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Citations:

Bluebook 21st ed.

Xiaoqian Hu, "A Glass of Milk Strengthens a Nation." Law, Development, and China's Dairy Tale, 16 J. FOOD L. & POL'y 78 (2020).

ALWD 6th ed.

Hu, X. ., "a glass of milk strengthens a nation." law, development, and china's dairy tale, 16(1) J. Food L. & Pol'y 78 (2020).

APA 7th ed.

Hu, X. (2020). "a glass of milk strengthens nation." law, development, and china's dairy tale. Journal of Food Law and Policy, 16(1), 78-135.

AGLC 4th ed.

Xiaoqian Hu, "'A Glass of Milk Strengthens a Nation." Law, Development, and China's Dairy Tale' (2020) 16(1) Journal of Food Law and Policy 78.

MLA 8th ed.

Hu, Xiaoqian. "'A Glass of Milk Strengthens a Nation." Law, Development, and China's Dairy Tale." Journal of Food Law and Policy, vol. 16, no. 1, Spring 2020, p. 78-135. HeinOnline.

OSCOLA 4th ed.

Xiaoqian Hu, "A Glass of Milk Strengthens a Nation." Law, Development, and China's Dairy Tale' (2020) 16 J Food L & Pol'y 78

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# “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.<sup>1</sup> As a matter of fact, studies have found that Chinese people have very high levels

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<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup> In the Chinese language, *dou* means beans, and since soybean is *the* bean for the Han Chinese, *dou* implies soybeans.<sup>6</sup> *Jiang* refers to a thick liquid, often from a plant.<sup>7</sup> 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).<sup>8</sup>

Today, while China continues to be the world’s largest soybean consumer,<sup>9</sup> it has also become the world’s third largest dairy

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<sup>2</sup> See, e.g., Wang Yongfa et al., *Prevalence of Primary Adult Lactose Malabsorption in Three Populations of Northern China*, 67 HUM. GENETICS 103, 103 (1984).

<sup>3</sup> Leqing Zhiku (乐晴智库) [Leqing Think Tank], *Dounai Hangye: Zhongguo Dounai Xiaoliang Quanqiu Diyi, Shichang Guimo Jin Baiyi* (豆奶行业: 中国豆奶销量全球第一, 市场规模近百亿) [*Soymilk Industry: Chinese Soymilk Sales No. 1 in the World, Market Size Approaches 10 Billion Yuan*], SINA CAIJING TOUTIAO (SINA 财经头条) [SINA FIN. HEADLINES] (July 4, 2017), <https://cj.sina.com.cn/article/detail/5160876646/307624>.

<sup>4</sup> See *Soy Story: The History of the Soybean*, EATING CHINA, <https://www.eatingchina.com/articles/soystory.htm> (last updated Dec. 12, 2019) [hereinafter *Soy Story*]; see also *Soy Products*, EATING CHINA, <https://www.eatingchina.com/articles/soyproducts.htm> (last updated January 13, 2020).

<sup>5</sup> *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).

<sup>6</sup> See *Soy Story*, *supra* note 4.

<sup>7</sup> *Id.*

<sup>8</sup> 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).

<sup>9</sup> 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,<sup>10</sup> and the world's largest importer of dairy products, dairy cows, and hay and alfalfa.<sup>11</sup> Most significantly, dairy has surpassed soybeans—by large margins—in both consumption volume and sales revenue.<sup>12</sup> 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.<sup>13</sup>

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?<sup>14</sup> Last, but not least, how does law feature in this picture?

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macro- and micro-level socioeconomic changes that are taking place in China and that have been observed by researchers and other analysts, myself included.

<sup>10</sup> U.S. DEP'T OF AGRIC., DAIRY: WORLD MARKETS AND TRADE 13 (July 2019), <https://downloads.usda.library.cornell.edu/usda-esmis/files/5t34sj56t/3f462h141/p8419020t/dairy.pdf>.

<sup>11</sup> Zhongguo Naiye Xiehui (中国奶业协会) [China Dairy Association], *Zhongguo de Naiye Baiqi Shu: Zhongguo Naiye Jiben Qingkuang he Fazhan Xian Zhuang* (《中国的奶业》白皮书：中国奶业基本情况和发展现状) [*White Paper on “China’s Dairy Industry”: Basic Situation and Development Status of China’s Dairy Industry*], YANGGUANG XUMU WANG (阳光畜牧网) [SUNSHINE ANIMAL HUSBANDRY NETWORK] (July 13, 2019), <http://www.ygsite.cn/show.asp?id=70950>.

<sup>12</sup> In 2018, Chinese citizens consumed 8.3 kg of soy products and 12.2 kg of dairy on average. See *China Statistical Yearbook 2019: 6-4 Per Capita Consumption of Major Foods Nationwide*, NAT'L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/ndsj/2019/indexeh.htm> (last visited Apr. 17, 2020). In 2017, the national sales of various soymilk products totaled ¥8.3 billion (\$1.2 billion), while the national sales of various dairy products totaled ¥98 billion (\$14 billion). See Leqing Zhiku, *supra* note 3; Zhongshang Qingbao Wang (中商情报网) [China Business Intelligence Network], *2018 Nian Zhongguo Niunai Shichang Fenxi ji 2019 Nian Yuce* (2018 年中国牛奶市场分析及 2019 年预测) [*2018 Analysis and 2019 Predictions of the Chinese Dairy Market*], SINA CAIJING TOUTIAO (SINA 财经头条) [SINA FIN. HEADLINES] (Dec. 27, 2018), <https://cj.sina.com.cn/articles/view/1245286342/4a398fc600100gxw1>.

<sup>13</sup> See generally Gustavo de L. T. Oliveira & Mindi Schneider, *The Politics of Flexing Soybeans: China, Brazil, and Global Agroindustrial Restructuring*, 43 J. PEASANT STUD. 167 (2016); see James L. Watson, *Meat: A Cultural Biography in (South) China*, in *FOOD CONSUMPTION IN GLOBAL PERSPECTIVE* 25, 25–44 (Jakob A. Klein et al. eds., 2014) (discussing the cultural and spiritual meanings of pork in traditional Chinese society).

<sup>14</sup> 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.<sup>15</sup> 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.<sup>16</sup> 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

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“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).

<sup>15</sup> *See, e.g.*, ISPI, CHINA: CHAMPION OF (WHICH) GLOBALISATION? (Alessia Amighini ed., 2018), [https://www.ispionline.it/sites/default/files/publicazioni/chin\\_achampion\\_web\\_1\\_0.pdf](https://www.ispionline.it/sites/default/files/publicazioni/chin_achampion_web_1_0.pdf) [hereinafter CHINA: CHAMPION OF (WHICH) GLOBALISATION?] (providing the view of China as a globalization winner); Branko Milanovic, *Winners of Globalization: The Rich and the Chinese Middle Class. Losers: The American Middle Class*, HUFFINGTON POST (Dec. 6, 2017), [https://www.huffpost.com/entry/winners-of-globalization-\\_b\\_4603454](https://www.huffpost.com/entry/winners-of-globalization-_b_4603454); *see generally* JOSEPH E. STIGLITZ, GLOBALIZATION AND ITS DISCONTENTS REVISITED: ANTI-GLOBALIZATION IN THE ERA OF TRUMP (2018) (for information on job losses and displacement in the global South and some manufacturing sectors of the global North); *see generally* WORLD TRADE AND INVESTMENT LAW REIMAGINED: A PROGRESSIVE AGENDA FOR AN INCLUSIVE GLOBALIZATION (Alvaro Santos et al. eds., 2019) [hereinafter WORLD TRADE & INVESTMENT LAW REIMAGINED].

<sup>16</sup> *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.<sup>17</sup> 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.<sup>18</sup> 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.”<sup>19</sup> These ideas about milk are still prominent today.<sup>20</sup>

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”).<sup>21</sup> 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.<sup>22</sup> The local histories of milk and soybeans in Mountain County (pseudonym) illustrate the benefits brought by HRS to rural Chinese citizens.<sup>23</sup> 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.<sup>24</sup>

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

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<sup>17</sup> See *infra* Section II.A.

<sup>18</sup> 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.

<sup>19</sup> See *infra* Section II.A.

<sup>20</sup> See *infra* Section II.A.

<sup>21</sup> See Justin Yifu Lin, *The Household Responsibility System Reform in China: A Peasant’s Institutional Choice*, 69 *AM. J. AGRIC. ECON.* 410 (1987).

<sup>22</sup> See *infra* Section II.B.

<sup>23</sup> See *infra* Section II.C.i.

<sup>24</sup> 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.<sup>25</sup> Small Chinese farms created by the early reform-era land regime could not compete.<sup>26</sup> Hundreds of millions of farmers (and their sons and daughters) left home to seek work in cities and industrial towns as economic migrants.<sup>27</sup> 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.<sup>28</sup>

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.<sup>29</sup> 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

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<sup>25</sup> See *Trade*, U.S. DEP'T OF AGRIC., <https://www.ers.usda.gov/topics/animal-products/dairy/trade/> (last updated Mar. 24, 2020); see also U.S. DEP'T OF AGRIC., EIB-136, CHINA'S GROWING DEMAND FOR AGRICULTURAL IMPORTS (2014). See also George Frisvold, *The U.S. Dairy Industry in the 20<sup>th</sup> and 21<sup>st</sup> Century*, 16 J. FOOD L. & POL'Y (forthcoming Dec. 2020) (examining government support programs for dairy farmers and the dairy industry's transformation from small scale and little mechanization to ever-larger scale and ever-higher mechanization in the past one hundred years in the U.S.).

<sup>26</sup> Lin, *supra* note 21; see *infra* Part III.

<sup>27</sup> 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.

<sup>28</sup> See generally, Chris King-Chi Chan and Pun Ngai, *The Making of a New Working Class? A Study of Collective Actions of Migrant Workers in South China*, 198 THE CHINA Q. 287 (2009) (rural labor employed in manufacturing); Ngai Pun and Huilin Lu, *Neoliberalism, Urbanism and the Plight of Construction Workers in China*, 1 WORLD REV. OF POL. ECON. 127 (2010) (rural labor employed in urban construction).

