"A Glass of Milk Strengthens a Nation." Law Development, and China's Dairy Tale

Xiaoqian Hu
*University of Arizona*

Follow this and additional works at: https://scholarworks.uark.edu/jflp

Part of the Chinese Studies Commons, Cultural History Commons, Economic History Commons, Food and Drug Law Commons, Labor History Commons, and the Property Law and Real Estate Commons

**Recommended Citation**


This Article is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Journal of Food Law & Policy by an authorized editor of ScholarWorks@UARK. For more information, please contact ccmiddle@uark.edu.
“A Glass of Milk Strengthens a Nation.”
Law, Development, and China’s Dairy Tale
Xiaoqian Hu
“A Glass of Milk Strengthens a Nation.”
Law, Development, and China’s Dairy Tale

Xiaoqian Hu*

Abstract

Historically, China was a soybean nation and not a dairy nation. Today, China has become the world’s largest dairy importer and third largest dairy producer, and dairy has surpassed soybeans in both consumption volume and sales revenue. This article investigates the legal, political, and socioeconomic factors that drove this transformation, and building upon fieldwork in two Chinese counties, examines the transformation’s socioeconomic impact on China’s several hundred million farmers and ex-farmers and political impact on the Chinese regime. The article makes two arguments. First, despite changes of times and political regimes, China’s dairy tale is a tale about chasing the dreams of progress, modernization, and national rejuvenation. Second, and more tentatively, China’s recent moves toward hard authoritarianism have global roots and can be interpreted in part as political reactions to the systemic job losses and social dislocation in rural-agricultural China after its embrace of globalization.

I. Introduction

Historically, China was not a dairy nation. The majority-Han Chinese did not drink milk or eat cheese or yogurt.1 As a matter of fact, studies have found that Chinese people have very high levels

* Xiaoqian Hu is an associate professor of law at the University of Arizona James E. Rogers College of Law. I would like to thank the University of Arizona for hosting the symposium and the symposium participants for their helpful questions and comments. Special thanks go to Andy Coan, David Gantz, Shi-Ling Hsu, Michael Pappas, Justin Pidot, Sergio Puig, and Andrew Woods, whose insights improved this article tremendously; and to Jessica Eisen and Erum Sattar, whose friendship, support, and inspiration were essential to the completion of this article. I would also like to thank Harvard Law School East Asian Legal Studies and Harvard University Fairbank Center for Chinese Studies for funding my fieldwork; and William Alford, Martha Fineman, and Duncan Kennedy for useful feedback on the initial conceptualization of the fieldwork. I am grateful to Collette Cox and the staff of the Journal of Food Law & Policy for their terrific editorial assistance. I owe the deepest debt of gratitude to the hundreds of interlocutors in rural China, whose participation, generosity, and open-mindedness made this article possible.

1 Françoise Sabban, The Taste for Milk in Modern China (1865-1937), in FOOD CONSUMPTION IN GLOBAL PERSPECTIVE: ESSAYS IN THE ANTHROPOLOGY OF FOOD IN HONOUR OF JACK GOODY 184 (Jakob A. Klein & Anne Murcott eds., 2014) (noting both milk’s cultural signification as a “barbarian food” and a lack of ordinary milk consumption in traditional China).
of lactose malabsorption. On the other hand, China has always been a soybean nation. It was the first nation to cultivate soybeans and, to this day, it remains the largest nation of soybean consumption. Soybeans pervade the traditional Han diet—from soy oil, soy sauce, and tofu (a product so closely related to China that even the West calls it by its Chinese name) to bean sprouts, bean paste, and various fermented products. If one had to identify a “milk” in the traditional Chinese diet, it would be doujiang (豆浆)—a hot, often sweetened breakfast drink made from soybeans. In the Chinese language, dou means beans, and since soybean is the bean for the Han Chinese, dou implies soybeans. Ji refers to a thick liquid, often from a plant. As China historian Jia-Chen Fu documents, renaming doujiang “soymilk” was part of a deliberate nation-building effort by progressive intellectuals, social reformers, emerging entrepreneurs, and government officials of the Republican era (1912-1949).

Today, while China continues to be the world’s largest soybean consumer, it has also become the world’s third largest dairy

---


5 Doujiang was likely invented in the early Han Dynasty (202 BC-220 AD), but did not become part of the Chinese diet until mid- to late Qing (1644-1912). Jia-Chen Fu, The Other Milk: Reinventing Soy in Republican China 17 (2018).

6 See Soy Story, supra note 4.

7 Id.

8 See Fu, supra note 5, at 109–28 (discussing the rebranding of “doujiang” into “soymilk”); see also infra Part II (providing more information on this piece of history).

9 FAOSTAT, Food & Agric. Org., http://www.fao.org/faostat/en/?#data (select the “Crops and livestock products” link under the “Trade” heading; select “Select All” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select the most recent year; click “Show Data”). A caveat is in order. This article cites statistics from numerous sources, including international organizations, government agencies of the United States and China, non-governmental organizations, and researchers. Data collection raises concerns about accuracy and representativeness. Such concerns are particularly acute when the data is collected by governmental agencies in China and no external mechanisms are available to verify their reliability. I plead that readers interpret the data cited in this article as rough (at times very rough) and rebuttable guides to help grasp the
producer, and the world’s largest importer of dairy products, dairy cows, and hay and alfalfa. Most significantly, dairy has surpassed soybeans—by large margins—in both consumption volume and sales revenue. The relative decline of soybeans in the contemporary Chinese diet does not mean a decline of soybean use, however. As a matter of fact, soybeans have transformed from a human food to predominantly an input for industrial production of meat, mostly pork—a highly valued, rarely consumed luxury food in traditional China but a dinner table essential in contemporary China.13

How did this dietary transformation happen? How does it affect dairy and soybean farmers in China? What are its international ramifications, or is it a result, at least in part, of international forces? What, if any, connection does it have with the worldwide resurgence of globalization discontentment, and of populism and authoritarianism, or with the recent moves toward (or return to) “hard authoritarianism” in China?14 Last, but not least, how does law feature in this picture?

10 U.S. DEP’T OF AGRIC., DAIRY: WORLD MARKETS AND TRADE 13 (July 2019), https://downloads.usda.library.cornell.edu/usda-esmis/files/5t34s5j56t/3f462h141/p8419020t/dairy.pdf.
14 China scholars increasingly refer to the recent political changes in China as moves toward or a return to “hard authoritarianism.” In the absence of a clear definition of
This article investigates the legal, political, and socioeconomic factors that drove this transformation. Building upon fieldwork in two Chinese counties, it also examines the transformation’s socioeconomic impact on China’s several hundred million farmers and ex-farmers and political impact on the Chinese regime.

The article contends that China’s dairy (and dietary) tale reveals a lesser-known aspect of China’s tale of globalization. While the West views China as the biggest beneficiary of globalization, taking advantage of the West’s vast markets to industrialize, globalization also exposed Chinese farmers to systemic income insecurity, job losses, social dislocation, and community disintegration—like farmers in much of the global South and workers in some manufacturing sectors in the global North. As backlashes against the current global economic regime are empowering authoritarian leaders around the world, similar forces may also be at work in China. The economic insecurity and social dislocation experienced by hundreds of millions of rural Chinese may be creating a welcoming environment for a political strongman, a more interventionist industrial policy, and more generally, a turn against (neo)liberalism. Milk helps tell this story.

The rest of this article proceeds to tell the double-sided story of China’s embrace of a West-dominated global economic order and the impact of that embrace on China itself—through the lens of milk. Part II narrates the cultivation of a taste for milk and the subsequent social history of milk in twentieth-century China. The social origin

“hard authoritarianism,” there is a consensus that soft and hard authoritarianism fall on a spectrum, with soft implying less and hard implying more state penetration, coercion, and repression. See Joseph Yu-shek Cheng, Assessing China’s Situation and Challenges, 5 CONTEMP. CHINA POL. ECON. & STRATEGIC REL. 537, 549 (2019); see generally CARL MINZNER, END OF AN ERA: HOW CHINA’S AUTHORITARIANISM REVIVAL IS UNDERMINING ITS RISE (2018).


16 See infra Section V.
of milk in China was iconic of the Sino-West relations of the late Qing and Republican periods (1840-1949), in which the West was a cohort of materially superior powers ambitious to turn a declining, inward-looking civilization into a vast market for Western goods.\__{}17\__{} To escape imperialism and semi-colonialism, Chinese elites adopted the Western—particularly the United States (“U.S.”)—notion of cow’s milk as “nature’s perfect food,” hoping that it would strengthen the weak body of the Chinese people and, overtime, the weak body politic of the Chinese nation.\__{}18\__{} In the absence of an abundance of cow’s milk, doujiang, the native soy drink, was rebranded as “soymilk” and promoted as the Chinese solution to the Chinese problem of “backwardness.”\__{}19\__{} These ideas about milk are still prominent today.\__{}20\__{}

While dairy production and consumption were insignificant during the Mao era (1949-1976), they achieved remarkable growth in the 1980s and 1990s as a result of China’s property reform known as the Household Responsibility System (“HRS”).\__{}21\__{} HRS partially privatized rural landholdings, created one of the most egalitarian distributions of farmland in the world, and provided a source of livelihood for hundreds of millions of rural Chinese.\__{}22\__{} The local histories of milk and soybeans in Mountain County (pseudonym) illustrate the benefits brought by HRS to rural Chinese citizens.\__{}23\__{} The local histories of milk and soybeans in River District (pseudonym), however, reveal that HRS also created dooming structural disadvantages for Chinese farmers, which would surface when their own government turned the country into a vast market for Western goods.\__{}24\__{}

In 2001, China joined the World Trade Organization (“WTO”). Part III describes the complex and conflicting impacts of the international economic regime on China’s dairy and soybean farmers after 2001. On the one hand, the abolition of import licenses

---

17 See infra Section II.A.
18 See generally Andrea S. Wiley, Milk for “Growth”: Global and Local Meanings of Milk Consumption in China, India, and the United States, 19 FOOD AND FOODWAYS 11, 11–33 (2011); Sabban, supra note 1, at 187–94 (explaining the role of milk in the effort to modernize—often understood as Westernize at the time—Chinese society during the late Qing and Republican eras); infra Section II.A.
19 See infra Section II.A.
20 See infra Section II.A.
22 See infra Section II.B.
23 See infra Section II.C.i.
24 See infra Section II.C.ii.
and quotas and the drastic reduction in tariffs for dairy and soy imports allowed larger-scale, more mechanized, and often well subsidized foreign farmers to flood the Chinese market with their products.\textsuperscript{25} Small Chinese farms created by the early reform-era land regime could not compete.\textsuperscript{26} Hundreds of millions of farmers (and their sons and daughters) left home to seek work in cities and industrial towns as economic migrants.\textsuperscript{27} On the other hand, the same international economic regime has allowed China to expand its manufacturing and urban economy, absorbing much of the excess labor in agriculture and raising living standards for the vast majority of rural (and certainly, urban) Chinese families.\textsuperscript{28}

Part IV analyzes the Chinese state’s industrial policy responses to problems created by market liberalization. Facing the pushing and pulling effects of the international economic order as well as China’s own demographic shifts and resource constraints, the Chinese state has been aggressively restructuring China’s agricultural economy since the mid-2000s through legal and financial means. A core component of the restructuring is, once again, property reform—but this time to scale up and mechanize agricultural production, and in this process, destroy the highly egalitarian, “every rural family is a farm” model created by HRS.\textsuperscript{29} The local iterations of the new reform in Mountain County and River District reveal a stark contrast: where there are more trade-inflicted agricultural job losses, there is more drastic, statist, and paternalistic industrial policy to restructure the outcompeted agricultural sector.

Part V situates China’s recent political moves toward hard authoritarianism within the global context of increasing discontent


\textsuperscript{26} Lin, supra note 21; see infra Part III.

\textsuperscript{27} See Migrant Workers and Their Children, CHINA LAB. BULL. (May 15, 2019), https://clb.org.hk/content/migrant-workers-and-their-children; infra Part IV.


\textsuperscript{29} See infra Section IV.
with globalization. It goes beyond dairy and soybeans and looks at job losses in China’s agricultural sector as a whole. A temporal comparison of agricultural jobs between 2001 and 2017 reveals the job loss number to be a staggering 155 million. While this number can be celebrated as a success story of industrialization and urbanization, such celebration hides the enormous hardships of social dislocation, geographical and sectoral transition, and community disintegration suffered by these 155 million workers and their families. In response, another component of the Chinese government’s rural restructuring is establishing social programs to mitigate socioeconomic decline of ex-farming communities.  

Fieldwork in Mountain County and River District reveals that these social protection programs and President Xi Jinping’s anti-corruption and anti-poverty campaigns enjoyed strong support among rural residents. Part V opines that the hardships suffered by rural Chinese citizens and the subsequent governmental responses may be creating a populist base receptive to paternalist governance and a political strongman in defiance of Western, particularly American, (neo)liberalism.

II. The Social Life of Milk in Twentieth-Century China

A. Cultivate a Chinese Taste for Milk

In a now classic book, sociologist E. Melanie Dupuis narrates that the American taste for fresh cow’s milk began in the mid-nineteenth century with industrialization and urbanization, and fresh cow’s milk was used primarily as a breastmilk substitute for infants and a food supplement for weaned children. If we moved the time period forward by a couple decades, the same could be said about the beginning of a Chinese taste for fresh cow’s milk. Historically, cow’s milk was not part of the Chinese diet. Despite the Qing rulers’ use of milk as an ingredient in royal cuisine or the use for making cookies in some coastal regions, the majority-Han Chinese population considered cow’s milk a “barbarian” food. When cow’s milk was introduced to China, it was promoted primarily as a nutritious food for infants and children.

