

THE UNIVERSITY OF CHICAGO

MANCHURIAN ATLAS:

COMPETITIVE GEOPOLITICS, PLANNED INDUSTRIALIZATION, AND THE RISE OF
HEAVY INDUSTRIAL STATE IN NORTHEAST CHINA, 1918-1954

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For My Parents, Zhao Huisheng and Li Hong

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ABSTRACT

The different paths of economic development between Manchuria and the China proper in modern times has long been noticed and attributed to the distinctive Japanese colonialism and imperialism. Contrary to the literatures that examine Manchuria through national historical perspectives, this thesis proposes a Manchuria-centered regional economic point of view that cuts through Chinese warlord, Japanese imperialist, Nationalist, and Communist political regimes between 1918 and 1954, and reconnects these fragmented periods back into a continuous pattern of political economy, conceptualized as the heavy industrial state.

Four major characteristics of the heavy industrial state in Manchuria are described and analyzed in a chronological order with the existing and recently unveiled historical records. First, the Manchurian state consistently spends a considerable portion of revenue on increasing industrial output by building, consolidating and expanding modern fiscal and monetary power. It prioritizes heavy industrialization under shifting geopolitical pressures through empowered central planning agencies and in the form of annual or five-year plans. In addition, the state enterprise system and its government managing apparatus are the main developmental actors to carry out the economic plans conceived and financed by the state. And finally, the heavy industrial state derives its core technological and managerial assistances and acquires the advanced machinery mostly through exclusive political-military alliances with preferential terms.

As a fertile soil for experimenting European anti-liberal capitalism ethos, military, political, economic and technological elites of East Asia, though implacable foes against each other in many respects, explored a resembling prototype of the future developmental and socialist state in Manchuria. However, they also built a special state-economy/society relationship into the semi-

periphery state that exudes the chronic problem of addressing national autonomy at the expense of profitability, despite its merits in claiming miraculous economic results in Asia. This cradle and training camp of Manchurian Atlas becomes a focal point once again when China is poised for deepening the reform of its economic system and widening its integration into the global capitalist system in the 21st century.

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INTRODUCTION

We are undertaking
the most great and glorious venture,
that has never been done
by our predecessors.

—Feng Zhi, Poem “The Great and Glorious Venture”, 1955¹

March 1917, the February Revolution broke out in Petrograd (St. Petersburg). Miyazaki Masayoshi, a college student at the Petrograd Imperial University majored in political economy with the financial aid from the South Manchurian Railway Company (SMR), witnessed the intellectual contention and chaos under the Provisional Government. He left Russia four months later with three years of wartime experiences before the Bolshevik Revolution hit Russia again in November. However, Miyazaki leveraged his expertise on Russia and took the post as Chief of the Russian Division of the SMR Research Section in 1923. Closely following the development of the Soviet Union, Miyazaki was particularly interested in Lenin’s New Economic Policy and Stalin’s Five-Year Plans. And by working intimately with Ishiwara Kanji, he helped to draft Manchukuo’s economic development outline and the first Industrial Development Five-Year Plan through the institutional work of the Economic Research Association (ERA) and later the Japan-Manchukuo Finance and Economic Research Association (JMRA).

¹ Ling Ding, *Wu nian ji hua song* (Beijing: Zuo jia chu ban she, 1956), p. 100.

Two years after the Russian Revolution and less than a year after the German Revolution, 20-year-old Qian Changzhao boarded a ship from Shanghai to England and in September 1919 he enrolled at the London School of Economics, founded by the Fabian Society. Qian learned from two influential socialist economists Sidney Webb and Harold Laski at the school, where he turned into a Fabian socialist with a strong belief in industrial nationalism before heading back to China in 1923. Shortly after the Manchurian Incident of 1931, Chang Kai-shek established the National Defense Planning Commission (NDPC) and began to draw up the Heavy Industrial Five-Year Plan at Qian's suggestion. The NDPC was reorganized into the National Resource Commission (NRC) in 1935, China's leading agency on developing and managing heavy and military industries, and the NRC received the industrial legacy of Manchukuo after the Japanese surrender and the Soviet plunder in 1946. Qian joined the Communist government after 1949 and stayed as Deputy Chief of the Planning Bureau of the Central Financial and Economic Commission (CFEC).

While Qian was in his last year of study, Ishiwara Kanji, who graduated second of his class from the Army War College in 1918 and observed Central and East China in 1920, was selected to study in Germany as a military attaché between 1922 and 1925. In the post-Versailles Weimar Germany, the former imperial army was disbanded and the new Reichswehr was created with its size capped at 100,000 soldiers. Influenced by German military leaders like Hans Von Seeckt and Erich Ludendorff, Ishiwara was not only well versed in military doctrines and strategy, but also convinced that the state must be reformed and the strategic industries must be controlled and greatly expanded to sustain prolonged modern wars. Ishiwara was assigned to the Kwantung Army as a staff officer in Manchuria several months after the assassination of General Zhang Zuolin in 1928. He and other staff members plotted the Manchurian Incident and engineered the

puppet Manchukuo. Ishiwara's vision of the "Final War" with the United States rationalized his plan to utilize abundant resources and build up large-scale heavy industry in Manchuria.

A year younger than Qian, Li Fuchun registered with the popular work-study program and arrived in France in the same month when Qian started his class at the LSE. Unlike Qian and Ishiwara, however, Li learned his industrial economics not from the college classroom or the military academy but as a fitter from the Schneider-Creusot steelworks in Le Havre, France's leading artillery manufacturer during WWI. Li's heavy industrial experiences transformed him into a staunch communist and later he studied at the Moscow Communist University of the Toilers of the East in 1925. After returning to China, Li became a key economic leader of the Chinese Communist Party during the Sino-Japanese War and of Manchuria during the Civil War. He was the chief of logistics of the Northeast Military District during the Korean War, responsible for most of the wartime supplies to the front, and after that the deputy director of the CFEC. As one of the central architects of China's First National Economic Five-Year Plan and the 156 Soviet-assisted projects, Li was appointed Director of the State Planning Commission and concurrently Vice Premier of the State Council in 1954.

Before Li Fuchun and Ishiwara headed back home, Kojima Seiichi was sent by the Ministry of Education to study in England and Germany in 1924. Kojima graduated from the Department of Economics of the Tokyo Imperial University in 1919 at the age of 24 and started teaching industrial economics, with a focus on the theories of heavy industry. He finished his first two books on the historical development of iron and steel industry and on the current and future development of Japanese iron and steel industry before returning to Japan in 1927.² Kojima's

² Seiichi Kojima, *Tekkogyo hatten shi ron*, 1925; *Honpo Tekkogyo no Genzai Oyobi Shorai: Sono Kyujo no Yurai to Kaizo Seisaku no Senkyu ni Sansuru Sanko Shiryo* (Tokyo: Yuhikaku; Urisabakijo; Yushukaku, 1925).

European economic studies turned him into an advocate of “industrial rationalization” or “controlled economy”. In 1932, the Army General Staff invited a group of economic scholars to provide economic reviews and recommendations for the newly created Manchukuo. Kojima covered the entire industrial section of the report and preached economic control and heavy industrialization in Manchuria.³

Coming from different walks of life, the careers of these scholars, revolutionaries, and staff officers crisscrossed in Europe at a time when peace finally descended upon the continent, but its economic landscape already permanently changed by the lethality of modern warfare. One of the unintended consequences of this European tribulation was that the young students from East Asia converged on some simple but powerful ideas. First, national defense must be backed up by an advanced and competitive military industry, which in turn was sustained by the total national economic capacity with heavy industry at its center. Second, the development of national economy, prioritized towards heavy industry, should be centrally planned by the state to achieve rapid but comprehensive and balanced growth. And third, vital industries should be state-owned or state-run enterprises under dedicated state industrial agencies to secure favorable factors (capital/ labor/ technology) and to ensure the execution of state plans and policies. The other unintended consequence was that they and many other elite financial, industrial, and political talents came to Manchuria to develop one of the most vibrant and heavy industrial regions in the world since late 1920s.

Looking at the continuous heavy industrial growth of Manchuria/Northeast China, is it possible to derive a pattern of development beyond its contentious and antagonistic political history? If such pattern or mode exists, what are the features and mechanisms of it? And what

³ Rikugun Sanbo Honbu, *Manshu Kaihatsu Seisakuron: Hihan to Shuchō* (Tokyo: Rikugun Sanbo Honbu, 1932).

determining or contingent factors contributed to the emergence of a Manchurian industrial system? Can existing theories such as neoclassic economics, Marxist theory, world system theory, and developmental state explain the phenomenon without modification or supplementation? Last but not least, what does the history of Manchuria's heavy industrialization mean to the historical trajectory of China, and in a more broad sense East Asia, in the 20th century?

Transcending National History in Manchuria⁴

September 1918, Zhang Zuolin obtained the title of Governor-General of the Three Eastern Provinces from the Central Government in Beijing. The Fengtian Faction had been growing its power from Fengtian to Heilongjiang and Jilin provinces and the entire Manchuria was finally unified under General Zhang's command, both factually and nominally. In the same year, the Fengtian Note issued by the Official Bank of Three Eastern Provinces changed from the silver standard to the silver dollar standard, gradually establishing its domination in Manchuria. Four

⁴ This study intends to continue and expand the critique of nationalism in historical writings of China and Manchuria pioneered by Prasenjit Duara, *Rescuing History from the Nation: Questioning Narratives of Modern China* (Chicago: University of Chicago Press, 1995). And *Sovereignty and Authenticity : Manchukuo and the East Asian Modern* (Lanham: Rowman & Littlefield Publishers, 2003). Nation-state as the default unit of analysis in East Asian political economy has been dominant. The method of comparative regional studies that opened up a new field is presented by Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy*, The Princeton Economic History of the Western World (Princeton, N.J.: Princeton University Press, 2000). But more relevant inspiration in modern East Asia comes from Bruce Cumings, "The Origins and Development of the Northeast Asian Political Economy: Industrial Sectors, Product Cycles, and Political Consequences," *International Organization* 38, no. 1 (1984). And Cumings, "Webs with No Spiders, Spiders with No Webs: The Genealogy of the Developmental State," in Meredith Woo-Cumings, *The Developmental State*, Cornell Studies in Political Economy (Ithaca, N.Y.: Cornell University Press, 1999).

years later, Zhang formally declared Manchuria autonomous and practically stopped remitting revenues to the central government except customs revenues.

The land of Manchuria became a de facto independent state guarded by the massive Fengtian Army, armed with weapons produced by China's largest military industrial enterprise, the Mukden Arsenal. Though Zhang Xueliang, son of Zhang Zuolin, restored Manchuria back to the Republic of China in name by the end of 1928, Manchuria maintained quasi-independence while the rest of China was engulfed in constant civil war, either among a new generation of warlords or between the Nationalists and the Communists. That status became permanent secession when the Kwantung Army invaded and occupied Manchuria. The new Manchukuo appeared to be a sovereign multi-ethnic state with its own central and local governments, central bank and national currency, and reformed tax and custom systems. 14 years of Manchukuo abruptly ended with the Soviet invasion at the very end of WWII. However, the Nationalists' effort to bring back Manchuria met reluctance from the Soviets and open confrontation from the Chinese Communists.