<sup>29</sup> 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.<sup>30</sup> 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.<sup>31</sup> 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.<sup>32</sup> When cow's milk was introduced to China, it was promoted primarily as a nutritious food for infants and children.<sup>33</sup>

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<sup>30</sup> See *infra* Section V.

<sup>31</sup> E. MELANIE DUPUIS, NATURE'S PERFECT FOOD: HOW MILK BECAME AMERICA'S DRINK 50–51 (2002).

<sup>32</sup> 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).

<sup>33</sup> 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.<sup>34</sup> 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.<sup>35</sup> 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.<sup>36</sup> Dairy operations were established in or near port cities using low-yield Chinese cattle.<sup>37</sup> As foreigners' demand for milk exceeded the indigenous supply, higher-yield European cows were imported via these trading ports.<sup>38</sup>

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.<sup>39</sup> 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.<sup>40</sup>

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.<sup>41</sup> Nestlé, the other major European milk player at the time, also sold its milk powder in port cities in China.<sup>42</sup>

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<sup>34</sup> See e.g., JULIA LOVELL, *THE OPIUM WAR: DRUGS, DREAMS, AND THE MAKING OF MODERN CHINA* (2012).

<sup>35</sup> *Id.* at 223–40 (on the history of the signing of the Treaty of Nanjing).

<sup>36</sup> Yang Zhiyong, *supra* note 32, at 223.

<sup>37</sup> *Id.* at 223–24.

<sup>38</sup> *Id.*; Shao Yishu (邵逸舒), *Jiyu Ruye Shiyu de Minguo 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).

<sup>39</sup> Yang Zhiyong, *supra* note 32, at 223–45; Geng Lei (耿磊), *Ruye yu Chengshi Jindaihua: 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).

<sup>40</sup> Yang Zhiyong, *supra* note 32, at 224.

<sup>41</sup> *Id.* at 225.

<sup>42</sup> *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.<sup>43</sup> 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.<sup>44</sup> 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 . . .<sup>45</sup>

In the Chinese political history, the Opium War marked the beginning of China's "century of humiliation."<sup>46</sup> 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.<sup>47</sup> 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.<sup>48</sup>

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<sup>43</sup> 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).

<sup>44</sup> Yang Zhiyong, *supra* note 32, at 225.

<sup>45</sup> *Id.*

<sup>46</sup> Matt Schiavenza, *How Humiliation Drove Modern Chinese History*, *THE ATLANTIC* (Oct. 25, 2013), <https://www.theatlantic.com/china/archive/2013/10/how-humiliation-drove-modern-chinese-history/280878/>.

<sup>47</sup> *See generally*, LOVELL, *supra* note 34.

<sup>48</sup> *See, e.g.*, FRANK DIKÖTTER, *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.<sup>49</sup> 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.<sup>50</sup> 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.<sup>51</sup>

Also as in the U.S. decades earlier, children were put at the forefront of societal progress.<sup>52</sup> One social reformer urged:

In a situation in which China represents the “sick man” of Asia, if we want to revitalize the Chinese nation (*fixing 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 (*fixing minzu*) depends on a healthy citizenry, and without healthy children, how can there be a healthy nation?<sup>53</sup>

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

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<sup>49</sup> Sabban, *supra* note 1, at 187–194.

<sup>50</sup> DUPUIS, *supra* note 31, at 8, 17; Wiley, *supra* note 18, at 16–18.

<sup>51</sup> Sabban, *supra* note 1, at 186–194.

<sup>52</sup> FU, *supra* note 5, at 98.

<sup>53</sup> *Id.* Foreign companies such as Nestlé and Heinz continue to impact food consumption habits and cultural notions about food in China today. See, e.g., Jun Jing, *Introduction: Food, Children, and Social Change in Contemporary China*, in FEEDING CHINA’S LITTLE EMPERORS: FOOD, CHILDREN, AND SOCIAL CHANGE 1, 17–20 (Jun Jing ed., 2000) [hereafter FEEDING CHINA’S LITTLE EMPERORS]; Eriberto P. Lozada, Jr., *Globalized Childhood? Kentucky Fried Chicken in Beijing*, in FEEDING CHINA’S LITTLE EMPERORS, *supra* note 53, at 114–34; Suzanne K. Gottschang, *A Baby-Friendly Hospital and the Science of Infant Feeding*, in FEEDING CHINA’S LITTLE EMPERORS, *supra* note 53, at 160–84.

<sup>54</sup> FU, *supra* note 5, at 89.

<sup>55</sup> Sabban, *supra* note 1, at 186–194.

<sup>56</sup> DUPUIS, *supra* note 31, at 57; FU, *supra* note 5, at 101.

become a popular food among the elites of the Chinese government.<sup>57</sup>

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.<sup>58</sup> 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.<sup>59</sup> As one Chinese milk advocate admitted in 1939, cow’s milk was still “an aristocratic beverage” beyond the reach of ordinary Chinese people.<sup>60</sup>

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.<sup>61</sup> To progressive intellectuals and reformers of Republican China, *doujiang* symbolized Chinese frugality, inventiveness, and hope of rejuvenation.<sup>62</sup> *Doujiang* offered “a Chinese path of development.”<sup>63</sup>

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

After 1978, rapid economic growth led to a rapid rise in personal income.<sup>67</sup> Following its Republican predecessor, the

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<sup>57</sup> Shao Yishu, *supra* note 38, at 17.

<sup>58</sup> Sabban, *supra* note 1, at 186–194.

<sup>59</sup> Geng Lei, *supra* note 39, at 636.

<sup>60</sup> Sabban, *supra* note 1, at 186.

<sup>61</sup> Fu, *supra* note 5, 102–08.

<sup>62</sup> *Id.* at 180.

<sup>63</sup> *Id.* at 90.

<sup>64</sup> *Timeline of China’s Modern History*, CHI. PUB. LIBRARY, <https://www.chipublib.org/timeline-of-chinas-modern-history/> (last updated Apr. 30, 2012).

<sup>65</sup> 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).

<sup>66</sup> Shen Mei (沈美), *Niunai Chanliang bi Jianguo Chiqi Zengzhang 154 Bei, Zhongguo Shixian “Da Fazhan”* (牛奶产量比建国初期增长 154 倍, 中国实现“大发展”) [Cow’s Milk Production 154 Times the Level of the PRC’s Founding, China Realizes “Big Development”], XINHUA WANG (新华网) [XINHUA NET] (July 20, 2019), [http://www.xinhuanet.com/food/2019-07/12/c\\_1124744433.htm](http://www.xinhuanet.com/food/2019-07/12/c_1124744433.htm).

<sup>67</sup> *See GDP Per Capita (Current US\$)—China*, THE WORLD BANK, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CN> (last visited July 16, 2020).

Communist government launched various nutrition campaigns promoting cow's milk, deploying the same cultural and political tropes about milk, child development, and national rejuvenation.<sup>68</sup> 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.<sup>69</sup>

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."<sup>70</sup>

<sup>68</sup> 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 *UCLA HIST. 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. The program has evolved over the years. For more detailed information, please visit the program's official website, <https://www.schoolmilk.cn/s/index>.

<sup>69</sup> Guowuyuan (国务院) [State Council], *Guanyu Tuijin Naiye Zhenxing Baozhang Rupin Zhiliang Anquan de Yijian* (关于推进奶业振兴保障乳品质量安全的意见) [*Opinion on Further Revitalizing the Dairy Industry and Guaranteeing the Quality and Safety of Dairy Productions*], 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] (June 3, 2018), [http://www.gov.cn/zhengce/content/2018-06/11/content\\_5297839.htm](http://www.gov.cn/zhengce/content/2018-06/11/content_5297839.htm); Tan Zhongyang (谭中杨), *Yibe Niunai Nengfou Qiangzhuang Yige Minzu—Xuesheng Yinyong Nai Jihua Jieshi Aoyunhui Jiangpai Bang Beihou de Mimi* (一杯牛奶能否强壮一个民族? —“学生饮用奶计划”揭示奥运会奖牌榜背后的秘密) [*Can a Glass of Cow's Milk Strengthen a Nation?—“Student Drinking Milk Plan” Reveals the Secret Behind the Olympic Medal List*], ZHONGGUO JIAOYU XINWEN WANG (中国教育新闻网) [CHINA EDUC. NEWS] (Aug. 28, 2016), [http://www.jyb.cn/china/tjyk/201608/t20160828\\_670343.html](http://www.jyb.cn/china/tjyk/201608/t20160828_670343.html); ZHONGGUO NAI YE XIEHUI (中国奶业协会) [CHINA DAIRY ASS'N], ZHONGGUO NAI YE ZHILIANG BAOGAO (中国奶业质量报告) [CHINESE DAIRY INDUSTRY QUALITY REPORT] (2017).

<sup>70</sup> See Lanting Ke (兰亭客) [Lantinger], *90 Niandai Wahaha Guo Nai de Guanggao* (90年代娃娃哈哈果奶的广告) [*90's Wahaha Fruit Milk Advertisements*], TENGXUN SHIPIN (腾讯视频) [TENCENT VIDEO] (Mar. 19, 2017), <https://v.qq.com/x/page/f03851li6zz.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.<sup>71</sup>

*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.<sup>72</sup> 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.<sup>73</sup> Workers of state-owned farms worked for the farms and earned monetary wages.<sup>74</sup> 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).<sup>75</sup> Beginning in 1982, however, the CCP and the Chinese government created what would later be called the Household Responsibility System ("HRS").<sup>76</sup> 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;<sup>77</sup> rent was zero for collective land but a positive sum for state land.<sup>78</sup> 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.<sup>79</sup> However, resistance to long-

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<sup>71</sup> Xiangdong Lu & Huilai Zong, *The Problems and Countermeasures After China's Dairy Enters the Adjustment Period*, 7 *AG. ECON. PROBLEMS* 5 (2008).