30 See infra Section V.
32 Sabban, supra note 1, at 183–185; Yang Zhiyong (杨智勇), Wanqing Shiqi Zhongguo de Niunai Ye yu Niunai Shichang (晚清时期中国的牛奶业与牛奶市场) [China’s Dairy Industry and Dairy Markets During the Late Qing Period], 21 J. CENT. SOUTH UNIV. SOC. SCI. 223, 223 (2015).
33 See infra text accompanying notes 51–54.
However, China’s post-1840 history also made its dairy tale distinct from that of the U.S. In 1840, Britain invaded China under the pretext of defending British merchants’ property rights against the Qing government’s confiscation of opium and prohibition of opium trade.\textsuperscript{34} When China lost the war, it agreed in the Treaty of Nanjing to open up selected ports to allow foreign goods to be sold in China.\textsuperscript{35} Foreign merchants, missionaries, and other actors were allowed to reside in these port cities too, which created a demand for bovine milk on one hand and permitted the transmission of ideas and technologies about milk on the other.\textsuperscript{36} Dairy operations were established in or near port cities using low-yield Chinese cattle.\textsuperscript{37} As foreigners’ demand for milk exceeded the indigenous supply, higher-yield European cows were imported via these trading ports.\textsuperscript{38}

European and American missionaries were instrumental to the establishment of a Chinese dairy industry. Missionaries brought European or North American cows to China and hired or taught Chinese workers to milk cows.\textsuperscript{39} The first Holstein cows imported from Europe were raised by a Catholic convent in Shanghai, which later facilitated the first inter-breeding between Holstein cows and indigenous cattle.\textsuperscript{40}

Although an interest in milk was initially limited to foreigners residing in port cities, this would soon change. The first European milk company, Anglo-Swiss Milk Company, began to sell condensed milk to China via Hong Kong (which had become a British colony after the Opium War) in as early as 1874.\textsuperscript{41} Nestlé, the other major European milk player at the time, also sold its milk powder in port cities in China.\textsuperscript{42}

\textsuperscript{34} See e.g., JULIA LOVELL, THE OPIUM WAR: DRUGS, DREAMS, AND THE MAKING OF MODERN CHINA (2012).
\textsuperscript{35} Id. at 223–40 (on the history of the signing of the Treaty of Nanjing).
\textsuperscript{36} Yang Zhiyong, supra note 32, at 223.
\textsuperscript{37} Id. at 223–24.
\textsuperscript{38} Id.; Shao Yishu (邵逸舒), Jiyu Ruye de Mingqiu Shiqi Lanzhou Chengshi Xiandaihua Tezheng (基于乳业视域的民国时期兰州城市现代化特征) [Characteristics of the Modernization of Republican-Era Lanzhou City Through the Lens of the Dairy Industry], 30 J. ZHANGJIAKOU VOC. & TECH. C. 17, 17 (2017).
\textsuperscript{39} Yang Zhiyong, supra note 32, at 223–45; Geng Lei (耿磊), Ruye yu Chengshi Jindaithua: Yi Kangzhan Shiqi Xi’an Shi Wei Zhongxin de Kaochai (乳业与城市近代化：以抗战时期西安市为中心的考察) [Dairy Industry and Early Urban Modernization: An Investigation Centered on War-Era Xi’an], 16 J. SHENYANG U. SOC. SCI. 636, 636 (2014).
\textsuperscript{40} Yang Zhiyong, supra note 32, at 224.
\textsuperscript{41} Id. at 225.
\textsuperscript{42} Id.
In 1906, the Qing government launched an all-out campaign to eliminate the sale, distribution, consumption, and cultivation of opium to fight the nationwide opium addiction.\textsuperscript{43} Seizing the political opportunity, Nestlé (which by then had merged with Anglo-Swiss Milk Company) advertised its milk products as a health-restoring food to fight the addiction.\textsuperscript{44} Marrying Western science with traditional Chinese medicine and a Western merchandise with Chinese politics, one advertisement read:

Milk produced by our company is made by chemists with innovative and improved methods. . . . Milk is the most vital food for life, regardless of whether you are male or female, old or young. Drinking our milk can smooth the blood and energy flow (qi), build the muscles, improve the spirit and essence, and strengthen the body. . . . Today China has decided to ban opium; determined men and women should all abstain [from opium consumption]. But the weak body and exhausted spirit are worrisome. Purchasing and consuming our milk will be greatly beneficial . . . \textsuperscript{45}

In the Chinese political history, the Opium War marked the beginning of China’s “century of humiliation.”\textsuperscript{46} It ushered in an era of imperial invasions, payments of war indemnities, extraterritoriality, colonial enclaves, domestic peasant uprisings, government’s failed reforms of modernization, and more broadly, an existential crisis for China as a nation.\textsuperscript{47} The national plight prompted Chinese intellectuals, social reformers, and government officials to debate how to reform China’s political, economic, and cultural systems to escape imperialism and semi-colonialism, and whether China should borrow Western technologies, institutions, and values to achieve these goals.\textsuperscript{48}

\textsuperscript{43} Joyce Madancy, *Unearthing Popular Attitudes Toward the Opium Trade and Opium Suppression in Late Qing and Early Republican Fujian*, 27 MODERN CHINA 436, 439–40 (2001).

\textsuperscript{44} Yang Zhiyong, *supra* note 32, at 225.

\textsuperscript{45} Id.


\textsuperscript{47} See generally, LOVELL, *supra* note 34.

\textsuperscript{48} See, e.g., FRANK DIKOTTER, *The Discourse of Race in Modern China* 127–29 (1992) (providing a succinct description of these debates).
A key topic in these debates was the largely vegetarian Chinese diet, which some Chinese and Western intellectuals blamed as the cause of the “weak” physique of the Chinese people.\(^\text{49}\) Again, the similarities between the U.S. and China regarding the sociopolitical signification of milk were noticeable. In the mid-nineteenth century U.S. intellectuals and social reformers claimed that milk could perfect the individual American body and, by aggregation, the American society.\(^\text{50}\) In late Qing and Republican China intelligentsia, policymakers, agriculturalists, and urban dairy entrepreneurs glorified milk as the “perfect food” to build a strong Chinese population and, over time, a strong Chinese nation.\(^\text{51}\)

Also as in the U.S. decades earlier, children were put at the forefront of societal progress.\(^\text{52}\) One social reformer urged:

“In a situation in which China represents the “sick man” of Asia, if we want to revitalize the Chinese nation (fuxing zhonghua minzu) and revive national power (guoshi), it is even more imperative that we earnestly work [on the problem of child nutrition], because national rejuvenation (fuxing minzu) depends on a healthy citizenry, and without healthy children, how can there be a healthy nation?”\(^\text{53}\)

As “milk became a symbol of Western wealth and power,”\(^\text{54}\) Chinese reformers urged urban middle-class women to feed their children fresh cow’s milk or condensed milk and milk powder from America.\(^\text{55}\) Just like their American sisters, the urban Chinese “middleclass wife became the ‘republican mother’ responsible for the creation of a moral civil society.”\(^\text{56}\) By 1928, cow’s milk had

---

49 Sabban, supra note 1, at 187–194.
50 DUpuis, supra note 31, at 8, 17; Wiley, supra note 18, at 16–18.
51 Sabban, supra note 1, at 186–194.
52 Fu, supra note 5, at 98.
54 Fu, supra note 5, at 89.
55 Sabban, supra note 1, at 186–194.
56 DUpuis, supra note 31, at 57; Fu, supra note 5, at 101.
become a popular food among the elites of the Chinese government.\textsuperscript{57}

Despite the fervor for milk among intellectuals, policymakers, and urban elites, “the birth of the Chinese interest in milk” was limited to the urban educated middle class.\textsuperscript{58} According to a 1936 Chinese article, it was estimated that China then had only ten thousand dairy cows and an annual milk production of under thirty million pounds.\textsuperscript{59} As one Chinese milk advocate admitted in 1939, cow’s milk was still “an aristocratic beverage” beyond the reach of ordinary Chinese people.”\textsuperscript{60}

It was in this context that doujiang, a distinctly Chinese drink with similar color and nutritional richness, was given a new cultural and political life, elevated to the status of “milk,” and promoted as the pragmatic Chinese substitute for cow’s milk.\textsuperscript{61} To progressive intellectuals and reformers of Republican China, doujiang symbolized Chinese frugality, inventiveness, and hope of rejuvenation.\textsuperscript{62} Doujiang offered “a Chinese path of development.”\textsuperscript{63}

In 1949, the Communist Party of China (“CCP”) took power and founded the People’s Republic of China (“PRC”).\textsuperscript{64} The Communist government established dairy factories around big cities to provide milk for urban children and elderly residents.\textsuperscript{65} The production of cow’s milk more than quadrupled during the Mao era.\textsuperscript{66}

After 1978, rapid economic growth led to a rapid rise in personal income.\textsuperscript{67} Following its Republican predecessor, the

\textsuperscript{57} Shao Yishu, supra note 38, at 17.
\textsuperscript{58} Sabban, supra note 1, at 186–194.
\textsuperscript{59} Geng Lei, supra note 39, at 636.
\textsuperscript{60} Sabban, supra note 1, at 186.
\textsuperscript{61} Fu, supra note 5, 102–08.
\textsuperscript{62} Id. at 180.
\textsuperscript{63} Id. at 90.
\textsuperscript{65} Changbai Xiu & K.K. Klein, Melamine in Milk Products in China: Examining the Factors That Led to Deliberate Use of the Contaminant, 35 FOOD POL. 463, 465 (2010).
Communist government launched various nutrition campaigns promoting cow’s milk, deploying the same cultural and political tropes about milk, child development, and national rejuvenation. One slogan epitomizes this blend of “scientific nutritionism” with nationalism: “A glass of cow’s milk strengthens a nation” (“一杯牛奶强壮一个民族”). This slogan is repeatedly mentioned in governmental documents, news media, and as the opening sentence of an annual report by the China Dairy Association.  

China’s emerging dairy companies eagerly embraced these cultural meanings of milk and, like their Republican-era predecessors, tapped into the mothering role of women in dairy advertisements. China’s first dairy giant, Wahaha Group, for instance, had a catchy song in their advertisements in the 1990s and 2000s: “Sweet and sour, nutritious and delicious. I drink it every day. How happy I am! Mama, I want to drink Wahaha Fruit Milk.”

68 Fu, supra note 5, at 188–89; Wiley, supra note 18, at 16–20; Eugenia Y. Lean, The Modern Elixir: Medicine as a Consumer Item in the Early Twentieth-Century Chinese Press, 15 UCLAHIST. J. 65, 77 (1995). One of these milk promotion campaigns was the “School Milk Program” launched in 2000. It was similar to the school health and “Got Milk” ad campaigns in the twentieth century U.S. For more detailed information, please visit the program’s official website, https://www.schoolmilk.cn/s/index.


70 See Lanting Ke (兰亭客) [Lantinger], 90 Niandai Wahaha Guo Nai de Guanggao (90年代娃哈哈果奶的广告) [90’s Wahaha Fruit Milk Advertisements], TENGXUN SHIPIN (腾讯视频) [TENCENT VIDEO] (Mar. 19, 2017), https://v.qq.com/x/page/f0385li6zz.html (showing a video of some of these advertisements). For a detailed account of the relationship between Wahaha and the Chinese government and the role the company played in the Chinese government’s effort of nation building, see Zhao Yang, State, Children, and the Wahaha Group of Hangzhou, in FEEDING CHINA’S LITTLE EMPERORS, supra note 53, at 185–98. Ironically, the French food company Danone bought a controlling interest in Wahaha in 1997. Id. at 197. As this article later illustrates, the fate of Wahaha embodies the bittersweet relationship between building a strong Chinese nation and embracing globalization.
China’s per capita dairy consumption more than tripled between 1996 and 2006.\textsuperscript{71}

\textbf{B. Property Law and China’s Small, Egalitarian Farm Structure}

During the majority of the Mao era, land and agricultural production were collectivized. Rural collectives (People’s Communes) and state-owned farms owned all rural land, farm animals, and agricultural equipment.\textsuperscript{72} Villagers worked for their rural collective earning daily work points, which were then used as a basis for distributing the collective harvests and revenues amongst themselves.\textsuperscript{73} Workers of state-owned farms worked for the farms and earned monetary wages.\textsuperscript{74} Property relations concerning dairy operations were very similar to those in the Soviet Ukraine; cows were the property of rural collectives or state-owned farms, and cow raising was the responsibility of rural farm workers (particularly women and children).\textsuperscript{75} Beginning in 1982, however, the CCP and the Chinese government created what would later be called the Household Responsibility System (“HRS”).\textsuperscript{76} Under HRS, rural collectives and state-owned farms were required to sell agricultural equipment and farm animals and rent out land plots to individual households;\textsuperscript{77} rent was zero for collective land but a positive sum for state land.\textsuperscript{78} To avoid frequent redistribution of land, the CCP and the central government fixed rural citizens’ rights to use and farm land plots to fifteen years in 1984.\textsuperscript{79} However, resistance to long-

\begin{thebibliography}{99}
\item Xiangdong Lu & Huilai Zong, The Problems and Countermeasures After China’s Dairy Enters the Adjustment Period, 7 AG. ECON. PROBLEMS 5 (2008).
\item Li, supra note 72, at 35–47, 96–97, 100–01, 131–33, 147–48.
\item Zhang, supra note 72, at 370; see also infra Section II.C.ii.
\item Author’s archival and fieldwork research, on file with Author; Monica Eppinger, Herding History: Legal Change, Norm Formation, and Transformation of the Dairyspheres of Post-Soviet Ukraine, 16 J. FOOD L. & POL’Y (forthcoming Dec. 2020).
\item Zhongguo Gongchandang (中国共产党) & Guowuyuan (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], Quanguo Nongcun Gongzuohuiyi Jiyao (全国农村工作会议纪要) [Summaries of the National Rural Work Conference] (1982).
\item Id.
\item Id.
\item Zhongguo Gongchandang (中国共产党) & Guowuyuan (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], Dangqian Nongcun Jingji Zhengce de Ruogan Wenti (当前农村经济政策若干问题) [SOME PROBLEMS IN CURRENT RURAL ECONOMIC POLICY] (1983).
\end{thebibliography}
term private property rights was strong in the initial years of reform, and the fifteen-year policy was not implemented until after 1993, when tenure security became a governance priority.80

The implementation of HRS had profound consequences for China’s agriculture and rural residents. First, it created one of the most egalitarian distributions of land in the world in the form of private rights to possess, use, and benefit from land. 81 This egalitarianism was further consolidated by frequent village-wide land redistributions to accommodate changes in household demographics or in the total land area as well as by the prohibition of for-profit transfers of landholdings.82 In the late 1990s and early 2000s, laws were enacted to fix village-wide land redistributions to once every thirty years.83 While these laws increased the duration and security of rural land tenure, the latter differs from private landownership in two critical respects. Rural households cannot sell or mortgage their land.84 When the current tenure expires, all rural residents—as members of the village—will be entitled to receive new tenure in the new round of land distribution.85

Second, the egalitarian land distribution, the prohibition of land sales, and a high population/land area ratio created a stable agricultural economic structure comprised almost exclusively of small family farms, with an average size of as low as 0.6 acre of land per farmer according to a 2010 FAO estimate.86 Reflecting this

80  Zhongguo Gongchandang (中国共产党) & Guowuyuan (国务院) [Communist Party of China & State Council], Guanyu Dangqian Nongye He Nongcun Jingji Fazhan de Ruogan Zhengce Cuoshi (关于当前农业和农村经济发展的若干政策措施) [Certain Policy Measures Concerning Current Agricultural and Rural Economic Development] (1993) [hereinafter 1993 Policy Measures].
82  See id.
84  Id.
85  Id.
86  Lin Wanlong (林万龙), Nongdi Jingying Guimo: Guoji Jingyan yu Zhongguo de Xianshi Xuanze (农业经营规模：国际经验与中国的现实选择) [Rural Land
economic structure, China’s dairy and soybean farms were small; many of the farmers grew other crops, raised other animals, or engaged in simultaneous non-agricultural work.  

China’s partial privatization of landholdings was implemented alongside market liberalization reforms. Beginning in November 1993, the Chinese government enacted a series of policy changes, with the goals of (1) opening up agricultural input and output markets and letting the market set the price of goods; (2) transforming state-owned enterprises (“SOEs”) into market players with clear property rights and independent management and finances; and (3) allowing for-profit transfers of rural land in the form of subleases. In the same year, China began serious negotiations to join the General Agreement on Tariffs and Trade (“GATT”), the predecessor to the World Trade Organization (“WTO”).

