removal of futures trading the farmer would be left entirely at the mercy of the milling combines, who would then be free to set whatever prices they wanted.

Support for the bill was centered among Representatives in the South (though Southern Senators, were wealthier and less dependent on farm votes, opposed it on constitutional grounds) and congressmen from the Great Plains, where cotton, wheat, and corn were the lifeblood of the economy. The bill passed the House (167 to 46) and the Senate (40 to 29), but it was never reconciled—largely due to the Southern Senators’ reluctance to accept the notion that an activity should be taxed out of existence by the federal government. By March 1893, the bill was dead, in spite of the support it had had in Congress. While the bill reprised many of the same elements as the Butterworth bill, it also went beyond it went beyond it, explicitly enumerating the effects of speculation by international traders and their hedging purchases on American markets:

“To prevent the overloading of domestic markets and the breaking down of prices of farm products by ‘short sales’ made by foreign merchants for the purpose of insuring them against possible loss on purchases of Indian, Egyptian, South American, Australian, and Russian produce, whereby the American farmer and planters are made underwriters of the commercial risks of the European, by

whom no bonus or premium is paid for assuming insurance risks that destroy much of the value of farm products.”¹³

In other words, American farmers believed that the hedging transactions performed by global buyers served to depress the prices they received on the farm, and understood themselves to be used as the financial safety valve for market volatility everywhere. Conversely, supporters of the future trading system insisted that if futures trading were outlawed in the United States prices would become even more volatile, and futures trading would simply move to other markets where it was allowed, most likely to Europe (though later the same argument was made about Canada). During the late nineteenth century, the Hatch Anti-Option bill was of great interest to French and German legislators, who were faced with similar complaints about futures trading in 1894; Hatch even testified before the Royal Agricultural Commission.

With the return of agricultural prosperity in 1897, the agrarian fight against futures trading and speculation receded—but only for a time. The questions of options and futures trading was taken up by McKinley’s Industrial Commission in 1901 to examine the causes of the of 20-year decline in farm prices and into the allegation that “regardless of the laws of supply and demand, the prices of all the products of the farm

¹³ United States. Congress. House, Report of the Industrial Commission on Agriculture and on Taxation in Various States. Second Volume on Agriculture. Volume XI of the Commission Reports (Washington, D.C.: United States Government Printing Office, 1901), p. 3.

which were dealt in on these boards of trade were fixed absolutely by the manipulations in the interest of the speculators and to the detriment of the producers.”¹⁴

The fight against futures trading continued in 1910, with a bill introduced by Kansas Congressman Charles F. Scott proposing a ban on all interstate matter relating to futures contracts in cotton. Scott had originally intended for the bill to also apply to grain, but finding opposition from the Midwest was too strong, limited the bill to cotton.¹⁵ The¹⁶ arguments for and against the bill, called by opponents “the echo of the dying wail of Populism,” were similar to those already rehearsed in the 1890 and 1892 fights, but this time, although the bill passed the House it never reached the floor of the Senate.¹⁷

¹⁴ United States. Congress. House, Report of the Industrial Commission on Agriculture and on Taxation in Various States. Second Volume on Agriculture. Volume XI of the Commission Reports (Washington, D.C.: United States Government Printing Office, 1901), p.1

¹⁵ Futures trading in cotton was subject to certain special conditions that made futures trades especially disadvantageous: futures contracts in cotton could be satisfied by any of the 27 grades of cotton, which meant that a buyer would likely always get the lowest possible grade. This was remedied in 1914, when the Cotton Futures Act reduced the number of grades of cotton that could satisfy a future delivery contract from 27 to 8.

¹⁶ Cowing, pp. 43-4.

¹⁷ Cowing, pp. 43-4.

Although the attempt to control futures trading during the Progressive period were largely failures,¹⁸ the issue of controlling the mechanism of the agricultural trade remained very much alive. By the time Wilson ran for president in 1912, the Democratic party platform contained a plank in support of agricultural market reform:

We believe in encouraging the development of a modern system of agriculture and a systematic effort to improve the conditions of trade in farm products so as to benefit both the consumers and the producers. And as an efficient means to this end, we favor the enactment by Congress of legislation that will suppress the pernicious practice of gambling in agricultural products by organized exchanges, or others.¹⁹

In the coming years, the farmers' attempt to correct the problems of the grain marketing system would move from legislative demands to put an end to speculative futures trading (though these continued), to the request for the federal government to intervene in the machinery of the market in order to protect both producers and consumers from the predatory practices of exchanges, elevator operators and warehousemen, and speculators.