As the Communist forces turned the tide with the Soviet assistance and drove the Nationalists out of Manchuria, its Northeast Administrative Committee replaced the latters Northeast Field Headquarters. Two months prior to the establishment of the Central Government of the People's Republic of China in 1949, the Northeast People's Government (NPG) was installed first with its own Northeast Bank and Northeast Note as the central bank and official currency operating separately from the rest of the Communist regions. The semi-independent status of the Communist Northeast was gradually rescinded by abolishing the currency at the end of 1951, transferring the management of key heavy industrial enterprises to the Central Government by 1952, reversing the Northeast People's Government back to the Northeast

Administrative Committee in 1953, and ultimately terminating the regional administration altogether in August 1954 after the death of Stalin and the downfall of the former NPG Chairman Gao Gang.

Between 1918 and 1954, Manchuria was either loosely attached or completely severed from China. Geographically, the external boundary of Manchuria was relatively stable even as its internal administrative units changed time and again during this period. Economically, this macro region experienced significant net capital inflow continuously for nearly half a century with the majority of investments going into industrial development. Therefore, this spatial-temporal process could be presented as an analytical object in which previously disrupted or hidden historical linkage could be bridged and discovered. Not surprisingly, the compartmentalization and fragmentation of Manchurian industrial history came from the carefully constructed nationalist and ideological narratives. The grim struggle between Japanese imperialism and Chinese nationalism, compounded by the intricate Cold War competitions in East Asia, produced contrasting periodization, observation, and interpretation.

There are three major ruptures in the literature of economic history of Manchuria during this period.⁵ The first was the evaluation of economic situations under the warlord administration. For the Japanese community in Manchuria and the Kwantung Army, the Zhang regime was leading a corrupt, incompetent, anti-foreign, and pre-modern government that caused

⁵ Previous works on the general economic development in Manchuria include but not limited to Manshikai, *Manshu Kaihatsu Yonjunen Shi*, 3 vols. (1964). Kungtu C. Sun, *The Economic Development of Manchuria in the First Half of the Twentieth Century* (Cambridge, Mass.: East Asian Research Center, Harvard University; distributed by Harvard University Press, 1969). Alexander Eckstein, Kang Chao, and John Chang, "The Economic Development of Manchuria: The Rise of a Frontier Economy," *The Journal of Economic History* 34, no. 1 (1974). Gang Zhao, *The Economic Development of Manchuria: The Rise of a Frontier Economy* (Ann Arbor: Center for Chinese Studies, University of Michigan, 1982). Kong Jingwei argues that the economic history of the Northeast has a special historical position and should not be treated as a case of regular regional history of China. See Jingwei Kong, *Xin Bian Zhongguo Dongbei Di Qu Jing Ji Shi* (Changchun Shi: Jilin jiao yu chu ban she, 1994).

hyperinflation, exploitation, poverty, and chaos of the Manchurian economy. The unfair, sometimes hostile, practice of the economic regulations against the Japanese and the suffering of the Chinese and Koreans alike warranted a regime change. The pro-Zhang loyalists and Chinese nationalists painted a sharply different picture in which the enlightened warlord administration was far more active than other Chinese warlords in promoting economic development and guarding Chinese economic interests against Japanese colonial encroachment. The problem is that the emphasis on soya economy and financial fluctuation often times foreshadows the strides the Zhang regime has made in creating the state institutions and favorite business environment for the development of industries.⁶ Therefore it is easy to dismiss the connection and continuity in terms of capital accumulation and personnel between this period, the early Manchukuo reconstruction, and the Chinese Nationalist and Communist takeovers.

The second rupture comes with the assessment of the Manchukuo legacy.⁷ Judging from three critical New Democratic reforms—creating democratic regime, implementing land reform, and reforming colonial economy—carried out by the Communists in Manchuria, Nishimura Shigeo insists that the view that “the Northeast economic recovery is totally depended upon the Manchukuo legacy” is a colonial-imperialist historical perspective and the heavy industrialization during Manchukuo was “merely a construct of wartime state monopolistic capitalism brought in by the colonial puppet state.”⁸ The predominant Chinese view agrees with

⁶ In Ronald Stanley Suleski, *The Modernization of Manchuria: An Annotated Bibliography* (Shatin, N.T., Hong Kong: Chinese University Press, 1994), p. 59. Suleski pointed out that “Chinese efforts to expand and modernize Manchuria’s economy during the 1920s have not been recognized or studied by scholars, and the Japanese efforts of the 1930s and 1940s have obscured whatever industrial infrastructure was created by the Chinese in the 1920s.”

⁷ The Manchukuo period is covered extensively by Japanese scholars and the most cited work is Akira Hara, “1930 nendai no Manshu keizaitosei seisaku”, in *Nihon Teikokushugi ka no Manshu: Manshukoku Seiritsu Zengo no Keizai Kenkyu* (Tokyo: Ochanomizu Shobo, 1972). Works in English are represented by Ramon Hawley Myers, “The Japanese Economic Development of Manchuria, 1932-1945” (PhD Dissertation, University of Washington, 1982). And Ann Rasmussen Kinney, *Japanese Investment in Manchurian Manufacturing, Mining, Transportation, and Communications, 1931-1945* (New York: Garland Pub., 1982).

⁸ Shigeo Nishimura, *Chugoku Kindai Tohoku Chiikishi Kenkyu* (Kyoto: Horitsu Bunkasha, 1984), pp. 467, 81.

Nishimura that Manchukuo was a pure colonial exploitation of peasants squeezed for mandatory levies and of labors forced to work under horrendous conditions. Hence the Manchukuo legacy for China was not only morally accusable, but also structurally impeditive to the future industrial development due to its divide between Japanese technicians and Chinese workers and the overemphasis on raw materials production rather than machine tools manufacturing.⁹ Tough no dispute on the puppet nature of the state, for the repatriated Japanese and some Japanese historians Manchukuo was more of a failed utopian experiment or war-torn colonial modernization project rather than a naked imperial plunder.¹⁰ Beside a few insightful works that touch upon the continuation of the economic system, Japanese Manchuria is mostly treated as “a major part of the story of modern Japan”.¹¹ Such divergence prevents rational analysis of the role Japanese planning (including valuable geological surveys and industrial statistics), investments, and technicians played in the next stage of Manchurian industrial development.

The third rupture concerns the degree of disruption posed by the Soviet industrial removal from and economic aid to Manchuria after the Second World War. According to Japanese, Chinese Nationalists, and American witnesses and estimates, Soviet war trophy-taking in the fall and winter of 1945 was systematic and complete, causing the Manchurian heavy industrial system irreversible damages and leaving it in ruins.¹² The Chinese Communists, though

⁹ See Niandong Jiang, *Wei Manzhouguo shi* (Changchun: Jilin ren min chu ban she: Jilin Sheng xin hua shu dian fa xing, 1980); Bang Sun et al., *Jing ji lue duo*, (Changchun: Jilin ren min chu ban she, 1993). And Xueshi Xie, *Wei Manzhou guo shi xin bian* (Beijing: Ren min chu ban she, 1995).

¹⁰ See Shinichi Yamamoto and Joshua A. Fogel, *Manchuria under Japanese Dominion*, Encounters with Asia (Philadelphia: University of Pennsylvania Press, 2006); Manshu Kaikoshu Kankokai, *Aa Manshu: kunitsukuri sangyo kaihatsusha no shuki* (Tokyo: Hatusubaimoto Nogyo Shuppan Kabushiki Kaisha, 1965).

¹¹ Yoshihisa Tak Matsusaka, *The Making of Japanese Manchuria, 1904-1932* (Cambridge, MA: Harvard University Asia Center, 2001), p.408. Mine Takeshi and Matsumoto's works on the transformation of chemical and steel industry in Manchuria from Manchukuo to the PRC can be found in Takeshi Mine, *Chugoku ni Keishosareta "Manshukoku" no Sangyo* (Tokyo: Ochanomizu Shobo, 2009); Tatsuo Nakami and Fujiwara Shoten ed., *Manshu to wa Nandatta no ka* (Tokyo: Fujiwara Shoten, 2004).

¹² Edwin Wendell Pauley and United States. Reparations Mission to Japan, *Report on Japanese Assets in Manchuria to the President of the United States, July 1946* (Washington; U. S. Govt. Print. Off., 1946).

acknowledge the loss, tend to keep a lid on the negative impact of the Soviet actions. On a static snapshot, the line could be drawn at the Soviet withdrawal when loads of Manchuria's industrial hardware was shipped off, but looking from a dynamic perspective, comparable machinery began to flow back once the Soviet Union resolved to extend full support to the Communists in Manchuria.¹³ By the same token, more than 50 Soviet-assisted heavy industrial projects in Manchuria accomplished the goal of erasing the imbalance caused by the Japanese colonial design, but they in many respects reinforced the pattern of leveraged heavy industrialization and the system of state enterprises.

Transcending nationalist views and national historical narratives produces a possibility to inspect the historical process from a long-term regional perspective that situates Manchuria in an international setting in which political forces rise and fall and even peoples come and go, but the sprawling heavy industrial state continued to adapt, adjust, evolve, and grow. By overcoming these ruptures in historical discourse, the continuity of a heavy industrial state spanning three decades in Manchuria that characterized by bureaucratic planning, state enterprise system, and prioritized heavy industrial development surfaces. The significance of the Manchurian heavy industrial state is that its historical uniqueness and complexity cannot be conveniently explained by existing market capitalist, Marxist, or statist theories.

¹³ See Shen, Zhihua, and Kuisong Yang ed. *Zhong Su guan xi shi gang: 1917-1991 nian Zhong Su guan xi ruo gan wen ti zai tan tao* (Beijing: She hui ke xue wen xian chu ban she, 2011); Fengming Zhang, *Zhongguo Dongbei Yu Eguo (Sulian) jing ji guan xi shi* (Beijing: Zhongguo she hui ke xue chu ban she, 2003).

From Economic Council to State Economic Planning

A bill to establish a national economic council was introduced in the United States Senate in February 1931 amidst the deepening economic crisis. The Institute of Economics of the Brookings Institution then published Lewis L. Lorwin's *Advisory Economic Councils* in December to inform American readers on the subject. Lorwin defined the term economic council as "a new institution which has been emerging since the World War and which aims to coordinate modern industrialism with the political structure of the state."¹⁴ Tracing its sources back to three main currents of economic and social thinking—socialist movement, social conservatives' desire to place check upon parliamentary democracy, and critics of political democracy who sought to modify the modern state through functional group representation—Lorwin grouped the economic councils ranging from the Soviet Union to Germany to Great Britain into three main types: the regulatory planning type, the representative advisory type, and the appointed consultative type.¹⁵ The trend of western economic system transforming from "free competition and economic individualism" to "concentration and collective action of economic groups", therefore the need of economic councils to cope with the "growing complexity of economic life", was also detected and appropriated by the observers from East Asia according to their own political-economic circumstances.

The Japanese advocates of the economic council preferred a similar term economic general

¹⁴ Lewis Levitzki Lorwin and Brookings Institution. Institute of Economics, *Advisory Economic Councils* (Washington, DC: The Brookings Institution, 1931), p. 1. In the same year he also advocated economic planning. See Lewis Levitzki Lorwin, *The Need for World Economic Planning* (New York: American Council, Institute of Pacific Relations, 1931).