The rising demand for agricultural goods drove prices up between 1980 and 1996. The increased price, in a system of private operation of farms, further stimulated the production of cow’s milk and soybeans. Between 1991 and 2000, China’s cow’s milk production nearly doubled, and its soybean production increased more than 60%. By some calculations, at the time China joined the

88 1993 POLICY MEASURES, supra note 80.
89 Monica Hsiao, China and the GATT: Two Theories of Political Economy Explaining China’s Desire for Membership in the GATT, 12 PACIFIC BASIN L.J. 431, 431 (1994).
91 For dairy statistics, see ZHONGGUO NONGYE NIANJIAN BIANJI WEIYUANHUI (中国农业年鉴编辑委员会) [COMPILATION COMM. OF THE CHINESE AGRIC. YEARBOOK SERIES], NONGYE BU (农业部) [MINISTRY OF AGRIC.], ZHONGGUO NONGYE NIANJIAN (中国农业年鉴) [CHINA AGRICULTURE YEARBOOK] (1991) (providing that in 1991, China produced 5,243,000 tons of milk); see also ZHONGGUO NONGYE NIANJIAN BIANJI WEIYUANHUI (中国农业年鉴编辑委员会) [COMPILATION COMM. OF THE CHINESE AGRIC. YEARBOOK SERIES], NONGYE BU (农业部) [MINISTRY OF AGRIC.], ZHONGGUO NONGYE NIANJIAN (中国农业年鉴) [CHINA AGRICULTURE YEARBOOK] (2001) (providing that in 2000, China produced 9,191,000 tons of milk).
WTO, China had somewhere between thirty-one million and fifty-four million soybean farmers and 1.4 million dairy farmers. There was no or very little mechanization for either dairy or soybean production.

C. Dairy and Soybeans in Rural Chinese Life

Administratively, China is governed by the central, provincial, prefectoral, county, and township governments. The village is not part of government, although its governance is heavily


These numbers are very rough estimates. According to the China Statistics Yearbook 2002, in 2001 China’s total acreage of crop cultivation was 155,708,000 hectares; the total acreage of soybean cultivation was 13,268,000 hectares, and the total number of people employed in agriculture was 365.13 million. 12-14 Zong Bozhong Mianji (12-14 农作物总播种面积) [12-14 Total Sown Area of Crops] 2002 NIAN ZHONGGUO TONGJI NIANJIAN (2002 年中国统计年鉴) [2002 CHINA STATISTICS YEARBOOK], http://www.stats.gov.cn/yearbook2001/indexC.htm; 5-1 Jiuye Jiben Qingkuang (5-1 就业基本情况) [5-1 Basic Employment Situation]. 2002 NIAN ZHONGGUO TONGJI NIANJIAN (2002 年中国统计年鉴) [2002 CHINA STATISTICS YEARBOOK], http://www.stats.gov.cn/yearbook2001/indexC.htm.

Given China’s roughly egalitarian distribution of farmland in 2001, the thirty-one million estimate is calculated by dividing the total soybean acreage by the total crop acreage, multiplied by the total number of people employed in agriculture. The fifty-four million estimate is based on FAO data, which estimates the average land size per farmer in China to be 0.24 hectare. Lin Wanlong, supra note 86, at 37. Dividing the total soybean acreage in 2001 from China Statistics Yearbook 2002 by 0.24 hectare will yield the number fifty-four million. The total dairy farmer estimate is made by dividing the total number of dairy cows (5,662,000) at the end of 2001 by the average size of Chinese dairy farms (3-5 cows) in 2002. 2002 ZHONGGUO NAI YE NIANJIAN (2002 中国奶业年鉴) [2002 CHINA DAIRY INDUSTRY YEARBOOK] tbl. 1-4 (Ministry of Agric. ed., 2002) (end-of-the-year number of dairy cows 1949-2001); 2003 ZHONGGUO NAI YE NIANJIAN (2003 中国奶业年鉴) [2003 CHINA DAIRY INDUSTRY YEARBOOK] 32 (Ministry of Agric. ed., 2003).

A term of art for describing small, non-mechanized dairy farms in China in the 2000s is “backyard dairy farms.” The image is a rural family raising cows in their backyard. See e.g. H. Ma et al., The Evolution of Productivity Performance on China’s Dairy Farms in the New Millennium, 95 J. DAIRY SCI. 7074 (2012). For literature on low levels of mechanization for crop cultivation, see e.g., Xiaobing Wang et al., Wage Growth, Landholding, and Mechanization in Chinese Agriculture, 86 WORLD DEV. 30, 32 (2016) (charts illustrating percentages of land plowed, planted, and harvested by machines from 1980 to 2011).

influenced by the government. Parts of rural China are State Farms (guoyou nongchang, 国有农场). They are governed by the State Farm system comprised of the central, provincial, district, farm, and unit administrations. Mountain County in southern inland China is governed by the regular administrative system. River District in Heilongjiang Province in northeastern China is governed by the State Farm system.

I conducted eleven months of ethnographic work and four months of historical research in Mountain County and River District between 2014 and 2016. Both counties have had a predominantly rural economy and population and are undergoing some industrialization and urbanization. This fieldwork included participant observation, casual conversations, semi-structured and structured interviews, and household surveys. I talked to roughly two hundred interlocutors in Mountain County and three hundred interlocutors in River District. Historical research consisted mostly of reading local chronicles, old newspapers, government documents, family genealogies, and published or unpublished memoirs. Some of these files were kept in local, prefectural, or provincial museums and libraries. Some are book copies or photocopies that my interlocutors kindly gave me. Some have been made accessible online.

i. Mountain County: Peaceful Rural Nostalgia

Mountain County has 400,000 residents, is a land mass slightly smaller than Rhode Island, and has over twenty townships, each of which in turn governs a dozen or two villages. It is a rice-growing region. The mountainous terrain, land scarcity, and long

95 Compare State Council, supra note 94 (showing that the village is not an officially recognized form of government), with Yi Wu, Land Rights, Political Differentiation, and China’s Changing Land Market: Bounded Collectivism and Contemporary Village Administration, 14 Asia Pac. J. 1, 1–4 (2016).
96 Zhang, supra note 72, at 365–67; Philip C.C. Huang & Yuan Gao, The Dynamics of Capitalization in Chinese Agriculture: Private Firms, the State, or Peasant Households?, 10 Rural China 36, 65 (2003).
97 Author’s own archival and fieldwork research, on file with Author.
98 I deliberately avoid identifying the province in which Mountain County is located because I have done fieldwork relating to villager-conducted illegal real estate development in Mountain County; not identifying the province will better protect the anonymity of my fieldwork interlocutors there. See Xiaoqian Hu, “Put That Bucket Down!”: Monday, Politics, and Property Rights in Urbanizing China, 44 Vt. L. Rev. 243 (2019).
99 See Zhang, supra note 72, at 368;
100 The statements made in this section rely on the Author’s own fieldwork and historical research in Mountain County.
distances to major urban centers precluded the development of a local dairy industry. To the extent that dairy was featured at all in Mountain County in the twentieth century, it was either in the form of milk powder as a nutritional supplement for the children and elderly people of relatively resourceful families or as a valuable social gift for infants and convalescents. Non-fresh cow’s milk was introduced to a few restaurants in the county seat in the 1990s as a breakfast drink, along with doujiang, and cost twice as much as doujiang. Mountain County did not develop a fresh cow’s milk market until the mid-2000s, when refrigerated trucks became available, and an extensive network of paved roads was being built.

Contrary to dairy’s virtual absence, soybeans were an indispensable part of Mountain County’s rural economy and dietary culture. After the implementation of HRS in the early 1980s, each rural family would grow soybeans and raise at least one pig on the farm. Most soybeans were grown on the dividers that separated individual families’ rice paddies or embanked hillside rice terraces. Growing soybeans on the long narrow dividers formed a symbiosis with rice cultivation. As the divider was made of dirt, it needed reinforcement to avoid collapsing. Soybean roots provided such reinforcement. Meanwhile, water from the paddies provided irrigation for the beans. Growing soybeans on dividers also allowed families to cultivate other crops on the precious, scarce land; these other crops included wheat, mulberry trees (for raising silkworms), and sorghum (for feeding pigs).

Rural families kept most of their soybeans for self-consumption, and soybeans were consumed chiefly in four ways. First, soybeans were consumed as a fresh vegetable in late spring. The lack of greenhouse vegetable farming and of a sophisticated agricultural market meant that rural families in Mountain County only had preserved vegetables to go with the rice during the long winter and much of the spring. As spring was ending, soybeans would grow plump while still green and tender. Families would stir fry them as a fresh vegetable dish to break the monotonous wintry diet. Second, soybeans were consumed as a protein-rich food for the Spring Festival, which is a three-week-long holiday in Mountain County. In Mountain County in the 1980s and 1990s, the last week of lunar December was the week to prepare for the Spring Festival. Rural families would slaughter a home-raised pig and make large
quantities of tofu from home-grown soybeans.\textsuperscript{101} Third, soybeans were processed as foods for daily consumption, particularly during the cold months of the year. These included fermented beans, fermented tofu, or soybean powder.\textsuperscript{102} Soybean powder, like milk powder, was sweetened with sugar and consumed with hot water and was a treat for children and the elderly. Fourth, rural families would exchange some of their soybeans for precious cash. Such exchange created a local soybean processing industry in which family-run tofu shops sold tofu to urban as well as rural families, and family-run food stands served hot, fresh soymilk to urban breakfast eaters.

\section*{River District: Tumultuous Market Opening\textsuperscript{103}}

River District has roughly 150,000 residents, is a land mass twice the size of Rhode Island, and has over ten State Farms and over one hundred Units. Land is abundant and located on flat plains or gentle, rolling hills. Plots are large and rectangular and farmed with heavy machines. The soybean is one of the two crops grown in the region (the other being wheat before 2008 and corn after 2008). Unlike in Mountain County, dairy has always been an important part of the local economy since the District’s creation in the Mao era.

During the Mao era, residents enjoyed stable wages, free public housing, and other welfare benefits conferred by State Farms. Farm governments also cultivated among residents a collective identity and sense of pride as employees of technologically advanced socialist State Farms.

While rural residents in Mountain County unequivocally welcomed HRS in the 1980s, residents of River District overwhelmingly opposed it. Residents feared that HRS would destroy all the material entitlements, collective identity, and sense of pride that came with the status of a State Farm employee.\textsuperscript{104} As one

\textsuperscript{101} Tofu and pork (and fish) are essential dishes on the New Year’s Eve dinner or at meals with relatives and friends. \textit{See generally} Watson, \textit{supra} note 13 (discussing the cultural and ritual importance of pork in rural Chinese life).

\textsuperscript{102} \textit{Landoushi} means rotten soybean food. Interestingly, the local dialect for fermented tofu (\textit{douru}) literally means soy milk. \textit{Doumi} means soybean mist or dust, due to its fineness. It is also interesting that the process of making tofu from soymilk is very similar to that of making fresh cheese from milk, and the same can be said for fermented tofu and some fermented cheeses, as well as for \textit{doufuhua} (literally means tofu flower—a silky, semi-curdled product before the curd turns into tofu) and yoghurt.

\textsuperscript{103} The statements made in this section rely on the Author’s own fieldwork and historical research in River District.

\textsuperscript{104} As a matter of fact, HRS was met with huge resistance in Heilongjiang Province, which had a much higher land-to-population ratio and degree of mechanization than
expression captured from the time, “We did decades of hard work, only to be reverted to the pre-liberation era overnight” (“辛辛苦苦几十年，一夜回到解放前”).

To induce compliance with HRS, Farm and Unit administrations sold machines and animals, including cows, at highly discounted rates to machine operators, Unit officials, and other residents and encouraged them to rent large areas of land at low rates (families renting large areas of land were locally called “family farms,” 家庭农场). Public housing was also sold to the resident household. To allay some of workers’ fears, Farm and Unit administrations preserved the worker status of the former employees and continued to subsidize their social security payments.

A thorough implementation of HRS did not take hold due to a combination of factors: increasing wealth inequality between a few successful “family farms” and the remaining small farming households; the frustration and fear of a large number of failing “family farms”; and the need for revenue for the administration to provide social services and bail out failing “family farms.” Hence, in the 1990s, there was an institutional reversal in which the vast majority of the land was managed and farmed by teams consisting of Unit officials and machine drivers, while a minority of the land was managed and farmed by a large number of households, each renting a small amount of land (locally called “small households,” “小户”). Despite this partial reversal for grain production, dairy farms, which were small in scale, were never re-collectivized.

Between 1993 and 2001, the opening up of the agricultural input and output markets caused devastating price fluctuations for farmers in River District. Before 1993, grain prices were set by the state and were set low to subsidize China’s urban industrialization.

Market opening led to immediate increases in grain prices. Between

105 The pre-liberation era means the years before 1949. The CCP and contemporary Chinese government portray the pre-liberation era as a dark era of feudalism, semicolonialism, and corrupt state capitalism. See Robert Weatherly & Coirle Magee, Using the Past to Legitimise the Present: The Portrayal of Good Governance in Chinese History Textbooks, 47 J. CURRENT CHINESE AFF. 41, 42, 62–63 (2018).

106 Luo Jinqiang (罗进强) & Ren Liming (任立民), Woguo Liangshi Caizheng Butie de Lishi Yanbian Ji Qih Zhongyao Zuoyong (我国粮食财政补贴的历史演变及其重要作用) [The Historical Evolution and Importance of China’s Grain Subsidies], in ZHONGGUO LIANGSHI GAIGE KAIFANG SANSHI NIAN (中国粮食改革开放三十年) [THIRTY YEARS OF CHINA’S GRAIN REFORM AND OPENING] 123 (China Grain Econ. Inst. & China Grain Indust. Ass’n eds., 2009).
1993 and 1996, the price of wheat more than doubled, and the price of soybeans increased by two-thirds.\textsuperscript{107} Higher prices stimulated grain production nationwide, and prices began to fall. Between 1996 and 2000, the price of wheat decreased by 38%, and the price of soybeans decreased by 26%.\textsuperscript{108}

While the fall of wheat prices was caused by increased production vis-à-vis a relatively stable demand, the situation with soybean prices was slightly different, though it led to the same outcome. As personal income rose, meat consumption rose and created a huge demand for soymeal. This should, in a closed economy, increase soybean prices. However, China was negotiating its WTO entry; importing soybeans would not only meet the rapidly increasing demand for soymeal, but it would also show China’s willingness to participate in international trade.\textsuperscript{109} As a result, total soybean import went from 2.9 million tons in 1995 to 12.8 million tons in 2000.\textsuperscript{110} The in-pouring of foreign beans caused prices for domestic beans to stagnate in 1997 and to fall in 1998.\textsuperscript{111}

The market opening crushed River District’s economy, as half of the district’s farmland was used for growing wheat, and the other half was used for growing soybeans. Between 1996 and 1999, the local price of soybeans decreased by 35%, and the local price of wheat decreased by 18%. Interlocutors who were once agricultural team members recounted with anger and anguish the “dark old days” of the late 1990s and early 2000s. “Year after year we were losing money and going deeper in debt.” Team members were afraid to farm the land. Some left the teams altogether. The total cultivated area decreased by 7% in 1999 and further decreased by 6% in 2000.