¹⁸ "The national and stock exchange rules for stock exchange regulation during the Progressive Era were, as we have seen largely failures. . . . The "newer elements," the financial reformers who realized the importance of public confidence in the markets, were not yet strong enough to replace the legalistic exclusiveness of the older statesmen. The part of the New Freedom emphasizing decentralization and home rule was singularly ill-adapted to the stock exchange situation." Cowing, p. 66.

¹⁹ United States. Congress. House, Grain exchanges: Hearings before the Committee on rules, House of representatives, Sixty third Congress, second session, on H. res. 424 (Washington: Govt. print off., 1914), p. 86.

Eliminating Bucket Shops

At the same time as the farmers' fight against futures, exchanges responded to political pressure with their own initiative against bucket shops. This accomplished two goals: it allowed exchange officials to mount an anti-gambling campaign, and thus take the moral high ground. But it also protected the "product" that exchanges provided: price quotations, and by doing so eliminated a significant competitor, encouraging all who might want to speculate to do so "legitimately" through the exchanges rather than through unrelated businesses. The exchanges' fight against the bucket shops began in 1892, and was spearheaded by Chicago Board of Trade. The CBOT viewed the bucket shops as competitors, and its legal strategy was to claim a proprietary right to its own price quotations delivered ver telegraph wires. In the courts, a key question to be settled was what was the difference between wagers placed on the Chicago Board of Trade, and wagers placed in bucket shops? Were they not exactly the same—bets placed on the movement of prices, quite apart form the "legitimate" buying and selling of grain?

The CBOT contracted with Western Union not to distribute prices to what it deemed were bucket shops, a limitation against which one bucket shop, the Christie Grain Co., sued in 1899. The case, Chicago Board of Trade v. Christie Grain, came to the Supreme Court in 1905. Justice Oliver Wendell Holmes, wrote on behalf of the court that futures contracts satisfied by the payment of differences through the CBOT clearing

house were the same as contracts satisfied by delivery of the grain.²⁰ Furthermore, the clearing-house method of settlement allowed for hedging, and “is none the less a serious business contract for a legitimate and useful purpose that it may be offset before the time of delivery in case delivery should not be needed or desired. . . . The sales in the pits are not pretended, but, as we have said, are meant and supposed to be binding. A set-off, is, in effect, a legal delivery.” These transactions were in contrast to the “pretend contracts” or wagers in the bucket shops. With this ruling the Chicago Board of Trade sought injunctions against 197 bucket shops between May and December 1905, effectively driving them out of business by depriving them of access to its price quotations. With this case, the exchanges managed to remove an institution entirely peripheral to the American grain market, the betting shop, and thus take a position against “grain gambling.” The Christie case drew a dividing line between legitimate and illegitimate speculation, and also asserted that contrary to the charges of the farmers, the exchanges did produce something: price quotations.

Pre-War Cooperatives

In addition to regulation through taxation and the elimination of bucket shops, a further strategy was cooperative marketing. The farmers’ cooperative movement was one possible solution to the problems apparent in American rural life in the 1900s, and

²⁰ 198 U.S. 236 (1905). The case had three justices dissenting: Harlan, Brewer, and Day; however no written dissent exists.

particularly to the problems that farmers faced in marketing their produce. In 1909 Theodore Roosevelt charged the Country Life Commission with a fact-finding mission aimed at developing policies to staunch the degradation of American farm life responsible for the flow of people from the country to the city. The commission didn't come up with many concrete solutions to the problems of farm life, but heartily endorsed agricultural cooperation: "Where farmers are organized cooperatively they not only avail themselves more readily of business opportunities and improved methods, but it is found that the organizations which bring them together in the work of their lives are used also for social and intellectual advancement."²¹ In an attempt to control their own financial destiny, western farmers had begun cooperative ventures such as elevators and cooperative marketing mechanisms, but those ventures ran into opposing forces that would later re-ignite attempts to level the playing field in agricultural produce markets through federal legislation.