¹⁵ Lorwin and Brookings Institution. Institute of Economics, *Advisory Economic Councils*, pp.3-11. Lorwin's book was translated into Japanese in 1933. Lewis Levitzki Lorwin and Kokka Keizai Kenkyujo, *Keizai Sanbo Honbu Ron* (Tokyo: Kokka Keizai Kenkyujo, 1933).

staff that was first suggested by the Haldane Committee on the Machinery of Government in 1918 and then raised by William H. Beveridge in 1923/24.¹⁶ Keynes developed the concept in 1929 and called for “a drastic reorganization and re-equipment of the industry of the country” with the economic general staff “engage in continuous study of current problems affecting national economic policy”.¹⁷ However, Japanese intellectuals and bureaucrats showed strong preference to Lorwin’s first type of economic council and their proposal of the economic general staff was closely tied to the promotion of Japanese-Manchurian controlled/planned economy. Such an agency was perceived as a centralizing state institution to overcome capitalist inequality, economic crisis, and low efficiency in industrial production.

Considering the backwardness, the difficulties and complexity of planning industrial development, and the urgency of such development, a few months after the Manchurian Incident and Lorwin’s publication, Kojima argued that “just like a general staff to an army, an economic general staff capable of investigate, plan, direct, implement, and supervise state control policies was necessary in Manchuria.” Comparing to the other advanced countries, Kojima suggested that the economic general staff in Manchuria should “consist of elite members who were first class experts on the Manchuria-Mongolia affairs and the world economy and the heads of administrative departments.” The economic general staff should be equipped with “powerful investigative and research units” and should “propose industrial policy directly under the state supreme economic control organ”. Once the economic plan was adopted and executed, the economic general staff should be responsible for overseeing the progress to ensure efficient

¹⁶ See Great Britain Ministry of Reconstruction Machinery of Government Committee, and R. B. Haldane Haldane, *Report of the Machinery of Government Committee*, (London: H. M. Stationery off. (L. U. Gill & son, ltd., 1918). William Beveridge, “An Economic General Staff 1, and 2”, in *The Nation and Athenaeum*, 1923.12.29; 485-486; 1924.1.5; 509-510. Haldane was close to the Webbs who taught Qian Changzhao in LSE.

¹⁷ “Economic General Staff”, December 10, 1929, in John Maynard Keynes and Royal Economic Society, *The Collected Writings of John Maynard Keynes*, 30 vols. (Cambridge England ; New York: Cambridge University Press for the Royal Economic Society, 2013), vol.20, pp. 22-27.

implementations.¹⁸

In practice, elements of the economic general staff existed both in the Northeast Council on Government Affairs and the South Manchuria Railway (SMR). Zhang Xueliang established the Northeast Transportation Commission to plan the railways, public roads and ports in Manchuria whilst the SMR created the Research Section to provide a wide variety of information on Manchuria and beyond to assist its expansion. Later in Manchukuo, the Kwantung Army General Staff dedicated a special section, from the Department of Special Services to the Third (later the Fourth) Section, to monitor and steer the economic policy making in Manchuria. On the other hand, the SMR Research Section turned Economic Research Association (ERA) and the Provisional Industrial Research Bureau (PIRB) in the Ministry of Industry generated ample economic statistics to the powerful General Affairs Board (GAB) of the Manchukuo State Council. Ultimately functions of the economic general staff were concentrated in the Planning Department in the GAB and it became the center of planning for the Manchurian Industrial Development Five-Year Plan.

Around the same time the GAB Planning Department was created, the Chinese Nationalist Government erected the National Defense Planning Commission under the Supreme Military Commission and its successor, the National Resource Commission (NRC), wielded the power of not only planning the development but also managing the state industrial enterprises during wartime China. The NRC system in the Northeast fell to the hands of the Chinese Communists in

¹⁸ Rikugun Sanbo Honbu, *Manshu Kaihatsu Seisakuron: Hihan to Shuchō*, pp. 189-191. Kojima Seiichi also discussed the organization of the Manchurian economic general staff in another book, *On Japanese Planned Economy*, published in the same year. Seiichi Kojima, *Nihon Keikaku Keizairon* (Tokyo: Chikura Shobo, 1932). Other major Japanese works include: Kokka Keizai Kenkyūjo, *Keizai Sanbo Honbu An* (Tokyo: Kokka Keizai Kenkyūjo, 1935); Takao Iseki, *Tosei Keizai No Kiso Chishiki* (1932); Chosakai Naigai Sangyo Shiryo, *Hijoji Taisaku to Keizai Sanbo Honbu Setchi no Teisho* (Tokyo: Naigai Sangyo Shiryo Chosakai, 1932).

Manchuria by the end of 1948. In parallel, the Communists gathered their own economic general staff in the Northeast Financial and Economic Commission (NFEC) under the Party's Northeast Bureau with a number of key members of Zhang Xueliang's administration and then established within it a planning bureau by absorbing the Japanese and NRC economic staff.

Manchuria went through various economic plans researched and compiled by the ever-enlarging state planning agencies from the late 1920s up until the end of the Korean War when its regional planning practice finally succumbed to the greater National Economic Five-Year Plan of China. The evolution of a central economic institution from the western concept of economic council or economic general staff to the planning agencies reflected both the continued abandonment of liberal capitalism and the consecutive geopolitical challenges that forced the state to muster and direct resources to defense and war.

Enemy Assets, State Enterprises, and Industrial Bureaucracy

Sun Yat-sen's economic principle of the people underwent dramatic changes in the early 1920s. His early proposals mostly came from the American experience, which gave his economic policy discernable progressivism outlook with ideas akin to Henry George's prescriptions. But Sun's principle came closer to state capitalism when he started to reform the Nationalist Party and to cooperate with the Soviet Union and the Chinese Communist Party. In January 1924, the Declaration of the First National Congress of the Chinese Nationalist Party penned by Sun expounded that "all native and foreign enterprises, either monopolistic in nature

or too big in scale for private capacity, such as banks, railways, and airlines, should be operated or managed by the state.”¹⁹

Ironically, the largest state enterprise on the Chinese soil at the time was a Japanese colonial entity—the South Manchuria Railway Company. But just a little more than a year after Sun’s declaration, the Fengtian Provincial Government embarked on massive railway construction projects that would envelope the SMR, starting with the Fengtian-Hailong railway. By the time of 1931, the Zhang regime in Manchuria accumulated tremendous state capital in banking, transportation, communication, mining, manufacturing, and arms production. For Ishiwara, Miyazaki, or Kojima, there was no question that these “enemy assets” belong to the new state. Indeed, the Manchukuo government turned the industrial properties taken over from the former government as in kind investments in the special and semi-special corporations, solely or partially state-owned national policy companies monopolizing individual industries, run by the SMR. Established in 1935, the Japan-Manchukuo Joint Economic Commission pushed the development of more special and semi-special corporations as main actors of the Manchurian industrialization.

The system of state enterprises was upgraded when Aikawa Yoshisuke moved his Nissan Group to Manchuria and established the Manchurian Heavy Industrial Development Corporation (MHID) soon after the breaking out of the Sino-Japanese War in 1937. The MHID vertically integrated the industries transferred from the SMR into a gigantic heavy industrial production chain from mining to finished products. Although Manchukuo failed to accomplish its Five-Year Plans through the lower-than-expected growth of MHID, the centralized and rationalized heavy

¹⁹ Marie-Claire Bergere and Janet Lloyd, *Sun Yat-Sen* (Stanford, Calif.: Stanford University Press, 1998), pp.384-91. Sun Yat-sen’s early economic plans for China can be found in Yat-sen Sun, *The International Development of China* (New York, London; G.P. Putnam's sons, 1929).

industrial system made it easy for the NRC to have an as-is takeover. Once again, the “enemy assets” shifting hands from the Japanese to the Chinese Nationalists became the building block of the Communist industrial base in Manchuria. Inherited, reevaluated, and reorganized 30 years of state industrial capital, the Communist Northeast Ministry of Industry leaped into a heavy industrial leviathan with hundreds of factories and hundreds of thousands of workers. The state enterprise system rooted in Manchuria continued to grow, reproduce, and disseminate throughout the nation, constituting the most critical economic feature of contemporary China.

“The economic history of twentieth century China is to some extent the history of the rise, development, and decline of the state enterprise system...which took shape during the Sino-Japanese War and by the late 1950s had expanded to include the entire industrial sector.” Morris L. Bian observes.²⁰ Contrary to the common interpretation that China’s state enterprise system was a duplicate of the Stalinist model or the more recent theory that it rooted in the Communist base areas, Bian traces the origin back to the Nationalist Government’s ordnance and heavy industries during the Japanese invasion when a “sustained systemic crisis” forced the Nationalist Party elite to develop the state enterprises.²¹ According to Bian, the Nationalists appropriated institutional resources from the advanced industrial nations, the United States and Soviet Union, and the Communists perpetuated such system thereafter. Bian’s argument challenges the Cold War paradigm and brings the factor of warfare and the development of military and heavy industry to the formative analysis of Chinese state enterprises. But it only uncovers one gene of the state enterprise’s DNA. The more important one in fact lies in the transferring of “enemy

²⁰ Morris L. Bian, *The Making of the State Enterprise System in Modern China: The Dynamics of Institutional Change* (Cambridge, MA: Harvard University Press, 2005), p. 1.

²¹ For the common interpretations see A. Doak Barnett, *Communist Economic Strategy: the Rise of Mainland China, The Economics of Competitive Coexistence* (Washington: National Planning Association, 1959). And Xiaobo Lu and Elizabeth J. Perry, *Danwei: The Changing Chinese Workplace in Historical and Comparative Perspective, Socialism and Social Movements* (Armonk, N.Y.: M. E. Sharpe, 1997).

assets” across political regimes and the continued evolution of them as state enterprises in Manchuria with a distinctive Japanese influence.

The industrial bureaucracy developed in tandem with the multiplying of the state industrial enterprises and it constituted another critical institutional change that carried the heavy industrial state. In his seminal work, Chalmers Johnson delineated the institutional progress from the Ministry of Commerce and Industry (MCI) to the Ministry of Munitions (MM) and finally to the Ministry of International Trade and Industry (MITI) and explained the critical role such state agency played in the “Japanese Miracle”.²² While Johnson mentioned the “Kishi-Shiina line” that closely related to the founding of a Manchurian industrial bureaucracy, his Japan-based/oriented research does not accommodate a similar review of the Manchurian story. With a Manchuria-centered view, another lineage of a more focused industrial bureaucracy stretched from Fengtian Province’s Department of Mining and Industry to Manchukuo’s Ministry of Industry to Communist Northeast’s Ministry of Industry emerges.

Similar to the Japanese agencies, the Manchurian institutions throughout this period were filled with technocratic elites and adamant believers of state intervention in major industrial development. They normally received higher education from top universities and many of them had experiences working in the advanced industrial nations such as Japan, Germany, the US, and the USSR. In Manchuria though, the industrial bureaucracy tended to be preoccupied with daily operations rather than making industrial policies, which fell under the purview of the economic planning agencies that oversaw the entire economy. There was a persistent problem in Manchuria, as in the Japanese system, of the boundary of bureaucratic control. The tension

²² Chalmers Johnson, *Miti and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975* (Stanford, Calif.: Stanford University Press, 1982).

between more latitude and responsibility to the factory managers that helped to improve production efficiency and quality on the one hand and more supervision and authority to the bureaucrats that pushed state policy and maximization of production on the other cause oscillation of state control policies. Since the industrial bureaucracy in Japan had to cope with much more developed market system in which powerful private business associations and rising inflation could curb the ambitions of bureaucrats, its sibling in Manchuria enjoyed much less resistance when expanding control or allocating more resources to heavy industries.