\textsuperscript{108} The numbers are calculated based on purchasing price indexes between 1996 and 2000. Id.

\textsuperscript{109} Oliveira & Schneider, supra note 13, at 177–78 (explaining the connection between soybean imports and rising pork consumption in China).

\textsuperscript{110} FAOSTAT, FOOD & AGRIC. ORG., http://www.fao.org/faostat/en/?#data (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “1995” and “2000” in the year field; click “Show Data”).

\textsuperscript{111} 2001 National Agricultural Product Purchase Price Index, supra note 107.

\textsuperscript{112} Xiaoqian Hu, Fieldwork Journal 2015-045 (on file with author).
Agriculture was not the only sector harmed by market opening. Since the late 1980s, River District had been facing an explosion of the labor force, as workers’ children, who were born in the 1960s and 1970s (before China’s compulsory family planning policy was implemented), reached adulthood. To create employment for these young adults, the District and Farm administrations established factories processing agricultural and husbandry materials. Market opening struck a heavy blow to these factories and their farmer-suppliers. Many of them were closed down or sold off cheaply to private individuals in the late 1990s and early 2000s.

Facing falling wheat and soybean prices, dwindling revenues, and the closing down of state-owned factories, the River District administration (and the Provincial State Farm Administration) looked to dairy and pork—the prices of which were still rising due to rapidly increasing urban consumption—as ways to diversify the local economy. The administration promoted “a courtyard economy” (“庭院经济”) and encouraged each family to raise “two cows and one pig” (“两牛一猪”). To expand the local dairy industry, Farm administrations purchased cows from bigger farms near major cities in northern China and resold them to local dairy farmers on deferred payments. To make sure that dairy farmers were able to sell their milk, Farm administrations also established state-owned dairy processing companies to purchase raw milk. Despite these efforts, the dairy strategy was struggling to succeed. Around 2001, the last and biggest dairy processing company in River District declared bankruptcy, and dairy farmers had to sell milk to individual milk merchants, who then transported the milk to dairy processing companies in big cities hundreds of miles away.

While many factories were closed down or sold off during the market liberalization reform, the District and Provincial administrations restructured, incorporated, and expanded a handful of factories known as “dragon-head enterprises” (“龙头企业,” the same term as is used by the central Chinese state now) to serve as engines of job creation and economic growth. These included, among others, the Heilongjiang Wonderson Dairy Product Co Ltd (完达山).

Despite these efforts, there was massive unemployment in River District. Over 40,000 people—out of a total population of less than 150,000—lost jobs. Some of them, particularly women, exited the work force and became homemakers. Many residents engaged in non-agricultural activities. Many people—especially young
people—left home and worked in Beijing, Tianjin, and Dalian as migrant workers. With a decrease in land rents and a lack of funding from upper governments, the District administration cut spending in the late 1990s. Many offices were combined or terminated, and many employees were laid off or retained on contractual terms. Many teachers, who had been contractual workers rather than state employees, were fired. Unit elementary schools were eliminated, and the students were transferred to the elementary school in the Farm administration seat tens of kilometers away.113

***

In the Chinese sociopolitical life, milk is a living symbol of the Sino-West encounter, and of all the conflicts, aspirations, ambivalences, and uncertainties that this encounter entails. Prior to the twentieth century, the Chinese government was unwilling to open its market to the West but was forced to do so under gunboat diplomacy. A hundred years later, the Chinese government not only voluntarily opened its market, but also sought to institutionalize the opening through joining the WTO. Once again, milk—and soy—are at the center of China’s relationship with the West, and more broadly, China’s relationship with globalization. If the history of milk in twentieth-century China was intellectual and political and affected primarily the urban elites, the history of milk in twenty-first-century China is economic and political and affects the entire Chinese society—from villagers to urbanites to the ruling elite.

III. Market Opening and Trade Shocks

A. China Opens Up Dairy and Soybean Trade

In December 2001, China joined the WTO.114 As part of the accession agreement, China drastically weakened protections for domestic dairy and soybean producers. Although a developing country, China agreed to not use the investment subsidy exemption

113 With hindsight, the elimination of Unit elementary schools was inevitable, as China’s family planning policy was rapidly reducing the student population. Yet, the process was quickened by a lack of government funds. See generally Lu Hongyong, Rural School Closures Are Leaving Young Children Out in the Cold, SIXTH TONE (Jan. 27, 2018), https://www.sixthtone.com/news/1001617/rural-school-closures-are-leaving-young-children-out-in-the-cold# (describing the vast number of underfunded and slimly populated elementary schools in rural China from the late 1990s to the present).
available to developing economies.\textsuperscript{115} Compared with other developing countries, China also agreed to a smaller percentage of domestic support that is exempted from reduction commitment calculations.\textsuperscript{116} Given that China had zero subsidies for agriculture prior to joining the WTO, China is not allowed to provide additional direct financial support to its agricultural producers beyond the exempted percentage.\textsuperscript{117}

China also reduced entry barriers for foreign agricultural producers. China abolished, among other things: (1) state trading of soybean and dairy imports, (2) soybean and dairy import licenses and quotas, and (3) soybean and dairy export subsidies.\textsuperscript{118} In 2002, the average tariff rate for imported soybeans was 2.4%, down from 114% prior to China’s WTO accession.\textsuperscript{119} In 1998, China’s statutory tariff for dairy imports was 46%; the post-accession average was 11%.\textsuperscript{120}

Limited ability to subsidize domestic producers, low tariff rates, and the abolition of import licenses and quotas gave foreign dairy and soybean farmers largely unrestricted access to the Chinese market and freedom to compete with Chinese farmers. Had Chinese farmers been able to produce soybeans and dairy at internationally competitive prices, the impact of these concessions would have been


\textsuperscript{116} Agreement on Agriculture, supra note 115, at art. 6, ¶ 4(a), (b); see also Working Party Report, supra note 115. This exempted percentage is called the de minimis level. All WTO Members are granted a de minimis level. Agreement on Agriculture, supra note 115, at art. 6, ¶ 4(a).

\textsuperscript{117} Working Party Report, supra note 115, at ¶ 235.


\textsuperscript{119} Tariff Download Facility, WTO, http://tariffdata.wto.org/TariffList.aspx (last visited July 29, 2020) (select “All years, bound tariffs included” in “Filter”; select “China”; select “12 – Oil seeds” in “Products”; select subsection “1201- Soya beans, whether or not broken”; click “Next”). The 2.4% rate was further reduced to a combined tariff rate of 1.5% in 2012 and remains 1.5% to this day. Id.

\textsuperscript{120} Will Martin et al., China’s Accession to the WTO: Impacts on China, in EAST ASIA INTEGRATES: A TRADE POLICY AGENDA FOR SHARED GROWTH 35, 42 (Kathie Krumm & Homi Kharas eds., 2004); see also Frank Fuller et al., China’s Accession to the World Trade Organization: What Is at Stake for Agricultural Markets?, 25 REV. AGRIC. ECON. 399, 405 (2003).
minimal. However, this was not the case for soybeans, and after 2008, this was no longer the case for dairy.121

B. Market Shock for China’s Soybean Industry: The 2004 Soybean Crisis

As income levels rose in China, demand also rose for meat (primarily pork) and dairy.122 Today, China is the world’s largest producer of pork, soymilk, and soy oil; the world’s second largest producer of chicken; and, as mentioned earlier, the world’s third largest producer of cow’s milk.123 The soybean experienced the most dramatic transformation. For thousands of years it had been one of the five staples in the traditional Chinese diet.124 Now, it has taken on three concurrent roles in Chinese life: primarily, as an industrial input for mass production of pork; secondarily, as the raw material for making vegetable oil; and, only thirdly, as a food directly consumed by humans.125 Due to these multiple roles, China’s soybean use nearly quadrupled between 2001 and 2017.126

Had Chinese soybean farmers been able to compete with foreign producers, the rapid rise in soybean use would have been a boon for Chinese farmers. This, however, was not the case. In 2001, for example, China’s average producer’s price for soybeans was approximately 1.5 times that of the U.S. and approximately 1.6 times that of Brazil.127

121 See infra text accompanying note 127; see infra text accompanying notes 147–52.
122 See, e.g., Yuna He et al., Consumption of Meat and Dairy Products in China: A Review, 75 PROC. OF THE NUTRITION SOC’Y 385 (2016) (providing an overview of China’s rising dairy and meat, especially pork, consumption).
125 See, e.g., Oliveira & Schneider, supra note 13 (providing an in-depth analysis of the soybean’s multiple roles in contemporary China).
127 FAOSTAT, Food & Agric. Org., http://www.fao.org/faostat/en/#data (last visited Apr. 14, 2020) (select the “Producer Prices-Annual” link under the “Prices” heading; click “Brazil,” “China,” and “United States of America” in the countries field; select “Producer Price (USD/tonne)” in the elements field; select “Soybeans” in the items field; select “2001” in the years field; click “Show Data”).
For the Chinese soybean industry, the first shock of market opening arrived in 2004. In the years leading up to 2004, the rapid increase in demand for soy oil and the cheap beans from the U.S. had created a rapidly expanding Chinese oil-crushing industry with firms of all sizes. The international soybean chain at the time was such that Chinese soy oil producers would pledge to buy beans from the U.S. during the spring planting season; payments would be made in the summer; and the beans would be shipped to China upon harvest in the fall. When Chinese oil companies were pledging to buy U.S. beans in the spring of 2004, prices in the U.S. reached an all-time high. When it was time to pay, however, prices had nearly halved. Many Chinese companies decided to default. U.S. and transnational traders sought arbitration at the London-based Grain and Free Trade Association, which decided that despite the dramatic price decrease, Chinese buyers should make the payments as agreed upon in the spring.

Soybean prices continued to fall and did not rebound until 2007. The result was massive bankruptcies of Chinese soy oil crushers and refineries and the subsequent takeover by major international agro-companies such as ADM, Bunge, Cargill, Louis Dreyfus, and Wilmar. By 2009, 80% of China’s soybean crushing market and 60% of China’s soy oil refining market were controlled by foreign firms.

128 Oliveira & Schneider, supra note 13, at 178.
130 Oliveira & Schneider, supra note 13, at 178.
132 Id.
133 Id.
134 oliveira & schneider, supra note 13, at 178.
135 According to FAOSTAT, the average producer’s price for soybeans in the U.S. was $270 per ton in 2003, $211 per ton in 2004, $208 per ton in 2005, $236 per ton in 2006, and $371 per ton in 2007. FAOSTAT, FOOD & AGRIC. ORG., http://www.fao.org/faostat/en/?#data (select the “Producer Prices-Annual” link under the “Prices” heading; click “United States of America” in the countries field; select “Producer Price (USD/tonne)” in the elements field; select “Soybeans” in the items field; select “2003,” “2004,” “2005,” “2006,” and “2007” in the years field; click “Show Data”).
136 Oliveira & Schneider, supra note 13, at 178.
137 Id. at 178; see also ZANG YUNPENG (臧云鹏), ZHONGGUO NONGYE ZHENXIANG: WAIZI DAU RUQIN ZHONGGUO NONGYE (中国农业真相：外资大举入侵中国农业) [THE TRUTH ABOUT CHINA’S AGRICULTURE: FOREIGN CAPITAL MASSIVELY INVADES
For Chinese soybean farmers, market shock was a slower and longer process of being competed out of production.\textsuperscript{138} With no entry barriers, the steep price differences prompted soy processing companies in China—many of which were foreign multinationals as a result of the 2004 soybean crisis—to import beans from the U.S. and Brazil.\textsuperscript{139} In 2002, China produced 1.19 times as many soybeans as it imported.\textsuperscript{140} In 2016, China imported approximately seven times more soybeans than it produced domestically.\textsuperscript{141} Today, two thirds of the world’s soybean exports go to China.\textsuperscript{142} Domestically, however, soybean production shrunk by approximately 20.4% between 2002 and 2017.\textsuperscript{143} One study estimated that, between 2005 and 2010, 30\% of soybean farmers from northeastern China (where River District is located) had been pushed out of business and became migrant workers in the city.\textsuperscript{144}

Prior to the current U.S.-China trade war, soybeans were “the largest U.S. export of any type to China,” contributing to roughly 10\% of all U.S. exports to China.\textsuperscript{145} While U.S. farmers

\textsuperscript{138} See infra text accompanying notes 139–44; see also supra Section II.C.ii. (describing the lives of soybean farmers in River District); see also infra Section IV.C. (describing the lives of soybean farmers in River District).

\textsuperscript{139} SOLIDARIDAD, supra note 129, at 6–8.

\textsuperscript{140} FAOSTAT, FOOD & AGRIC. ORG., http://www.fao.org/faostat/en/?#data (select the “Crops” link under the “Production” heading; select “China” in the countries field; select “Production” in the elements field; select “Soybeans” in the items field; select “2002” in the year field; click “Show Data”); Id. (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “2002” in the year field; click “Show Data”).

\textsuperscript{141} FAOSTAT, FOOD & AGRIC. ORG., http://www.fao.org/faostat/en/?#data (select the “Crops” link under the “Production” heading; select “China” in the countries field; select “Production” in the elements field; select “Soybeans” in the items field; select “2016” in the year field; click “Show Data”); Id. (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “2016” in the year field; click “Show Data”).


\textsuperscript{143} FAOSTAT, FOOD & AGRIC. ORG., http://www.fao.org/faostat/en/?#data (select the “Crops” link under the “Production” heading; select “China” in the countries field; select “Production” in the elements field; select “Soybeans” in the items field; select “2002” and “2017” in the year field; click “Show Data”).

\textsuperscript{144} Oliveira & Schneider, supra note 13, at 181 (citation omitted).

worry that their “best customer” would turn to Latin America and they would lose 300,000 soybean jobs,\textsuperscript{146} the life stories of tens of millions of Chinese soybean farmers have remained hidden and forgotten for the past two decades. This article makes some of their stories visible.

\textit{C. Market Shock for China’s Dairy Industry: The 2008 Melamine Scandal}

At the time China joined the WTO, the average producer’s price for milk was lower in China than in the U.S. and other developed countries; hence, trade opening had a limited impact in the initial years of the country’s WTO accession.\textsuperscript{147} Between 2001 and 2008, China’s cow inventory more than doubled, and its milk production tripled.\textsuperscript{148} Still, demand for dairy outpaced production, and dairy imports increased.\textsuperscript{149}

China’s dairy industry experienced dramatic market shock in 2008 on three fronts. First, rising income levels—in the context of China’s family planning policy, which limits births—were concomitantly driving up the costs of agricultural labor.\textsuperscript{150} Average income in agriculture more than doubled between 2001 and 2008.\textsuperscript{151}


\textsuperscript{149} BRAD GEHRKE & LESLEY AHMED, U.S. INT’L TRADE COMM’N, AGRICULTURAL TRADE WITH CHINA: DAIRY IMPORT GIANT (2019).

\textsuperscript{150} Xiaobing Wang et al., \textit{Wage Growth, Landholding, and Mechanization in Chinese Agriculture}, 86 WORLD DEV. 30, 30 (2016).