<sup>72</sup> HUAIYIN LI, *VILLAGE CHINA UNDER SOCIALISM AND REFORM: A MICRO HISTORY, 1948-2008*, 23-49, 82 (Stanford Univ. Press, 2009); Forrest Zhang, *Reforming China's State-Owned Farms: State Farms in Agrarian Transition*, 2010 4<sup>TH</sup> ASIAN RURAL SOC. ASS'N INT'L CONF., 365, 367-70, [http://ink.library.smu.edu.sg/soss\\_research/1089](http://ink.library.smu.edu.sg/soss_research/1089).

<sup>73</sup> LI, *supra* note 72, at 35-47, 96-97, 100-01, 131-33, 147-48.

<sup>74</sup> Zhang, *supra* note 72, at 370; *see also infra* Section II.C.ii.

<sup>75</sup> Author's archival and fieldwork research, on file with Author; Monica Eppinger, *Herdin History: Legal Change, Norm Formation, and Transformation of the Dairyspheres of Post-Soviet Ukraine*, 16 *J. FOOD L. & POL'Y* (forthcoming Dec. 2020).

<sup>76</sup> ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], *Quanguo Nongcun Gongzuo Huiyi Jiyao* (全国农村工作会议纪要) [Summaries of the National Rural Work Conference] (1982).

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], *DANGQIAN NONGCUN JINGJI ZHENGCE DE RUOGAN WENTI* (当前农村经济政策的若干问题) [SOME PROBLEMS IN CURRENT RURAL ECONOMIC POLICY] (1983).

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.<sup>80</sup>

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.<sup>81</sup> 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.<sup>82</sup> In the late 1990s and early 2000s, laws were enacted to fix village-wide land redistributions to once every thirty years.<sup>83</sup> 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.<sup>84</sup> 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.<sup>85</sup>

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.<sup>86</sup> Reflecting this

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<sup>80</sup> 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].

<sup>81</sup> PETER HO, INSTITUTIONS IN TRANSITION: LAND OWNERSHIP, PROPERTY RIGHTS, AND SOCIAL CONFLICT IN CHINA 9–10 (2005).

<sup>82</sup> *See id.*

<sup>83</sup> Zhonghua Renmin Gongheguo Nongcun Tudi Chengbao Fa (中华人民共和国农村土地承包法) [Rural Land Contract Law of the People's Republic of China] (promulgated by the Standing Comm. of the Nat'l People's Cong., Aug. 29, 2002, effective Mar. 1, 2003) ST. COUNCIL GAZ., Oct. 10, 2002, at 28, art. 20 [hereinafter Rural Land Contract Law]. Most recently, the CCP and central Chinese government jointly issued a policy document, extending the current rural land tenure by another 30 years. ZHONGGUO GONGCHANDANG (中国共产党) & GUOWUYUAN (国务院) [COMMUNIST PARTY OF CHINA & STATE COUNCIL], GUANYU BAOCHI TUDI CHENGBAO GUANXI WENDING BING CHANGJIU BUBIAN DE YIJIAN (关于保持土地承包关系稳定并长久不变的意见) [THE OPINION ON MAINTAINING THE STABILITY AND LONG-TERM FIXITY OF LAND CONTRACTUAL RELATIONS] (2019).

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

<sup>86</sup> Lin Wanlong (林万龙), *Nongdi Jingying Guimo: Guoji Jingyan yu Zhongguo de Xianshi Xuanze* (农地经营规模：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.<sup>87</sup>

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.<sup>88</sup> 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").<sup>89</sup>

The rising demand for agricultural goods drove prices up between 1980 and 1996.<sup>90</sup> 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%.<sup>91</sup> By some calculations, at the time China joined the

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*Production Scale: International Experiences and China's Realistic Choice*, 7 NONGYE JINGJI WENTI (农业经济问题) [ISSUES IN AGRIC. ECON.] 33, 37 (2017).

<sup>87</sup> See, e.g., CHINA'S PEASANT AGRICULTURE AND RURAL SOCIETY: CHANGING PARADIGMS OF FARMING 25–44 (Jan Douwe van der Ploeg & Jingzong Ye eds., 2016) [hereinafter CHINA'S PEASANT AGRICULTURE AND RURAL SOCIETY] (providing a rich description and analysis of Chinese farmers' multiple economic activities).

<sup>88</sup> 1993 POLICY MEASURES, *supra* note 80.

<sup>89</sup> 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).

<sup>90</sup> 9-10 *Quanguo Nongchanpin Shougou Jiage Fenlei Zhishu* (9-10 全国农产品收购价格分类指数) [9-10 National Agricultural Product Purchase Price Classification Index], 2001 NIAN ZHONGGUO TONGJI NIANJIAN (2001 年中国统计年鉴) [2001 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/tjsj/nds/2001c/i0910c.htm> (last visited July 16, 2020) (cataloging major agricultural product purchasing price indexes from 1978 to 2000).

<sup>91</sup> 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.<sup>92</sup> There was no or very little mechanization for either dairy or soybean production.<sup>93</sup>

### C. Dairy and Soybeans in Rural Chinese Life

Administratively, China is governed by the central, provincial, prefectural, county, and township governments.<sup>94</sup> The village is not part of government, although its governance is heavily

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For soybean statistics, see *12-17 Zhuyao Nongchanpin Chanliang* (12-17 主要农产品产量) [*12-17 Output of Major Agricultural Products*], 2001 NIAN ZHONGGUO TONGJI NIANJIAN (2001 年中国统计年鉴) [2001 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/tjsj/ndsj/2001c/11217c.htm>.

<sup>92</sup> 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 Nongzuowu 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).

<sup>93</sup> 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).

<sup>94</sup> *Administrative Division*, STATE COUNCIL, [http://english.www.gov.cn/archive/china\\_abc/2014/08/27/content\\_281474983873401.htm](http://english.www.gov.cn/archive/china_abc/2014/08/27/content_281474983873401.htm) (last updated Aug. 26, 2014); see also OECD, *EDUCATION IN CHINA: A SNAPSHOT 9* (2016).

influenced by the government.<sup>95</sup> Parts of rural China are State Farms (*guoyou nongchang*, 国有农场).<sup>96</sup> They are governed by the State Farm system comprised of the central, provincial, district, farm, and unit administrations.<sup>97</sup> Mountain County in southern inland China is governed by the regular administrative system.<sup>98</sup> River District in Heilongjiang Province in northeastern China is governed by the State Farm system.<sup>99</sup>

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<sup>100</sup>

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

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<sup>95</sup> 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).

<sup>96</sup> 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).

<sup>97</sup> Author's own archival and fieldwork research, on file with Author.

<sup>98</sup> 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).

<sup>99</sup> See Zhang, *supra* note 72, at 368;

<sup>100</sup> 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.<sup>101</sup> 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.<sup>102</sup> 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.

ii. River District: Tumultuous Market Opening<sup>103</sup>

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.<sup>104</sup> As one

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<sup>101</sup> Tofu and pork (and fish) are essential dishes on the New Year's Eve dinner or at meals with relatives and friends. See generally Watson, *supra* note 13 (discussing the cultural and ritual importance of pork in rural Chinese life).

<sup>102</sup> *Landoushi* means rotten soybean food. Interestingly, the local dialect for fermented tofu (*douru*) literally means soy milk. *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 *doufuhua* (literally means tofu flower—a silky, semi-curdled product before the curd turns into tofu) and yoghurt.

<sup>103</sup> The statements made in this section rely on the Author's own fieldwork and historical research in River District.

<sup>104</sup> 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”).<sup>105</sup> 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.<sup>106</sup> Market opening led to immediate increases in grain prices. Between

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the rest of the country. See JAE HO CHUNG, *CENTRAL CONTROL AND LOCAL DISCRETION IN CHINA: LEADERSHIP AND IMPLEMENTATION DURING POST-MAO DECOLLECTIVIZATION* (Oxford Univ. Press 2000) (providing an in-depth analysis of provincial implementations of HRS).

<sup>105</sup> 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, semi-colonialism, 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).

<sup>106</sup> Luo Jinqiang (罗进强) & Ren Liming (任立民), *Woguo Liangshi Caizheng Butie de Lishi Yanbian Jiqi 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.<sup>107</sup> 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%.<sup>108</sup>

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.<sup>109</sup> As a result, total soybean import went from 2.9 million tons in 1995 to 12.8 million tons in 2000.<sup>110</sup> The in-pouring of foreign beans caused prices for domestic beans to stagnate in 1997 and to fall in 1998.<sup>111</sup>

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."<sup>112</sup> 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.

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<sup>107</sup> The numbers are calculated based on purchasing price indexes between 1993 and 1996. 9-10 *Quanguo Nongchanpin Shougou Jiage Fenlei Zhishu* (9-10 全国农产品收购价格分类指数) [9-10 *National Agricultural Product Purchase Price Index*], 2001 NIAN ZHONGGUO TONGJI NIANJIAN (2001 年中国统计年鉴) [2001 CHINA STATISTICS YEARBOOK], <http://www.stats.gov.cn/tjsj/ndsj/2001c/i0910c.htm> [hereinafter *2001 National Agricultural Product Purchase Price Index*].

<sup>108</sup> The numbers are calculated based on purchasing price indexes between 1996 and 2000. *Id.*

<sup>109</sup> Oliveira & Schneider, *supra* note 13, at 177-78 (explaining the connection between soybean imports and rising pork consumption in China).

<sup>110</sup> 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").

<sup>111</sup> *2001 National Agricultural Product Purchase Price Index*, *supra* note 107.

<sup>112</sup> 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.<sup>113</sup>

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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.<sup>114</sup> 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

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<sup>113</sup> 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-students-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).