Competitive Geopolitics and Leveraged Heavy Industrialization

Accompanying the promulgation of China's first Five-Year Plan in 1955, the State Planning Commission of China published a pamphlet to explain the terms appeared in the plan and the first entry was "heavy industry", which "produces means of production and its products usually are consumed in the process of production." More specifically, the heavy industry included "electric power, coal mining, oil, iron and steel, nonferrous metal, machinery, basic chemicals, construction materials, and timber, etc."²³ This is a definition that has been developed from the writings of Marx in *Das Kapital* to Lenin in 1917 and to Stalin in 1928.²⁴ By the time of the Soviet first Five-Year Plan, prioritizing the development of heavy industry had become a doctrine and a key feature of the Stalinist economics. The very logic was reflected in the making

²³ Guo jia ji hua wei yuan hui, *Zhong Hua Ren Min Gong He Guo Fa Zhan Guo Min Jing Ji De Di Yi Ge Wu Nian Ji Hua De Ming Ci Jian Shi* (Beijing: Ren min chu ban she, 1955), p. 1.

²⁴ See Vladimir Ilich Lenin, *The Development of Capitalism in Russia: the Process of the Formation of a Home Market for Large-Scale Industry* (Moscow: Foreign Languages Pub. House, 1956). And I. V. Stalin, N. I. Bukharin, and Sadayoshi Hiroshima, *Sekai Shihon Shugi No Antei Yori Kiki E* (Tokyo: Marukusu Shobo, 1928), pp. 36-40.

of the Chinese plan: “adopting a policy of active industrialization, namely the policy of prioritizing heavy industry, is to attain the establishment of solid national defense, to satisfy people’s needs, and to build the material foundation for the socialist reform of national economy.”²⁵

In direct contrast, prevailing western experience (later theorized as the Rybczynski Theorem) of industrialization was “first by the reorganization and expansion of the textile industries and later by the development of the heavy metallurgical trades, especially iron and steel and engineering.”²⁶ Prior to the introduction of the state-led heavy industrialization, Manchuria was dominated by light industry. Deficient in capital and technology and welded to the world market, Wang Yongjiang’s Fengtian capital chose to invest in the industries, mostly food processing and textile industry, that were lucrative and competitive to the Japanese counterparts. Japanese capital on the other hand fixated on the railway construction and its auxiliaries that were serving the purpose of a typical colonial structure: transporting agricultural and mineral products out of and Japanese consumer products into Manchuria. After Zhang Xueliang took power, the Chinese and Japanese competition in transportation and mining heated up, which caused the profits of the depression-laden SMR to slide even further.

The 16th Congress of the Communist Party of the Soviet Union in the summer of 1930 endorsed the view that “rapid industrial development was necessary for economic independence and national defense and the development of industries imperative to the growth of military capacity was number one priority for the state plan.”²⁷ The Ural-Kuznetsk industrial combine—

²⁵ Guo jia ji hua wei yuan hui, *Zhonghua Renmin Gongheguo Fa Zhan Guo Min Jing Ji De Di Yi Ge Wu Nian Ji Hua, 1953-1957* (Beijing: Ren min chu ban she : Xin hua shu dian fa xing, 1955), p. 5.

²⁶ Elizabeth Boody Schumpeter, *The Industrialization of Japan and Manchukuo, 1930-1940*, Japanese Economic History, 1930-1960 (London ; New York: Routledge, 2000), p. 596.

²⁷ Toshio Takahashi, *Bakushintojo No Saweto Roshia* (Tokyo: Roshiatsushinsha, 1931), p. 51.

the country's second coal and metallurgical base located in the southwestern Siberia—was formed after the meeting and it provided formidable support to the military production of the Soviet Union that greatly concerned the Japanese Army. The crisis in the capitalist world, the pressure from rising Chinese Nationalism, and the tipped balance towards the Soviet military might spurred the Kwantung Army to take unilateral actions to protect Japan's "lifeline", in other words, to occupy Manchuria.

Japanese imperialists appreciated the Soviet industrialization strategy without accepting its underlying Marist theoretical foundation. Their appropriation of the priority scheme was more practical and narrow in scope since they also carefully examined the rationalization movement—the rise of monopolistic combinations from cartels, syndicates, trusts, to concerns—in Europe and America. However, the military endeavor to control larger share of the economy through General Mobilization Law and to introduce more investments into the Manchurian industry met mounting resistance from the Japanese zaibatsu and civil officials such as respected Finance Minister Takahashi Korekiyo.²⁸ The establishment of Manchukuo opened up a resource-rich land for Ishiwara and his colleagues to experiment a unique "industrial policy" that implemented strict state control and promoted heavy industrial development while dismissing both capitalist free trade and socialist public ownership.

The war with China and the frequent border conflicts with the Soviet Union (and the subsequent Soviet-Japanese Neutrality Pact) gave Manchuria the opportunity to leverage its geopolitical position as the rear area to acquire massive capital financing, machinery and manpower from Japan. Severely weakened by the onslaught of the American pacific forces,

²⁸ The resistance fell apart after the assassination of Takahashi during the February 26 Incident of 1936 and collapsed after the beginning of the Sino-Japanese War in 1937. More on Takahashi see Richard J. Smethurst, *From Foot Soldier to Finance Minister: Takahashi Korekiyo, Japan's Keynes* (Cambridge, Mass.: Harvard University Press, 2007).

Japanese transfusion to Manchuria gradually diminished towards the end of WWII. The Soviet destructive removal of industrial equipment from Manchuria ahead of the failed Sino-Soviet negotiations despite the Treaty of Friendship and Alliance signed in August 1945 dealt a devastating blow to the Manchurian industry. However, the Chinese Communists and Nationalists were both trying to leverage their alliances with the Soviets and the Americans to obtain industrial assets for restoration and recovery. It turned out that the Communists were successful in securing the Soviet assistance through multiple regional trade agreements and the Nationalists failed to transfer Japanese industrial equipment to Manchuria as indemnity due to the obstructions of the Supreme Commander for the Allied Powers.

For Manchuria, the geopolitical reversal—victory of the Communists, advent of the Cold War, and outbreak of the Korean War—ended up generating the same incentive to continue the path of leveraged heavy industrialization. Under the circumstances, Manchuria again became the home front for the Chinese Communists to fight against the Nationalists in the south and the U.N. forces across the Yalu River. The supplier of capital, technology, and human resource changed to the new Chinese state and the Soviet Union. As the United States gave up its initial post-war policy and began to rebuild Japanese industry and rearm Japanese defense forces, Stalin sent hundreds of experts into Manchuria and signed a series of agreements to help China constructing 150 heavy industrial projects with one third located in Manchuria.

Manchuria lost the leverage when its strategic value was reduced and even turned negative. The region's reintegration with China meant national rebalancing among different regions and the central state tended to invest more on heavy industries in the central and southwestern China where resources were still abundant but with more strategic depth for defense. Additionally, as the Sino-Soviet schism grew wider and deeper, Manchuria quickly descended to a liability—a

part of a northern defense zone against the Soviet Union—and the “Third Front” became the new area for heavy industrialization.

Developmental State, Semi-peripheral State Capitalism, and Heavy Industrial State

Ayn Rand published her last novel, *Atlas Shrugged*, in 1957 in which capitalist industrialists were elevated metaphorically to the status of Titan in the Greek mythology “who holds the world on his shoulders”.²⁹ Her idea was in line with the Austrian School of economics, particularly Ludwig Von Mises and Friedrich Hayek’s critique of socialist central planning and Joseph Schumpeter’s emphasis of entrepreneurship in the process of “creative destruction”.³⁰ The Manchurian experience nominates quite a different “Atlas” in the East Asian political economy—the heavy industrial state.

In the 1932 report, the Lytton Commission noted that “the idea of economic blocs has penetrated to Japan from the West,” but they warned Japan, “there is nothing at present to show that such a system is practicable... Japan depends for the bulk of her commerce far less on Manchuria than she does on the United States, China proper and British India.” Furthermore, Japan was cautioned that the “economic advantage of developing material supplies from Manchuria for Japanese heavy industries are uncertain”. But the Lytton Commission knew that

²⁹ Ayn Rand, *Atlas Shrugged* (New York: Random House, 1957).

³⁰ See Ludwig Von Mises, *Omnipotent Government, the Rise of the Total State and Total War* (New Haven,: Yale University Press, 1944); Ludwig Von Mises and Jacques Kahane, *Socialism: an Economic and Sociological Analysis* (New York: The Macmillan Company, 1937). Friedrich A. von Hayek, *The Road to Serfdom* (London,: G. Routledge & sons, 1944). And Joseph A. Schumpeter, *Capitalism, Socialism, and Democracy* (New York, London,: Harper & Brothers, 1942).

“economic considerations were not the only ones that influence the Japanese Government”.³¹ E. B. Schumpeter concluded the same in her definitive work, *The Industrialization of Japan and Manchukuo* in 1940. “The movement of resources to heavy industries cannot be ascribed solely to relative changes in Japanese and foreign costs of producing the commodities, or to economic factors in the narrow sense of them,” she argues, “the whole development of the heavy metal industries in Japan has, from their inception, been profoundly influenced by political considerations, especially by the determination of the Government to ensure that equipment for munitions production was available in the country.” Schumpeter maintained that “the drive toward autarky and regional economic blocs is partly the consequence of insecurity and of the illiberal trade practices of the Western democracies.”³² The way to dissuade the Japan-Manchukuo controlled economy, therefore, should be to restore liberal trade system and bring Japan access to resources around the world.

None of the western efforts, or lack thereof, actually worked to prevent Manchuria from dropping off the world capitalist system and moving towards a heavy industrial state. Manchuria at the juncture of great turmoil and transition of the modern world system did not and could not choose a free market-democratic route. As Michael Mann keenly observed, “militarism derives from geo-political aspects of our social structure which are far older than capitalism; but in the 20th century technical and social menaces of militarism became the general property of expansionist industrial societies and are no longer specific to capitalism.”³³ The “geo-political

³¹ Nations League of et al., "Manchuria: Report of the Commission of Enquiry Appointed by the League of Nations," (1932): p.122-23.

³² Schumpeter, *The Industrialization of Japan and Manchukuo, 1930-1940*, p.596, 474.

³³ Michael Mann, *States, War, and Capitalism: Studies in Political Sociology* (Oxford England; New York, NY, USA: B. Blackwell, 1988), p.128. The relation between militarization and industrial development in the United States is well recorded and it proves the reach of Mann’s theory. See Ann R. Markusen, *The Rise of the Gunbelt : The Military Remapping of Industrial America* (New York: Oxford University Press, 1991); James T. Sparrow,

militarism” running through the warlord, Japanese, Nationalist, and Communist Manchuria contingently coupled with a heavy industrializing state between the interwar years and the 1950s. Such combination created a problem of genesis with the theory of developmental state in East Asia and the theory of socialist state in China.

