

A Business History of Soy

Japan's Modernization and the Rise of Soy as a Global Commodity

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Introduction

Around the end of the 19th century, Japan began importing large amounts of soy meal, and Japanese companies turned to building factories in Manchuria, where they mass-produced soy meal as fertilizer for Japanese agriculture and soy oil as an export commodity for the United States and European countries. Soy-crushing soon became a capital-intensive mechanical-industry, with powered machinery and solvent-extraction facilities. The financial-mercantile-industrial capital of *zaibatsu* and their trading sectors that functioned as traders for the government promoted the development of a modern soy-industry in both Manchuria and Japan, with the active support of the Japanese government as a state-building project to accumulate capital in Japanese hands and to expand their political and economic influence in Asia. Again, it is important to note that this development of the soy-industry and the trade of soy products was not to feed people, but a means for the Japanese government and businesses to quickly gain power in the capitalist world-economy while resisting Western colonization. In the process, soy was transformed from a traditional Asian food into a global commodity.

Japan's increasing demand for purchased fertilizer

Japan had established an almost self-sufficient economy during its national seclusion from the beginning of the 17th century to the middle of the 19th century. Japanese farmers had achieved nearly sustainable soil management practices with little input from outside, although they suffered from heavy government duties paid in rice, other commodities, or labor. After Japan opened up, however, the Meiji government promoted a new “Meiji farming method” that used more animal power and purchased fertilizer inputs, aiming to modernize agriculture and rural communities (Ushiyama 2008). Fishmeal from Japan's northern sea was used at first, but the supply

was limited. Chemical fertilizer was not yet produced domestically, so it was expensive. At that time, soy meal from Manchuria was introduced as purchased fertilizer. It is said that a small amount of soy meal was already being imported from Manchuria around the 1890s (Nisshin Oil 1969, 53), and Chinese traders in Yokohama had also brought some soy meal from Manchuria to Japan (SMR 1924b). While various historical sources record slightly different stories of the beginning of the soy meal trade to Japan, exports from Manchuria of soy meal for fertilizer drastically increased from the end of the 19th century.

Japan's state-building and Manchurian soy

Before further exploring the development of soy-industry in Manchuria, this section explains some background of Japanese political economy; why modernizing Japanese government, financial institutions, *zaibatsu* and their trading sectors, saw opportunity in this soy meal fertilizer business for their state-building project. After Japan opened its secluded country and began modernizing, and especially after the Meiji Restoration of 1868, Japanese leaders were desperate to avoid the invasion of Western traders and capital into domestic markets and to hurry Japan's industrial development. To do that, Japan quickly modernized its financial and industrial institutions and tried to accumulate capital in Japanese hands by expanding into other parts of Asia and developing international trade.

The national government: Resisting Western colonization

During the era of national isolation, while international trade was strictly limited and controlled under the monopoly of the feudal government, domestic trade flourished, and Japanese traders and financial institutions developed inside the country. Strong trade routes were established between Western Japan, with Osaka (the center of commerce) and Kyoto (the traditional capital where the emperors lived), and Eastern Japan, with Edo (today's Tokyo, the political center). Each feudal province developed specialty commodities and traded them to finance their clans. Maritime trade routes also developed in the inland seas and inshore waterways around the Japanese archipelago. Japanese traders handled a wide variety of commodities and products, as well as the domestic financial exchange of gold, silver, and copper.

Then, in the middle of the 19th century, Western delegates came to demand that Japan open its markets. Japan agreed to the Japan–US Amity Treaty in 1854, and then to the Friendship and Trade Treaty with Britain, France, the Netherlands, and Russia in 1858. The treaties forced Japan to renounce its tariff autonomy and consular jurisdiction, and they approved

the most-favored-nation treatment of these countries. Although Japan accepted these unfair trade agreements with the Western countries, both the Edo feudal government and the newly established Meiji government insisted on limiting foreign trade and residence to designated “settlements” (*kyoryyuchi*居留地) in specified port towns like Yokohama and Kobe. The Japanese thus tried their best to keep foreign traders and foreign capital from entering Japan (Ishii 2005, 2).

Just announcing such a policy might not have worked in the unbalanced global power context at the height of Western colonialism. However, the relatively well-established Japanese domestic economy and its accumulated wealth allowed Japan to impose some actual limitations on the Western traders and capital entering its domestic markets. The established domestic traders, led by feudal-era merchants and moneylenders, including Mitsui and Sumitomo, and newly grown entrepreneurs like IWASAKI Yataro (the founder of Mitsubishi), OKURA Kihachiro, and Suzuki Shoten, worked as the Japanese counterparts of the Western traders, dealing with them in the settlements and thus avoiding any foreign presence in the rest of Japan. This “settlement trading” was very competitive and a risky business for Japanese traders, yet it also offered an opportunity for some to rapidly develop and accumulate capital. This is regarded as one of the reasons Japan was able to avoid Western colonization and accomplish its own industrial revolution as almost the only such case among Asian countries (Ishii 2005, 2012). While keeping the Western powers at bay, Japan quickly modernized its financial institutions and trading systems.

The banks: Modernizing Japanese financial institutions to secure capital in Japanese hands

The Japanese government believed that Western investment and the entry of financial institutions into the country was a step toward colonization, so it tried to modernize Japan’s financial systems in order to keep capital in Japanese hands. The situation was serious. The unfair trade treaties and the exchange rate between gold and silver in Japan, which was different from the international rate, initially allowed a large amount of gold to be drained away. The Meiji government had to move quickly to develop Japanese financial institutions to counter the foreign institutions.

During the era of Japan’s isolation, multiple domestic currencies of gold, silver, and copper were used for domestic trade, and a domestic currency exchange system and financial institutions had existed since the feudal era. With this background, the Japanese government was able to organize new legal frameworks for a modern national banking system in the 1870s (Oishi and Miyamoto eds. 1975). To secure control over foreign currency exchange and international trade settlements, the government founded

Yokohama Specie Bank (YSB, 横浜正金銀行, one of the origins of today's Bank of Tokyo-Mitsubishi UFJ) in 1880, and also established the Bank of Japan as the central bank in 1882. Thus, Japan's modern financial system was established within a few decades of the opening of its economy, and the capital that accumulated in Japanese hands was available to invest in Japan's industrial revolution (Ishii 2012, 61). YSB played an especially significant role as the special bank to manage international trade settlements and to secure specie money (gold and silver in those days) in Japan, competing against foreign banks and supporting the financing of the government's public budget. It soon broadened its role, developing international trade for Japan and helping Japanese traders expand overseas, especially in the surrounding Asian regions. Manchuria was one of the earliest targets for such expansion (Hijikata 1980; Ishii 2012, 61; Kiyama 2009, 235–236).

Zaibatsu and “government traders”

Japan needed its own strong traders. The Western traders were expanding into Asia with threatening power, and Indian and Chinese traders were also active in trade and commerce in the Asian region in those days (Sugihara 1996). Japan wanted to finance industrial development and to implement the policies encapsulated in the slogan “increase wealth and military power” (富国強兵). Because the country had to import machinery and raw materials (e.g., textile and other industrial machines, steel, iron ore, cotton, etc.), it had to export whatever products it could sell to the world market to obtain foreign currency. The Japanese government therefore turned to existing rich family groups like Mitsui and Sumitomo, as well as newly developed groups like Mitsubishi and Okura, to handle international trade and to develop key industries. They were called *seisho* (政商), which literally means “government traders.” As the name indicates, they received special support from the Meiji government and conducted the government's business with that authority, when Japan began its industrial and capitalist development at the end of the 19th century (Oishi and Miyamoto eds. 1975).