<sup>114</sup> *China and the WTO*, WORLD TRADE ORG., [https://www.wto.org/english/thewto\\_e/countries\\_e/china\\_e.htm](https://www.wto.org/english/thewto_e/countries_e/china_e.htm) (last visited Mar. 26, 2020).



available to developing economies.<sup>115</sup> Compared with other developing countries, China also agreed to a smaller percentage of domestic support that is exempted from reduction commitment calculations.<sup>116</sup> 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.<sup>117</sup>

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.<sup>118</sup> In 2002, the average tariff rate for imported soybeans was 2.4%, down from 114% prior to China's WTO accession.<sup>119</sup> In 1998, China's statutory tariff for dairy imports was 46%; the post-accession average was 11%.<sup>120</sup>

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

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<sup>115</sup> Working Party on the Accession of China, *Report of the Working Party on the Accession of China*, WTO Doc. WT/ACC/CHN/49, ¶ 235 (Oct. 1, 2001) [hereinafter *Working Party Report*]; see WORLD TRADE ORG., *Agreement on Agriculture*, art. 6, ¶ 2, [https://www.wto.org/english/docs\\_e/legal\\_e/14-ag\\_01\\_e.htm#articleVI](https://www.wto.org/english/docs_e/legal_e/14-ag_01_e.htm#articleVI) (last visited Mar. 26, 2020) [hereinafter *Agreement on Agriculture*].

<sup>116</sup> *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).

<sup>117</sup> *Working Party Report*, *supra* note 115, at ¶ 235.

<sup>118</sup> *Working Party Report*, *supra* note 115, ¶¶ 104–38; see also U.S. INT'L TRADE COMM'N, CHINA'S AGRICULTURAL TRADE: COMPETITIVE CONDITIONS AND EFFECTS ON U.S. EXPORTS, at 7-6 (2011).

<sup>119</sup> *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.*

<sup>120</sup> 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.<sup>121</sup>

*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.<sup>122</sup> 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.<sup>123</sup> The soybean experienced the most dramatic transformation. For thousands of years it had been one of the five staples in the traditional Chinese diet.<sup>124</sup> 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.<sup>125</sup> Due to these multiple roles, China's soybean use nearly quadrupled between 2001 and 2017.<sup>126</sup>

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.<sup>127</sup>

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<sup>121</sup> See *infra* text accompanying note 127; see *infra* text accompanying notes 147–52.

<sup>122</sup> 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).

<sup>123</sup> Oliveira & Schneider, *supra* note 13, at 178; MINDI SCHNEIDER & SHEFALI SHARMA, INST. FOR AGRIC. & TRADE POLICY, CHINA'S PORK MIRACLE? AGRIBUSINESS AND DEVELOPMENT IN CHINA'S PORK INDUSTRY 7–8 (2014); U.S. DEP'T OF AGRIC., *supra* note 10, at 13.

<sup>124</sup> WILLIAM SHURTLEFF ET AL., HISTORY OF SOYBEANS AND SOYFOODS IN CHINA AND TAIWAN, AND IN CHINESE COOKBOOKS, RESTAURANTS, AND CHINESE WORK WITH SOYFOODS OUTSIDE CHINA (1024 BCE TO 2014): EXTENSIVELY ANNOTATED BIBLIOGRAPHY AND SOURCEBOOK 43–44 (2014).

<sup>125</sup> See, e.g., Oliveira & Schneider, *supra* note 13 (providing an in-depth analysis of the soybean's multiple roles in contemporary China).

<sup>126</sup> *Market Database: Supply and Demand Overview*, AGRIC. MKT. INFO. SYS., <https://app.amis-outlook.org/#/market-database/supply-and-demand-overview> (last visited July 29, 2020) (select "China" in "Country/Region"; select "Soybean" in "Commodity"; click "Download Entire Balance").

<sup>127</sup> 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.<sup>128</sup> 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.<sup>129</sup> 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.<sup>130</sup> 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.<sup>131</sup> When it was time to pay, however, prices had nearly halved.<sup>132</sup> Many Chinese companies decided to default.<sup>133</sup> 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.<sup>134</sup>

Soybean prices continued to fall and did not rebound until 2007.<sup>135</sup> 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.<sup>136</sup> By 2009, 80% of China's soybean crushing market and 60% of China's soy oil refining market were controlled by foreign firms.<sup>137</sup>

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<sup>128</sup> Oliveira & Schneider, *supra* note 13, at 178.

<sup>129</sup> SOLIDARIDAD, CHINA'S SOY CRUSHING INDUSTRY IMPACTS ON THE GLOBAL SUSTAINABILITY AGENDA 3–6, 10–16, <https://www.solidaridadnetwork.org/sites/solidaridadnetwork.org/files/publications/China%20Soy%20report.pdf> (last visited Apr. 17, 2020).

<sup>130</sup> Oliveira & Schneider, *supra* note 13, at 178.

<sup>131</sup> Yang Mei (杨眉), 2004 Nian Dadou Weiji Shijian de Shimo (2004 年大豆危机事件始末) [*The Soybean Crisis in 2004*], ZHONGGUO JINGJI ZHOUKAN (中国经济周刊) [CHINA ECON. WEEKLY] (Feb. 18, 2008), <http://finance.aweb.com.cn/2008/2/18/2252008021810483390.html>.

<sup>132</sup> *Id.*

<sup>133</sup> *Id.*

<sup>134</sup> Oliveira & Schneider, *supra* note 13, at 178.

<sup>135</sup> 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").

<sup>136</sup> Oliveira & Schneider, *supra* note 13, at 170, 178.

<sup>137</sup> *Id.* at 178; see also ZANG YUNPENG (臧云鹏), ZHONGGUO NONGYE ZHENXIANG: WAIZI DAJU 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.<sup>138</sup> 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.<sup>139</sup> In 2002, China produced 1.19 times as many soybeans as it imported.<sup>140</sup> In 2016, China imported approximately seven times more soybeans than it produced domestically.<sup>141</sup> Today, two thirds of the world’s soybean exports go to China.<sup>142</sup> Domestically, however, soybean production shrank by approximately 20.4% between 2002 and 2017.<sup>143</sup> 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.<sup>144</sup>

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.<sup>145</sup> While U.S. farmers

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CHINA’S AGRICULTURE] (Peking Univ. Press 2013) (providing an in-depth analysis of China’s “2004 soybean crisis”).

<sup>138</sup> 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).

<sup>139</sup> SOLIDARIDAD, *supra* note 129, at 6–8.

<sup>140</sup> 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”).

<sup>141</sup> 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”).

<sup>142</sup> *Soybeans Accounted for the Majority of U.S. and Brazil Agricultural Exports to China in 2017*, U.S. DEP’T OF AGRIC., <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=93573> (last updated July 25, 2019).

<sup>143</sup> 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”).

<sup>144</sup> Oliveira & Schneider, *supra* note 13, at 181 (citation omitted).

<sup>145</sup> FRED GALE ET AL., U.S. DEP’T AGRIC., EIB-136, CHINA’S GROWING DEMAND FOR AGRICULTURAL IMPORTS 7 (Feb. 2015), <https://www.ers.usda.gov/webdocs/publications/43939/eib-136.pdf?v=42058>; Justin Choe et al., *U.S. Soybean Exports to China Crushed Amid Rising Trade Tensions*, USITC EXECUTIVE BRIEFINGS ON TRADE, Aug. 2019, at 1–2, [https://www.usitc.gov/publications/332/executive\\_briefings/chinasoy](https://www.usitc.gov/publications/332/executive_briefings/chinasoy)

worry that their “best customer” would turn to Latin America and they would lose 300,000 soybean jobs,<sup>146</sup> 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.

### *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.<sup>147</sup> Between 2001 and 2008, China’s cow inventory more than doubled, and its milk production tripled.<sup>148</sup> Still, demand for dairy outpaced production, and dairy imports increased.<sup>149</sup>

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.<sup>150</sup> Average income in agriculture more than doubled between 2001 and 2008.<sup>151</sup>

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ebot.pdf (data on yearly U.S. soybean exports to China between 2016 and 2018); *Trade in Goods with China*, U.S. CENSUS BUREAU, <https://www.census.gov/foreign-trade/balance/c5700.html#2017> (last visited July 23, 2020) (data on trade with China between 1985 and 2020); see also Hallie Gu & Naveen Thukral, *Soy Source: Brazil’s Share of Soybean Exports to China Hits Record*, REUTERS (Jan. 25, 2008), <https://www.reuters.com/article/us-china-economy-trade-soybeans/soy-source-brazils-share-of-soybean-exports-to-china-hits-record-idUSKBN1FE111>.

<sup>146</sup> Nathaniel Meyersohn, *China Takes Aim at America’s Soybean Farmers*, CNNMONEY (Apr. 5, 2018), <http://money.cnn.com/2018/04/05/news/economy/soybeans-china-trade-us/index.html>.

<sup>147</sup> Fred Gale & Michael Jewison, *China as Dairy Importer: Rising Milk Prices and Production Costs*, 19 INT’L FOOD & AGRIBUSINESS MGMT. REV. 189, 193 (2016).

<sup>148</sup> 2009 ZHONGGUO NAI YE NIANJIAN (2009 中国奶业年鉴) [2009 CHINA DAIRY INDUSTRY YEARBOOK] tbl. 1-10 (Ministry of Agric. ed., 2009) (end-of-the-year dairy cow inventories between 1975 and 2008); *China Statistical Yearbook 2009: 12-19 Output of Livestock Products*, NAT’L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/ndsj/2009/indexeh.htm> (last visited Apr. 17, 2020) (providing China produced 10,255,000 tons of cow milk in 2001 and 35,558,000 in 2008).

<sup>149</sup> BRAD GEHRKE & LESLEY AHMED, U.S. INT’L TRADE COMM’N, AGRICULTURAL TRADE WITH CHINA: DAIRY IMPORT GIANT (2019).

<sup>150</sup> Xiaobing Wang et al., *Wage Growth, Landholding, and Mechanization in Chinese Agriculture*, 86 WORLD DEV. 30, 30 (2016).