“A state’s first priority will define its essence,” Johnson explains, so “the effectiveness of the Japanese state in the economic realm is to be explained in the first instance by its priorities,” and “for more than 50 years the Japanese state has given its first priority to economic development.”³⁴ The concept of the developmental state was further interpreted by Woo-Cumings as “the seamless web of political, bureaucratic, and moneyed influences that structures economic life in capitalist Northeast Asia.” And this state form “originated as the region’s idiosyncratic response to a world dominated by the West,” in other words, economic nationalism and social mobilization for competition is essential to the developmental state. Here, the heavy industrial state in Manchuria is once again divided into two separate state forms: one as part of the Japanese Empire, therefore, part of the Japanese developmental state; another as part of China’s socialist state since “both ownership and management remained in the hands of the state.”³⁵ Neither could explain fully the Manchurian case since: a. the state during that time prioritized war-making capacity (heavy industrialization); b. the state owned and supervised strategic enterprises (mostly heavy industry) but left light industries to private ownership and limited market; c. the state was mobilized by economic nationalism against Japan, the Soviet Union, and the United States, only the last one part of “the West”. The tentativeness and non-solvability of the Manchurian heavy industrial state make it possible to deem such state as a

Warfare State: World War II Americans and the Age of Big Government (Oxford ; New York: Oxford University Press, 2011).

³⁴ Johnson, *Miti and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*, p. 305.

³⁵ Woo-Cumings, *The Developmental State*, p. 1.

predecessor or a variant of the East Asian developmental state, only with crucial geopolitical imperatives that illuminate its developmental path.

Situating the heavy industrial state in Wallerstein's modern world system could reveal the powers and the constraints of the semi-peripheral state capital. Looking from a global standpoint, the early developmental state in Japan, the "plan rational" socialist state in Russia, and the nationalist-communist state in China fall more or less in the zone of semi-periphery with anti-systemic impulses.³⁶ As suggested by Alexander Gerschenkron and Leon Trotsky, the catch-up strategy of these latecomers was to rapidly develop the capital-intensive heavy industry through state-led capital mobilization.³⁷ The Manchurian heavy industrialization exhibits that on the one hand, the semi-peripheral state capital is potent and effective in planning, organizing and achieving a centralized and concentrated industrial buildup, yet on the other, it is ultimately subjected to the dynamics of the world system, particularly the core to semi-periphery relations.

More specifically, the concern that industrial development in Manchuria could impair the semi-peripheral state was periodically suspended or overcome by the demand of national defense, strategic alliance or geopolitical interest. As a result, the "advantages of backwardness" was expressed in the full-range, systematic development of the industries that produce the means of production. Manchuria was able to acquire advanced machinery, managerial and technical support from Europe, Japan, the US, and the Soviet Union under different international

³⁶ Giovanni Arrighi pointed out that "the semi-periphery is the epicenter of tensions and contradictions that will decisively influence the politics of the world-economy." See "The Developmentalist Illusion: A Reconceptualization of the Semiperiphery," in William G. Martin, American Sociological Association, and University of Illinois at Urbana-Champaign Department of Sociology, *Semiperipheral States in the World-Economy* (New York: Greenwood Press, 1990), p.26. See also Christopher K. Chase-Dunn, *Socialist States in the World-System*, Sage Focus Editions (Beverly Hills: Sage Publications, 1982).

³⁷ The similarities and differences between Gerschenkron and Trotsky are explored in Ben Selwyn, "Trotsky, Gerschenkron and the political economy of late capitalist development," *Economy and Society*, 2011, 40:3, pp. 421-450.

arrangements. But once sanctioned or contained by the core or loosing its strategic value to the semi-periphery, the constraints of the state capital began to show in Manchuria. Due to Manchuria's dependency to the semi-peripheral states and those states' dependency to the core, Manchuria's heavy industrial development could only upgrade to the sub-semi-peripheral level and in the long run, its heavy industrial sector could only rely on continued state capital investment and insulated bloc market to conceal the chronic problem waste and inefficiency inherent to the state planning and state enterprises system.

Scope of This Study

This study has four chapters that correspond with four historical periods: the Zhang Zuolin-Zhang Xueliang era (1918-1931), the Manchukuo era (1931-1945), the Nationalist era (1945-1948), and the Communist era (1946-1954). Chapter 1 begins by examining three state-building initiatives during when Manchuria was incorporated as an autonomous region under the warlord rule. These initiatives included fiscal and monetary reform and modernization, promotion of indigenous industries and military production, and construction of regional infrastructures in transportation and communication. The chapter tries to show how growing Chinese economic nationalism encountered and struggled with domestic warlordism, Japanese imperialism, and global capitalism in Manchuria and gradually moved closer to forming an industrial state through developmental plans such as the New Manchuria Pioneer and state institutions and enterprises like the Official Bank of the Three Eastern Provinces, the Department of Agriculture and Mining, the Three Eastern Provinces Transportation Commission, and the Mukden Arsenal. The duality

of the warlord regime, collaboration with the Japanese to get access to global market and financial resources and competition to resist full-fledged colonial rule by the Japanese, ultimately brought its downfall.

Chapter 2 first follows the line of state finance in Manchuria and traces the centralization and modernization of the state budgetary and monetary establishment. It stresses the special techniques and arrangements adopted by the Japanese financial bureaucrats in Manchukuo to promote state (military)-favored industrial development. In the second part, the evolution of state planning and the making of the Five-Year Plans are examined in detail in correspondence with the changing strategic and geopolitical conditions. Finally, the transformation from the horizontal “one industry, one corporation” system led by the South Manchurian Railway Company to the vertically integrated “totalistic” system headed by the Manchurian Heavy Industrial Development Company (MHID) is analyzed to reveal the Japanese course of trial-and-error in exploring the optimum path of rapid heavy industrialization. This study also intends to bring attention to the flow and coupling of the military, technocratic and business elites since their ideas, relations, and operations seriously influenced the character and outcome of the heavy industrial state in Manchuria.

The third chapter is divided into two parts: the first deals with the Soviet destruction of Manchukuo industries and the failed Sino-Soviet economic negotiations and the second looks at the development of Chinese Nationalists’ heavy industrial planning and management agencies and their plan for postwar economic reconstruction in southern Manchuria. For the Soviet decision makers, domestic economic revival took first priority after the Germans wrought havoc in Russia during the war and they executed systematic removal and transport of industrial machinery from Manchuria to the Soviet Union following the same scheme carried out in East

Germany. In addition, Stalin wanted to co-operate the remaining heavy industrial assets with the Nationalist Government so that Russia could forestall American foray into Manchuria and reap further economic benefit. The Soviets believed that their demands were in line with the Yalta agreement. Back by the US support, the Nationalist however firmly declined the Soviet requests and successfully reclaimed most of the industrial lands in southern Manchuria. Unfortunately, the National Resource Commission (NRC), a powerful state heavy industrial developmental agency born from the arduous times of anti-Japanese war and assembled China's top scientific and technological talents, failed to see its recovery plan through in Manchuria despite achieving impressive progress under the circumstances.

The restoration of the Manchurian heavy industrial state had to wait for the end of the civil strife and the Communist domination. The final chapter is about the Communist frustration and triumph on the way to continuing the journey of leveraged heavy industrialization in Manchuria. It observes the resumption of the state finance system and discovers that one of the major sources of Communist revenue comes from the growing profits of state and local public enterprises taken over from the Japanese and the Nationalists. Originating from a scattered military industry using leftover machines pulled from Manchukuo factories, the Communist heavy industrial system managed by the powerful Northeast Ministry of Industry progressively absorbed and reintegrated the MHID and NRC enterprises by the end of 1948. Meanwhile, Communist planners also took advantage of the Japanese and Nationalist economic planning resources and quickly resorted to production planning in limited scope. The dawning of the Cold War in East Asia precipitated and fortified the Soviet determination to provide aid to the Chinese Communists and the arrival of industrial machines through secret trade agreements and badly needed Soviet experts re-boosted the heavy industry in southern Manchuria. And the Korean War prompted a partial relocation of

heavy industries, which led to the significant growth in northern Manchuria. Capped by the massive program of Soviet-assisted projects, the development of Manchurian heavy industrial state reached its apex in the mid-1950s.

This study closes with an epilogue that describes the process of migration of the heavy industrial state from Manchuria regional government to the Chinese Central Government. On one hand, the reinforcement of centralization after the “Gao Gang Incident” led to the final cancellation of the Northeast as an administrative unit, and on the other, the pursuit of a more balanced and secure industrial development throughout China brought more state resources in heavy industrial development in the regions other than Manchuria or the coastal areas. However, the modified mode of heavy industrial state continued its journey west as the construction of the “Third Front” in China was launched shortly after the Great Famine.

CHAPTER ONE

CONSTRUCTING A NEW NORTHEAST, 1918-1931

In the early 20th century, the Qing dynasty had very limited capacity to forestall the encroachment of imperial powers, let alone to expel them. Realizing its dwindling options, the Qing court adopted a balance-of-power diplomacy, hoping to balance out one imperial power against another. After the First Sino-Japanese War in 1895, the Qing rulers tried to counter the Japanese expansion by giving the rights to build the Chinese Eastern Railway (CER) to the Russians. Russia solidified its position in Manchuria during the Boxer Uprising and run toe-to-toe with Japan during the Russo-Japanese War from 1904 to 1905. The result of the war did not grant the Qing any consolation: the two powers negotiated a detente and divided Manchuria into northern and southern spheres.

The Xinhai Revolution delivered a fragile republic in China in 1912, but no matter how weak the Republic, it was internationally recognized as the legitimate successor of the Qing's sovereignty. From the very onset, the Japanese imperialists were determined to downplay or de-legitimize such direct inheritance so that it could hold and expand its colonial rights in China. During WWI, Japan secretly imposed the so called Twenty One Demands on the Yuan Shikai government and right after the war, Japan insisted on transferring German special rights in Shandong to its possession.

Following the signing of the Treaty of Versailles and until the end of the Taisho era, the world economic recovery and Japan's liberal democratic movement ameliorated its aggression in China. Meanwhile, Russian revolution disrupted Imperial Russia's expansion in the Far East, relieving the pressure on Japan in Manchuria. The Five-Power Treaty of 1922 temporarily created a stable international and geopolitical system both in the world and over the Pacific, giving Japan further security on its east coast. Under these relatively easing circumstances, Japan chose not to intervene directly into China's internal political and military struggle, but to stay on the sideline while supporting its proxy, General Zhang Zuolin, in Manchuria.

Zhang's power grew rapidly in an era when the gate of Manchuria was fully opened to the Han Chinese. The Qing as well as the Republican government vigorously backed immigration from the northern Chinese provinces, particularly Zhili and Shandong. Continuous flood of incoming immigrants, mostly poor peasants, ensured the steady transformation of Manchuria from a military garrison into a civilian administration with ever expansion of cultivated land. By the time of 1906, Manchuria has been divided into three provinces, each administrated by a governor, and all control of the military and civil services were formally converged to the hands of the Governor-General of the Three Eastern Provinces. Such move finally equalized the Manchurian administrative structure with that of the China proper south of the Great Wall, symbolizing the incorporation of this region into the modern Chinese nation-state.