This, in conjunction with rising input costs, resulted in small dairy farmers losing competitiveness to farmers in major dairy exporting countries such as the U.S.\(^\text{152}\)

Second, in April 2008, China signed a free trade agreement ("FTA") with New Zealand, the world’s leading dairy exporter.\(^\text{153}\) The FTA required China to eliminate tariffs on many dairy imports in 2012 and all dairy (and other) imports from New Zealand in 2019.\(^\text{154}\) This FTA ushered in an era of massive dairy imports from New Zealand. Today, New Zealand is China’s second largest dairy exporter, accounting for 21.5% of China’s total dairy imports (the European Union as a block is China’s largest dairy exporter, constituting 48.4% of China’s total dairy imports).\(^\text{155}\)

Third, the biggest—and certainly the most widely reported—food safety disaster in contemporary China took place in late 2008, tanking China’s rapidly growing dairy industry.\(^\text{156}\) At the time the scandal broke out, China’s inadequate dairy quality inspection system used nitrogen as a proxy for protein and tested milk quality by checking the nitrogen level in the milk.\(^\text{157}\) Taking advantage of this rudimentary system, dairy merchants and farmers added water and melamine—a toxic, nitrogen-rich chemical compound—to raw milk to increase volume.\(^\text{158}\) Nationally, it was found out that melamine-contaminated milk powder from twenty-two Chinese manufacturers poisoned over 290,000 people (primarily infants), caused tens of thousands of hospitalizations, and at least six

\textit{Yearbook 2009: 4-26 Average Wage of Staff and Workers by Sector and Region, NAT’L BUREAU OF STATISTICS OF CHINA, http://www.stats.gov.cn/tjsj/ndsj/2009/indexeh.htm} (last visited Apr. 17, 2020) (providing that in 2008, the average wage of a worker in the “Agriculture, Forestry, Animal Husbandry and Fishery” sector was 12,958 Yuan). \textit{See also} Xiaobing Wang et al., \textit{supra} note 150, at 33 (Figure 2 showing a similar trend of wage growth for on-farm labor in agricultural production in China).

\(^\text{152}\) Gale & Jewison, \textit{supra} note 147, at 193.


\(^\text{154}\) \textit{Id.}


\(^\text{156}\) Xiu & Klein, \textit{supra} note 65, at 464.

\(^\text{157}\) \textit{Id.}

\(^\text{158}\) \textit{Id.}
infant deaths.\(^{159}\) Sanlu, China’s then largest milk powder processor, declared bankruptcy.\(^{160}\) Two other dairy giants, Mengniu and Yili, saw their sales drop by 80% in a matter of days, and the two combined saw their 2008 revenue drop by half a billion dollars.\(^{161}\) Scores of people, including the former CEO of Sanlu and six high-ranking government officials, received criminal punishments ranging from jail terms to the death penalty.\(^{162}\)

Researchers and the Chinese government attribute this food disaster to the highly fragmented and grossly under-regulated nature of China’s milk supply chain.\(^{163}\) In 2008, 42.9% of China’s dairy cows were raised on farms with fewer than ten cows and 64% of China’s dairy cows were raised on farms with fewer than twenty cows.\(^{164}\) 60% of the raw milk supply to Chinese dairy processing companies was collected from individual farms, and 25% of the supply was collected from scattered dairy plots and milk collecting stations.\(^{165}\) Only 14% of the milking stations had a hygiene license.\(^{166}\) There were no national quality standards for raw milk or derivative products, and the government had delegated inspection responsibilities to major dairy companies.\(^{167}\) Hence, in a world with


\(^{161}\) Xiu & Klein, * supra* note 65, at 464.

\(^{162}\) See Wu Heng (吴恒), *Sanlu Sanjuqingan Du Naifen Shijian Zeren Ren Jin Hezai?* (三鹿三聚氰胺毒奶粉事件责任人今何在？) [*Where Are the Persons Responsible for the Sanlu Melamine Poison Milk Powder Incident?*], PENGPAI (澎湃) [*SURGING*] (Aug. 3, 2014), http://m.thepaper.cn/renmin_prom.jsp?contentid=1259370&from=renmin (providing a list of high-profile responsible parties for the melamine scandal).


\(^{165}\) Qian et al., * supra* note 163, at 438.

\(^{166}\) Id. at 438, 439.

\(^{167}\) Xiu & Klein, * supra* note 65, at 467.
no regulations, high fragmentation, rapidly rising demand, unlimited profit seeking, and easy availability of melamine in local stores, adulterating milk with water and melamine became a “latent rule” in China’s burgeoning dairy industry.  

True and revelatory as it is, the above analysis misses the influence of trade opening on China’s dairy market structure. As China’s raw milk prices exceeded the prices in the U.S. and New Zealand in 2008, Chinese dairy companies—many of which had major foreign investors—supplemented and even substituted raw domestic milk with cheap imported milk powder to make liquid milk and yogurt. The Chinese state’s failure to enact labeling laws or dairy regulations gave these companies free rein to engage in such activities. Liquid milk aside, China almost doubled its imports of milk powder between 2001 and 2008. The rapid increase of imports limited the room for the expansion of domestically produced milk powder, which in turn limited demand for raw milk.

Foreign competition and investments also led to a steady restructuring of China’s dairy processing industry. Small firms were being pushed out, large firms were becoming even larger, and in 2007, the top four dairy companies produced and sold nearly half of all of the milk products in China.

High concentration of the dairy processing sector combined with high fragmentation of the dairy producing sector resulted in an extremely uneven distribution of bargaining power and, hence, of
profits between dairy farmers and processing companies. While the ratios of investments in dairy production, processing, and retailing sectors were 7.5 to 1.5 to 1 (respectively), the ratios of profits were 1 to 3.5 to 5.5 (respectively). The disproportionate market power allowed major dairy processing companies to suppress the price of raw milk as a way to prolong their competitiveness vis-à-vis imported milk powder. Two scholars observed that on the eve of the 2008 melamine milk scandal:

Economies of scale combined with marketing power in both input and output markets have allowed the major dairy companies to pursue aggressive growth strategies. Their size has given them a level of economic importance such that small dairy farmers, milk collection stations and even governments (particularly provincial and local) have developed a state of dependency on their continued profitability and growth.

The suppressed producers’ price, rising costs of inputs, and inherently high risks of dairy production pushed many small dairy farmers out of business. In 2002, 45% of China’s dairy cows were raised on farms with fewer than five cows. In 2008, only 32% of China’s cows were raised on farms with fewer than five cows. For those who struggled to remain in the dairy production business, melamine became the easiest available means of cost reduction. Melamine was their attempt to modify the existing scheme of profit sharing, even if that attempt would lead to the collapse of China’s dairy industry, themselves included.

For post-WTO China, milk and soybeans embody both the benefits and the costs of globalization. China has become a world leading milk producer, consumer, and importer. Most of the world’s soybeans are now produced outside China, and most of the world’s soybean exports are for Chinese consumption. As the historically “barbarian” milk becomes more Chinese and the historically “Chinese” soybean becomes more global (more American and Latin

---

174 Qian Guixia & Xie Jing, supra note 169, at 63.
175 Id. at 62–64.
176 Xiu & Klein, supra note 65, at 465.
177 Id. at 466.
178 2014 CHINA DAIRY INDUSTRY YEARBOOK, supra note 164, at 32 tbl. 2-1.
179 Id.
American, to be precise), globalization is also pitting the people who produce or process milk and soybeans against each other. On the one hand, soybean farmers in the U.S. and Brazil and dairy farmers and companies in the U.S., Europe, and New Zealand rejoice in the vast newfound Chinese market and pump up their production. On the other hand, Chinese soybean and dairy farmers and companies agonize over newly arrived foreign competition, scramble to cut costs, or else are pushed out of business.

IV. Government Response: State-Led Industrial Policy

A. Central State Response: Agricultural Industrialization Through Property Reform

The Chinese government’s agricultural reports and policies suggest that it attributes Chinese farmers’ lack of competitiveness to the small farm size created by HRS; that the small size prevents the realization of economies of scale and in particular, mechanization. The average farm size in China is 0.52 hectare (or 1.3 acres). The average farm size in the U.S. is about 176 hectares (or 434 acres). Dairy operations have also been small. In 2008, less than one fifth of China’s dairy cows were raised on farms with more than 100 head of cattle. The diseconomy of small scale is further exacerbated by the rising cost of labor. Since 2009, the cost of labor has risen exponentially more than the costs of other agricultural inputs in


181 According to Vice Minister of Ministry of Agricultural and Rural Affairs, the average size of family farms in China in 2019 was 7.8 mu, or 0.52 hectare, and 210 million out of the 230 rural families in China were operating a farm smaller than 10 mu (or 0.67 hectare) of land. Yu Wenjing (于文静) and Dong Jun (董峻), Quanguo 98% Yishang de Nongye Jingying Zhuti Rengshi Xiao Nonghu (全国 98%以上的农业经营主体仍是小农户) [98% of China’s Agricultural Operators Are Still Small Rural Families], XINHUA WANG (新华网) [XINHUA NEWS] (Mar. 1, 2019), http://www.xinhuanet.com/politics/2019-03/01/c_1210071071.htm. Given China’s highly egalitarian landholding created by HRS, the average size of family farms is the best available approximate for the average farm size in China.


183 2014 CHINA DAIRY INDUSTRY YEARBOOK, supra note 164, at 32.
China.\textsuperscript{184} Table 1 illustrates the competitiveness of U.S. soybeans over Chinese soybeans.\textsuperscript{185}

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th></th>
<th>2015</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>China</td>
<td>US</td>
<td>China</td>
<td>US</td>
</tr>
<tr>
<td><strong>Total Production Costs</strong></td>
<td>¥301</td>
<td>¥201</td>
<td>¥488</td>
<td>¥227</td>
</tr>
<tr>
<td><strong>Cost of Labor</strong></td>
<td>¥81</td>
<td>¥10</td>
<td>¥156</td>
<td>¥11</td>
</tr>
<tr>
<td><strong>Costs of Other Variable Inputs</strong></td>
<td>¥112</td>
<td>¥70</td>
<td>¥146</td>
<td>¥82</td>
</tr>
</tbody>
</table>

Table 1. “Average Costs of Producing 100 kg of Soybeans”

It is in this context that the Chinese government views scaling up and mechanization as necessary for Chinese farmers to regain competitiveness.\textsuperscript{186} Once again, the Chinese state is relying on property reform to accomplish these goals.

i. **Property Reform**

This new round of property reform consists of three steps. The first step is legalizing and simplifying for-profit agricultural land transfers. Although the CCP lengthened agricultural land tenure to thirty years per redistribution and allowed for-profit land transfers in as early as 1993, that decision was made in a policy document rather than in legislation.\textsuperscript{187} In 2002, a year after China’s WTO entry, the National People’s Congress (China’s national legislature) enacted the Rural Land Contract Law to legalize the 1993 policy.\textsuperscript{188} Under the law, rural households can assign or sublet their thirty-year agricultural land tenure to other growers, including enterprises, or

\textsuperscript{184} See Gale & Jewison, supra note 147, at 194 fig. 3.
\textsuperscript{185} NAT’L DEV. AND REFORM COMM’N OF CHINA, CHINA YEARBOOK ON COSTS AND PROFITS OF AGRICULTURAL PRODUCTS 27, 626 (2016).
\textsuperscript{186} National Agricultural Development Plan, supra note 180; see Xinhua She (新华社) [Xinhua News Agency], Quanguo Nongzuowu Geng Zhong Shou Zonghe Jixiehua li Chaoguo 67% (全国农作物耕种收综合机械化率超过 67%) [The Comprehensive Mechanization Rate of Crop Cultivation and Harvesting Nationwide Exceeds 67%], ZHONGHUA RENMIN GONGHEGUO ZHONGYANG RENMIN ZHENGFU (中华人民共和国中央人民政府) [THE CENT. PEOPLE’S GOV’T OF THE PEOPLE’S REPUBLIC OF CHINA] (Jan. 19, 2019), http://www.gov.cn/guowuyuan/2019-01/19/content_5359371.htm.
\textsuperscript{187} See Thomas Vendryes, Land Rights in Rural China Since 1978, 4 CHINA PERSPECTIVES 87, 89 (2010).
\textsuperscript{188} Id. at 89–90.
use it as capital to join a corporate grower and become a shareholder. 189

In China, intellectuals hotly debate rural land reform. Some argue that private and freely alienable property rights can enhance efficiency and encourage investment. 190 Others fear that privatization and alienability (including the ability to serve as security) would lead to rural dispossession and unemployment and threaten social stability. 191 The Chinese state seems to have taken a middle road approach. On the one hand, the 2002 Rural Land Contract Law (and subsequent legislation) lets the market allocate agricultural land on a non-permanent basis. 192 On the other hand, the refusal to recognize private land ownership, sales, and mortgages is designed to prevent systemic landlessness and social dislocation. 193

The second step of the reform continues to reflect the Chinese state’s middle-ground stance. Despite various changes to increase the alienability of rural land tenure, Chinese law forbids household farmers to secure bank loans with their land rights, out of fear that banks will dispossess them of land. 194 On the other hand, the CCP-ruled government now allows agricultural co-ops and other

189 See Rural Land Contract Law, supra note 83, arts. 10, 32, 36, 42.
190 See generally Wen Guanzhong (文贯中), Wumín Wùfá: Chéngzhìhuá, Tǔdì Zhídù, yu huǐ Zhídù de Neizài Luòjí (吾民无地：城镇化、土地制度和户籍制度的内在逻辑) [We Have No Land: The Internal Logic of Urbanization Land System and Household Registration System] (2014); see James Wen & Jinwu Xiong, The Hukou and Land Tenure Systems as Two Middle Income Traps – The Case of Modern China, 9 Frontiers of Econ. in China 438, 441 (2014); see generally Zhōu Qièn (周其人), Chéngxiāng Zhòngguó: Xiǔdīng Bān (城乡中国：修订版) [Rural-Urban China: Revised Edition] (2013); Yu Jiānróng (于建嵘) & Chen Zhīwū (陈志武), Ba Di quan Huángài Nóngrìnxīn: see generally Yu Jiānróng Dìhuá Chén Zhīwū (把地权还给农民：于建嵘对话陈志武) [Return Land Rights to Farmers: Yu Jianrong in Dialog with Chen Zhiwu], 2 Dongnán Xueshù (东南学术) [Southeast Acad. Res.] 12 (2008).
191 See generally China’s Peasant Agriculture and Rural Society, supra note 87; Ho, supra note 81, at 11; Tiejun Wen (温铁军), Woguo Weishenme Buneng Shixing Nongcun Tudi Siyóuhuá (我国为什么不能实行农村土地私有化) [Why Can’t China Implement Private Landownership], 7 Cáijìng Jíe (财经界) [Money China] 43–46 (2015); see generally Xuèfèng Hé (贺雪峰), Di Quán de Luòjí: Zhòngguó Nóngcùn Tǔdì Zhídù Quīxiàng Héchǔ? (地权的逻辑：中国农村土地制度去向何方) [The Logic of Land Rights: Which Direction for Chinese Rural Land Policy?] (2013); see generally Huá Shēng (华生), Chéngzhìhuá Zhuanxínghé Tǔdì Xīnjíng (城镇化转型和土地陷阱) [Urbanization Transition and Land Trap] (2013).
192 See Vendryes, supra note 187, at 90.
193 See Tiejun Wen, supra note 191.
This arrangement may appear to violate the time-honored property principle, *nemo potest plus juris ad alium transfere quam ipsum habet* (“[n]o one can transfer to another a greater right than he actually has”). The Chinese state explains this anomaly with a three-tier land right structure: ownership (*suoyouquan*, 所有权), the right to contract land (*chengbaoquan*, 承包权), and the right to farm/manage land (*jingyingquan*, 经营权). Ownership belongs to the state or a rural collective as a fundamental principle of socialism. The right to contract land is an inalienable socioeconomic entitlement for members of the collective (or workers of State Farms) and is designed to protect them from permanent land dispossession and community dislocation. The right to farm/manage land is an alienable property right that any agricultural actor can acquire at a price. It is this management right that can be transferred, used as capital for joining a co-op, or used as security for obtaining a loan. It is this right that the Chinese state hopes will transform China’s agriculture from small-scale, non-mechanized household farming to large-scale, mechanized corporate farming.