<sup>151</sup> *China Statistical Yearbook 2002: 5-22 Average Wage of Staff and Workers by Sector*, NAT’L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/english/statisticaldata/yearlydata/YB2002e/ml/indexE.htm> (last visited Apr. 17, 2020) (providing that in 2001, the average wage of a worker in the “Farming, Forestry Animal Husbandry, and Fishery” sector was 5,741 Yuan); *China Statistical*

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.<sup>152</sup>

Second, in April 2008, China signed a free trade agreement (“FTA”) with New Zealand, the world’s leading dairy exporter.<sup>153</sup> The FTA required China to eliminate tariffs on many dairy imports in 2012 and all dairy (and other) imports from New Zealand in 2019.<sup>154</sup> 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).<sup>155</sup>

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.<sup>156</sup> 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.<sup>157</sup> 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.<sup>158</sup> 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

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*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/index.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). See also Xiaobing Wang et al., *supra* note 150, at 33 (Figure 2 showing a similar trend of wage growth for on-farm labor in agricultural production in China).

<sup>152</sup> Gale & Jewison, *supra* note 147, at 193.

<sup>153</sup> Free Trade Agreement Between the Government of the People’s Republic of China and the Government of New Zealand, China-N.Z., annex 1, pt. A, Apr. 7, 2008.

<sup>154</sup> *Id.*

<sup>155</sup> These numbers are calculated based on the dairy import data in *2018 Nian 1-12 Yue Zhongguo Ruzhipin Jinchukou Tongji* (2018年1—12月中国乳制品进出口统计) [*China’s Dairy Import and Export Statistics Between January and December of 2018*], AOZHOU CAIJING JIANWEN (澳洲财经见闻) [AUSTRALIAN FIN. NEWS] (Mar. 2, 2019), <https://afndaily.com/36852>.

<sup>156</sup> Xiu & Klein, *supra* note 65, at 464.

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

infant deaths.<sup>159</sup> Sanlu, China's then largest milk powder processor, declared bankruptcy.<sup>160</sup> 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.<sup>161</sup> 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.<sup>162</sup>

Researchers and the Chinese government attribute this food disaster to the highly fragmented and grossly under-regulated nature of China's milk supply chain.<sup>163</sup> 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.<sup>164</sup> 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.<sup>165</sup> Only 14% of the milking stations had a hygiene license.<sup>166</sup> There were no national quality standards for raw milk or derivative products, and the government had delegated inspection responsibilities to major dairy companies.<sup>167</sup> Hence, in a world with

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<sup>159</sup> *Id.*; Andrew Jacobs, *China to Investigate French Company Over Claims of Tainted Formula*, N.Y. TIMES (Feb. 12, 2009), [https://www.nytimes.com/2009/02/13/world/asia/13milk.html?\\_r=1&ref=asia](https://www.nytimes.com/2009/02/13/world/asia/13milk.html?_r=1&ref=asia).

<sup>160</sup> Gao Xingxiang (高兴翔), *Sanlu Wangguo Fenbenqixi, Yijia Pochan Baozhu Quan Hangye* (三鹿王国分崩离析, 一家破产保住全行业) [*Sanlu Kingdom Disintegrates, Bankruptcy of One Preserves an Entire Industry*], SHIDAI ZHOUBAO (时代周报) [THE TIME WEEKLY] (Jan. 1, 2009), <http://news.sohu.com/20090101/n261527058.shtml>.

<sup>161</sup> Xiu & Klein, *supra* note 65, at 464.

<sup>162</sup> 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?contid=1259370&from=renmin](http://m.thepaper.cn/renmin_prom.jsp?contid=1259370&from=renmin) (providing a list of high-profile responsible parties for the melamine scandal).

<sup>163</sup> Guixia Qian et al., *China's Dairy Crisis: Impacts, Causes and Policy Implications for a Sustainable Dairy Industry*, 18 INT'L J. SUSTAINABLE DEV. & WORLD ECOLOGY 434, 438 (2011); Xiu & Klein, *supra* note 65, at 464; Guowuyuan (国务院) [State Council], *Nai Ye Zhengdun He Zhenxing Guihua Gangyao* (奶业整顿和振兴规划纲要) [*Planning Guidelines for the Reorganization and Revitalization of the Dairy Industry*], 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] (Nov. 19, 2008), [http://www.gov.cn/jrzg/2008-11/19/content\\_1154518.htm](http://www.gov.cn/jrzg/2008-11/19/content_1154518.htm).

<sup>164</sup> H. Ma et al., *The Evolution of Productivity Performance on China's Dairy Farms in the New Millennium*, 95 J. DAIRY SCI. 7074, 7076 (2012); 2014 ZHONGGUO NAI YE NIANJIAN (2014 中国奶业年鉴) [2014 CHINA DAIRY INDUSTRY YEARBOOK] 32 (Ministry of Agric. ed., 2014).

<sup>165</sup> Qian et al., *supra* note 163, at 438.

<sup>166</sup> *Id.* at 438, 439.

<sup>167</sup> 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.<sup>168</sup>

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.<sup>169</sup> The Chinese state’s failure to enact labeling laws or dairy regulations gave these companies free rein to engage in such activities.<sup>170</sup> Liquid milk aside, China almost doubled its imports of milk powder between 2001 and 2008.<sup>171</sup> 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.<sup>172</sup> 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.<sup>173</sup>

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

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<sup>168</sup> *Id.*; Qian et al., *supra* note 163, at 436.

<sup>169</sup> Wang Yongkang (王永康), *Woguo Yuanliao Nai de Dingjia Ying Naru Shichang Jingji he Fazhi Guanli de Guidao—Dui Dangqian Woguo Yuanliao Nai Shougou Wenti de Yixie Sikao* (我国原料奶的定价应纳入市场经济和法制管理的轨道——对当前我国原料奶收购问题的一些思考) [*The Pricing of Domestic Raw Milk Should Be Incorporated in the Track of the Market Economy and Legal Regulation*], in *DI QI JIE ZHONGGUO NAIYE DAHUI LUNWEN JI* (第七届中国奶业大会论文集) [A COLLECTION OF PAPERS FROM THE SEVENTH CHINA DAIRY CONFERENCE] 31–2 (2016). Between 2002 and June 2008, eight Chinese dairy processing companies had received over 576 million US dollars of capital investment from multinational dairy producers and investment corporations. Qian Guixia (钱贵霞) & Xie Jing (解晶), *Zhongguo Yuanliao Nai Gongqiu Maodun Ji Qi Yingxiang Jiexi* (中国原料奶供求矛盾及其影响解析) [*Analysis on the Contradiction of Supply and Demand of Raw Milk in China and its Influence*], 42 *NEIMENGGU DAXUE XUEBAO* (ZHEXUE SHEHUI KEXUE BAN) (内蒙古大学学报(哲学社会科学版)) [J. INNER MONG. U. (PHIL. & SOC. SCI.)] 58, 62 (2010).

<sup>170</sup> Wang Yongkang, *supra* note 169, at 32.

<sup>171</sup> Qingbin Wang et al., *China’s Dairy Markets: Trends, Disparities, and Implications for Trade*, 2 *CHINA AGRIC. ECON. REV.* 356, 366 (2010).

<sup>172</sup> Xiu & Klein, *supra* note 65, at 465.

<sup>173</sup> *Id.*



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).<sup>174</sup> 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.<sup>175</sup> 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.<sup>176</sup>

The suppressed producers' price, rising costs of inputs, and inherently high risks of dairy production pushed many small dairy farmers out of business.<sup>177</sup> In 2002, 45% of China's dairy cows were raised on farms with fewer than five cows.<sup>178</sup> In 2008, only 32% of China's cows were raised on farms with fewer than five cows.<sup>179</sup> 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.

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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

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<sup>174</sup> Qian Guixia & Xie Jing, *supra* note 169, at 63.

<sup>175</sup> *Id.* at 62–64.

<sup>176</sup> Xiu & Klein, *supra* note 65, at 465.

<sup>177</sup> *Id.* at 466.

<sup>178</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 32 tbl. 2-1.

<sup>179</sup> *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.<sup>180</sup> The average farm size in China is 0.52 hectare (or 1.3 acres).<sup>181</sup> The average farm size in the U.S. is about 176 hectares (or 434 acres).<sup>182</sup> 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.<sup>183</sup> 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

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<sup>180</sup> See Quanguo Nongye Kechixu Fazhan Guihua (2015-2030 Nian) (全国农业可持续发展规划(2015-2030年)) [National Agricultural Sustainable Development Plan (2015-2030)] (promulgated by the Ministry of Agric. et al., May 20, 2015, effective May 20, 2015) ST. COUNCIL GAZ., Oct. 10, 2015, at 28 [hereinafter National Agricultural Development Plan] (promoting larger-scale operations for all agricultural activities, including crop cultivation, animal husbandry, and fisheries; giving special treatment to operations 10-15 times the size of an average household farm under HRS).

<sup>181</sup> 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](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.

<sup>182</sup> NAT'L AGRIC. STATISTICS SERV., U.S. DEP'T OF AGRIC., VOL. 1, GEOGRAPHIC AREA SERIES, PT. 51, 2012 CENSUS OF AGRICULTURE 92 tbl.65 (2012).

<sup>183</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 32.

China.<sup>184</sup> Table 1 illustrates the competitiveness of U.S. soybeans over Chinese soybeans.<sup>185</sup>

	2010		2015	
	China	US	China	US
<b>Total Production Costs</b>	¥301	¥201	¥488	¥227
<b>Cost of Labor</b>	¥81	¥10	¥156	¥11
<b>Costs of Other Variable Inputs</b>	¥112	¥70	¥146	¥82

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.<sup>186</sup> 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.<sup>187</sup> 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.<sup>188</sup> Under the law, rural households can assign or sublet their thirty-year agricultural land tenure to other growers, including enterprises, or

<sup>184</sup> See Gale & Jewison, *supra* note 147, at 194 fig. 3.

<sup>185</sup> NAT'L DEV. AND REFORM COMM'N OF CHINA, CHINA YEARBOOK ON COSTS AND PROFITS OF AGRICULTURAL PRODUCTS 27, 626 (2016).

<sup>186</sup> National Agricultural Development Plan, *supra* note 180; see Xinhua She (新华社) [Xinhua News Agency], *Quanguo Nongzuowu Geng Zhong Shou Zonghe Jixiehua lü 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](http://www.gov.cn/guowuyuan/2019-01/19/content_5359371.htm).