The modern state-building project by the late Qing government, conceived and executed to prevent Russian and Japanese imperial expansion, compounded with the migration rush of Han Chinese into Manchuria, cemented Chinese sovereignty over the three eastern provinces and extended legitimacy to the civil-military government presiding over Manchuria. This significant regionalization could not be realized without the intertwining development of Chinese

nationalism, fierce geopolitical competition, and deepening economic globalization up to the First World War. However, this very process of regional state building in an era of national revolution and disintegrating central power only contributed to the strengthening of the regional centralization, not the Chinese nation as a whole.

Once taking control of Fengtian in 1911, Zhang Zuolin, supported by his bandit-turned Fengtian Army, was able to hold out until 1916 and ultimately expelled officials sent down from Yuan Shikai's government. Zhang quickly grasped the opportunity during the chaotic revolutionary times and the ensuing civil war to become the supreme ruler of Manchuria. In 1918, the government in Beijing acknowledged this fact by appointing him as Governor-General of the Three Eastern Provinces. Although Manchuria officially remained in the sovereign space of China, it became more or less a separate domain economically.

Buttressed by Japanese influence, particularly Japanese-trained military officers like Yang Yuting and Han Linchun, Zhang consolidated his control through the monopoly of soya trade in Manchuria, deriving most of his revenue from the soya depot operations. The vast human, material, and financial resources under Zhang's command enabled him to raise a large army which in turn fueled his political ambition of competing with other warlords for the ultimate control over all of China. Zhang believed that he could replicate the Manchu invasion and restore order in China by sweeping into Beijing and take over the fable government there.

Though Zhang Zuolin finally occupied Beijing in 1926, he failed to penetrate deeper into the South, because not only other warlords refused to budge, a very different political force was also on the horizon. The Nationalist forces in the South that heralded the Three People's Principles, national revolutionary army, and modern party politics posed fundamental threat to the northern

warlords' rule, Zhang included. Most importantly, Zhang Zuolin's own son, Zhang Xueliang, had grown into a true believer of the rising Chinese nationalism and of a new foundation of political economy.

Manchuria's modern industry started with Russia's Far East colonial expansion at the end of 19th century. However, Japan's victory in the Russo-Japanese War and the following transfer of colonial rights from Russia to Japan gave the Japanese great advantage on industrial development in Manchuria. Beginning with the South Manchuria Railway Company (SMR), colonial industrial growth advanced through the Kwantung Leased Territory to the Railway Zone, and further expanded into Manchuria. WWI boosted foreign demand of Manchurian products and brought to it unprecedented international investment. Both Japanese and Chinese industries prospered during the war, but soon found themselves at the slump of the post-war recession.

It was in this juncture that the Fengtian warlords took control of Manchuria amidst warlord warfare and the rising tide of nationalism. The Zhang family, commanders of the Fengtian Army, under the influence of prevailing ethos such as industrial independence and sovereignty, began to adjust their relations with colonial powers, establish their own industrial institutions, and invest in critical industries that matter to national defense. Comparing to astronomical investment made by the Japanese in Manchuria and the industrial dominance established thereafter, the Zhang government had very limited resource to spare and very short time to materialize its industrialization plans. However, despite heavy fighting in the China proper and concentration of modern industries in the Japanese controlled areas, a Fengtian (Mukden in English, Shenyang after 1929)-centered military-industrial state was shaping up between 1918 and 1931.¹

¹ According to one account, the growth rate of the manufacturing sector in Manchuria from 1911 to 1931 averaged 8% annually. See Sun, *The Economic Development of Manchuria in the First Half of the Twentieth Century*, p. 74.

This military-industrial state emerged on top of three state-building initiatives. First and foremost, Zhang Zuolin and Zhang Xueliang had to establish a modern state financial system so that their government could have a budget to run on. Without control over its own monetary and fiscal policies, the state would have no capacity to embark on a military-industrial buildup. Secondly, the government had to lead or induce an indigenous industrialization by investing, protecting and promoting state or state-private enterprises. Though state-driven industrialization tried to profit from its success, the main goal was a powerful heavy industrial system capable of sustaining a strong army against all geopolitical rivals. Thirdly, the bloodline of a modern state between the second half of the 19th century and the first half of the 20th century was railroad. It represented not only commercial and industrial power, but also military and political power. In the race to build more strategically important railways, the Manchurian state displayed the most progress.

For these initiatives to take place, the autonomous Northeast government resorted to a series of agency building and development planning. Without proper state apparatus, complex industrial projects could never be constructed and operated. However, at the center of the new bureaucracy were the very characteristics of the military-industrial state: a mixed, sometimes crossbreed military-civilian leadership and a complicated, cooperative-competitive military-civilian policy priority. The inner contradiction of the military-industrial state was a reflection of the changing geopolitical conditions in the region, which was a variable of the dynamic global capitalist system in itself. For over a decade, Japanese expansion and Fengtian warlords' ambition were the biggest instigator and catalyst to the industrializing state in Manchuria. Their collaboration and subsequent clash set the tone and the speed of the transformation of state financial, industrial and transportation systems.

1.1 Modernizing State Finance in Manchuria

At the center of Zhang Zuolin's Manchurian economic management was his director of the Department of Finance of Fengtian Province, Wang Yongjiang. Wang was a regional tax officer, but he was most famous for introducing the Japanese police system to Fengtian. When Zhang Zuolin named him Director of the Department of Finance and General Manager of the Official Bank of the Three Eastern Provinces (OBTEP) in 1917, the most pressing problem was the precarious financial situation in Manchuria.²

Absence of a single central agency for controlling the minting of coins and issuing of bank notes, China's currency system could easily throw people into confusion in the 1920s. Various plans had been sought for the establishment of a gold standard, but due to the lack of central state authority and the continuous civil war among warlords, nothing could be achieved. Such chaotic financial situation was reflected and in some areas magnified in Manchuria. Not only the national currency, such as Yin Yuan (silver coins minted during the presidency of Yuan Shikai, 1912-1916), Tong Yuan and Zhi Qian (large and small copper coins made prior to 1911), but also Yin Ding (silver ingots, made up in multiples of the liang or tael), book currencies such as Haikwan Tael, Kuping Tael and Transfer Tael (for custom and treasury purposes) were in wide circulation. Because of the relative high quality of the Yin Yuan, also called Xian Da Yang in

² The Official Bank of the Three Eastern Provinces was first established in 1905 as the Official Bank of Fengtian and it changed the name in 1909 after the Qing government adopted the provincial administrative system.

Manchuria, it maintained its value and the “normal” exchange value was approximately 50 cents to the US dollar and 1 to the Japanese yen.³

Other than real metal coins, there were over 70 kinds of bank notes (called piao in Chinese), of which up to 30 kinds were issued by the local government. These bank notes were based on the silver dollar and its subsidiary copper coins in circulation. Jilin and Heilongjiang provincial governments issued their own notes called Guantie (official notes). In addition, local money shops issued their convertible notes under the supervision of the government or of commercial guilds according to their wealth and credit.⁴

Foreign powers in Manchuria deployed their currencies in their sphere of influences too. The Bank of Japan, the Bank of Chosen (the central bank of Korea during the Japanese rule), and the Yokohama Specie Bank all issued Japanese yen bank notes in southern Manchuria, particularly in the Lease Territory and the Railway Zone. From 1917, the Japanese government decided to transfer the right to issue currency based on gold to the Bank of Chosen, but yen based on silver issued by the Yokohama Specie Bank was still very influential in Manchuria.⁵ Between 1917 and 1928, the Bank of Chosen issued a total of 1.4 billion yen and about one third of that amount was in circulation inside Manchuria. Russian (Russo-Asiatic Bank) and later Soviet (Dalbank) ruble notes of many kinds were mainly used in northern Manchuria, but they tended to be crowded out by Chinese and Japanese currencies in the late 1920s.⁶

³ Yoshiro Skatani, Grover Clark, and Carnegie Endowment for International Peace Division of Economics and History, *Manchuria: a Survey of Its Economic Development* (New York: Garland Pub., 1980), p. 21.

⁴ See more details in Jing Youyan, “Dongbei jin dai jin rong gai shu”, in *Liaoning Wen Shi Zi Liao*, ed. Zhongguo ren min zheng zhi xie shang hui yi Liaoning Sheng wei yuan hui wen shi zi liao yan jiu wei yuan hui (Shenyang: Liaoning ren min chu ban she), vol. 6, pp. 132-151.

⁵ Choson Unhaeng and Tokuji Hoshino, *Economic History of Manchuria, Compiled in Commemoration of the Decennial of the Bank of Chosen* (Seoul, 1920), p. 260.

⁶ Jing Youyan. “Ri, E zai Dongbei de jin rong qin lue”, in *Liaoning Wen Shi Zi Liao*, vol. 6, pp. 152-155.

On top of all these currencies, Chinese and foreign, the most “official” currency regionally was the Fengtian Silver Dollar Note (Fengtian Da Yang Piao in Chinese, or Fengpiao for short), originally issued by the OBTEP by order of the Fengtian Provincial Government. They were issued in various denominations of the Yin Yuan and circulated throughout all of Manchuria. When first issued in 1905 to compete with the Yokohama Specie Bank notes, Fengpiao was convertible notes.⁷ But during early Chinese Republic’s turmoil, convertible Fengpiao was constantly in crisis due to the lack of confidence in official reserve and government credibility. The transaction cost of all the currency exchanges topped 60 million silver dollars each year and it greatly hindered economic activities and state finance.

Zhang Zuolin became the military and civil governor of Fengtian Province in July of 1916. He inherited large provincial government debt and faced considerable budget deficit. Complicated paper notes, frequent bank-runs, wide circulation of foreign currencies only made things worse. Zhang dismissed the Director of Finance, Zhang Houjing, terminated his Financial Institute, and replaced it with a Financial Research Committee to provide ways of financial reform. However, Wang Shuhan, an able financial officer who succeeded Zhang Houjing, and Liu Shangqing, who was appointed to the general manager of the OBTEP, could not reverse the deepening fiscal and financial problem.

After Wang Yongjiang took the helm of Fengtian Department of Finance in May of 1917, he adopted some important measures to save the financial system. Wang’s understanding of state finance and his plan for Fengtian Province’s financial reform were expressed in his secret notes to Zhang Zuolin on September 10, 1918, titled “The Past and Future of the Fengtian Provincial Finance”. “The foremost aspect of state-building is finance, because all government affairs

⁷ Choson Unhaeng and Hoshino, *Economic History of Manchuria*, p. 259.

depend upon it,” Wang claimed, “ due to growing demand of military supplies, domestic and foreign debts have to be borrowed to supplement the expenditures.” He then reviewed all the debt accumulated over time, which reached 12 million yuan by the time he entered into office, and described how he paid down 3.45 million bank loans and raised additional 2 million for government operations, all done in 9 months thanks to 21% increase in government revenue.

However, Wang made it clear in his notes that merely cutting government spending or collecting evaded taxes would not erase the large deficit, estimated at 4 to 5 million in 1918, incurred mostly by the military. A financial system overhaul is desperately needed to salvage a nascent modern state from the heavy weight of war.⁸ Not surprisingly, Wang knew that he had to consolidate the OBTEP so that the government could print money with credible reserve, reduce government bond interests and free liquidity from state investments.