The birth of the Mitsui zaibatsu and Mitsui & Co.

The Mitsui family began trading kimono and currencies during the feudal era. They opened a store to sell high-quality kimono from Kyoto in the capital city of Edo in the middle of the 17th century. In those days, the Japanese domestic currency system was complicated, with gold-, silver-, and copper-based currencies issued by multiple authorities in different districts, so Mitsui also conducted money exchange to settle payments for long-distance trade. They also handled the budget of the feudal authority

(*bakufu*) and lent some money to feudal lords. Although Mitsui separated their kimono business (which later became the Mitsukoshi department store) when they transformed into a modern business group, their solid foundation in domestic trade and financial systems since the feudal era was why Mitsui was strong enough to become a partner of the Meiji government (Morikawa 1978; Shibagaki 1968).

Mitsui&Co., the trading company of the Mitsui *zaibatsu* group, had strong connections to the national government from the start; it was incorporated in 1876 as the Mitsui family took over a trading company from INOUE Kaoru, a cabinet member and key figure in the Meiji government (Japan Business History Institute 1976). The next year, it opened a branch office in Shanghai, at the government's request, to handle a loan to the Chinese government to sell Japanese coal (Kiyama 2009, 75). Mitsui handled the government's finances and collected taxes, while expanding overseas trade and investing in various key industries. By the time of the Russo-Japanese War (1904–1905), Mitsui&Co. was handling up to 20% of Japan's international trade and was so powerful that it was called the de facto "Trading Department of Japan, Inc." (Kasuga 2010, 1; Sakamoto 2003). When Mitsui&Co. went to Manchuria as part of the national policy of expansion and to look for new business opportunities, the domestic soy-industry was just beginning to grow there, and Mitsui&Co. became a pioneer in the trade of Manchuria soy products to Japan and the world.

The birth of the Mitsubishi zaibatsu and Mitsubishi Corporation

Unlike Mitsui or Sumitomo, which had their origins in the feudal era, the Mitsubishi *zaibatsu* was formed by an entrepreneur and nationalist, IWASAKI Yataro, in the 1870s. Early on, Mitsubishi established itself in marine transport for domestic trading. It later became a military transport company, building strong connections with the national government and helping the government suppress rebellions in Western Japan and taking soldiers to Taiwan in the 1870s.

The Japanese government asked Mitsubishi to open a regular marine transport route between Japan and Shanghai in 1875, and it was also Mitsubishi that opened the first regular marine transport route between Japan and the Manchurian port of Yingkou in the 1890s. The Japanese government supported Mitsubishi because it wanted to secure these routes under Japanese control against the threat of US and UK shipping companies that were moving into Asia at the time. In this way, Mitsubishi became one of the government traders as the major shipping and trading company, both domestic and international, and for both commercial and military purposes. Eventually, Mitsubishi diversified into mining, ship-building, and other key industries, growing into one of the biggest *zaibatsu* of Japan.

It also developed its trading sector and a financial institution, which later incorporated as Mitsubishi Corporation and Mitsubishi Bank, respectively (Mishima 1979; Shibagaki 1968).

In summary, the newly established Japanese government was desperate to modernize the Japanese economy quickly to avoid Western colonization. While the government restricted foreign traders and their capital from coming into Japan, Japanese *zaibatsu* families and their trading sectors gained power, taking advantage of their role as the intermediaries handling domestic trade for the foreigners. They developed trading systems and key industries with the support of the government (Ishii 2012). Mitsui and Mitsubishi received particular support from the Department of the Interior and the Department of Finance, respectively. In order to boost industrial development as a latecomer to the capitalist world-economy, the Japanese government first built government enterprises in key sectors, including transportation and mining (gold, silver, and coal), as well as both light industries (silk and cotton textiles) and heavy industries (steel and military equipment). Then, about a decade later, these government enterprises were given to private companies, many of them *zaibatsu* groups, including Mitsui and Mitsubishi, to accelerate Japan's industrial development. This government-led development strategy gave an enormous advantage to the *zaibatsu* and their related companies, which rapidly became significant components of the Japanese economy (Kasuga 2010, 4; Oishi and Miyamoto 1975, 39).

Expansion to Manchuria and the development of the soy-industry and global trade

Just before Japan began expanding to the Asian continent, China and Manchuria were also opened by Western forces. In Manchuria, the British opened the port of Yingkou in 1861. The Japanese government built a consulate there in 1876; the Nippon Yusen (of Mitsubishi group) began regular shipping services between Yingkou and Japan in 1890; Mitsui&Co. opened their own office there in the early 1890s; and YSB opened a branch office in Yingkou in 1900 (Kaneko 1991, 28; Nisshin Oil 1969, 18). In this way, the government, its special bank, and its favored traders together expanded into key cities of Manchuria as the leading “trinity” of Japan's overseas expansion (Kasuga 2010, 1). When these Japanese players had laid the groundwork for international trade between Manchuria and Japan, as well as the rest of the world, they were ready to seize the business opportunities offered by Manchuria's soy meal production and Japan's fertilizer demand. Their handling of Manchurian soy not only supported the development of the soy-industry in Manchuria but also triggered the international trade of soy products, including meal and oil, from Manchuria.

As Chapter 1 described, some soy meal had already been being shipped out from Manchuria, but the trade had been limited to the coastal ports of Southern China. Then, in the 1890s, Japan became the major export destination beyond the Chinese continent. As trade statistics show (Table 2.1), the export of soy meal to Japan increased rapidly, until Japan accounted for 100% of Manchurian soy meal exports in the year 1892 (Kaneko 1991, 23). These exports accelerated after the first Sino-Japanese War (1894–1895). Manchurian soy “expanded from domestic trade inside of China, into international trade toward East Asian countries” (Kaneko 1991, 24), starting with the export of soy meal to Japan.

Manchurian soy and the South Manchuria Railway as a colonial institution

With victory in the Russo-Japanese War of 1904–1905, Japan’s reach in Asia expanded to Korea, Manchuria, and other parts of China. The Treaty of Portsmouth gave Japan Russia’s rights and leases in Port Arthur (旅順) and Dalian (大連), strategically important ports on the Liaodong (遼東) peninsula, as well as the rights to part of the Chinese Eastern Railway (東清鐵道) between Changchun and Port Arthur. With these gains, Japan began its full-scale imperial expansion to Asia. The Japanese government aimed to establish a division of labor in which its territories of Taiwan, Korea, and Manchuria would supply the agricultural products and raw materials required for Japan’s industrial development, while Japan would export its manufactured products (mainly textiles) to these territories and to the world. Sugar and rice were imported from Taiwan, mainly by the government traders, including Mitsui&Co. and Mitsubishi Corporation. The railway in Korea played an important role by transporting agricultural products, including rice and soy, from inland areas of the Korean peninsula to ports for shipment to Japan, and transporting Japanese textile products back to the Korean market. The Japanese government politically and financially supported its special banks, including YSB, the Taiwan Bank, and the Korean Bank, as well as transport companies in shipping and railways (Japan nationalized its domestic railways around the same time), and continued working closely with the *zaibatsu* groups (Oishi and Miyamoto 1975).