The Beginning of the War

By the outbreak of the war, the farmers' case against speculation on the exchanges had gone on for twenty years but had largely failed to bear fruit. But what twenty years of legislative activity couldn't bring about, the war did. With the outbreak

²¹ United States. Senate. Committee on Agriculture and Forestry, Report of the Commission on Country Life (Government Printing Office: Washington, D.C., 1909), p. 5.

of war, world conditions of supply and demand were such that the regular institutions of wheat marketing no longer worked.

In August 1914, immediately after the outbreak of the war in Europe, wheat prices set new records, and accusations of food hoarding began circulating in the United States, as they had in the UK. High prices and fears of war profiteering compelled the New York District Attorney to begin investigating individuals suspected of “arbitrarily increas(ing) the price of any food product.”²² The old discourse about speculation, profiteering, and combinations continued unabated at the start of the war.²³

American grain dealers were faced with problems in conducting international grain deals, and many American shippers were canceling contracts with European buyers. As the sellers, commercial law held them liable for a shipment until the merchandise was delivered to the buyers. In the context of warfare on the open seas, this was a risky business proposition. The standard London c.i.f. grain contract did contain a clause to the effect that if shipment is prohibited by blockade or hostilities, the contract may be cancelled, but the same contract also referred all trade disputes to the London Corn Trade Association for arbitration, with the possibility of an appeal to the English courts. American merchants feared that English courts would rule against them, thus exposing them to liability. Torpedoes were not the only obstacle in delivering their

²² New York Daily Tribune, August 9, 1914, p. 5.

²³ Chicago Daily Tribune August 13, 1914; Chicago Daily Tribune August 9, 1914.

goods to the buyer: with the outbreak of war, cargoes were being diverted from one port to another, and in some cases confiscated—one cargo was confiscated by a starving Belgium immediately upon arrival at Antwerp. Britain was also confiscating grain cargoes traveling on British ships—regardless of their intended destination.²⁴ American sellers wanted European buyers to deposit money in American banks when they purchased the grain rather than on delivery, and were beginning to cancel contracts in order to protect themselves. High prices at home, of course, make it feasible for them to sell their merchandise domestically rather than run the risks of foreign sales.

Meanwhile, the French government agreed to take over all contracts for American wheat made by French brokers. Soon American grain shippers were forced to cease all exports. A meeting of grain exporters headed by Julian Barnes, later Hoover's right-hand man in organizing the United States Grain corporation, was quickly organized as the North American Grain Dealers' Association, and took the lead on canceling export contracts.

The world supply at the beginning of the war was large: the 1914 and 1915 crops resulted in bumper harvests all over the world; in addition, American wheat acreage increased between 1910 and 1915. American wheat exports had more than doubled between 1913 and 1914, from 145 million bushels to 332 million bushels, then went

²⁴ New York Sun, August 11, 1914, p. 4

down to 243 million bushels in 1915; but prices remained relatively stable between \$1.59 and \$1.03 per bushel for number 2 red winter wheat (the grade most commonly exported.) Farmers were not happy with the increased plantings and the stagnating prices; a situation that would make them wary of increasing production later in the war. The market changed drastically in 1916, however, both because of bad weather and crop disease resulting in a reduced harvest, and because European needs kept growing as the war went on. The 1917 crop was a short one, just as world demand was growing. These factors were reflected in prices for food in general, and for wheat in particular. On the other hand, cotton farmers faced a very different wartime market: demand on world markets was for wool for army use rather than cotton. Low prices combined with the high cost of shipping and insurance made the cotton market a difficult one, and led to many appeals for government help and intervention.²⁵

From July 1916 to August 1917, food prices rose by 46%, and then rose another 45% by December. During this period, wheat prices spiked spectacularly: from \$1.15 a bushel for number 2 red winter wheat in July 1916 to \$1.88 in November and then \$3.25 in May 1917—the highest price ever recorded.²⁶ Through 1916, unrest over high food prices simmered in American cities, accompanied by increasingly strident calls from

²⁵ Benjamin H. Hibbard, Effects of the Great War upon Agriculture in the United States and Great Britain (New York: Oxford University Press, 1919), pp. 23-25.