On August 26 1918, shortly before Zhang Zuolin formally became the Governor-General of the Three Eastern Provinces, the Fengtian Provincial Government declared that its currency would change from the silver ingot standard to the silver dollar based Fengpiao standard, which would bring Manchuria’s monetary system in line with the official system of the Chinese central government.⁹ This financial reform at least make Manchurian economy appear to be less provincial and better able to interact with the larger national economy. Meanwhile, Wang planned to peg the initial value of the new currency to the Japanese yen so that the former could take advantage of the latter’s circulatory popularity in Korea and south Manchuria and its strength of stability.

⁸ Zhongguo ke xue yuan li shi yan jiu suo di 3 suo, et al., *Jin Dai Shi Zi Liao*, (Beijing: Ke xue chu ban she, 1954), vol. 83, pp. 178-79.

⁹ Yuhai Hu and Rong Li ed., *Feng Xi Jun Fa Da Shi Ji* (Shenyang: Liaoning min zu chu ban she, 2005), p. 155.

Backed by provincial treasury's silver tael and silver dollar deposit, the OBTEP started to issue the exchange notes (inconvertible) Fengpiao to replace the convertible notes. In order to support Fengpiao, Zhang sold 5 million yuan of government bonds and borrowed 3 million Japanese yen from the Bank of Chosen to raise funds.¹⁰ The government also established financial inspectors, rectified tax codes and land rent, cleared local and private-issued notes, and cut government spending. These policies improved the health of the financial system and Fengpiao quickly dominated the currency market. In 1919, branches of the Bank of China and the Bank of Communications in Shenyang were authorized to issue Fengpiao in value up to 5 million yuan. Till the First Zhili-Fengtian War between 1921 and 1922, OBTEP issued 49,919,007 yuan and during the first 4 years of circulation the Fengpiao actually kept parity with the Japanese yen.¹¹

The First Zhi-Feng War exposed the problems and weaknesses of the Fengtian Army. Zhang Zuolin felt the urgency of modernizing his army, but he had spent more than 30 million yuan on the war, and the popular faith in Fengpiao was shaken. However, despite Zhang's defeat, his self-declared autonomous status afterward gave him access to large amounts of new revenues, estimated at over 15 million yuan.¹² These new revenues considerably mitigated the negative consequences of the war and strengthened the government financial standing. With more revenues coming in, Zhang set out to tighten the grip over the Manchurian monetary system.

¹⁰ Fuxiang Wei and Wang Yu, "Zhang Zuolin tong zhi chu qi dui Fengpiao de gai ge yu zheng dun", *Dongbei di fang shi yan jiu*, 18.1 (1989), p. 35-40. Also see Skatani, Clark, and Carnegie Endowment for International Peace Division of Economics and History, *Manchuria, a Survey of Its Economic Development*, p. 31.

¹¹ *Liaoning Wen Shi Zi Liao*, vol. 21, p.7.

¹² Over 5 million yuan of revenue from the part of Peking-Mukden Railway under Zhang's control, more than 9 million from salt tax and another 1 million from the customs, both pocketed to his government rather than Beijing under his instructions on May 13, 1922. See Gavan McCormack, *Chang Tso-Lin in Northeast China, 1911-1928: China, Japan, and the Manchurian Idea* (Stanford, Calif.: Stanford University Press, 1977), pp. 90-91.

After increasing the capital of the OBTEP to 5 million yuan, Zhang merged the East Three Provinces Bank (Harbin) and Industrial Development Bank (Fengtian) into the OBTEP in July 1923 and again boosted the bank's capital to 20 million yuan. Upon completion of the merger, OBTEP's role as the Manchurian central bank was further developed. The financial consolidation restored the reputation of Fengpiao and supported the economic activity in Manchuria for 3 more years. After the Second Zhili-Fengtian War broke out in September 1924, Fengpiao maintained its value due to the victory of the Feng Army, although its quantity had grown to 190 million yuan in 1925. Fengpiao to silver dollar exchange rate increased to 2.81 but stabilized by the end of the year.¹³

Wang Yongjiang put in a lot of work to modernize public financing of the Manchurian government, but he could not keep up with the swelling military spending. 8 years into his tenure, Wang managed to reap in land tax 5.59 million yuan, excise tax 9.98 million, miscellaneous taxes 8.32 million, other government fees 5.09 million, state-run businesses revenue 470 thousand, and transferred payment 720 thousand in 1926, adding up to over 30 million yuan in regular provincial income. On a higher level, the Manchurian government's overall revenue also included 42 million salt tax, 16.8 million Peking-Mukden Railway (or Beijing-Fengtian Railway) revenue and 6 million from other sources. Therefore, aggregated disposable income for Zhang Zuolin actually reached to an impressive sum of 101.47 million yuan. However, the tab of military expenditure in 1927 alone topped 137 million yuan, 20 times more than the 6.42 million yuan Zhang spent on his army in 1916.¹⁴

¹³ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 348.

¹⁴ Japan Center for Asian Historical Records (JACAR): C01003770000. *Sending “Current Financial Situation of Fengtian Province”*, Rikugunsho Dainikki (Document Files of the Ministry of Army), Mitsu Dainikki 6 of 6, Showa 2 (1927), The National Institute For Defense Studies, Ministry of Defense.

Early 1926, Wang proposed to cut 3 to 4 infantry divisions from the Fengtian Army and 40% of the budget from the Three Eastern Provinces Arsenal so that he could save the fund for domestic economic development. Zhang Zuolin and Yang Yuting turned it down.¹⁵ Zhang had no intention of shrinking his army and quitting the warlords' competition at a time when he seemed to be on the winning track. Wang foresaw the unsustainable trend in the state financing and decided to leave his position for good in March 1926.

The irony in Wang's rise and fall lies in the conflict between a successful provincial state building and a continuous quest for national power. On the one hand, Wang's impressive financial maneuver formed a base for state absorption and monopoly that strengthened government capacity, but on the other, such newly acquired capacity was fully exploited to usurp Manchurian economy for support of Zhang's military conquest south of the Great Wall, which in turn would erode the very institution Wang tried to establish for the state-building in Manchurian.

After Wang's departure, between 1926 and 1928, financial stability deteriorated significantly, first hit by the military coup against Zhang Zuolin, launched by General Guo Songling, Zhang Xueliang's military tutor, and then by Zhang Zuolin's insatiable military adventure and administrative expenditure in the China proper. Mo Dehui, then Director of the Bureau of Public Debt and later Governor of Fengtian Province and Director of the Department of Finance, tried to tighten the money supply by selling 50 million yuan of mandatory Financial Consolidation Bond to the banks, merchants and landlords to no avail.¹⁶ By 1928, 1,251,413,000 yuan Fengpiao was in circulation in Manchurian economy, 60 times in quantity and 4% in value

¹⁵ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 410.

¹⁶ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 422.

of the original issuance, and military expenditures consumed more than two thirds of the government budget.¹⁷

The occupation of Beijing and much of the Northern China after defeating warlord Feng Yuxiang, and the ensuing resistance to the Northern Expedition launched by nationalists from the South continued to weight down on the Manchurian financial system. Runaway inflation had begun during 1927 and in February of 1928, Japanese gold yen to Fengpiao exchange rate exceeded 40.¹⁸ Financial chaos had led to wide spread workers' strikes, commercial depression, and sometimes soldiers mutinies. It became apparent to Zhang Xueliang as well as the Japanese that the legacy of Zhang Zulin, whom the Japanese Kwantung Army assassinated on June 4 of 1928 for not following their instructions to hold off the nationalists, was a government on the verge of bankruptcy.

Two months after his father's assassination, Zhang Xueliang had taken over control of Manchuria and started to reshuffle his civil service team. He followed his father's suit and appointed Zhai Wenyuan, who had a similar resume as Wang Yongjiang, as the Governor of Fengtian Province. Zhai served as the Chief Police Commissioner of Helongjiang Province and the Director of the Three Eastern Provinces Salt Administration. Since salt tax was one of the largest revenue sources for the government, Zhai's good work in tax levy and government operations earned him Zhang's respect. For the OBTEP, Zhang picked Li Youlan, a district superintendent and General Manager of the Sino-Japanese Yalu River Timber Company and Benxihu Iron and Steel Company, as the Chief Executive. Li's records of dealing with Japanese

¹⁷ Juichi Sekiguchi, *Manshu Keizai Junenshi* (Shinkyo: Manshukoku Tsushinsha, 1942), p. 115.

¹⁸ Ronald Suleski, "The Rise and Fall of the Fengtien Dollar, 1917-1928: Currency Reform in Warlord China," *Modern Asian Studies* 13, no. 4 (1979): p. 660. See exchange rate index from 1920 to 1930 in *Toa keizai chosakyoku, Manmo seiji keizai teiyo*, pp. 471-472.

negotiations on various business and legal affairs proved his ability. However, the key figures were no other than Zhang Zhenlu, a trained army quartermaster and a close protégé of Guo Songling, and Liu Heling, Zhang Xueliang's Chief of Staff in the army. Zhang Xueliang promoted Zhang Zhenlu to the Director of the Department of Finance and Liu Heling to the Director of the Department of Industry (name changed to the Department of Agriculture and Mining).¹⁹ Zhang hoped that this arrangement could raise the profile of his government, but at the same time insure his control over the critical areas.

The most pressing financial and fiscal problem was the unstoppable devaluation of Fengpiao. Once made governor, Zhai ordered the OBTEP, the Bank of China and the Bank of Communications to reserve Yin Yuan and to purchase additional 5 million silver dollars from the American Citi Bank so that the government could buyback Fengpiao through exchanges. Meanwhile in order to restore confidence in government fiscal credibility, Zhang promised to demilitarize 150,000 troops out of Fengtian Army's 400,000 men and distribute them into frontier development projects, arsenal and other government-run industries, mining, road construction and military ranches.²⁰

In the winter of 1928, Zhang established the Fengtian Financial Consolidation Committee to contemplate financial stabilization measures. The Governor of Fengtian Province and the Director of the Department of Finance were assigned to Committee Chairman and Vice-Chairman. After national unification, the Fengtian Committee was changed to Liaoning Province Committee on April 18, 1929 (Again to the Three Eastern Provinces Financial Consolidation Committee in April of 1930) and the responsibility was expanded into government taxes, official

¹⁹ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 487. Also see Chen Zhixin and Chen Yan, "Zhang Zhenlu" in *Tieling wen shi zi liao* (Zheng Xie Tieling Xian Wen Shi Zi Liao Wei Yuan Hui, 1987), vol. 7.

²⁰ Ibid., pp. 486, 524. Unfortunately, the Sino-Soviet Conflict of 1929 and the Central Plains War of 1930 disrupted Zhang Xueliang's disarmament plan.

holdings, treasury revenue and expenditure, and annual budget. Other than committee members, financial specialists, leaders of commercial organizations and officials from other departments were also invited as consultants or advisors.²¹ The recommendation from the Committee to shore up Fengpiao was quickly put into practice.