In order to manage its newly acquired territory in Manchuria, Japan stationed a unit of the Imperial Japanese Army, the Guandong Army (關東軍), there in 1906, and established the South Manchuria Railway Co., Ltd. (SMR) by government order in 1906. SMR was a “national policy corporation” (国策会社), making it a semiofficial organization with the aim of implementing Japan’s national policies of expansion in Asia (Figure 2.1).

Despite its name, the SMR was far more than an ordinary railway company; some scholars called it “the East India Corporation of Japan” (Kasuga 2010). Although it took the form of a limited liability company, half of

Table 2.1 Trade from the Manchurian port of Yingkou before the Russo-Japanese War, 1872–1904, and export destinations, 1891–1904 (unit: money value 1000 haikwan taels, %)

<i>Trade from Yingkou (includes indirect export via inland China ports)</i>				<i>Destination of direct export</i>				
<i>Total export</i>	<i>Soy products (bean, oil, meal)</i>	<i>% of soy products</i>	<i>To Japan</i>	<i>% of Japan</i>	<i>To Hong Kong</i>	<i>To UK</i>	<i>Total</i>	
1872	2,001	1,740	87.0%					
1873	1,582	1,254	79.3%					
1874	1,754	1,374	78.3%					
1875	2,688	2,215	82.4%					
1876	2,639	2,090	79.2%					
1877	3,130	2,389	76.3%					
1878	4,387	3,511	80.0%					
1879	3,655	3,152	86.2%					
1880	3,353	2,719	81.1%					
1881	3,552	2,802	78.9%					
1882	3,626	2,961	81.7%					
1883	3,913	3,242	82.9%					
1884	4,123	3,282	79.6%					
1885	4,574	3,577	78.2%					
1886	4,527	3,136	69.3%					
1887	5,477	4,008	73.2%					
1888	5,686	4,358	76.6%					
1889	5,568	3,987	71.6%					
1890	7,198	5,070	70.4%					
				<i>To Japan</i>	<i>% of Japan</i>	<i>To Hong Kong</i>	<i>To UK</i>	<i>Total</i>
1891	8,070	6,363	78.8%	460	99.8%			461
1892	9,066	6,496	71.7%	1,173	100.0%			1,173
1893	9,310	7,065	75.9%	1,732	79.9%	433	0	2,167
1894	8,532	6,676	78.2%	1,129	84.6%	181	0	1,335
1895	5,605	4,579	81.7%	54	9.8%	441		550
1896	11,277	9,455	83.8%	3,104	87.3%	433	1	3,556
1897	13,809	11,373	82.4%	5,114	92.2%	414	9	5,548
1898	17,448	14,075	80.7%	6,683	93.1%	433	5	7,179
1899	20,616	16,686	80.9%	8,092	93.1%	589	0	8,691
1900	11,470	9,643	84.1%	3,458	88.6%	426	3	3,905
1901	18,742	16,089	85.8%	6,562	89.9%	597	1	7,303
1902	17,525	14,314	81.7%	8,019	91.8%	604	2	8,733
1903	19,982	14,636	73.2%	9,374	92.1%	695	13	10,179
1904	12,159	8,751	72.0%	1,084	69.0%	449	38	1,571

Source: Adapted from Kaneko (1991, 22–23).

Note: Bold values are emphasis by the author.



Figure 2.1 Map of Manchuria, showing major soy production sites (circles), major soy-crushing sites (gray triangles), and the railway routes linking them. Date of the map not specified.

Source: Adapted from SMR (1924b, 35).

its funding came from the government, and its founding board members consisted of officials from the government, special banks including YSB, and Mitsui&Co. (Kaneko 1991, 88). SMR was, in fact, a Japanese colonial institution with the main aim of executing Japan's colonizing projects, rather than simply seeking business profits.

Nevertheless, SMR needed to conduct some railway business to support itself. Its profits came from cargo transportation, especially at the beginning. An analysis by the Japanese historian KANEKO Fumio found that the transport of soy products accounted for about 40% of SMR's cargo transport profits, with a peak of 57.4% in 1908 (Table 2.2). This was much more than the proportion of its profit from transporting coal (less than 10%

Table 2.2 SMR's profits from cargo transport of soy meal and coal, 1907–1914 (unit: %)

	<i>Ordinary cargo</i>		<i>Cargo for company business</i>	
	<i>Soy meal</i>	<i>Others</i>	<i>Coal</i>	<i>Others</i>
1907	37.3	45.4	4.1	13.2
1908	57.4	28.4	8.1	6.2
1909	48.6	33.0	11.1	7.3
1910	48.8	33.2	12.8	6.1
1911	43.4	35.6	15.4	5.6
1912	38.1	36.9	21.4	3.6
1913	35.9	33.2	26.5	4.4
1914	44.9	29.9	23.0	2.2

Source: Adapted from Kaneko (1991, 106).

until 1908). SMR eventually diversified its business to some extent, but soy products (beans, meal, and oil) continued to account for about 40% of its transport profits until WWI (Kaneko 1991, 106). In this way, soy-related business contributed to the stable development of SMR, thereby supporting Japan's colonial operations in Manchuria (Kaneko 1991, 106–107).

Both the Japanese government and SMR fully acknowledged the importance of the soy-industry and international trade of soy products for their colonial occupation of Manchuria. They actively developed the soy-crushing industry and facilitated more efficient trading and transport systems for the large-scale export of Manchurian soy products, with Dalian at the center. SMR's activities related to the Manchurian soy-industry included:

- Heavily investing in transport facilities around the railway network, expanding port facilities, building storage warehouses and hotels, and increasing rail and ship transport capacity, so as to increase soy product exports via Dalian. Mitsui&Co. handled a large part of the purchase of train cars and construction materials for SMR.
- Reorganizing the trade route of Manchurian soy products via the port in Dalian, rather than the previously developed trade route via Yingkou. One of its actions was setting an advantageous fee for Manchurian soy products to be transported by SMR and exported from the port in Dalian.
- Contributing to organizing a more efficient trading system, and providing quality control by blending and inspecting soy products, thus securing uniform and stable quality for bulk trade in the global market. SMR also began a warehouse business and an insurance system.

In this way, SMR contributed to facilitating the large-scale trade of standardized soy products as an industrial ingredient for export to the world market (Kaneko 1991; Nakajima ed. 1967; Manshi-kai 1964).

As the postcards in Figure 2.2 show, Japan established the railway cargo link of SMR to the Dalian port, which was connected to marine transport routes to Japan. Manchurian soy products—bean, meal, and oil—became the major commodities for this business and for the benefit of Japanese big business, colonial institutions, and government.

Based on this study, I argue that Japanese colonial policies and SMR's work promoted the development of Manchuria's soy-industry and international trade of their soy products, while enforcing the Japanese colonial occupation at the same time. Regardless of whether its purpose was political or economic, the Japanese colonial institution of the SMR contributed to soy becoming a globally traded commodity and to Manchuria becoming the center of the world soy export trade by the 1930s.

Parallel to SMR establishing its colonial foothold in Manchuria, these favorable conditions for Japanese capital—with public order protected by the Japanese military, the presence of Japanese trading and financial institutions organized by the state and *zaibatsu*, the promotion of the soy business by the South Manchuria Railway, and the established trade routes to Japan and the world market—encouraged more Japanese investment in the Manchurian soy-industry, with the port of Dalian as the center of the Manchurian soy economy (Nisshin Oil 1969, 24).