²⁶ Hall, p. 3.

labor and consumer groups for an embargo on grain exports. This began when, in the summer of 1916, faced with the rising price of wheat and flour, some bakers discontinued the standard 5-cent loaf of bread and replaced it with a slightly larger 10-cent loaf. In response to a housewife movement for boycotting those bakeries, the National Association of Master Bakers launched a campaign for an export embargo on wheat.²⁷ This was immediately supported by a variety of groups: housewives leagues, the Commissioner of Markets in New York City, the AFL—and opponents of Wilson’s bid for re-election in general.²⁸

Farmers and businessmen, so long at odds, were on the same side of this issue: both stood to lose by the decline in exports, and thus opposed the idea. The Kansas Farmer and Wallace’s Farmer noted that the laws of supply and demand should be allowed to manage prices without artificial manipulation. Farmers opposed the embargo on the grounds that the free market should prevail.²⁹ Millers also opposed it, of course, since the point of the embargo was to reduce the cost of flour by increasing the supply of wheat. The business community argued that an embargo would hurt American business interests abroad in the long run by removing American produce

²⁷ “The Embargo Nonsense,” Weekly Northwestern Miller October 25, 1916, p. 231.

²⁸ Hall, p. 11.

²⁹ “Farmers Oppose Export Embargo,” Weekly Northwestern Miller, November 29, 1916, p. 610.

from vital markets and by possibly prompting European retaliation.³⁰ Secretary of Agriculture David Houston tried to smooth things over when he told a group of urban businessmen in November 1916 “The town and country are in the same boat, and what is best for one is in the long run is highly likely to be conducive to the welfare of the other.”³¹

While prices in the United States were rising, the Allies were organizing their buying agencies in the United States, firm in their belief that the US was going to be their greatest supplier of wheat. On October 2, 1916, Britain created the Royal Wheat Commission to ensure domestic supplies. The American branch of the British grain trading company Samuel Sanday was incorporated as the Wheat Export Company in New York City on November 20, 1916; its director, G.F. Earle, was given a seat on the Chicago Board of trade, but preferred to work through George S. Jackson, president of the North American Grain Exporters’ Association instead. On November 29th, the Allies signed the Wheat Executive Agreement, pooling their buying of grain and transportation in the United States. Henceforth, the European Allies would have one purchasing agent in the United States and would no longer engage in competitive purchasing with each other.

³⁰ New York Times September 30, 1916.

³¹ Quoted in Hall, p. 16.

Throughout this crisis, the Wilson administration remained largely silent, waiting until after election in November 1916: the farm and labor vote were on opposite sides of the embargo issue and he needed the support of both to win. He didn't mention the food crisis at all until his first post-election speech, to the National Grange, in which he referred only to the need to raise bigger crops so as to make it impossible for speculators and middlemen to raise prices at the expense of both producers and consumers. On December 1, Wilson announced that the Justice Department would launch an immediate investigation into whether middlemen had conspired to raise food prices; an investigation that was transferred to the Federal Trade Commission in February 1917. Taking up the attacks on middlemen, Wilson noted in his letter requesting investigation that "unjustifiable fluctuations in prices are not merely demoralizing, they inevitably deter adequate production."³² The investigation was welcomed by business and milling interests, who thought it might finally put an end to talk about nonexistent trusts and combinations—but it never took place because Congress never voted the appropriation necessary to fund the investigation.

The urban discontent over high prices that had been simmering through 1916 built up to a climax between February 20 and 24, 1917, when riots broke out in New York City and Philadelphia. Some of the techniques later employed by the Food

³² Hall, p. 24-27.

Administration to control markets were in fact pioneered in attempts to control the food situation in New York, including a proposal to give the city the power to buy food and sell it in times of emergency, but to do so through regular private channels of distribution. These re-sellers would be allowed to make a small profit, thus allowing honest sellers to thrive in the market and driving out profiteers.

Another proposal was to provide a price minimum for key commodities, or a floor below which prices would not fall, to encourage farmers to produce without fear of glutting markets and driving prices down. J. Ogden Armour suggested a price of \$1.50 a bushel; Gifford Pinchot wrote letters to newspapers urging them to support a price minimum.³³ The idea initially came from the UK, where Lloyd George had announced a price guarantee to English farmers until the 1922 crop year in order to encourage domestic grain cultivation. But exerting control on domestic production wouldn't solve the essential problem, which was caused by foreign purchases of a commodity that was scarce. Food control didn't address any aspect of the global wheat market, only domestic production.³⁴

³³ Gifford Pinchot, "Essentials to a Food Program for Next Year," Annals of the American Academy of Political and Social Science 78(1918): 156–163.