<sup>187</sup> See Thomas Vendryes, *Land Rights in Rural China Since 1978*, 4 CHINA PERSPECTIVES 87, 89 (2010).

<sup>188</sup> *Id.* at 89–90.

use it as capital to join a corporate grower and become a shareholder.<sup>189</sup>

In China, intellectuals hotly debate rural land reform. Some argue that private and freely alienable property rights can enhance efficiency and encourage investment.<sup>190</sup> Others fear that privatization and alienability (including the ability to serve as security) would lead to rural dispossession and unemployment and threaten social stability.<sup>191</sup> 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.<sup>192</sup> On the other hand, the refusal to recognize private land ownership, sales, and mortgages is designed to prevent systemic landlessness and social dislocation.<sup>193</sup>

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.<sup>194</sup> On the other hand, the CCP-ruled government now allows agricultural co-ops and other

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<sup>189</sup> See Rural Land Contract Law, *supra* note 83, arts. 10, 32, 36, 42.

<sup>190</sup> See generally WEN GUANZHONG (文贯中), WUMIN WUDI: CHENGSHIHUA, TUDI ZHIDU, YU HUJI ZHIDU DE NEIZAI LUOJI (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 ZHOU QIREN (周其仁), CHENGXIANG ZHONGGUO: XIUDING BAN (城乡中国: 修订版) [RURAL-URBAN CHINA: REVISED EDITION] (2013); Yu Jianrong (于建嵘) & Chen Zhiwu (陈志武), *Ba Diquan Huangci Nongmin: see generally Yu Jianrong Duihua Chen Zhiwu (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 DONGNAN XUESHU (东南学术) [SOUTHEAST ACAD. RES.] 12 (2008).

<sup>191</sup> 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 Siyohua (我国为什么不能实行农村土地私有化)* [Why Can't China Implement Private Landownership], 7 CAIJING JIE (财经界) [MONEY CHINA] 43–46 (2015); see generally XUEFENG HE (贺雪峰), *DI QUAN DE LUOJI: ZHONGGUO NONGCUN TUDI ZHIDU QUXIANG HECHU? (地权的逻辑: 中国农村土地制度去向何处)* [THE LOGIC OF LAND RIGHTS: WHICH DIRECTION FOR CHINESE RURAL LAND POLICY?] (2013); see generally HUA SHENG (华生), *CHENGSHIHUA ZHUANXING HE TUDI XIANJING (城市化转型和土地陷阱)* [URBANIZATION TRANSITION AND LAND TRAP] (2013).

<sup>192</sup> See Vendryes, *supra* note 187, at 90.

<sup>193</sup> See Tiejun Wen, *supra* note 191.

<sup>194</sup> Wuquanfa (物权法) [Property Law] (promulgated by Nat'l People's Cong., Mar. 16, 2007, effective Oct. 1, 2007), art. 184 (2).

agricultural companies that sublet land from household farmers to secure bank loans with these commercial subleases.<sup>195</sup>

This arrangement may appear to violate the time-honored property principle, *nemo potest plus juris ad alium transferre quam ipse habet* (“[n]o one can transfer to another a greater right than he himself (actually) has”).<sup>196</sup> 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).<sup>197</sup> Ownership belongs to the state or a rural collective as a fundamental principle of socialism.<sup>198</sup> 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.<sup>199</sup> The right to farm/manage land is an alienable property right that any agricultural actor can acquire at a price.<sup>200</sup> 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.<sup>201</sup> 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.<sup>202</sup>

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-

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<sup>195</sup> See *Zhonggong Zhongyang Guanyu Quanmian Shenhua Gaige Ruogan Zhongda Wenti de Jueding* (中共中央关于全面深化改革若干重大问题的决定) [*Decision on Certain Major Issues Concerning the Comprehensive Deepening of Reforms*] (adopted at the Third Plenary Session of the Eighteenth Central Committee of the Communist Party of China on Nov. 12, 2013).

<sup>196</sup> *Nemo Potest Plus Juris Ad Alienum Transferre Quam Ipse Habet*, BLACK’S LAW DICTIONARY (11th ed. 2019). It is called *nemo dat quod non habet* in common law. *Nemo Dat Quod Non Habet*, BLACK’S LAW DICTIONARY (11th ed. 2019).

<sup>197</sup> 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](http://www.gov.cn/gongbao/content/2016/content_5133019.htm).

<sup>198</sup> *Id.*

<sup>199</sup> *Id.*

<sup>200</sup> *Id.*

<sup>201</sup> *Id.*

<sup>202</sup> *Id.*

ops.<sup>203</sup> 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.<sup>204</sup> They can leave their land to the co-op, seek a second source of income, and receive annual profits from the co-op.<sup>205</sup>

To complement the property reform, the Chinese government also gives financial support to agricultural producers to help them scale up and mechanize.<sup>206</sup> 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.<sup>207</sup> 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.<sup>208</sup> 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.<sup>209</sup>

To encourage the scaling up of dairy farms, the Chinese government subsidizes the construction of larger dairy farms, cooperatives, and compounds.<sup>210</sup> Between 2008 and 2016, billions

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<sup>203</sup> See Chen Yuqing, *Issues on Standardization of Farmers' Cooperatives in China*, 9 ASIAN AGRIC. RES. 34, 34 (2017).

<sup>204</sup> *Id.*

<sup>205</sup> See Zhonghua Renmin Gongheguo Nongmin Zhuanye Hezuoshe Fa (中华人民共和国农民专业合作社法) [Law of the People's Republic of China on Farmers' Professional Cooperatives] (promulgated by the Standing Comm. of the Nat'l People's Cong., Oct. 31, 2006, effective July 1, 2007) ST. COUNCIL GAZ., Dec. 20, 2006, at 35, arts. 3–5, 14, 16.

<sup>206</sup> Soumaya Bermouna & Junrong Li, *China's Agricultural Project Finance and Support Policies: The Framework of China's Major Agricultural Subsidies*, 9 EUR. FOOD & FEED L. REV. 171, 173 (2014); see also National Agricultural Development Plan, *supra* note 180.

<sup>207</sup> Bermouna & Li, *supra* note 206, at 173.

<sup>208</sup> Wang Xuqin (王许沁) et al., *Nongji Gouzhi Butie Zhengce: Xiaoguo yu Xiaoli—Jiyu Jili 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.

<sup>209</sup> Yangshi Wang (央视网) [CCTV], *Guotu Ziyuan Bu: Touzi 6000 Yi Yuan Jian Gao Biao zhun Jiben Nongtian* (国土资源部: 投资 6000 亿元建高标准基本农田) [*Ministry of Land and Resource: Invest 600 Billion Yuan to Build High-Standard Basic Farmland*], ZHONGHUA RENMIN GONGHEGUO ZIRAN ZIYUAN BU (中华人民共和国自然资源部) [MINISTRY OF NAT. RES. OF THE PEOPLE'S REPUBLIC OF CHINA] (June 26, 2012), [http://vod.mnr.gov.cn/spxw/201206/t20120626\\_1114028.htm](http://vod.mnr.gov.cn/spxw/201206/t20120626_1114028.htm).

<sup>210</sup> 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.<sup>211</sup>

## ii. Results

In 2002, only 20.6% of China's rice and 1.7% of China's corn were harvested by machines.<sup>212</sup> In 2018, over 80% of all major grains and over 67% of all agricultural crops were planted, plowed, and harvested by machines.<sup>213</sup> In 1996, only 2.6% of China's agricultural land changed hands from the original household farm under HRS to another farm.<sup>214</sup> In 2018, 39% of China's agricultural land was transferred by the original household farm to another farming entity.<sup>215</sup> 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.<sup>216</sup> By the end of 2018, 62% of China's dairy cows were raised on farms with more than one hundred cows.<sup>217</sup>

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<sup>211</sup> 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].

<sup>212</sup> NAT'L DEV. AND REFORM COMM'N OF CHINA, QUANGUO GAO BIAOZHUN NONGTIAN JIANSHE ZONGTI 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).

<sup>213</sup> Xinhua She, *supra* note 186.

<sup>214</sup> *Lanpishu: Quanguo Nongdi Liuzhuan Tisu Jingti "Feilianghua" Jiaju* (蓝皮书: 全国农地流转提速警惕“非粮化”加剧) [*Blue Paper: National Agricultural Land Transfers Accelerate, Caution for Exacerbating "Non-Grainification"*], DIYI CAIJING (第一财经) [FIRST FIN.] (May 9, 2016), <https://www.yicai.com/news/5010852.html>.

<sup>215</sup> *Wanzi Changwen Jiedu Nongcun Tudi Liuzhuan Ruhe Tuidong San Si Xian Chengshi Loushi Fazhan* (万字长文解读农村土地流转如何推动三四线城市楼市发展) [*Ten-Thousand-Word-Long Article Explains How Agricultural Land Transfers Propel Real Estate Development in Third-and-Fourth-Tier Cities*], TENGXUN (腾讯) [TENCENT] (Aug. 11, 2019), <https://new.qq.com/omn/20190811/20190811A038WD00.html>.

<sup>216</sup> 2014 CHINA DAIRY INDUSTRY YEARBOOK, *supra* note 164, at 32.

<sup>217</sup> *Zhonguo Naiye 70 Nian Faxhan Huihuang Chengjiu* (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>.

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.<sup>218</sup> With drastically lowered tariff rates,<sup>219</sup> China's dairy imports increased in weight by thirteen-fold and in value by fifty-fold between 2000 and 2018.<sup>220</sup> According to a 2019 study of global dairy competitiveness, the evaluations for China are negative across the board.<sup>221</sup>

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,<sup>222</sup> and five out of the ten largest dairy processing companies were foreign-owned.<sup>223</sup> China's top eight dairy companies process over 70% of the domestically produced raw milk.<sup>224</sup> The disproportionate power continues to allow dairy companies to set their own milk standards, decide the prices at which they purchase milk from farmers, and discriminate against small dairy farmers—just as they did prior to 2008.<sup>225</sup>

<sup>218</sup> 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”).

<sup>219</sup> 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).

<sup>220</sup> 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).