Nisshin Oil: The company founded by the Okura zaibatsu and a fertilizer broker

Seeing the rapid increase of soy meal imports from Manchuria, Japanese *zaibatsu* and other companies decided to enter the soy-crushing business and trade themselves. In 1907, the Okura *zaibatsu*, which was aiming to expand into Manchuria, and a Japanese fertilizer broker, came together to found a company that became the dominant oil company in Japan today: Nisshin Oil Group (Nisshin Oil, hereafter).

The Okura *zaibatsu* may be little known today, with their business limited to certain industries like hotels and construction. However, at the beginning of the Meiji era of modernization, the Okura *zaibatsu* group was quite influential as a typical government trader (*seisho zaibatsu*), working with and for the national government. In particular, the Okura *zaibatsu* worked for the military by handling arms trading and played a key role in Japan's Asia expansion policy. Okura was involved in the Sino-Japanese War (1894–1895), the Russo-Japanese War (1904–1905), and WWI. The group was started by OKURA Kihachiro, who was born in 1837. Okura began a dry goods business in Edo, but soon turned to trading guns and



Figure 2.2 Postcards that show an SMR train in Dalian port (a) and the SMR and marine transport routes linking Manchuria and Japan (b). (Photograph courtesy of the Main Library, Kyoto University Rare Materials Digital Archive “Asia Depicted on Postcards”, <https://rmda.kulib.kyoto-u.ac.jp/en/collection/asia-pc>).

(a) “Link between the Sea and the Continent (Dairen Wharf) [sic],” n.d.; (b) “Traffic Map between Japan and Manchukuo,” 1942.

munitions. He traveled to Europe in 1872 and made connections with the members of the Iwakura diplomatic mission visiting there. Such personal connections with key people in the Japanese government contributed to the Okura *zaibatsu* becoming a government trader (Okura Zaibatsu Research Association 1982).

Around the same time, the fertilizer broker MATSUSHITA Kyujiro began importing Manchurian soy meal to replace fishmeal. He moved his office from the traditional center of Japan's fertilizer business to the port city of Yokohama, for the convenience of importing soy meal (Nisshin Oil 1969, 53). Around the time of the Sino-Japanese War (1894–1895), when Japan achieved the first step of its industrial revolution (mainly in light industry), the demand for soy meal for fertilizer increased rapidly. Matsushita became a significant player in the fertilizer industry, and he caught the attention of the Okura group.

Thus, the Okura *zaibatsu*, which was deeply involved in the military and expansion policies of Japan, and the fertilizer broker, who imported Manchurian soy meal, joined hands and established a new company in 1907, the origin of today's dominant edible oil company, Nisshin Oil Group. The founding board members included relatives and business partners of OKURA Kihachiro, indicating the strong position of the *zaibatsu* group in the new company (Nisshin Oil 1969, 5–7). The original company name was *Nisshin Mame-kasu Seizon Kabushikigaisha* (日清豆粕製造株式会社), which literally means “Japan-China Bean Meal Manufacturing Company,” reflecting the main product of the day being soy meal rather than soy oil. The corporate history says that “soy bean oil was little utilized for edible purposes in those days. Oil was a by-product. The main use of soy bean was to manufacture soy meal rather than to extract oil” (Nisshin Oil 1969, 5).

Nisshin Oil was incorporated in Tokyo, but the first thing the company did was to open an office in Yingkou and build a factory in Dalian, both in Manchuria. The executive board members frequently traveled to Manchuria, and they negotiated with the Japanese army there to rent land for their factory, which was connected to the SMR and the Dalian port. The factory was completed at the end of 1907, and it began test operations in August the following year. After that, Nisshin Oil remained a dominant company in the Manchurian soy-industry until the end of WWII (Nisshin Oil 1969, 16–17; Zhu 2014).

Next to the Nisshin Oil factory in Dalian, Mitsui&Co. and local capital jointly built another soy-crushing company (三泰油房). By then, Mitsui&Co., which had already been trading Manchurian soy meal to Japan, was thoroughly entwined in SMR's projects and Manchuria's economy.

The privatization of a colonial innovation: The origin of the Honen Oil group

While promoting trade via Dalian as a railroad company, SMR also built top-level R&D sections to find available resources in Manchuria and develop the related industries to maximize these resources for the benefit of Japan. The Research Section of SMR (満鉄調査部) was established in 1907 as a think tank to support the Japanese colonization. Top researchers from the imperial universities of Japan were invited to work there. In addition to studying the social and economic situation of Manchuria, they actively studied the production and industrial possibilities of agricultural resources in Manchuria, including wheat, sugar, animal products, and, of course, soy. Especially, the SMR Central Laboratory (満鉄中央試験所), which was reorganized by merging with military laboratory in 1910, conducted four decades of research, some of which was purely academic, but most of it was practical research to develop industries and businesses based on the resources available in Manchuria (Manshikai 1964, 577; Sugita 1995).

Because the development of the soy-industry contributed to SMR, and thus to Japan, the SMR Central Laboratory had great interest in improving the soy-industry there. It researched soy varieties with higher oil content, developed more efficient technologies for oil extraction, and found new industrial products that could be made from soy oil and soy meal (Kikuchi 1994, 70). With the ample capital and elite human resources available to it as a national policy company, SMR investigated in cutting-edge technologies for oil-press machinery and oil-extraction methods, especially focusing on a solvent-extraction method using benzine. The SMR Central Laboratory obtained this technology from Germany and built the SMR Soy Oil Manufactory, which began test production in 1915. Then, the technology and the facilities were given to Suzuki Shoten, the largest *zaibatsu* of the time.

Suzuki Shoten is sometimes called an illusionary *sogo-shosha* (Suzukishoten-museum 2014). Although it is little known even among Japanese people, Suzuki Shoten ranked alongside Mitsui and Mitsubishi around the beginning of the 20th century. By 1902, it had overseas offices in London, Hamburg, and New York, and by 1917, its sales made up about 10% of Japan's GDP. The Suzuki family began trading imported sugar in Kobe, one of the settlements for foreigners, around the 1870s. The company found success in settlement trading, and rapidly grew, expanding from sugar to camphor, celluloid, steel, leather, tobacco, alcohol, as well as soy and fish oils. It also began manufacturing hardened oil from these oil resources. Suzuki Shoten invested in many companies in key industries inside and around Japan. After going bankrupt in 1927, Suzuki Shoten disappeared from history, with its corporate records scattered and remained little researched. Its legacy remains, however, in dozens of major companies

to this day, including in the steel and heavy machinery, petrol chemical, marine transport, general trading, and food and beverage sectors.

SMR's cutting-edge solvent-extraction facilities became Suzuki Shoten's Oil Section, which in 1922 was incorporated into Honen Oil Company, one of the origins of the other dominant oil company in Japan today, J-Oil Mills. After acquiring SMR's oil-extraction factory in Dalian, Suzuki Shoten expanded its production capacity. It also built more solvent-extraction factories inside of Japan, in Shimizu, Naruo, and Yokohama—all in port districts that featured convenient access to imported soy from Manchuria and to shipping out the finished products (Honen Oil 1944, 40). Suzuki Shoten was very active in international trade, dealing with a wide range of products. It became the best-known Japanese trader in London and made huge profits during WWI. However, when the postwar economic turmoil began in the 1920s, Suzuki Shoten faced severe difficulties. In its restructuring efforts, the vegetable oil sectors of Suzuki Shoten were cut off, and a new company, Honen Oil, was incorporated in 1922, succeeding to the factories in Dalian and Japan. Suzuki Shoten continued to struggle due to economic and political conflicts and finally became bankrupt during Japan's financial panic of 1927 (Honen Oil 1944; Katsura 1976).