³⁴ Hall, p. 42; "Minutes of the Conference at Jefferson Hotel, St. Louis, Mo., April 9, 1917, with State Agricultural Officials and Representatives of Land Grant Colleges to Discuss the Agricultural and Food Situation," Food Administration Headquarters Papers, Herbert Hoover Archives, Stanford University.

The upheavals in wheat markets only became more acute after the U.S. declaration of war on April 6, 1917. On April 30, Asbury Lever introduced new legislation giving the government powers to set maximum and minimum prices for food, clothing, and fuel and giving the government the right to control commodities markets—powers that Lever assured businessmen were not likely to actually be enforced.³⁵ The idea was to provide a minimum price for wheat in order to encourage farmers to plant more—something they were reluctant to do, fearing that they would be stuck in a situation of overproduction and falling prices. Wilson chose Hoover to be involved in the food control plan because Hoover had garnered an excellent reputation as a food expert during his chairmanship of the Committee for Relief in Belgium, which Wilson believed would be politically valuable and probably necessary in passing the Food Control Bill. Wilson was also convinced that he had contacts with Allied food officials that could be helpful. (In this, Wilson was correct—Hoover met with Vilgrain, the French chargé d'affaires for supplies in London, on April 11 to discuss the Interallied food purchasing mechanism.)³⁶ Hoover, initially insistent that he would only participate if given his own agency that would report directly to Wilson, returned from Europe and proposed a Grain Executive organization to purchase all the grain in the United States

³⁵ Hall, p. 39.

³⁶ A. de Fleuriau to Alexandre Ribot, April 15, 1917. MAE 1300, Achats de la France à l'étranger; Ravitaillement dans divers pays. MAE.

and sell all grain available to the Allies via the Wheat Export Company at cost plus charges. The Wheat Export Company would agree to purchase all the wheat offered³⁷ at the price offered, while Hoover's organization would buy all the wheat offered by American farmers at the minimum price. This would guarantee a price to the farmer, allow Hoover to ensure that adequate supplies were available domestically, and stabilize prices for farmers, domestic consumers, and foreign buyers.

In the hearings on the Food Control bill, anti-speculators offered to approve price controls on wheat and delegate enormous powers to Hoover on condition that futures trading be curtailed, and that the demands that they had been making for years were satisfied. Drake, a leader of the anti-futures movement for years, wanted futures trading abolished permanently. John E. Kelly wanted government-owned grain elevators and for the government to advance the cost of grain stored in them to farmers.³⁸ As before, the discussion was about whether to try to control or to abolish speculative trading, and took the same lines as in previous years. C.W. Harrington of the Van Dusen-Harrington Mills and James McMillan of the Cargill Elevator Company both argued, in correspondence with Senator Knute Nelson of Minnesota, against closing the exchanges.

³⁷ Staff of 300 located in NYC. Louis Tracy, Who's Who in the British War Missions to the United States of America (New York: E.J. Clode, 1918), p. xxiv.

³⁸ Food Production, Consumption, and Distribution, Committee on Agriculture.

On May 9, 1917, wheat trading at the Chicago Board of Trade reached a crisis moment. Prices had been climbing out of control, and that day had broken all previous records to stand at \$3.34 a bushel³⁹ (roughly three times the average price from 1910 to 1917). This sudden spike in prices was actually due to the purchases of the Wheat Export Company, who had inadvertently cornered the market in American wheat⁴⁰. European purchases that year were 203 million bushels, or double previous US wheat exports. While cooperative Allied purchasing through the Wheat Executive had succeeded in avoiding competitive purchases among Allies, it meant one agency was now frantically buying on American markets in order to satisfy the growing needs of the European Allies. The result was that there was not enough wheat left to fulfill outstanding futures contracts.

The corner took place at the same time that the chairman of the Royal Food Commission, Alan G. Anderson, was in the United States to inspect the Wheat Export Company's procedures, meet with the Department of Agriculture, and establish contact with Hoover, and tour the Chicago Board of Trade, which is where he found himself on the day prices reached \$3.25. After a dinner meeting with their visitors, the leaders of the CBOT, realizing that the outstanding contracts for wheat exceeded the supply

³⁹ Flour goes to \$16.60 as May wheat hits \$3.34, Chicago Daily Tribune May 10, 1917, p. 7

⁴⁰ Almon R. Wright, "Food Purchases of the Allies, 1917-1918," Agricultural History 2 no. 16 (1942): 97-102.