<sup>221</sup> Jiang Bing et al. (姜冰等), *Shijie Ruye Shengchan ji Maoyi Geju Fenxi—Jianlun Zhongguo Ruye Guoji Jingzhengli* (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).

<sup>222</sup> Wang Guang & Feng Qi, *supra* note 219, at 8.

<sup>223</sup> ZHONGGUO NAIYE XIEHUI (中国奶业协会) [CHINA DAIRY ASS'N], 2014-2015 NIAN RU ZHIPIN HANGYE FAZHAN ZHUANGKUANG YANJIU (2014-2015 年乳制品行业发展状况研究) [2014-2015 DAIRY INDUSTRY DEVELOPMENT STUDY] 10, 12, 16 (2016) [hereinafter 2014-2015 DAIRY INDUSTRY DEVELOPMENT STUDY].

<sup>224</sup> U.S. DEP'T OF AGRIC., CHINA'S DAIRY IMPORTS INCREASE TO MEET GROWING DEMAND, BUT U.S.-ORIGIN PRODUCTS FACE STRONG HEADWINDS 3 (2018), [https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_10-17-2018.pdf](https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual_Beijing_China%20-%20Peoples%20Republic%20of_10-17-2018.pdf).

<sup>225</sup> Wang Yongkang, *supra* note 169, at 32; Qian et al., *supra* note 163, at 437.



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.<sup>226</sup> According to the USDA, half of the dairy farms near Beijing, Tianjin, and Shanghai were closed down in 2019.<sup>227</sup>

### *B. Agricultural Industrialization in Mountain County*<sup>228</sup>

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

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<sup>226</sup> 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]

<sup>227</sup> HIGHER PROFITS SUPPORT INCREASED FLUID MILK PRODUCTION, *supra* note 226, at 2.

<sup>228</sup> 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*<sup>229</sup>

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

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<sup>229</sup> 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-subsistent 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.<sup>230</sup> When government inspections did not find melamine in their products, panicked consumers switched from national brands to them.<sup>231</sup> Seizing this opportunity, the Heilongjiang provincial government sought to turn the province into a leading dairy producer and processor.<sup>232</sup> 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

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<sup>230</sup> Lousie Moon, *Foreign Brands Still Dominate as Parents Do Not Trust China's Home-grown Baby Milk Formula Makers 12 Years on From Melamine Milk Scandal*, SOUTH CHINA MORNING POST (Feb. 22, 2020), <https://www.scmp.com/business/companies/article/3051808/foreign-brands-still-dominate-parents-do-not-trust-chinas-home>.

<sup>231</sup> Wang Chunyu (王春雨), "Wan Da Shan" Ying You Er Peifang Naifen Wei Jian Chu Sanjuqingan ("完达山"婴幼儿配方奶粉未检出三聚氰胺) [*Melamine Not Found in "Wandashan" Baby Formula*], FAZHI RIBAO (法制日报) [LEGAL DAILY], (Sept. 26, 2008), <http://health.sohu.com/20080926/n259756850.shtml>; Zhongguo Jingying Wang (中国经营网) [China Business Network], *Sanjuqingan 10 Nian Naiye Xipai He Jiannan de Xinxin Chongjian* (三聚氰胺 10 年奶业洗牌和艰难的信心重建) [*10 Years After Melamine Dairy Industry Reshuffled and Confidence Reconstruction Difficult*], XINGLANG CAIJING (新浪财经) [SINA FIN.] (May 20, 2018), <http://finance.sina.com.cn/china/gncj/2018-05-20/doc-ihaturft0803202.shtml>.

<sup>232</sup> See *Heilongjiang Sheng Renmin Zhengfu Guanyu Jiakuai Xiandai Xumu Chanye Fazhan de Yijian* (黑龙江省人民政府关于加快现代畜牧产业发展的意见) [*Opinions of the People's Government of Heilongjiang Province on Accelerating the Development of Modern Livestock Industry*], HEILONGJIANG SHENG RENMIN ZHENGFU (黑龙江省人民政府) [HEILONGJIANG PROVINCE PEOPLE'S GOVERNMENT] (Oct. 21, 2015), <http://www.hlj.gov.cn/wjfg/system/2015/10/21/010745457.shtml> (providing the provincial government's dairy strategy in Heilongjiang Provincial People's Government).

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.<sup>233</sup> 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.<sup>234</sup> 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.

#### 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

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<sup>233</sup> See *infra* Section IV.C.iv.

<sup>234</sup> 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, *A 100-Year Review: Total Mixed Ration Feeding of Dairy Cows*, 100 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.<sup>235</sup> 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

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<sup>235</sup> 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.<sup>236</sup> 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.

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<sup>236</sup> 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,<sup>237</sup> 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

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<sup>237</sup> 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.<sup>238</sup>

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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 dooming 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

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<sup>238</sup> Xiaoqian Hu, Fieldwork Journal 2019-005 (on file with author).

the economic pie bigger,<sup>239</sup> trade-inflicted job losses are “transitional,”<sup>240</sup> and “the poor *as a class* will improve” from the cheaper goods and new jobs brought by free (or freer) trade.<sup>241</sup> Meanwhile, critics have argued that this system traps workers and developing countries in “a race to the bottom”;<sup>242</sup> brews discontents across the globe;<sup>243</sup> benefits corporate elites at the expense of the working and middle classes;<sup>244</sup> 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.<sup>245</sup> 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.<sup>246</sup>

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.<sup>247</sup> More

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<sup>239</sup> Geoffrey J. Bannister & Kamau Thugge, *International Trade and Poverty Alleviation* (Int’l Monetary Fund, Working Paper 01/54, 2001); DEEPAK LAL, REVIVING THE INVISIBLE HAND: THE CASE FOR CLASSICAL LIBERALISM IN THE TWENTY-FIRST CENTURY 84, 86 (Princeton Univ. Press 2006).

<sup>240</sup> LAL, *supra* note 239, at 86.

<sup>241</sup> LOREN E. LOMASKY & FERNANDO R. TESÓN, JUSTICE AT A DISTANCE: EXTENDING FREEDOM GLOBALLY 158 (Cambridge Univ. Press 2015).

<sup>242</sup> JOSEPH STIGLITZ, GLOBALIZATION AND ITS DISCONTENT 158 (W.W. Norton & Co. Inc. 2002); RAPHAEL KAPLINSKY, GLOBALIZATION, POVERTY AND INEQUALITY: BETWEEN A ROCK AND A HARD PLACE 55–85 (Polity 2005).

<sup>243</sup> STIGLITZ, *supra* note 242, at 248.

<sup>244</sup> ALICE AMSDEN, ESCAPE FROM EMPIRE: THE DEVELOPING WORLD’S JOURNEY THROUGH HEAVEN AND HELL 50 (MIT Press 2007); STIGLITZ, *supra* note 242, at 84.

<sup>245</sup> John Gerard Ruggie, *International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order*, 36 INT’L ORG. 379 (1982); John Gerard Ruggie, *Trade, Protectionism and the Future of Welfare Capitalism*, 48 J. INT’L AFF. 4–11 (1994).

<sup>246</sup> See generally PAUL J.J. WELFENS, THE GLOBAL TRUMP: STRUCTURAL US POPULISM AND ECONOMIC CONFLICTS WITH EUROPE AND ASIA (Palgrave Macmillan 2019); see generally WORLD TRADE & INVESTMENT LAW REIMAGINED, *supra* note 15; DANI RODRIK, STRAIGHT TALK ON TRADE: IDEAS FOR A SANE WORLD ECONOMY 1–8 (Princeton Univ. Press 2018); STIGLITZ, *supra* note 15, at xvii–xxxiii; LOKA ASHWOOD, FOR-PROFIT DEMOCRACY: WHY THE GOVERNMENT IS LOSING THE TRUST OF RURAL AMERICA 18–25, 33–36 (Yale Univ. Press 2018); ROBERT WUTHNOW, THE LEFT BEHIND: DECLINE AND RAGE IN RURAL AMERICA 95–115, 140–158 (Princeton Univ. Press 2018); Duncan Kennedy, *A Left of Liberal Interpretation of Trump’s “Big” Win, Part One: Neoliberalism*, 1 NEV. L. J. FORUM 98, 103–07 (2017).

<sup>247</sup> 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.<sup>248</sup> 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).<sup>249</sup> 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.<sup>250</sup> 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.<sup>251</sup>

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.<sup>252</sup> While globalization has indeed brought enormous benefits to the Chinese

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MONITOR (Dec. 1, 2019), <https://www.prcleader.org/carl-minzner> (tightening intellectual and educational control); see also Austin Ramzy, *President Xi Jinping’s Rise in China, as Covered by The Times*, THE N.Y. TIMES (Feb. 26, 2018), <https://www.nytimes.com/2018/02/26/world/asia/xi-jinping-career-highlights.html> (providing a comprehensive summary).

<sup>248</sup> Gerry Shih, *In China, Investigations and Purges Become the New Normal*, THE WASHINGTON POST (Oct. 22, 2018), [https://www.washingtonpost.com/world/asia\\_pacific/in-china-investigations-and-purges-become-the-new-normal/2018/10/21/077fa736-d39c-11e8-a275-81c671a50422\\_story.html](https://www.washingtonpost.com/world/asia_pacific/in-china-investigations-and-purges-become-the-new-normal/2018/10/21/077fa736-d39c-11e8-a275-81c671a50422_story.html). Western observers interpret Xi’s anti-corruption campaign as at least in part Xi’s pretext to purge his political enemies. See, e.g., *id.*; *Charting China’s ‘Great Purge’ Under Xi*, BBC NEWS (Oct. 23, 2017), <https://www.bbc.com/news/world-asia-china-41670162>. Pretext or not, the anti-corruption campaign did lead to the further concentration of power in Xi’s hands.