The development of the Japanese soy-industry with imported Manchurian soy

In addition to these *zaibatsu*-related major companies, some smaller-scale soy-crushing factories were built in Japan, also crushed imported Manchurian soy bean. According to *Golden Flower's* history of the Japanese vegetable oil industries, the first soy-crushing factory in Japan was built in 1902 in Tsuruga, a port city facing the Asian continent, in today's Fukui prefecture. The companies that began crushing soy in those days had "soy meal" in their company names rather than "oil" or "refinery," indicating that the meal was their main product. These factories were built on the coasts, giving them easy access to the ports, and from the start they used imported Manchurian soy as their raw material, rather than depending on domestic production, although Japanese farmers had been growing soy for centuries (Ooura and Hirano eds. 1948).

As more factories began crushing soy beans and producing soy meal in Japan, the government encouraged the development of this domestic soy-crushing industry. In 1906, the government made various tariff adjustments to make importing Manchurian soy bean favorable relative to importing Manchurian soy meal. In 1912, the government more or less abandoned tariffs on whole soy bean imports to some designated ports, including Yokohama and Kobe, as well as other port areas in Aichi, Mie, and Sizuoka prefectures (Ooura and Hirano eds. 1948; Masuno 1942; Honen Oil

1944). These government policies encouraged the building of more soy-crushing factories in Japan, especially in the port districts.

The *zaibatsu* also turned to building domestic factories, and they rapidly increased production capacity in Japan by investing in large-scale manufacturing with new technologies and machineries. Suzuki Shoten, which had inherited the solvent-extraction technology from SMR in Dalian, introduced this technology to Japan and built three more solvent-extraction factories in Shimizu, Naruo, and Yokohama—all in port districts that featured convenient access to imported soy beans from Manchuria (Honen Oil 1944, 40). With the outbreak of WWI, world demand for oils and fats surged. The war led to both the withdrawal of European forces from Asia and an enormous increase in soy oil demand, thus creating a “golden era” for the Japanese soy-crushing industry. Suzuki Shoten regarded WWI as “heaven’s blessing” because the *zaibatsu*’s soy-related business received huge orders from many countries (Honen Oil 1944, 26; Nisshin Oil 1969, 4).

Table 2.3 shows the soy-crushing factories in Japan around 1918 that had a production capacity of more than 100 tons per day and their production methods (oil-press or solvent-extraction).

This “golden era” of the soy-crushing industry, and the rapid increase of soy meal and soy oil production in Japan, came *before* the Japanese people began eating soy oil. Almost all of the soy oil being produced was exported, mainly to Western countries.

Table 2.3 Large-scale soy-crushing factories (daily crushing capacity of more than 100 tons) in Japan around 1918

<i>Factory name</i>	<i>Location</i>	<i>Methods</i>	<i>Daily soy-crushing capacity (ton)</i>
Matsushita Soy meal Manufacturing (Nisshin Oil)	Yokohama (Kanagawa)	Press	120
Yokohama Soy meal Manufacturing	Yokohama (Kanagawa)	Press	100
Suzuki Shoten Oil Section (Honen Oil)	Yokohama (Kanagawa)	Solvent extraction	150
Suzuki Shoten Oil Section (Honen Oil)	Shimizu (Shizuoka)	Solvent extraction	300
Yano Oil Refinery	Atsuta (Aichi)	Solvent extraction	100
Suzuki Shoten Oil Section (Honen Oil)	Naruo (Hyogo)	Solvent extraction	200
Nikka Oil	Wakamatsu (Fukuoka)	Solvent extraction	100

Source: Compiled by the author based on data in Masuno (1942, 174–176).

Soy products become global commodities

Soy is known as an oilseed in the West, although it contains much more protein than oil. The origin of this labeling can be traced back to the export of soy oil to the Western countries around the beginning of the 20th century. It is said that soy oil was first introduced to the United Kingdom in 1908, when Mitsui&Co. made a trial shipment to Liverpool, and the British company Lever Brothers soon began to use soy oil for soap manufacturing (Shaw 1911). Special orders from European countries and the United States skyrocketed with WWI, hugely increasing soy oil exports from Manchuria and Japan to the West, as shown by Japanese trade data. An American report, the USDA Statistical Bulletin, also recorded the surge in soy oil imports, from 21 million pounds in 1915 to 145 million the next year and reaching its height at 336 million in 1918 (USDA 1937, 15). This rapid increase in the soy oil trade caught the attention of Western businesses, and some US cottonseed oil mills began crushing imported soy. Soy oil production in the United States was first officially recorded in 1922, with the amount of 751,000 pounds (Eisenschiml 1929), but it was not until the 1930s that domestic soy oil production, as well as soy cultivation, became widespread (Berlan et al. 1977). Europe also imported large amounts of soy bean from the latter half of the 1920s. Germany, which had suffered from an embargo of oil imports during WWI, encouraged the development of a domestic soy-crushing industry and promoted soy bean importation from Manchuria in the 1920s in order to produce its own oil (Hori 2009, 116; Usui 2010, 40; Prodöhl 2023).

Various trade statistics show distinct trade patterns of the Manchurian soy trade, in which soy meal was exported to Japan, soy oil to the West, and soy bean to both Japan and Europe (especially after the 1920s).

Figure 2.3 shows the export destinations of soy products from the three Manchurian ports of Dalian, Yingkou, and Andong in 1930. These data were reported by the SMR in the *North China Trade Bulletin*. Japan was the largest export destination of soy meal, accounting for 60%, but there was almost no export of soy oil to Japan. Soy oil was mainly exported to the United Kingdom and the Netherlands, a gateway to the rest of Europe. The raw material of soy bean was exported to Japan and the Western countries, indicating that the soy-crushing industries had developed in these countries by that time.

Another set of trade data, compiled by the national statistical office of Manchukuo, the puppet-state of Japan, in 1941, shows the same pattern, as represented in the graphs in Figures 2.4 to 2.6, which cover from 1912 to 1938. The accompanying maps illustrate the soy trade situation of 1938.

As Figure 2.4 shows, soy meal was mainly exported to Japan, with some going to other parts of China. Next, Figure 2.5 shows the sharp increase

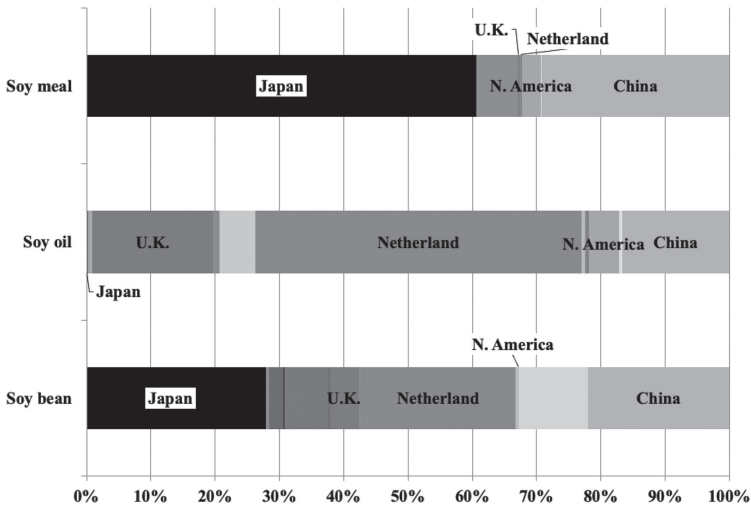


Figure 2.3 The export destinations of soy meal, oil, and bean in 1930 from three major ports of Manchuria (Dalian, Yingkou, and Andong).