(resulting in potential prices as high as \$8 a bushel) decided to, in James Patten's words, "do something or else somebody is going to come along and do it for us."⁴¹ The CBOT's solution was to institute a rule prohibiting anyone else from buying wheat futures except if they were short and then at no more than \$3.25 a bushel. The news that the rise in prices had stopped at \$3.25 brought all the grain out of storage from country elevators and farmers who had been holding on to it and eased the crisis. The situation was eased without government intervention for the time being, however the issues with the volatility of futures prices made it difficult or impossible to hedge grain purchases on the markets—and by extension, impossible to finance the movement of the crop.⁴²

Although Hoover had been in discussions with Wilson for some time, and the Food and Fuel Control Act had been proposed on April 30, it was not until August 10 that the bill became law. At that time, Hoover, finally installed as United States Food Administrator, asked that the CBOT suspend futures trading until further notice on the grounds that price control would make futures trading unnecessary. Although grain traders had initially been against government control, the possibility of American wheat prices going so high that customers would switch to cheaper sources in America's rapidly developing rival on wheat markets, Canada, helped change their minds. As an

⁴¹ Patten, p. 49.

⁴² Frank M. Surface and Raymond L. Bland, American Food in the World War and Reconstruction Period (Palo Alto: Stanford University Press, 1931), p. 40.

added bonus, the grain trade would be free of accusations that speculators were setting prices.⁴³ The merchants' fears that, in the words of CBOT president Joseph Griffin, "the government may not select men of practical experience in production and distribution" were quickly put to rest when Julius Barnes, Duluth's leading grain man, together with representatives of the exchanges and the trade were put in charge of Hoover's grain marketing operation.⁴⁴ Grocers and millers welcomed controls on speculative trading, arguing that it was speculation that had driven prices up, not any conditions on the world markets. As futures trading was suspended in Chicago, the other major north American wheat markets followed suit: St. Louis, Duluth, Kansas City, Toledo, and Winnipeg.

The Postwar Period

For the duration of the war, then, both domestic and international wheat markets were subject to government controls, price guarantees, and collaborative rather than competitive buying. Regular trading in wheat did not resume until July 1920, and was immediately followed by a devastating drop in prices—two-dollar-wheat did not outlast the war. While the commodity dealers were prepared for this drop, which they fully expected with the influx of Argentinian, Australian, Russian, and Indian wheat

⁴³ Grain men discuss action of BOT on trading in May futures , Chicago Daily Tribune, May 12, 1917, p. 2

⁴⁴ Food Control: expert opinion in Chicago holds that federal board may solve problem if composed of capable men, Chicago Daily Tribune, May 13, 1917, p. 2

back on world markets, American farmers were not as quick to adapt, and found themselves stuck in a situation of overproduction. Worse, inflated wartime prices had driven up the price of land in wheat-producing areas, so mortgages were higher than ever just as prices began another tumble, which resurrected the old populist demands for reform of the marketing system. In the post-war period, however, farmers' organizations changed tacks, and instead of demanding government intervention in their favor, argued for cooperative farmers' marketing organizations that would participate in grain marketing on an equal footing with the businessmen, shifting from a moral critique of speculative market mechanisms to a market orientation for their own organizations, and from a focus on reforms achieved with legislation to a focus on setting up alternative marketing mechanisms of their own.

“While we do not seek class legislation, we farmers have reached the point where we are demanding and are going to secure—through business-like, economic, and competitive methods—equal privileges in the grain markets from which we have been barred in the past. [...] Farmers have no expectation of accomplishing needed reforms through legislation. It is an economic proposition, and the desired changes must be accomplished through economic channels in a competitive way.”⁴⁵

Just a week after futures trading was re-instituted on the Chicago Board of Trade after a wartime hiatus of 3 years, the American Farm Bureau Federation called a meeting in Chicago to discuss the possibility of farmers' cooperative grain marketing.

⁴⁵ C.H. Gustafson, “Difficulties of the Grain Grower,” Forum November (1921): 412-422.