A third major reconfiguration of property rights is the enactment of the 2006 Law on Specialized Farmers’ Cooperatives, which allows and encourages household farmers to scale up agriculture by using land rights as capital to set up corporate co-

---

197 Xinhua She (新华社) [Xinhua News Agency], Guanyu Wanshan Nongcun Tudi Suoyouquan Chengbaoquan Jingyingquan Fenzhi Banfa de Yijian (关于完善农村土地所有权承包权经营权分置办法的意见) [General Office of the CPC Central Committee About Perfecting the Management Right of Rural Land Ownership Contracting Right: Opinions on the Division Method], ZHONGHUA RENMIN GONGHEGUO ZHONG YANG RENMIN ZHENG FU (中华人民共和国中央人民政府) [THE CENT. PEOPLE’S GOV’T OF THE PEOPLE’S REPUBLIC OF CHINA] (Oct. 30, 2016), http://www.gov.cn/gongbao/content/2016/content_5133019.htm.
198 Id.
199 Id.
200 Id.
201 Id.
202 Id.
The hoped-for advantage of the co-op is that household farmers can reap the benefits of mechanization and economies of scale without being dispossessed. They can leave their land to the co-op, seek a second source of income, and receive annual profits from the co-op.

To complement the property reform, the Chinese government also gives financial support to agricultural producers to help them scale up and mechanize. The Chinese government subsidizes many aspects of agricultural production, including machine purchases, improved seeds, irrigation, plot leveling and combination, price support for selected grains, and special awards for larger-scale farms. A few numbers are illustrative. Since the Chinese government began to subsidize farm equipment purchases in 2004, by the end of 2017 it had increased this subsidy 266-fold, with a total accumulation of ¥187 billion ($26 billion) over the fourteen years. The Chinese government also vows to transform more than half of the country’s protected farmland into large, irrigated plots suitable for machine operation by 2020.

To encourage the scaling up of dairy farms, the Chinese government subsidizes the construction of larger dairy farms, cooperatives, and compounds. Between 2008 and 2016, billions

204 Id.
207 Bermouna & Li, supra note 206, at 173.
208 Wang Xuqin (王许沁) et al., Nongji Gouzhi Butie Zhengce: Xiaoguo yu Xiaolü—Jiyu Xiaoying yu Jichu Xiaoying Shijiao (农机购置补贴政策: 效果与效率—基于激励效应与挤出效应视角) [The Policy of Farm Equipment Purchase Subsidy: Effects and Efficiency—From the Perspectives of the Incentive Effect and the Crowding Out Effect], ZHONGGUO NONGCUN GUANCHA (中国农村观察) [CHINA RURAL SURV.], no. 2, 2018, at 1. 2.
210 2014 CHINA DAIRY INDUSTRY YEARBOOK, supra note 164, at 47.
of Yuan of subsidies were disbursed to thousands of the country’s largest dairy farms.\textsuperscript{211}

ii. Results

In 2002, only 20.6\% of China’s rice and 1.7\% of China’s corn were harvested by machines.\textsuperscript{212} In 2018, over 80\% of all major grains and over 67\% of all agricultural crops were planted, plowed, and harvested by machines.\textsuperscript{213} In 1996, only 2.6\% of China’s agricultural land changed hands from the original household farm under HRS to another farm.\textsuperscript{214} In 2018, 39\% of China’s agricultural land was transferred by the original household farm to another farming entity.\textsuperscript{215} In other words, two fifths of China’s family farms have exited agricultural production. The small, non-mechanized, highly egalitarian, “every rural family is a farm” model created by HRS is falling apart.

The changes in China’s dairy industry are all the more profound. In 2008, 69\% of China’s dairy cows were raised on farms with fewer than twenty cows.\textsuperscript{216} By the end of 2018, 62\% of China’s dairy cows were raised on farms with more than one hundred cows.\textsuperscript{217}

\footnotesize
\begin{itemize}
\item \textsuperscript{211} 2013 ZHONGGUO NAI YE NIANJIAN (2013 中国奶业年鉴) [2013 CHINA DAIRY INDUSTRY YEARBOOK] 41 (Ministry of Agric. ed., 2013); 2014 CHINA DAIRY INDUSTRY YEARBOOK, supra note 164, at 47; CHINA AGRICULTURE YEARBOOK 117 (2016); CHINA AGRICULTURE YEARBOOK 138 (2017) [hereinafter 2017 CHINA AGRICULTURE YEARBOOK].
\item \textsuperscript{212} NAT’L DEV. AND REFORM COMM’N OF CHINA, QUANGUO GAO BIAOZHUN NONGTIAN JIANSHU ZONGDI GUIHUA (全国高标准农田建设总体规划) [NATIONAL COMPREHENSIVE PLAN ON THE CONSTRUCTION OF HIGH STANDARD AGRICULTURAL LAND] 4 (2013).
\item \textsuperscript{213} Xinhua She, supra note 186.
\item \textsuperscript{216} 2014 CHINA DAIRY INDUSTRY YEARBOOK, supra note 164, at 32.
\item \textsuperscript{217} Zhongguo Naiye 70 Nian Faxun Huihuang Chengji (中国奶业 70 年发展辉煌成就) [Major Accomplishments of China’s Dairy Industry in 70 Years of Development], ZHONGGUO NAIYE XIEHUI (中国奶业协会) [CHINA DAIRY ASS’N] (June 6, 2019), http://www.dac.com.cn/read/newztyj-19060620001110210561.jhtm.
\end{itemize}
Despite these changes, the trade and market dynamics that characterized the soybean and dairy industries in the 2000s continued. Between 2000 and 2016, China’s soybean imports increased by nearly seven-fold.\textsuperscript{218} With drastically lowered tariff rates,\textsuperscript{219} China’s dairy imports increased in weight by thirteen-fold and in value by fifty-fold between 2000 and 2018.\textsuperscript{220} According to a 2019 study of global dairy competitiveness, the evaluations for China are negative across the board.\textsuperscript{221}

Foreign competition on the one hand and foreign investment on the other continue to push for higher concentrations of ever-larger players in China’s dairy processing industry. In 2016 in China, eight out of the nine most popular milk powder products were foreign brands,\textsuperscript{222} and five out of the ten largest dairy processing companies were foreign-owned.\textsuperscript{223} China’s top eight dairy companies process over 70% of the domestically produced raw milk.\textsuperscript{224} The disproportionate power continues to allow dairy companies to set the prices at which they purchase milk from farmers, and discriminate against small dairy farmers—just as they did prior to 2008.\textsuperscript{225}

\begin{flushright}
\textsuperscript{218} FAOSTAT, FOOD \& AGRIC. ORG., http://www.fao.org/faostat/en/?#data (select the “Crops and livestock products” link under the “Trade” heading; select “China” in the countries field; select “Import Quantity” in the elements field; select “Soybeans” in the items field; select “2000” and “2016” in the year field; click “Show Data”).

\textsuperscript{219} In 2015, for example, China’s average applied tariff rate for dairy was less than one eighth Japan’s rate and less than one fifth the average world rate. Wang Guang (王广) & Feng Qi (冯启), Zhongguo Ruye de Xianshi Yali Yu Zhanlue Jiyu (中国乳业的现实压力与战略机遇) [Practical Pressures and Strategic Opportunities of the Chinese Dairy Industry], 4 RUPIN YU RENLEI (乳品与人类) [DAIRY AND HUMANITY] 4, 10 (2017).

\textsuperscript{220} Liu Lin (刘琳), Zhongguo de Naiye (中国的奶业) [China’s Dairy], 18 ZHONGGUO XUMUYE (中国畜牧业) [CHINESE ANIMAL HUSBANDRY] 17, 25 (2019).

\textsuperscript{221} Jiang Bing et al. (姜冰等), Shijie Ruye Shengchan ji Maoyi Geju Fenxi (世界乳业生产及贸易格局分析——兼论中国乳业国际竞争力) [World Dairy Production and Trade Situation Analysis—Also a Discussion on the International Competitiveness of the Chinese Dairy Industry], 47 ZHONGGUO RUPIN GONGYE (中国乳品工业) [CHINA DAIRY INDUSTRY] 36, 39–41 (2019).

\textsuperscript{222} Wang Guang & Feng Qi, supra note 219, at 8.


\textsuperscript{225} Wang Yongkang, supra note 169, at 32; Qian et al., supra note 163, at 437.
\end{flushright}
Global competition, high concentration in the processing industry, rising costs of labor and animal feed, and, in recent years, heightened environmental regulations continue to push small dairy farmers out of business and pressure existing farms to relocate, expand, or consolidate. According to the USDA, half of the dairy farms near Beijing, Tianjin, and Shanghai were closed down in 2019.

B. Agricultural Industrialization in Mountain County

Due to land scarcity, isolation from the outside world, and a lack of industry and commerce, Mountain County was historically poor and agrarian. County chronicles record that in 1985, 92% of the local workforce was in agriculture, and more than 60% of rural households lived below the national poverty line. Farming was small-scale, subsistent, and used very little modern technology.

Beginning in the mid-1990s, poverty drove many young men and women to work as migrant workers in factories on the east coast. In the years that followed, the decline of agriculture and the rise of industry, both in Mountain County and in China at large, continued to push rural young people away from the farm. Today, about 50% of the rural labor force works outside of the county. For those who remain in the county, most engage in off-farm work. Full-time farmers are now a small minority. They tend to be older, often in their late fifties, sixties, or early seventies, and they take up the land left by their non-farming family members and relatives.

Not surprisingly, Mountain County’s agricultural workforce is increasingly comprised of elderly people. In the eleven villages where I did fieldwork, of a total population of over thirty thousand, there were almost no farmers under the age of forty. Many families had handed the land to older relatives to farm. Some families had deserted the land altogether, often because their land was high up on the hillside and harder to farm with machines. My interlocutors—ranging from farmers to migrant workers, and from village cadres to county officials—all realized that as traditional household farming is unable to sustain basic living, as rural youths aspire to live an urban

---

226 U.S. DEP’T OF AGRIC., supra note 224, at 2; U.S. DEP’T OF AGRIC., GAIN REPORT NO. CH19042, HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION 1–3 (2019) [hereinafter HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION]
227 HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION, supra note 226, at 2.
228 The statements made in this section rely on the Author’s own fieldwork and historical research in Mountain County.
life, and as today’s farmers are about to become too old to farm, agriculture in Mountain County will soon face an existential crisis. Who will farm the land tomorrow?

Facing this impending crisis, agricultural industrialization came to be viewed by the county government as a potential solution. Starting in the early-2000s, the county government promoted commercial vegetable farming in several highly mountainous townships: disseminating farming knowledge; supplying seeds, chemicals, and basic technology support; and soliciting urban market avenues. Starting around 2010, the government also pushed for “scale farming” ("规模经营") projects in or near flat areas. Officials were appointed to seek agricultural companies and cooperatives to sublet land from local villagers and start a commercial farm. The government hoped that by scaling up, commercializing, and corporatizing agricultural production, profits would rise to a level that would attract some entrepreneurs to invest in farming.

Because of the mountainous terrain, entrepreneurial farms in Mountain County mostly specialized in fruits, teas, tree nuts, mushrooms, vegetables, and organic rice. Mountain County now has a lively industry specializing in high-altitude mountain vegetables, tea, and fungi. Soybean production has been phased out in the county. So have wheat and corn. On the other hand, dairy has entered most rural and urban households in the forms of baby formula, milk powder, ultra-pasteurized milk packages, refrigerated milk, or yogurt.

C. Agricultural Industrialization in River District

Before 2009, land in River District was leased to individual household farmers or farming teams for specific durations; the latter would pay rent to the Farm administration, farm the land, and keep the remaining profits. Between 2009 and 2012, without consulting or compensating the local residents, the District administration terminated or refused to renew leases to individual farmers or farming teams. In their place, the administration established specialized agricultural producers’ co-ops to farm the land. Ex-farmers were entitled to buy a small guaranteed number of “land shares” in the co-op at prices set by the Farm administration as well as any remaining shares at the market rate, and they were entitled to receive dividends based on their shares. The co-op was managed by

229 The statements made in this section rely on the Author’s own fieldwork and historical research in River District.
Unit officials and technicians appointed or recruited by the Farm administration. Unit officials hired individual machine owners and temporary laborers to work the land.

To accompany the vastly larger scale of production, the District administration ordered large agricultural machines from both domestic manufacturers and manufacturers in the U.S. and Europe. These machines were then sold to private individuals with government subsidies.

In the past, most residents lived in single-story brick houses in their Unit near the land. Between 2009 and 2013, almost all rural neighborhoods in the District were demolished, the land was reclaimed for farming, and all of the residents were required to buy and move into newly built apartments in the Farm’s urban center. Just as with compulsory cooperatization, the District administration did not consult the local residents. On the one hand, compulsory urbanization pushed ex-farmers physically and psychologically away from the land, thus making it harder for them to resist cooperatization. On the other hand, it created more convenient living spaces and urban job opportunities for ex-farmers, making it easier for them to adjust to non-farming life.

Compulsory cooperatization and urbanization changed the lives of River District residents in fundamental ways. It forced the overwhelming majority of farmers off of the land and into the city. It eliminated their rural, semi-subsistence way of life and subjected them to an urban, exclusively market-based way of living. Residents who were able to find jobs welcomed or accepted the changes. Those who could not find reliable jobs resented higher costs of living, heightened wealth inequality, and uncertainties of life revolving around the market. For the few of those who strongly resisted the changes and who were brave enough to stage a petition or protest in Beijing during major national political events, the District administration required each State Farm to send officials to Beijing to catch them at train stations and long-distance bus stations and send them back. These officials used a variety of methods—from calculated negotiation and compromise, to threats of violence, detention, and criminal punishment, to actual violence, detention, and court-sentenced punishment.