Source: Compiled by the author, based on data in SMR (1930, 17–22).

of soy oil exports to the United States in 1917, and then a drop soon after the end of WWI, as well as some postwar increase in soy oil exports to Europe. Later in the 1920s, however, European countries began importing soy bean, as reflected in Figure 2.6, demonstrating that they now had the capacity to process this raw material domestically.

The trade statistics in those days, especially those of soy oil, are confusing, and sometimes show unrealistic figures. Even the Manchukuo statistical officers leave a few figures out, omitting them from the charts. Still, other sets of trade statistics from the era, produced by oil companies or other researchers, show similar patterns and provide enough evidence to argue that modernizing Japan developed the soy-industry for soy meal fertilizer. Contrary to prior explanations that the increase of soy imports to Japan occurred in response to consumer demand, the Japanese soy-industry was not developed because the Japanese people were eating more soy foods or more oils/fats due to the Westernization of their diet.

Japanese traders and oil companies were significant players in the soy products trade from Manchuria. When Manchuria became the center of world soy production and export in the 1930s, the four Japanese trading and oil companies of Mitsui, Mitsubishi, Honen Oil, and Nisshin Oil handled over 80% of soy oil exports from Manchurian ports; Mitsui alone accounted for 45% and Mitsubishi for 25% (Table 2.4).

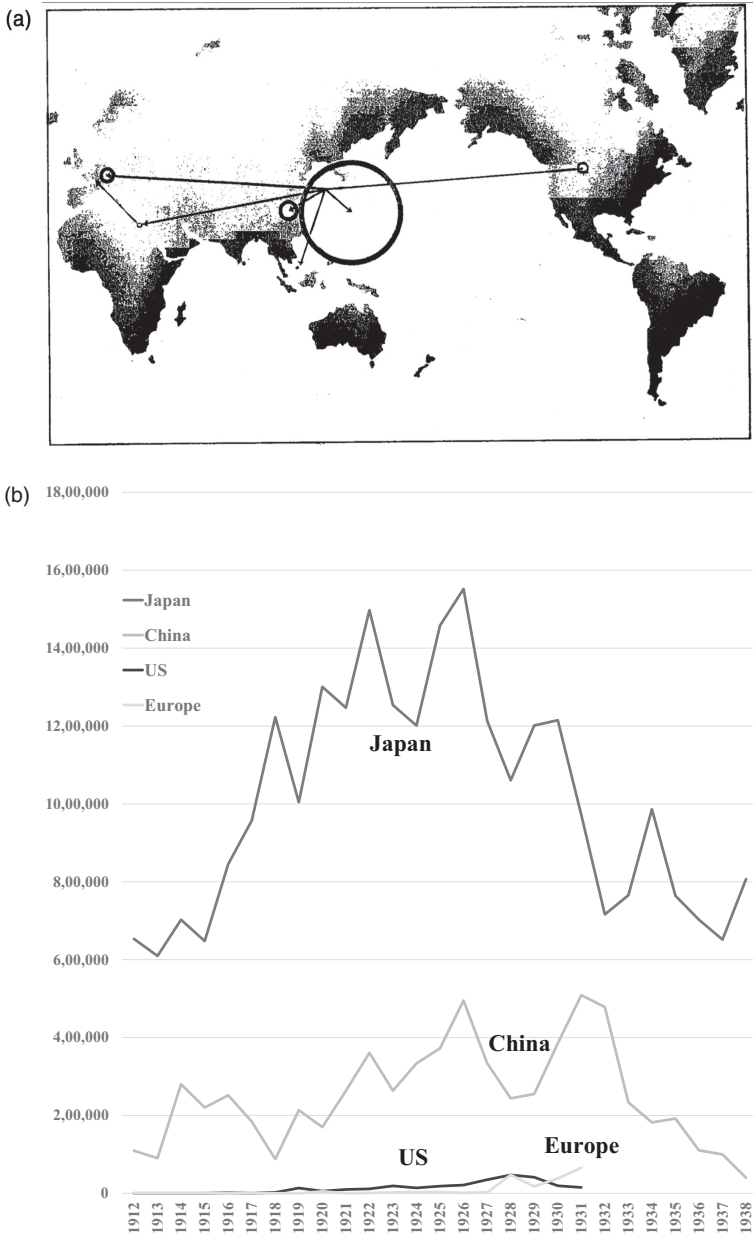


Figure 2.4 Soy meal export from Manchuria.

(a) Map illustrating exports in 1938; (b) Exports from Manchukuo from 1912 to 1938.

Source: Compiled by the author, based on data in Static Office of Manchukuo (1941, 102–107), courtesy of the Digital archives of the Institute for Economic and Business Research, Shiga University.

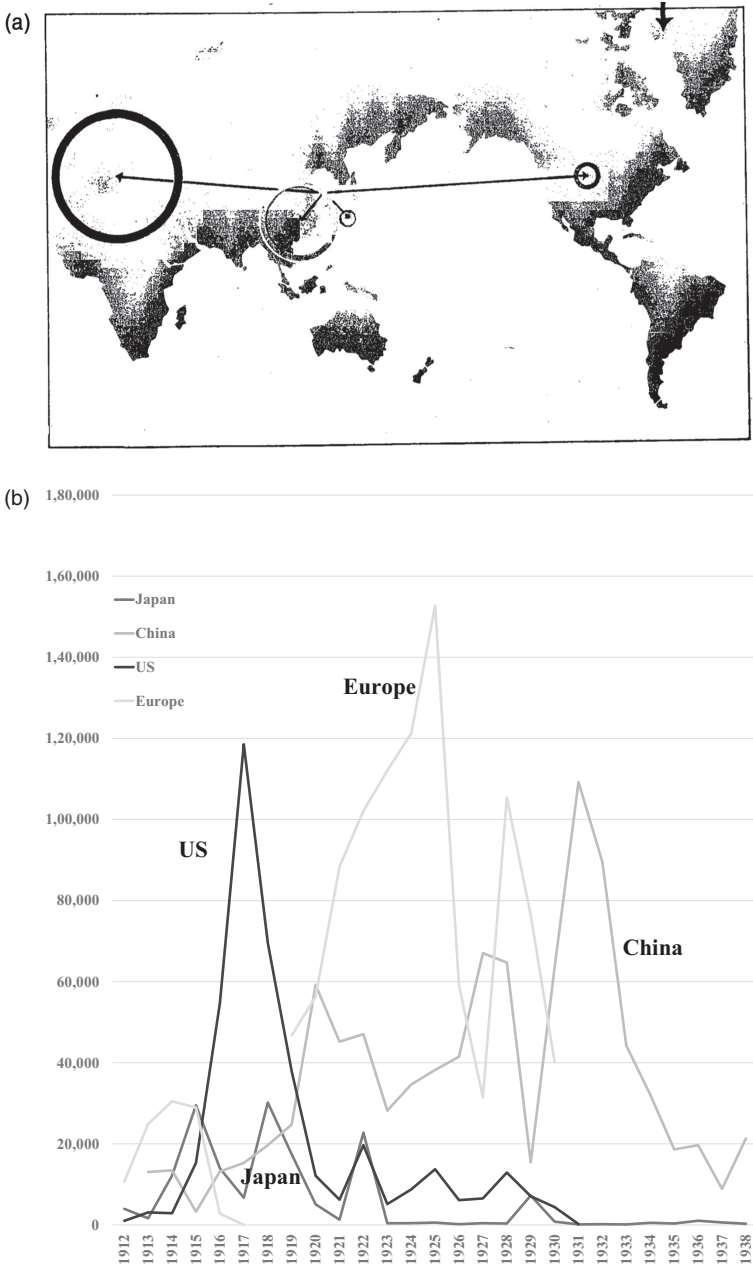


Figure 2.5 Soy oil export from Manchuria.