The Farmers' Marketing Committee of Seventeen met in Chicago in July 1920, and released a report six months later investigating the process of grain marketing. The report showed that 72% of American wheat was marketed within 90 days of the harvest, leading to market gluts and a downward pressure on prices. Why, the farmers asked, is it hard for farmers to get credit to finance the movement of crops when it is not difficult for speculators in the market centers to get credit to carry the crop? The report brought out the old grievances about grain mixing and re-conditioning, but this time adopting an "if-you-can't-beat-'em-join-'em" stance: why should farmers not perform the mixing and marketing functions themselves, since most of the profit in the grain business seemed to be derived from these activities? They cited Herbert Hoover: "The United States Grain Corporation, in handling in round numbers ninety million bushels of wheat, made, without wanting to do so, five hundred thousand dollars through the working of the grades."⁴⁶

The committee also argued for the importance of information about crop reports, a domain where American farmers were at a vast disadvantage compared to the traders who operated in multiple international markets simultaneously, and who had better information than anyone.

We found that false market reports of foreign crop conditions give the farmer low prices, and do not lower the price to the consumer. When the 'bears'

⁴⁶ Gustafson, p. 415

control the market, the price is beat down by a cargo of corn from Argentine widely heralded as 'heavy importations'—or a cloud in New Zealand becomes a helpful rain. But when the farmer has no grain to sell and the market is 'bullish, the advice to the consuming channels is scooted. The New Zealand shower becomes a damaging flood. One harmless 'green bug' found in the fields of Kansas or the Dakotas, is charged with propagating millions of his kind over night. And before the fat catches up with the excuse, the market has been forced either up or down by heavy short selling that drags the cash prices closely behind the speculative. Thus It was that the principle of an unbiased crop reporting service, on which the farmers themselves would gather and disseminate information, was included as part of the farmers' marketing plan.⁴⁷

But the concern with information about foreign crop reports also shows an acute awareness of the importance of world markets in determining local prices at a time when, as Theodore Saloutos put it, "Country dwellers from Chicago westward, while dependent to a degree on world markets for the disposal of their produce, knew little of what went on outside the United States and cared even less."⁴⁸

The report reinvigorates the old populist argument about "wind wheat," asking who pays for the profits of the speculators if not the producers and the consumers of the wheat. Direct selling by farmers to millers or exporters would eliminate speculation and manipulation, benefitting both producers and consumers. This direct selling agency was

⁴⁷ Gustafson, p. 416.

⁴⁸ Theodore Saloutos and John D. Hicks, Agricultural Discontent in the Middle West, 1900–1939 (Madison: University of Wisconsin Press, 1951), p. 87.

the United States Grain Growers' Inc., "a national, farmer-owned, farmer-controlled, strictly competitive, and strictly cooperative organization."⁴⁹

The Committee of Seventeen worked on their grain marketing plan for six months, then called a conference attended by 103 American Farm Bureau Federation delegates from 23 states, plus 400 farmers in Chicago on April 6-8, 1921 to discuss its plan. The proposal was to plan a pool to raise the price of grain, modeled on "the greatest pool in the history of the United States"⁵⁰—the United States Grain Corporation. Farmers were to pool one-third of all wheat they marketed; the question was whether the national pool should be compulsory or voluntary. The aim was for farmers to take over the marketing of grain on a cooperative basis, and also to curb speculation in grain. "The only adequate remedy is for the farmers to enter extensively into the business of grain distribution, merchandising grain as the products of other industries are merchandised." Following the model of the United States Grain Corporation during the war, the United States Grain Growers, Inc. would establish a contract from the farmer to the farmers' cooperative elevator, then from the elevator to the central agency. The farmer would sell grain to these agencies for five years exclusively, then renew the contract annually. The long-term plan was to establish other farmer-owned cooperative corporations, including an export corporation, a warehouse

⁴⁹ Gustafson, p. 417

⁵⁰ Gettysburg Times, April 7, 1921

corporation, an organization to buy seats on exchanges, and a finance corporation. essentially populating the existing marketing mechanism with farmer-owned versions of the big businesses. These aims were not inimical to government action. Henry A. Wallace argued that “[the USDA] should make thorough inquiry into the cost of marketing at every stage from the time the crops leave the farm until they reach the consumer. If there are points along the way at which there is unnecessary waste, that should be known. If there are men along the way who are taking too much toll for the service they render, that should be made known. A plentiful supply of food at prices which are just to both producer and consumer is vital to our national welfare, and it a proper function of the Government to do what we can to insure it.”⁵¹