<sup>249</sup> RAN LI & KEE CHEOK CHEONG, *CHINA’S STATE ENTERPRISES: CHANGING ROLE IN A RAPIDLY TRANSFORMING ECONOMY* 1–5, 52–57 (Palgrave Macmillan 2019); ELIZABETH C. ECONOMY, *THE THIRD REVOLUTION: XI JINPING AND THE NEW CHINESE STATE* 4–5 (Oxford Univ. Press 2018); Mark Wu, *The ‘China, Inc.’ Challenge to Global Trade Governance*, 57 HARV. INT’L L. J. 261, 281–82 (2016).

<sup>250</sup> XIANFA arts.36–37, 41–50, 123–27 (2018).

<sup>251</sup> 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).

<sup>252</sup> 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.”<sup>253</sup> Hindsight suggests that Long's estimate was overly optimistic. In 2001, 364 million Chinese people worked in agriculture.<sup>254</sup> In 2017, only 209 million worked in agriculture—a decrease of 155 million jobs.<sup>255</sup> The Chinese government interprets these numbers as success stories of industrialization and urbanization.<sup>256</sup> Yet, such interpretation glosses over the hardships of the dislocation and adjustment of those undergoing the “transition.”<sup>257</sup>

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

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<sup>253</sup> 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).

<sup>254</sup> *China Statistical Yearbook 2018: 4-2 Number of Employed Persons at Year-End by Three Strata of Industry*, NAT'L BUREAU OF STATISTICS OF CHINA, <http://www.stats.gov.cn/tjsj/nds/2018/indexeh.htm> (last visited Apr. 17, 2020).

<sup>255</sup> *Id.*

<sup>256</sup> See e.g., 2018 *Nian Guomin Jingji he Shehui Fazhan Tongji Gongbao* (2018 年国民经济和社会发展统计公报) [2018 Annual Public Report on China's Economic and Social Development Statistics], ZHONGGUO GUOJIA TONGJI JU (中国国家统计局) [NAT'L BUREAU OF STATISTICS OF CHINA] (Feb. 28, 2019), [http://www.stats.gov.cn/tjsj/zaxfb/201902/t20190228\\_1651265.html](http://www.stats.gov.cn/tjsj/zaxfb/201902/t20190228_1651265.html).

<sup>257</sup> Literature on hardships of migrant workers and their families and on community disintegration in rural China abounds. See, e.g., ARIANNE M. GAETANO, *OUT TO WORK: MIGRATION, GENDER, AND THE CHANGING LIVES OF RURAL WOMEN IN CONTEMPORARY CHINA* 3–6 (Univ. of Haw. Press 2015); Hongsong Liang et al., *Liushou Women's Happiness and Its Influencing Factors in Rural China*, 117 SOC. INDICATORS RES. 907, 914–15 (2014); Yuying Tong et al., *The Association Between Parental Migration and Childhood Illness in Rural China*, 31 EUROPEAN J. POPULATION 561, 562 (2015); Ye Jingzhong, *Left-Behind Children: The Social Practice of China's Economic Boom*, 38 J. PEASANT STUD. 613, 613 (2011); Ye Jingzhong & Pan Lu, *Differentiated Childhoods: Impacts of Rural Labor Migration on Left-Behind Children in China*, 38 J. PEASANT STUD. 355, 355 (2011); DOROTHY J. SOLINGER, *CONTESTING CITIZENSHIP IN URBAN CHINA: PEASANT MIGRANTS, THE STATE, AND THE LOGIC OF THE MARKET* 1–4 (Univ. of Ca. Press 1999).

agricultural imports increased by over 50%.<sup>258</sup> 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.<sup>259</sup> Today, despite the U.S.-China trade war, for every dollar China gains from agricultural exports, it loses 1.7 dollars from agricultural imports.<sup>260</sup>

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.<sup>261</sup> Small Chinese farmers lost the competition to larger foreign producers and were forced to exit from production.<sup>262</sup> The Chinese state's strategy of scaling up, mechanizing, and corporatizing the agricultural sector accelerates the process of dislocation and displacement.<sup>263</sup> 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 dairy jobs.<sup>264</sup>

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<sup>258</sup> Lenka Fojtikova, *China's Trade Competitiveness in the Area of Agricultural Products After the Implementation of the World Trade Organization Commitments*, 64 AGRIC. ECON-CZECH 379, 384 (2018).

<sup>259</sup> *Id.* at 383.

<sup>260</sup> See 2018 Nian Woguo Nongchanpin Jinchukou Qingkuang (2018 年我国农产品进出口情况) [Information Regarding China's Agricultural Imports and Exports for the Year 2018], ZHONGHUA RENMIN GONGHEGUO NONGYE NONGCUN BU (中华人民共和国农业农村部) [MINISTRY OF AGRIC. AND RURAL AFFAIRS OF THE PEOPLE'S REPUBLIC OF CHINA] (Feb. 2, 2019), [http://www.moa.gov.cn/ztzl/nybr/rlxx/201902/t20190201\\_6171079.htm](http://www.moa.gov.cn/ztzl/nybr/rlxx/201902/t20190201_6171079.htm).

<sup>261</sup> Hallie Gu & Shivani Singh, *China's December Soybean Imports Surge On Year as Cargoes Clear Customs*, REUTERS (Jan. 13, 2020), <https://www.reuters.com/article/us-china-economy-trade-soybeans/chinas-december-soybean-imports-surge-on-year-as-cargoes-clear-customs-idUSKBN1ZD0C2>.

<sup>262</sup> See *supra* Section III. See also John Vidal, *Corporate Stranglehold of Farmland a Risk to World Food Security, Study Says*, GUARDIAN (May 28, 2014), <https://www.theguardian.com/environment/2014/may/28/farmland-food-security-small-farmers>.

<sup>263</sup> See *supra* Section IV.C. See also Qian Forrest Zhang, *Class Differentiation in Rural China: Dynamics of Accumulation, Commodification, and State Intervention*, 15 AGRARIAN CHANGE 338, 339 (2015).

<sup>264</sup> Wang Yuting (王玉庭) & Du Xinwei (杜欣蔚), *Ruzhipin Jinkou Dui Zhongguo Naiye de Yingxiang ji Fazhan Silu* (乳制品进口对中国奶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 Baochi 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 (中华人民共和国

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).<sup>265</sup> 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.

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国商务部) [MINISTRY OF COMMERCE OF THE PEOPLE'S REPUBLIC OF CHINA] (Mar. 6, 2019), <http://www.mofcom.gov.cn/article/i/jyj/l/201903/20190302840591.shtml>.

<sup>265</sup> 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.<sup>266</sup> 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."<sup>267</sup> The shift is reflected in the Chinese government's abolition of agricultural taxes,<sup>268</sup> construction of rural

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<sup>266</sup> 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).

<sup>267</sup> Han Jun (韩俊), *Gongye Fanbu Nongye Chengshi Zhichi Nongcun—Ruhe Zai Xin Xingshi Xia Geng Duo Di 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).

<sup>268</sup> Quanguo Renmin Daibiao Dahui Changwu Weiyuanhui Guanyu Feizhi Zhonghua Renmin Gongheguo Nongyeshui Tiaoli 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,<sup>269</sup> subsidization of agriculture,<sup>270</sup> and establishment of a rudimentary rural social protection system.<sup>271</sup> 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.<sup>272</sup>

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.<sup>273</sup> 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—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

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the Standing Comm. of the Nat'l People's Cong., Dec. 29, 2005, effective Jan. 1, 2006) ST. COUNCIL GAZ., Feb. 28, 2006, at 6.

<sup>269</sup> See e.g., *Guojia Nongye Zonghe Kaifa Bangongshi 2014 Nian Gongzuo Zongjie* (国家农业综合开发办公室 2014 年工作总结) [*Work Summary of National Agricultural Comprehensive Development Office in 2014*], ZHONGHUA RENMIN GONGHEGUO CAIZHENG BU (中华人民共和国财政部) [MINISTRY OF FIN. OF THE PEOPLE'S REPUBLIC OF CHINA], [http://xm.mof.gov.cn/mofhome/guojianongcunzonghekaifa/zhengwuxinxi/gongzuodongtai/201503/t20150317\\_1203249.html](http://xm.mof.gov.cn/mofhome/guojianongcunzonghekaifa/zhengwuxinxi/gongzuodongtai/201503/t20150317_1203249.html) (last visited Apr. 12, 2020).

<sup>270</sup> See *supra* text accompanying notes 206–11.

<sup>271</sup> LING ZHU, *FOOD SECURITY AND SOCIAL PROTECTION FOR THE RURAL POOR IN CHINA* 19–21 (Routledge 2017) (poverty relief, food assistance, reemployment initiatives, old age security for landless farmers, pension program for rural migrant workers); ARMIN MÜLLER, *CHINA'S NEW PUBLIC HEALTH INSURANCE: CHALLENGES TO HEALTH REFORMS AND THE NEW RURAL CO-OPERATIVE MEDICAL SYSTEM* 2–4 (Routledge 2017) (rural healthcare).

<sup>272</sup> *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*], YANGSHI (央视) [CCTV] (Oct. 17, 2019), <http://m.news.cctv.com/2019/10/17/ARTIZHE57BNZTsyEo8pIVE5N191017.shtml>.

<sup>273</sup> Cf. SIMEON DJANKOV, PETERSON 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.

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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.<sup>274</sup>

## VI. Conclusion

DuPuis exclaims that “milk is an embodiment of the politics of American identity over the last 150 years.”<sup>275</sup> 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.”<sup>276</sup> Similarly, the core of the modern Chinese identity is shaped by its understanding

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<sup>274</sup> David Singh Grewal & Jedediah Purdy, *Introduction: Law and Neoliberalism*, 77 L. CONTEMP. PROB. 1 (2014) (explaining the hegemony of neoliberalism in contemporary Western democracies, particularly the U.S.).

<sup>275</sup> DUPIUS, *supra* note 31, at 8.

<sup>276</sup> Mark Jia, *Illiberal Law in American Courts*, U. PENN. L. REV. 1, 47 (forthcoming 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3426223](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3426223).

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.<sup>277</sup>

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 inter-connectedness between nations and peoples, and all the benefits and costs, and promises and disappointments that may come with that inter-connectedness.

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<sup>277</sup> 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 Consensus, the quintessence of neoliberalism in international development circles).