(a) Map illustrating exports in 1938; (b) Exports from Manchukuo from 1912 to 1938.

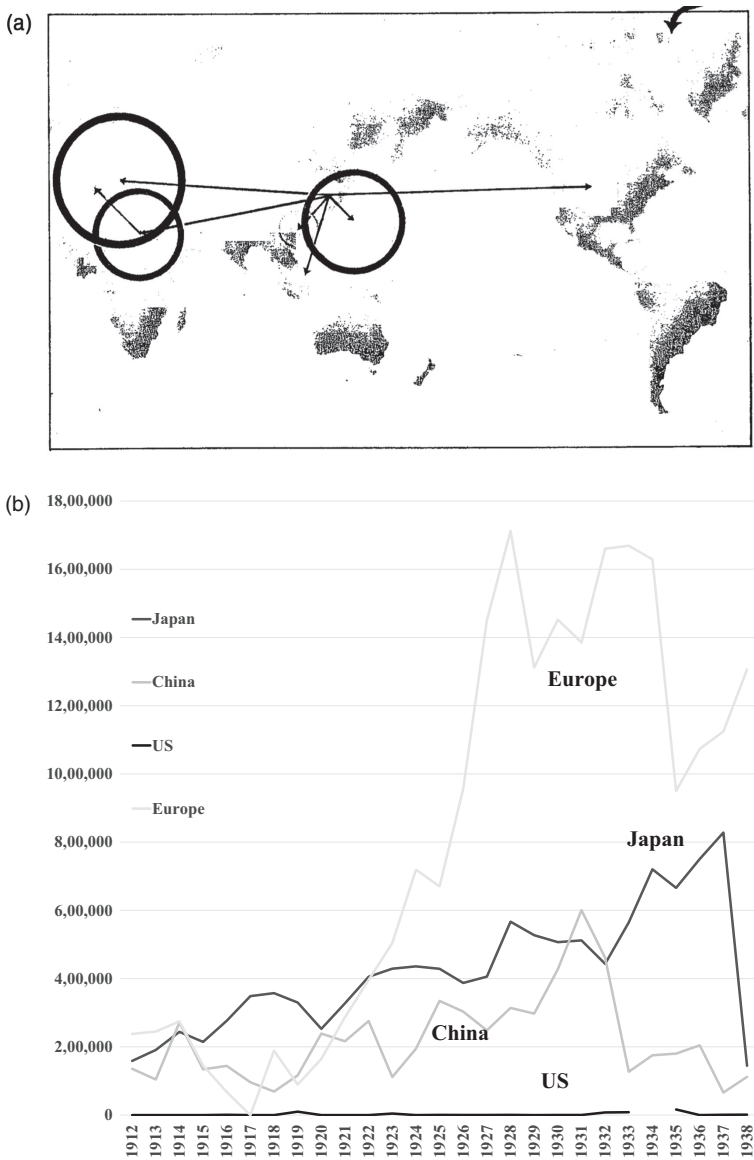


Figure 2.6 Soy bean export from Manchuria.

(a) Map illustrating exports in 1938; (b) Exports from Manchukuo from 1912 to 1938.

Table 2.4 Four Japanese companies exporting soy products from Manchuria in 1930 (unit: ton)

<i>Company Name</i>	<i>Destination</i>	<i>Soy bean</i>	<i>Soy meal</i>	<i>Soy oil</i>
Mitsui	Japan	37,947	234,512	17
	Korea	213	12,413	
	China	36,174	5,441	260
	South Sea	35,597	70	
	Europe	224,135	2,357	51,800
	US			2,687
	Total	334,066	254,793	54,764
	%	17%	17%	45%
Mitsubishi	Japan	29,464	260,775	
	Korea		927	
	China	570	938	394
	South Sea	13,062	36	
	Europe	100,083	14	27,148
	US		4,237	1,839
	USSR			614
	Total	143,179	266,927	29,995
%	7%	18%	25%	
Honen	Japan	162,200	30,630	4,027
	Korea		4,930	
	Europe		510	
	Total		36,070	
	%	8%	2%	3%
Nisshin	Japan	11,081	115,523	
	Korea		12	1
	China		28	18
	South Sea	4,484		
	Europe	19,396	2,763	9,489
	US	41	12,916	2,083
	Total	35,002	131,242	11,591
	%	2%	9%	10%
% of four Japanese companies		34%	46%	83%

Source: Compiled by the author based on data from SMR (1932, 95–96).

Note: Bold values are emphasis by the author.

These companies handled both processing and trade of soy products (bean, oil, and meal). At the same time, they made profits through speculative investments in financial trading over these commodities. According to a corporate history of Mitsubishi Corporation:

We participated in soy bean trading, with soy beans as a financial commodity that we could buy from the market or sell to make a profit, or

that we could crush in our own factories, and then sell soy oil and soy meal instead. In other words, soy-crushing worked as a kind of buffer in our profit-making strategy.

(Mitsubishi Corporation 1986, 189)

When SUGIYAMA Kintaro, the president of Honen Oil, visited Manchuria, he commented that the main aim of the companies that owned the soy-crushing and oil-refining factories in Dalian “was to speculate on soy products, and the soy-crushing factories worked as a supplementary institution for such gambling” (Sugiyama 1957, 160). Nisshin Oil also admitted in their business reports that “our original business of soy-crushing became secondary, and the trading of Manchurian products became the main profit-making business in our operation” around 1933 and 1934 (Nisshin Oil Business Report for FY August 1933 to July 1934). In other words, speculation and profit-making were already the main aims of the soy companies and traders in the early stages of the development of Japan’s soy-industry, long before the age of neoliberal globalization and the financialization of food and agriculture (Hiraga 2018).

Conflicts over Manchurian soy

As the international trade of soy products grew, local Manchurian forces also wanted a slice of the pie and began looking for ways to gain some of the incoming foreign currency from this successful “soy economy.” Together with increasing Japanese military control in Manchuria, this contributed to the conflicts in this area that preceded WWII.

The development of the soy economy in Manchuria was not accomplished only by Japanese or foreign investors, of course. Although Japanese actors played significant roles in soy products’ railway transportation using SMR, and in the export of these products from Manchurian ports, most soy bean production and most of the domestic trade in soy (from farms to the railway) was handled by local players in Manchuria. Local farmers and immigrant Chinese farmers cultivated soy, and local traders (糧棧) bought, stored, and transported it, as well as financing the farmers and selling daily goods to them (Zhu 2014). Japanese traders, including Mitsui&Co., tried to cut into this local trade; however, complicated local networks and multiple currencies prevented their entrance. So Japanese players mainly handled large-scale soy-crushing industries, railway transport, and international trade (Zhu 2014).