In the post-war economic landscape wheat markets did not look like they were going to recover anytime soon. On November 5, 1920, Julius Barnes, a leading Duluth exporter and most recently the head of the United States Grain Corporation, addressed the Committee of Seventeen to explain the crisis in wheat prices, pointing out that “not one of the importing countries of Europe has been able to return the overseas grain trade to private merchants. Great Britain, France, Italy, Belgium, Holland, Germany, Switzerland, Spain, Portugal-all of them make their overseas purchases through official agents whose buying policies are influenced by financial or other home considerations

⁵¹ [New York Times](#), April 7, 1921

which may, and often do, entirely defeat the ordinary considerations of supply and demand alone.” Very large purchases of American wheat by the UK from May to June 1920 meant that the UK had a significant overstock and was not making more American purchases; further, this overstock meant that the UK was likely to switch directly to Argentine, Australian, or Indian wheat. In the postwar economy, the UK could finally take advantage of preferential rates due to the mother country from colonial sources.⁵²

C.H. Gustafson, president of the United States Grain Growers’ Inc., called for a Federal Trade Commission investigation of dealings at terminal grain markets, charging that dealers in those markets were quoting prices below what “world conditions of supply and demand justify,” and that the market is a “one-man market influenced by one large operator.”⁵³ After a vigorous lobbying campaign by the U.S. Grain Growers, the Federal Trade Commission was directed by Congress to begin an inquiry into the grain trade on December 22, 1921. A primary concern was the degree to which the export grain trade was concentrated among a few small firms--and foreign firms at that.

⁵² FTC, Vol. 2, p. 24; American Co-operative Manager, September 5, 1920, Volume 5 Issue 2, p. 52.

⁵³ Colville Examiner (Colville, Wash.), December 17, 1921, p. 6. See also: J.M. Anderson, “Progress of the Farmers’ Cooperative Movement,” Brotherhood of Locomotive Firemen and Enginemen’s Magazine Vol. 72 no. 11 (June 1,1921); United States Grain Growers, Inc. Department of Information; Farmers’ Marketing Committee of Seventeen, A Farmer-Owned, Non-Stock, Non-Profit Association to Handle and Sell Grain at Cost for its Farmer Members (Chicago: 1921); Farmer’s Grain Marketing Committee of Seventeen, Outlined explanation of the proposed grain marketing plan of the Farmers Grain Marketing Committee of Seventeen (Chicago: 1921).

The commission found that 25.6% of American grain exports were handled by just two firms, both of them foreign: Samuel Sanday of the UK (which had now reverted to its original form after serving as the Wheat Export Company during the war) and Louis Dreyfus of France. In third place was the P.N. Gray company, the majority of which was owned by the Belgian firm Bunge.⁵⁴

In the postwar landscape, world grain markets showed no signs of returning to their previous state. Agricultural price guarantees and subsidies were the enduring legacy of wartime intervention into agricultural markets. Part and parcel of this was the government ownership of large stocks of grain, which gave rise to government-sponsored food relief programs--useful not just politically but as a way to stabilize agricultural markets when necessary.

The new postwar farmers cooperatives, modeled on the fruit growers' cooperatives, became more powerful in the postwar period, and managed certain legislative victories that ensured their continued success. In 1921 and 1922, farmers finally passed their long-desired legislation to control futures. First as the Futures Trading Act of 1921, which taxed futures profits but was declared unconstitutional in 1922, and then by the Grain Futures Act, which replaced it, and enacted provisions to

⁵⁴ United States. Federal Trade Commission, Report of the Federal Grain Commission on the Grain Trade: Terminal Grain Markets and Exchanges Vol. 2. (Washington, D.C.: United States Government Printing Office, 1922).

limit market manipulation and to increase information sharing with the public. By establishing controls over some of the excesses of futures trading, farmers could be more confident in using the mechanisms of the market to their own ends. Meanwhile the Capper-Volstead Act of 1922 exempted farmer cooperatives from antitrust laws, thus opening the way for marketing cooperatives to set up pooling and other price-control agreements of their own.

In the aftermath of war, in what was for wheat farmers a permanent crisis requiring permanent government intervention, farmers continued to identify the middlemen as their problem, but after 50 years of controversy, the merchants and exchanges had established a relatively well-oiled and highly technical system of marketing and trading to handle commodities in an international market. Farmers were left with little choice but to think of themselves as businessmen dealing with other businessmen, and this position overtook the older moral discourse as farmers sought to marshal their cooperative strength toward forming their own price-controlling marketing organizations.

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