Alongside these changes was a big push to expand the local dairy industry. Although the 2008 melamine scandal devastated China’s dairy giants, it also catapulted two dairy processing companies in Heilongjiang—Wonderson and Feihe—from being
obscure local players to being national champions. When government inspections did not find melamine in their products, panicked consumers switched from national brands to them. Seizing this opportunity, the Heilongjiang provincial government sought to turn the province into a leading dairy producer and processor. The rest of this section explains how this development strategy was implemented in River District.

i. Forced Concentration and Scaling Up

In the past, dairy farmers in River District kept cows in a shed in their yard. The cows grazed on state-owned land during the summer and were fed corn and soybean stalks collected from farmers’ own fields during colder seasons. Milking was done either at a milking station miles away or manually by the farmers themselves, and the milk was sold to a middleman at the milking station or in a market center.

Following the central government’s policy, the District administration constructed dairy compounds equipped with mechanized milking stations, running water, and staff members to organize feed provision and manage veterinary affairs. Both carrots and sticks were used to push farmers to move their cows to the compounds. Farmers could use the sheds for free. Milking was done by machines right in the compound, and Wonderson’s milk truck would come every day to buy the milk. If the purchasing price fell

---


below a certain level, farmers would also receive a small subsidy from the administration. In addition, farmers could get easy access to veterinary services and free immunizations for their cows. On the other hand, the District administration prohibited free grazing (purportedly to protect wetlands and mitigate soil erosion) and made it virtually impossible for farmers who refused to move their cows to a compound to sell their milk.\textsuperscript{233} By April 2015, 90\% of the cows in River District had been moved to these compounds.

Dairy farmers had mixed feelings about joining the compounds. Farmers, most of whom were in their late forties or fifties, welcomed the 50\% reduction of labor in cow raising and the disappearance of filth and stench from their own yards. They also welcomed the easy access to medicine and veterinary services. However, they had mixed views about disease outbreaks and drug use. Some farmers complained that concentrated raising facilitated the spread of viruses and illnesses, and, as a result, more drugs had to be used on the cows. This not only increased the costs of production but also gave Wonderson an excuse to reject their milk. On the other hand, some farmers pointed out that before compound raising, irresponsible farmers would secretly give excessive doses of drugs to the cows, causing companies to reject an entire truckload of milk and leaving other farmers unpaid. Concentrated raising prevented such pernicious practices, as drugs were now administered by the compound staff.

The biggest complaint, however, was the exponentially higher cost of feed. The compound management constantly pressured farmers to adopt a total mixed ration ("TMR") feed plan, alleging that it could maximize milk production.\textsuperscript{234} Yet, adopting a TMR plan would mean that farmers had to buy feed from other sources, such as alfalfa from the U.S. or cornmeal from Kuwait. Since such large purchases were made by State Farms, many farmers suspected that State Farms had “jacked up the prices” of imported feed and “taken all the profits” from dairy farming.

\textbf{ii. Establish Corporate Dairy Farms}

A precondition for Wonderson to build a dairy processing plant in River District was a reliable, easily adjustable raw milk

\textsuperscript{233} See \textit{infra} Section IV.C.iv.

\textsuperscript{234} TMR is the acronym for “total mixed ration.” It is the most common method in the U.S. for feeding cows that cannot freely graze on pasturelands. David J. Schingoethe, \textit{A 100-Year Review: Total Mixed Ration Feeding of Dairy Cows}, 100 \textit{J. DAIRY SCI.} 10143, 10143 (2017).
supply. However, River District’s remote location makes it an unattractive place for private investors. Realizing this difficulty, the District chief—an ambitious politician known for his “dictatorial” manner of governance (and later for convicted corruption)—forced Farm administrations to establish corporate dairy farms and required all Farm employees to invest in these companies as shareholders.

The particular way in which these corporate farms were established determined their ownership and governance structures. The farms were managed by people who had been officials of the State Farm system and who, if circumstances required or permitted, could return to the administration as officials again. In that regard, these farms were de-facto state-run enterprises. However, the shareholders were not the state but State Farm employees. Hence, in terms of property rights, these farms were privately owned companies.

Visually, corporate dairy farms looked impressive. They had large, new buildings, highly mechanized operations, and professional management. However, both the shareholders and the management personnel I talked to expressed concerns about the farms’ economic viability. Shareholders complained about a classic principal-agent problem. The managers were experts in dairying, but they owned no shares in the company and had weak financial incentives to run the farms efficiently. The shareholders had a direct financial stake in the company, but they knew nothing about dairying and, as a result, could not exert real supervision over the managers.

Managers blamed the lack of profitability on the FTAs that China signed with dairy-exporting countries and on China’s WTO trade concessions. Given that River District is far away from cities with vibrant economies, milk produced in River District was used predominantly to produce milk powder—a product facing the toughest competition from foreign producers due to its easy transportability and long shelf life.235 Technicians of corporate dairy farms complained that the administration invested too little in technology. Farms lacked expertise in maintaining mechanized milking stations, young corn fermentation, and manure treatment.

Many practices were inhumane to the cows. Many sheds lacked dry beds for the cows to rest or sleep on. The shed floors were bare concrete with no soft padding and were wet from the water hose

235 According to the Chinese government’s statistics, the average price of raw milk in 2015 in major exporting countries was 60% that in China. 2014-2015 DAIRY INDUSTRY DEVELOPMENT STUDY, supra note 223, at 12.
(for getting rid of urine and mature). During the long winter months, cows were not allowed to go outside. Staff members told me that when they opened the gates in the morning, the stench was so overpowering that it made them sick.

iii. **Subsidize Breed Improvement, Dairy Insurance, and Feed Crop Production**

In the wake of the Sino-New Zealand FTA, the District administration ventured to New Zealand and bought nearly twenty thousand high-productivity calves. The calves were then sold at a subsidized rate, mostly to members of newly established dairy corporations (on one State Farm, the subsidy rate was 67%). New Zealand cows aside, the District administration also subsidized purchases of domestically-produced Holstein cows (on one State Farm, the subsidy rate was 50%). These subsidies seemed to have ended by the time I began fieldwork in River District in May 2015 and were replaced with guaranteed bank loans. Dairy farmers were also guaranteed a certain acreage of land for growing young corn and alfalfa.

The project of increasing the size and quality of cow stock in River District was far from smooth. Initially, New Zealand cows were placed in the same sheds as local cows. The mixing of the breeds led to an outbreak of brucellosis—a highly contagious bacterial infection—among New Zealand cows. Hundreds of cows had to be slaughtered and buried deep underground. Insurance covered part of the losses; the rest was borne by dairy farmers and shareholders of corporate farms. I was also told anecdotally that not all cows infected with brucellosis were slaughtered and that in some cases, dairy farmers sold them to slaughterhouses to be finally sold as cheap beef to unknowing consumers. After the epidemic ended, dairy farms separated New Zealand cows from local cows. By the time I arrived in River District in 2015, all New Zealand cows were raised on corporate dairy farms in enclosed sheds and fenced-in, open-air grounds.

---

236 I was told by a District official anecdotally that Chinese buyers (both state and private) had exhausted the local calf supply and their partners could deliver only ten thousand calves after the signing of the contract.
iv. **Induce Wonderson to Build a Plant by Granting It Subsidy and Monopsony to Buy Local Milk**

The District administration negotiated a development agreement with the Wonderson Group. Wonderson would build a baby formula manufacturing plant in River District that, according to the District administration, would “provide jobs for 10,000 dairy farmers, diversify the local economy, and be a major taxpayer to the District.” The Provincial and District administrations would subsidize part of the construction. To guarantee a steady supply of safe milk for the plant, the District administration also granted Wonderson a monopsony to purchase local milk.

The plant was built in 2013, but it did not open until late 2015 due to fierce competition and weak sales nationally. In the interim, Wonderson purchased milk from River District to be processed by its plants in other parts of Heilongjiang.

The magnitude of Wonderson’s market power was astonishing. To reduce transportation costs, Wonderson decided to send milk trucks only to stations with a specific minimum production volume. The District administration capitulated and closed down nearly half of its newly constructed compounds, forcing farmers to move to larger compounds.

As a monopsony, Wonderson could reject or suppress the price of a particular truckload of milk based on “excessive levels of antibiotics or other drugs.” Talking with managers from large corporate dairy farms and a medium-sized, privately-owned-and-run dairy processing company, I learned that there would almost always be some level of antibiotics in a truckload of raw milk. Given that the test was conducted by Wonderson, it had the power to decide whether to reject a truckload of milk or lower the price. In the context of national competition and local monopsony, raw milk prices plummeted from ¥5-6/kg in 2013 to ¥3/kg in 2015.

v. **Push Out Small Dairy Farmers**

Whether by design or by disaster, River District’s dairy strategy—in the global and national market contexts—pushed out River District’s small dairy farmers. The displacement took ten years and multiple steps to complete.

The first wave of exits took place when farmers were pressured to enter the newly constructed dairy compounds. Rural
neighborhoods in River District were tens of kilometers apart from each other. The District administration did not build compounds in neighborhoods with a small cow stock. Farmers from these neighborhoods had to move their cows to neighborhoods that had a compound. The move was impractical for many and inconvenient for most dairy farmers. Many of them were not full-time dairy farmers. Instead, the husband and wife team raised cows and grew soybeans and corn; the wife did most of the cow rearing, and the husband did most of the crop cultivation. Moving to a cow compound in another neighborhood would mean husband-wife separation and an inability to help each other with housework or with dairy or crop production during busy times of the day or year. Facing these difficulties, some farmers sold their cows and exited dairy production. The same happened again when Wonderson refused to collect milk from small compounds, and the administration had to shut them down.

A significant number of farmers exited dairy production between 2013 and 2015, before Wonderson opened its processing plant in River District. The rising costs of feed, the declining prices of raw milk, Wonderson’s monopsony, and the uncertainty as to when Wonderson would open its plant in River District pressured dairy farmers to mitigate losses. Some farmers reduced the number of lactating cows or the food supply for non-lactating cows (which, needlessly to say, was an inhumane practice). Some sold part of their stock to other farmers or to slaughterhouses. Some switched to calf breeding. When farmers could no longer hold out, they sold all of their stock and exited dairy production.

Contrary to local expectations, Wonderson’s opening of the dairy processing plant provided little relief to small dairy farmers in River District. In a conversation with a key interlocutor in 2019, I learned that Wonderson could not compete with other infant formula brands on the national market, and due to poor sales, the plant in River District only accepted the “best” milk—milk produced by New Zealand cows owned by large-scale corporate farms.

Recalling the “10,000 dairy jobs” promised by Wonderson and the River District administration, I asked my interlocutor what had happened to farmers who were raising cows in the compounds. He replied that most of them had sold their cows, left home, and were

---

237 For example, in 2016 Wyeth sold three times and Danone sold four times as much baby formula as Wonderson by revenue in China. Wang Guang & Feng Qi, *supra* note 219, at 8.
working in big cities as migrant workers, and that others had switched to raising beef cattle or hogs. “No one raises [dairy cows] any more. It’s all mechanized (没人养了，全是机械化),” he remarked.238

***

From a strictly legal perspective, the fate of dairy and soybean farmers in post-WTO China is a combined result of international economic law and domestic property law. China joined the WTO in pursuit of economic betterment. However, the international economic regime also exposed Chinese farmers to unmitigated competition from larger-scale, well subsidized, and predominantly Western producers. China’s HRS, which had created and benefited hundreds of millions of independent farmers decades earlier, also created doomng structural disadvantages for these very same farmers: the diseconomy of small scale and no access to land-based financing. Just as it redesigned the Maoist property system to increase farm productivity in the early reform era, the Chinese state is redesigning HRS to increase farm productivity in the age of global competition. This time, however, the goal is to get big again, by eliminating (rather than creating) hundreds of millions of small farmers.

As Chinese property law evolves, the backbone agricultural producer shifts from a public farming bureaucracy (the Mao era), to a private farming family (1980-), and now increasingly to a corporate farming enterprise. It would be a mistake to think that the transition from the farming family to the farming enterprise naturally flows from a change in property law. The Chinese government is adopting an active, paternalistic, and at times outright coercive industrial policy to facilitate this transition. To the extent the fieldwork is illustrative, the local iterations of this policy in Mountain County and River District reveal a clear if blunt contrast: Where there are more trade-inflicted agricultural job losses, there is more drastic, statist, and paternalistic industrial policy.

V. The Social Costs of Globalization and the Hardening of Chinese Authoritarianism

The current international economic system was created at a time of high optimism about market-centered economic development. The beliefs of the day were that competition can make

238 Xiaoqian Hu, Fieldwork Journal 2019-005 (on file with author).
the economic pie bigger, trade-inflicted job losses are “transitional,” and “the poor as a class will improve” from the cheaper goods and new jobs brought by free (or freer) trade. Meanwhile, critics have argued that this system traps workers and developing countries in “a race to the bottom” brews discontents across the globe; benefits corporate elites at the expense of the working and middle classes; and, in Western liberal democracies, violates the government-citizen compact that increased trade opening should be accompanied with increased social protection of domestic constituencies from trade-inflicted disruptions. Since 2016, scholars have revealed how flawed political representation and uneven distribution of costs and benefits under the current economic system have contributed to the global rise of authoritarianism, protectionism, and populism.

China is experiencing a rise in authoritarianism too, despite being an authoritarian regime at the outset of the change. Since taking office in 2012, Xi Jinping has radically expanded his power as General Secretary of the CCP and has tightened the CCP’s grip on the country’s political, economic, and cultural institutions.

240 LAL, supra note 239, at 86.
243 STIGLITZ, supra note 242, at 248.
244 ALICE AMSDEN, ESCAPE FROM EMPIRE: THE DEVELOPING WORLD’S JOURNEY THROUGH HEAVEN AND HELL 50 (MIT Press 2007); STIGLITZ, supra note 242, at 84.
247 See generally MINZNER, supra note 14 (tightening political, economic, and religious control); Carl Minzner, Intelligentsia in the Crosshairs: Xi Jinping’s Ideological Rectification of Higher Education in China, CHINA LEADERSHIP
specifically, Xi launched an anti-corruption campaign, which allegedly had investigated 2.7 million officials and punished 1.5 million by late 2018.²⁴⁸ Xi expanded state control and regulation over market activities and heightened government support of SOEs and other Chinese enterprises in an effort to promote “national champions” (globally competitive Chinese firms).²⁴⁹ In 2018, the National People’s Congress amended the Constitution to enshrine “Xi Jinping thought” (Xi Jinping sixiang, “习近平思想”), further solidify the Party’s leadership, abolish presidential and vice presidential term limits, and create the National Supervision Commission as the sixth branch of government.²⁵⁰ Analyses outside China have largely interpreted these events as political and legal moves by an authoritarian party-state to control increasingly uncontrollable factionalism and diverse social problems.²⁵¹

When globalization is discussed, China is portrayed as a big winner from the current international economic system and as using its economic prowess to assert stronger global influence.²⁵² While globalization has indeed brought enormous benefits to the Chinese

---


²⁵¹ Compare Minzner, supra note 14, at 8, 36, 86 (describing the CCP as a frozen regime undergoing internal decay), with Taisu Zhang & Tom Ginsburg, China’s Turn Toward Law, 59 VA. J. INT’L L 279, 281–82 (2019) (describing the CCP as actively using law to enhance its governance effectiveness), and Donald Clarke, China’s Legal Non-Construction Project, paper presented at China’s Legal Construction Program at 40 years: Towards an Autonomous Legal System?, Michigan Law School, (Oct. 11-13, 2019) (on file with author) (interpreting China’s institutional changes in the past forty years as consistent and reflective of a belief in order maintenance institutions rather than in liberal notions of rights and the law).