The soy-related industries and international trade were attractive sources of foreign currency for local warlords like ZHANG Zuolin of the Fengtian Clique, who needed foreign currency to buy arms from overseas. Eventually, in the 1920s, Zhang began operating soy-crushing factories and entered the local trade of soy products in Manchuria. His

businesses began to push Japanese players out of the Manchurian soy business by building other railways parallel to SMR, supplying credit to farmers, and buying up soy (Zhu 2014; Yasutomi 2015, 104). Zhang was assassinated in 1928; the Manchurian Incident took place in 1931; and Japan's puppet state of Manchukuo was established in 1932. Although a comprehensive analysis of these conflicts and their consequences is beyond the scope of this book, the mounting tension between local forces and Japan over Manchurian soy has been suggested as one cause of the military conflicts between Japan and China/Manchuria (Kaneko 1991; Zhu 2014).

Soy gains American attention (1920s–1945)

The great success of Manchurian soy also caught the attention of the Americans. Although the United States is a major soy producer and exporter today, its soy production has a relatively short history, having begun in the 19th century, “as a curiosity until 1880,” with about 2,000 acres planted in 1914. The domestic production of soy oil was too small to be recorded in official statistics until 1922, and its quality was too poor to be marketed (Eisenschiml 1929). American soy was cultivated mainly for seed and animal fodder until 1933 (Berlan, Bertrand, and Lebas 1977). As mentioned, before and during WWI, the United States imported soy oil from Manchuria, with the war leading to huge increases in these imports (Honen Oil 1944; USDA 1937). This led some cottonseed mills, especially on the west coast (i.e., facing Asia), to experiment with crushing imported soy bean during their off-season (Eisenschiml 1929). The use of soy meal for animal feed also raised interest among Americans. In 1929, the USDA sent the Oriental Agricultural Exploration Expedition to Asia to learn more about soy production (USDA 2009). The US government and the American Soybean Association (ASA), founded and organized in the 1920s, promoted the production of domestic soy and a soy-crushing industry in the United States, while placing protective duties to block the importation of soy bean and soy oil from Manchuria and tropical oils from Southeast Asia. When the country faced severe oil and fat shortages during WWII, the government and business interests actively campaigned to encourage people to save fats and oils for war needs (Prodöhl 2016) and demanded that oil products like margarine be made with “raw material produced on American soil” (Berlan et al. 1977). The domestic production and crushing of soy increased in the United States from the latter half of the 1930s, although not all American farmers were enthusiastic about soy cultivation. The actual motivation behind this increase in soy production requires other research, but the United States became the global leader in soy production,

and Japan became the largest buyer of US soy, after WWII (as described in detail in later chapters).

Discussion

The modern big business of soy-crushing and the global trade of soy products began as a part of Japan's nation-building project, not to provide food for people but to accumulate capital and power.

Mass-produced soy oil and meal: Products and markets

Soy bean is harder and contains less oil than Japan's traditionally pressed oilseeds. The bean was used as food, but not for oil, for centuries in Japan. It was the modern capital-intensive machine-industry with powered crushing machines and solvent-extraction technologies that enabled mass-production of soy meal and soy oil. Based on historical records, I argue that Japanese *zaibatsu* and big oil companies played significant roles in this transformation. Nisshin Oil (co-founded by the Okura *zaibatsu*) built the biggest machine-powered oil-pressing factory in Dalian, Manchuria. The Japanese colonial institution of SMR and its corporate successor, Suzuki Shoten, introduced solvent-extraction, which was state-of-the-art technology at the time, in Manchuria and Japan. Their huge capital investment in the machinery and chemical-based processing methods enabled the mass-production of higher-quality soy meal (with less oil residue) that could be transported longer distances, as well as more efficient production of soy oil (by extracting more oil). In this way, soy became an industrial raw material, and soy products (meal, oil, and bean) became global commodities to be traded from Asia to the United States and European countries.

The mechanical mass-production factories required large-volume procurement of raw materials, which the big Japanese companies accomplished in Manchuria. Although the actual farming and local trade of soy were mainly handled by local people, Japanese businesses, including Nisshin Oil and Honen Oil, and the trading sectors of Mitsui and Mitsubishi, became the most significant traders of soy products from Manchuria. As a Japanese colonial agent, SMR also supported the development of the soy-industry in Manchuria through R&D, investing in transport and storage facilities and managing quality control and supply chains, all for the benefit of Japan.

Soy and the "visible hands" of business and government

Manchurian soy provided crucial business and political opportunities for the Japanese government and *zaibatsu* as they worked together to establish

a modern state and expand to other parts of Asia. Japan began its modernization in the latter half of the 19th century as a latecomer to the capitalist world-economy. In order to avoid Western colonization and quickly develop as an independent modern nation-state, the Japanese government actively facilitated economic and political transformation. The government supported some of the existing rich families since the feudal era, like Mitsui and Sumitomo, and it also worked with the newly developed *zaibatsu*, like Mitsubishi, Okura, and Suzuki Shoten. The government gave them special support and orders to their traders to conduct the government's business, as well as to develop key industries and international trade to accumulate capital in Japanese hands.

It might be coincidental that the soy-crushing industry was taking off in Manchuria at the same moment that Japanese consulate offices, special banks, and government traders—the leading “trinity” of Japan's overseas expansion—were opening in key Manchurian cities. In any event, the situation was undeniably excellent for Japanese businesses that were closely linked with the government, including through colonial institutions like SMR. The soy-crushing industry and the export of soy products supported the growth of the Japanese companies and Japanese colonial institutions, thus indirectly supporting Japan's imperial expansion across Asia. The following chapters explore how Manchurian soy supported Japanese military actions in the coming decades.

The role of soy in food and capitalist history: The First Food Regime in the Asian context

The development of the soy-industry in and trade from Manchuria (soy meal to Japan, soy oil to the West, and soy bean to Japan and Europe) helped Japan accumulate capital for its state-building project. Soy meal fertilizer was used to modernize Japanese agriculture as purchased input to increase rice and mulberry leaf (hence silk) production. The increased production of rice was helpful to feed the Japanese people, especially factory workers and soldiers. But more important was the production of mulberry leaves to feed silkworms, so that Japan could increase its exports of raw silk and silk products and thus obtain foreign currency, that was crucial for supporting Japan's industrial revolution and economic development. Manchurian soy was not used directly to feed people; however, soy was incorporated into the processes of capital accumulation necessary for modernizing Japan. Therefore, I argue that the Japanese involvement in Manchurian soy was key to the First Food Regime in the Asian context (as also discussed in Hiraga and Hisano, 2017).

Soy oil made from Manchurian soy was exported to Europe and the United States from both Manchuria and Japan, leading to soy being recognized as an oilseed in the Western countries and becoming a global

trade commodity. In this capacity, soy began its trajectory as one of the main crops behind large-scale forest eradication, from Manchuria in the 19th century to worldwide up to the present days (Yasutomi 2015, 102). In this chapter, I argue that soy production in Manchuria and the active involvement of modernizing Japan laid the foundation of the transformation and globalization of soy.

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