²⁵² CHINA: CHAMPION OF (WHICH) GLOBALISATION?, supra note 15, at 13; Milanovic, supra note 15.
population as a whole, it has also caused agricultural job losses and systemic social dislocation in rural China. The magnitude of the social costs of globalization connects China’s recent political changes with the recent political changes around the world, and compels us to scrutinize China’s changes in a global light.

A. The Social Costs of Globalization

Milk and soybeans are microcosms of China’s agriculture. At the time that China joined the WTO, Long Yongtu—the official who led China’s accession negotiations—admitted that “agriculture would be the most vulnerable and therefore the most exposed to massive import competition”; and that “more than 9 million to 20 million farmers would lose their jobs.” Hindsight suggests that Long’s estimate was overly optimistic. In 2001, 364 million Chinese people worked in agriculture. In 2017, only 209 million worked in agriculture—a decrease of 155 million jobs. The Chinese government interprets these numbers as success stories of industrialization and urbanization. Yet, such interpretation glosses over the hardships of the dislocation and adjustment of those undergoing the “transition.”

Between 2001 and 2015, the share of agricultural exports in China’s total exports declined by nearly 50%, while the share of

253 Long Yongtu, China: The Implications and Key Lessons Learned Through WTO Accession, in EAST ASIAN VISIONS: PERSPECTIVES ON ECONOMIC DEVELOPMENT 178, 183–84 (Indermit Gill et al. eds., 2002).
255 Id.
agricultural imports increased by over 50%. During the same period, China’s agricultural trade balance changed from a small surplus of $1.7 billion to a large deficit of $52.6 billion. Today, despite the U.S.-China trade war, for every dollar China gains from agricultural exports, it loses 1.7 dollars from agricultural imports.

The soybean and dairy sectors epitomize trade-inflicted market competition, job losses, and social disruptions in rural China. Despite a surge (and, in the case of soybeans, a dramatic surge) in demand, domestic production of both products decreased. Small Chinese farmers lost the competition to larger foreign producers and were forced to exit from production. The Chinese state’s strategy of scaling up, mechanizing, and corporatizing the agricultural sector accelerates the process of dislocation and displacement. If China had between thirty-one million and fifty-four million soybean farmers, market forces and government policy have pushed the vast majority of them off of the land and into the cities. If the estimate is correct that for every ten thousand tons of milk powder imported, thirty-four thousand Chinese dairy jobs are displaced, then in 2018, China’s imports of milk powder alone had a replacement effect of 3.8 million dollar jobs.

---


259 *Id.* at 383.


261 *See supra Section IV.C.* See also Qian Forrest Zhang, *Class Differentiation in Rural China: Dynamics of Accumulation, Commodification, and State Intervention*, 15 AGRIAR. CHANGE 338, 339 (2015).


263 *See supra Section III.* See also Qian Forrest Zhang, *Class Differentiation in Rural China: Dynamics of Accumulation, Commodification, and State Intervention*, 15 AGRIAR. CHANGE 338, 339 (2015).

264 Wang Yuting (王玉庭) & Du Xinwei (杜欣蔚), Ruchipin Jinkou Dui Zhongguo Naiye de Yingxiang ji Fazhan Silu [乳制品进口对中国农业的影响及发展思路] [The Impact of Dairy Imports on China’s Dairy and Thoughts on Pathways for Development], 11 NONGYE ZHANWANG (农业展望) [AGRIC. OUTLOOK] 96, 99 (2018) (citation omitted); Aozhou Caijing Jianwen (澳洲财经见闻) [Australian Finance News], 2018 Nian Zhongguo Jinkou Ganru Zhipin Buochi Zengzhang (2018 年中国进口干乳制品保持增长) [China’s Imports of Dry Dairy Products Maintained Growth in 2018], ZHONGHUA RENMIN GONGHEGUO SHANGWU BU (中华人民共和
Mountain County and River District illustrate these profound socioeconomic changes. Mountain County has switched from a predominantly agricultural economy to a labor exporter for Chinese cities. River District has seen its agriculture completely scaled up and the overwhelming majority of the labor force pushed out of agriculture, and it, too, has become a labor exporter for Chinese cities.

The rural-to-urban migration has been interpreted in China as a successful implementation of a Lewisian model of development (transferring excess rural labor to urban industries to achieve economic takeoff). However, not all ex-farmers are able to transition from farming to an urban or industrial job. Many ex-farmers in River District cannot find jobs in the city due to older age, poor health, lack of education, or care responsibilities at home. Their lives are precarious and heavily depend on access to poverty relief, free or subsidized healthcare, and educational support for their children. Given China’s size, nationally, the population of farmers who cannot make this transition can be large.

B. The Hardening of Chinese Authoritarianism

While doing fieldwork, I observed a counterintuitive phenomenon in both Mountain County and River District. The central Chinese government enjoyed higher and more unequivocal approval among the less well-off residents than among the more resourceful and politically more connected residents. The former group expressed stronger support for Xi’s anti-corruption and anti-poverty campaigns, and for the government’s construction of rural infrastructure and establishment of rural social programs. The latter group—despite being the bigger beneficiary of China’s economic growth—was much more skeptical, and cynical, of these government initiatives. They were much more likely to view these initiatives as bureaucratic squandering of public resources, or as breeding grounds for corruption and favoritism (even if they were beneficiaries of corruption and favoritism in these and other contexts). On average, the former group consisted of the vast majority of farmers and ex-farmers, while the latter group was made up of the emerging urban middle class and the lucky few ex-farmers who managed to become non-farming entrepreneurs.

---

265 JUSTIN YIFU LIN, DEMYSTIFYING THE CHINESE ECONOMY 166–68 (2012); see, e.g., W.A. LEWIS, ECONOMIC DEVELOPMENT WITH UNLIMITED SUPPLIES OF LABOUR (1954).
I interpret the former group’s higher respect for Xi Jinping’s government to three potential factors. First, a more pro-rural governance policy. Prior to the mid-2000s the Chinese government had been extracting wealth and resources from rural areas to fund urban industrialization; starting from the mid-2000s, the policy has been that “industry recompenses agriculture, cities support villages.” The shift is reflected in the Chinese government’s abolition of agricultural taxes, construction of rural

266 readers may ask: Why would an authoritarian government care about the hardships of people who are economically precarious and politically unrepresented and unorganized? A few factors may shed some light on this question. First, even an authoritarian government has to address acute social problems as problems of governance. See To Govern China: Evolving Practices of Power 1–3 (Vivienne Shue & Patricia M. Thornton eds., 2017) (providing a recent, excellent collection of studies analyzing China’s governance challenges and practices). Second, greater power comes with greater responsibility and citizen expectations. Failing to address acute social problems might provide a fertile ground for political dissents to mobilize discontented rural citizens and eventually overthrow the CCP, which was exactly how the CCP—an informal group of thirteen men in 1921—managed to overthrow the Nationalist government in a matter of twenty-eight years. Even if the CCP had the wherewithal to suppress all insurgencies, it might be cheaper, and certainly would make the CCP look more benevolent, to address social problems in the first place. Third, the CCP’s goal of national rejuvenation rises and falls on the fate of the rural population. Failure to address rural suffering undermines the CCP’s stated goal as well as its governing competence in the eyes of the urban middle class, who have family ties with rural China. Lastly, there is a body of scholarship that affirms and seeks to explain the existence of, and the CCP’s support for, some form of government accountability or responsiveness in China. Elizabeth J. Perry, Chinese Conceptions of “Rights”: From Mencius to Mao and Now, 6 Persp. Pol. 37, 37–38 (2008) (traditional Chinese moral and political economy); Elizabeth J. Perry, The Populist Dream of Chinese Democracy, 74 J. Asian Stud. 903, 904 (2015) (populist Party and public conceptions of “Chinese democracy”); Lily L. Tsai, Accountability Without Democracy: Solidary Groups and Public Goods Provision in Rural China 288–89 (Cambridge Univ. Press 2007) (socially embedded, local mechanisms of accountability); Alex L. Wang, The Search for Sustainable Legitimacy: Environmental Law and Bureaucracy in China, 37 Harv. Envtl. L. Rev. 365, 382–85 (2013) (institutionalized, administrative structures); Christopher Heurlin, Responsive Authoritarianism in China: Land, Protests, and Policy Making 56–57, 61, 78–83 (Cambridge Univ. Press 2016) (society-propelled legal changes).

267 Han Jun (韩俊), Gongye Fanbu Nongye Chengshi Zhichi Nongcun—Ruhe Zai Xin Xingshi Xia Geng Duozhi Zhichi Nongye He Nongcun Fazhan (工业反哺农业，城市支持农村—如何在新形势下更多地支持农业和农村发展) [Industry Feeds Agriculture Cities Support Rural Areas—How to Support Agricultural and Rural Development More in the New Situation], Renmin Wang (人民网) [People’s Daily] (Nov. 18, 2005), http://finance.people.com.cn/GB/1037/3867779.html. See also the increase in China’s annual budget for agricultural and rural affairs from 2001 to 2016, 2017 China Agriculture Yearbook, supra note 211, at 137; China Agriculture Yearbook 100 (2002).

268 Quanguo Renmin Daibiao Da Hui Chn W Shenhu Guanyu Feizhi Zhonghua Renmin Gongheguo Nongyeshui Nongye Tiaozi Tiaozi de Jueding (全国人民代表大会常务委员会关于废止《中华人民共和国农业税条例》的决定) [Decision of the Standing Committee of the National People’s Congress on the Abolition of the Agricultural Tax Regulations of the People’s Republic of China] (promulgated by
and agricultural infrastructure,269 subsidization of agriculture,270 and establishment of a rudimentary rural social protection system.271 All of these rural economic and social programs are concrete measures to implement Xi’s anti-poverty campaign, which targets rural and impoverished areas in central and western China and vows to eradicate poverty in China by 2020.272

Second, a potential, and certainly implicit, alliance between Xi Jinping and a rural base that is victimized or marginalized by the prevailing legal-economic order and that desires “a national hero” to fight the rich and the corrupt, provide for the poor, and “right the wrongs” of global capitalism.273 This alliance does not require a systematic discourse against globalization within the rural base. The hardships the base has suffered may make it receptive to—and even positively demand—that state protection, paternalism, and redistribution of wealth from the elites to the masses. Nor does this alliance require everyone to believe that the leader is faithfully delivering protection, paternalism, and wealth redistribution. As long as enough people in the base believe or are induced to believe that some degree of protection, paternalism, and wealth redistribution is being delivered, the alliance may be sustained. In Mountain County and River District, a significant number of residents could point to the tangible

---


270 See supra text accompanying notes 206–11.


272 Juesheng Guantou, Kan Xi Jinping Zhe Yinian Fupin Gongjian Lu (决胜关头, 看习近平这一年扶贫攻坚路) [At the Juncture of Victory, Look at Xi Jinping’s Arduous Path of Fighting Poverty This Year], YANGSHII (央視) [CCTV] (Oct. 17, 2019), http://m.news.cctv.com/2019/10/17/ARTIZHE57BNZTy5t6tWY5N191017.shtml.

273 Cf. SIMEON DJANKOV, PETERTON INST. INT’L ECON., RUSSIA’S ECONOMY UNDER PUTIN: FROM CRONY CAPITALISM TO STATE CAPITALISM 2–3 (2015) (explaining that the shock therapy and rapid privatization under the Washington Consensus led to crony capitalism and a weakened and impoverished Russian state; discontented and disillusioned public demanded a strong leader to check crony capitalism, regain economic stability, rebuild state capacity, and provide social welfare).
benefits they had received from the government and conclude that Xi Jinping was “a good leader.”

Third, a paternalistic agricultural policy to address job losses, social dislocation, and rural decline. The state’s role in Mountain County’s agricultural economy is an example of a milder, more benign version of state paternalism. The state’s role in River District’s agricultural economy is an example of a stronger and more dictatorial version of state paternalism, indistinguishable from state coercion. Yet, even in River District, the magnitude of trade-inflicted harm, the provision of a basic income through cooperatization, and the establishment by the State Farm system of an elemental safety net allowed the local government to coerce an entire population without causing a popular uprising.

***

In the West, Xi’s anti-corruption campaign and promotion of national champions have attracted much attention (and suspicion and criticism). Yet, his anti-poverty campaign and paternalist approach to rural and agricultural development remain largely unknown. The fieldwork in Mountain County and River District is a deep probe on an extremely limited scale of the relationship between the Chinese state and rural Chinese citizens. To the extent it can shed light on state-citizen relations in rural China, it may be the potential connection between the costs of globalization and a turn away from neoliberalism as embodied in the international economic order. The job losses and social dislocation in some parts of rural China may be creating a welcoming environment for state protection and paternalism and for a political strongman in defiance of Western, particularly American, neoliberalism.274

VI. Conclusion

DuPuis exclaims that “milk is an embodiment of the politics of American identity over the last 150 years.”275 The same can be said about the significance of milk in the collective Chinese imagination. The American identity is shaped by America’s self-image “as a leading voice against authoritarianism.”276 Similarly, the core of the modern Chinese identity is shaped by its understanding

275 DuPuis, supra note 31, at 8.
of the West during the two Sino-West encounters, one in the late Qing and Republican periods, and one in the reform era.

Milk is a product of the first Sino-West encounter. The subsequent social history of milk in China is a live drama of all the conflicts, aspirations, ambivalences, and uncertainties that the Sino-West encounters entail. Unfortunately, in neither encounter did the West present itself in the best light. The first encounter left the Chinese with a bitter collective memory of imperialism and colonialism. The second encounter, which is still ongoing today, may be making an impression on a significant portion of the Chinese public—and I truly hope I am wrong—that Western liberalism is essentially anti-collective, anti-state, and anti-redistributive market fundamentalism.277

China has embraced milk. The world has embraced soy. In the age of post-neoliberalism (if there will be one), milk and soy will continue to embody the complexity of national identities, the interconnectedness between nations and peoples, and all the benefits and costs, and promises and disappointments that may come with that inter-connectedness.

---

277 How the Chinese public perceives the West is a combined result of Western actions and Chinese interpretations, heavily filtered and shaped by the Chinese government under the leadership of the CCP. Despite the heavy influence of the CCP, the West, through its policies, actions, and repertoire, is an active shaper of its image in China. Grewal & Purdy, supra note 274, at 6–7 (explaining neoliberalism’s argumentative repertoire and hegemonic power in the West); Amy Kapczynski, Intellectual Property’s Leviathan, 77 L. CONTEMP. PROB. 131 (2014) (exposing the pervasiveness of a negative neoliberal conception of the state in the field of intellectual property law); John Williamson, The Washington Consensus as Policy Prescription for Development, lecture delivered at the World Bank (Jan. 13, 2004), https://www.piie.com/publications/papers/williamson0204.pdf (explaining the policy prescriptions that make up the Washington Census, the quintessence of neoliberalism in international development circles).