May 1929, the provincial government promulgated four regulations: 1. Fengpiao to silver dollar exchange rate is fixed at 50 to 1. 2. All government taxes and receivables are applicable solely in Fengpiao, no silver dollar's allowed. 3. Business and private trading must use Fengpiao and follow government exchange rate. 4. To substantiate reserve for Fengpiao, the government will issue cigarette tax backed Financial Consolidation Bond of 20 million yuan. In addition, the provincial government secretly asked prefecture governments to try to shut down Sunjatai, Gongzhuling, and Sipingjie produce and currency exchanges in the Japanese Railway Zone, because the Japanese were hoarding large amount of bank notes at low price and then demanding silver coins from the official reserve. As a result, Japanese gold yen and yen denominated loans were pushing out the depreciating Fengpiao and Fengpiao denominated loans.²²

In June, Governor Zhai stated in a public announcement that the OBTEP had quantitatively retrieved 60% of Fengpiao out of circulation and burned those paper notes in the city. Surprisingly, the government found that the exchange rate was not holding. Zhai claimed that the reason was rumors of war in China and misunderstanding of the issuing of convertible silver dollar note (Xian Yang Quan). The new note would not replace Fengpiao and currency circulation would not increase, Zhai promised, and he also declared severe punishment to those

²¹ Xiuchun Zhang and Huiyun Dong ed., *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan* (Hong Kong: Hong Kong Tong Ze Press, 1998), pp. 227-229.

²² Ibid., pp. 239-240.

who was hoarding and speculating money. On June 24, exchange rate of Fengpiao reached its lowest point, 72:1, and started to head back above official rate.²³

Around the same time, four banks, the OBTEP, Bank of China, Bank of Communications, and the Frontier Bank did set up a Joint Issuing Reserve Fund in May of 1929 for the issuance of 15 million silver dollar notes.²⁴ Subsequent devaluation of Fengpiao forced the OBTEP to suggest that more silver dollar based convertible bank notes were needed to maintain government functions. Merging the 20 million Financial Consolidation Bond fund and an additional 20 million fund backed by all of OBTEP's immovables, a new reserve was created to issue 40 million silver dollar notes.

In the “Liaoning Provincial Ordinance of Financial Management (Interim, December 1930)”, the authority formally recognized the silver dollar note backed by the Four Banks Joint Reserve as the new monetary standard. “The note should not be discounted in circulation and could be exchanged to coins in provincial currency exchanges”, so decreed the government, and it was “forbidden to export silver dollar coins from Manchuria.”²⁵ Before September 1931, total circulation of the silver dollar notes was 32 million yuan and most Fengpiao was exchanged back at official rate.²⁶ The policy of parallel circulation and gradual substitution successfully stabilized the banking and financial system, maintained consumer price index and revitalized commercial and industrial activities in Manchuria.

The marching of Northern Expedition brought significant progress on the Tariff Autonomy Movement in China. The United States agreed first to sign a new custom treaty with China in

²³ *Liaoning Wen Shi Zi Liao*, vol. 12, p. 30.

²⁴ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 517.

²⁵ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, p. 283.

²⁶ Shoichi Tochikura ed., *Manshu Chuo Ginko Junenshi* (Shinkyo tokubetsu: Manshu Chuo Ginko, 1942), p. 75.

July 1928, abolishing unequal treaty tariff, and Japan waited until the last to agree on the Chinese tariff autonomy after China put a 12.5% ceiling on the future tariff. However, following international custom practice meant that China had to eliminate the likin system (domestic transit tax on goods) and bear the consequence of sudden lost of massive government revenue.

Zhang Xueliang wasted no time to show his support of tariff autonomy by announcing the termination of likin and all similar transit taxes on the first day of 1931. Likin revenue in Manchuria amounted to 20 million yuan and to fill the void, Zhang had to adjust business tax, raised match, cotton, and concrete special tax and cut government spending.²⁷ The Northeast Finance Conference also ordered the establishment of the Office of Purchasing and Transporting Three Eastern Provinces Native Products. The new office was to act as an export-promoting agency for Manchuria in a time of economic crisis and dropping world demand. Profit from the export was used to make up the shortfall caused by the lost of likin tax as well.

On January 26, Zhang spoke at the opening of the Northern China Finance Conference, which includes representatives from Three Eastern Provinces, and Hebei, Shanxi, Chahaer, Rehe four provinces, as well as Haerbin Special District and Beiping, Tianjin two cities. “The root of state finance is tax and the quality of the tax system is directly affecting people’s livelihood,” said Zhang, “the old system has to be reformed and likin is one of the most evil tax burdens sickening the people.” A modern, unified tax code must be created to balance social burden, central and local government revenue distribution, and economic development.

Moreover, Zhang emphasized the importance of making and executing the government budget. Through strict and rational budgeting, Zhang contended, financial stability and national

²⁷ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 587.

currency unification could be achieved in the foreseeable future, and desired development capital could be supplied accordingly. Detailing his recommendations for budget standardization, Zhang prioritized provincial government departments budget in a descending order as follows: a. provincial office, b. finance, c. civil affairs, and d. education, agriculture and mining, construction, and police in equal amount.²⁸ It is a clear reflection of his focus on state finance, education and industrialization.

At the end of 1930 when Zhang Xueliang read a report on “the Situation in the Northeast” at the Political Conference of the Nationalist Party Central Committee in Nanjing, he explained the state of finance in Manchuria: Heilongjiang had a 10 million deficit, Jilin a couple of millions in the black, but Liaoning 20 million in the red. Liaoning provincial revenue reached 58 million, mainly from the salt tax and local taxes and fees. Civil government expenditure was only 12 million, 60% paid in reality. However, military pay out came at a crashing total of 81 million yuan, cratering that 20 million yuan hole in the balance.²⁹ Without the extra-budget military cost, Liaoning could have a monthly surplus of 200,000, but under Zhang Xueliang’s 3-year rule, military conflicts incurred 70 million yuan deficit that had to be met by issuing paper money.³⁰

Despite the setbacks in curbing the military expenditure, Zhang still accomplished a great deal in forming a new state finance system by his own initiatives as well as nationalist government’s requests. The key to the Manchurian fiscal modernization was to gradually move tax burden away from the traditional sources to accommodate a state-led industrial market economy. Therefore, a series of actions taken by the government to reduce salt tax, reform stamp tax, clarify national and local taxes, regulate excise tax, and update business registration code

²⁸ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, pp. 295-297.

²⁹ Ibid., p. 97.

³⁰ Shigeo Nishimura, *Zhang Xueliang: "Manzhou" Yu Ri Zhong Zhi Ba Quan* (Taibei Shi: Guo li bian yi guan, 1998), p. 45.

and patent law could be seen as a comprehensive effort to build a modern state finance in Manchuria. Zhang was fully aware that cutting likin would hurt local warlords and benefit Jiang Jieshi, who's power base was in the commercial and industrial area of lower Yangtze River Delta. But his strong belief in national unification and modernization made him firm in implementing the new tax systems.

In the turbulence decade of the 1920s, the Fengtian Clique warlords in Manchuria, presided by Zhang Zuolin and Zhang Xueliang, tried to cut through the legacy of late Qing state failure and early Republican civil wars to establish a regional state finance system that would have a solid monetary and fiscal foundation. This state-building project centered on a regional currency and proliferated into budgetary and taxing policies and institutions. Although imperial powers' colonial expansion and warlords' military overextension ultimately rendered their efforts much less effective than they should have been, a modern financial bureaucracy was no doubt established to serve the purpose of the state. And in Manchuria, the government was about to wield this newfound financial power to forge an industrial heavyweight in the Northeast Asia so that it could survive and compete with foreign powers at its gate, and strive for a bigger pie in a unified Republic.

1.2 Founding A Modern Industrial State

Wang Yongjang's struggle to build a modern Manchurian financial system was in tandem with his initiatives in developing the regional economy. In the spring of 1923, Wang began to

implement a far-reaching developmental plan, starting with an immigration reform embodied in a series of government measures such as the *Refugees Relief Regulations* and the *Outside Refugees Pacification Regulations*. He tried to bring more workers into the booming labor-staving Manchurian economy. Most workers had come to Manchuria as migrant labors, returning to their homes in North China during the winter season. Now the Manchurian government encouraged them to bring women and children and settle permanently. They were eligible for reduced fares on all Chinese owned railways in Manchuria, received cash subsidies to build a dwelling and were promised total ownership after five years of continuous cultivation. Rent for the land was also canceled for the first few years.³¹

Among these incoming laborers, a large portion was sent to the interior of Manchuria, where they reclaimed land for agriculture or worked in forestry and mines. As a result of the influx of more than 5 million people, the amount of land under tillage increased from 20 to 35 million acres between 1924 and 1929. Government sponsored and merchant invested consumer goods industries based on agricultural products, such as flourmills, cotton textile mills, sugar beets mills and soybean oil mills, flourished on top of the rapid increase of agricultural outputs.³² Increasing supply of labor, favorable foreign trade surplus due to soya exports and burgeoning private and semi-official businesses boosted government's will and capacity to facilitate more sophisticated and capital-intensive industries. Even though the provincial governments in Manchuria, like the republican government in Beijing, were budget-constrained and short of

³¹ Zhao Zhongfu, “1920-1930 nian dai de Dongsansheng yi min”, in *Jin dai shi yan jiu ji kan*, no. 7 (June, 1978), pp. 509-525.

³² Ronald Stanley Suleski, *Civil Government in Warlord China : Tradition, Modernization and Manchuria* (New York: P. Lang, 2002), pp. 94-96. And Manshikai and Dongbei lun xian shi si nian shi Liaoning bian xie zu, *Manzhou Kai Fa Si Shi Nian Shi*, 2 vols. (Shenyang shi: Dongbei lun xian shi si nian shi Liaoning bian xie zu, 1988), vol. 1, pp. 52-53.

abled industrial policymakers, the demand of military application and economic independence still instigated a wave of industrial construction in Manchuria.

Since the infamous Twenty-one Demands, imposed by the Okuma government of imperial Japan on the Yuan Shikai government in Beijing in 1915, the growth of Sino-Japanese joint ventures in Manchuria accelerated dramatically. Zhang Zuolin knew the consequences of these demands and he was not enthusiastic to carry them out. However, Zhang needed time to extend his power to Jilin and Heilongjiang provinces and he welcomed foreign investments so that more government revenues could be generated, better yet armory materials like saltpeter could be produced for his military operations. These joint ventures usually were shell companies and in effect controlled by the Japanese investors, SMR being the biggest one. The largest joint ventures ranged from the Prosperity Iron Mining Company of Anshan, Benxihui and Gongchangling Iron Mine, the Yalu River Timber Company, to the Liaoyang Electric Company and the Yingkou Hydroelectric Plant. Japanese capital investments in Manchuria totaled 506,886,458 yen (\$250,000,000) by 1922, which guaranteed its predominance in the Manchurian economy.³³

After the Russian Revolution, the Treaty of Versailles and China's May Fourth Movement, the atmosphere in 1920s' China was very different. First of all, the relationship between war and economy has been redefined by the notion of "total war", conceived and practiced by the German Empire during WWI. It is an imperative, as the total war demands, for the state to build an independent and even autarkic industrial system so that it can wage and win a modern warfare. Secondly, the idea of "saving the nation through industrial development"(shi ye jiu guo) was

³³ Minami Manshu Tetsudo Kabushiki Kaisha and Thomas F. Logan inc., *Manchuria, Land of Opportunities* (New York: South Manchuria railway company, 1924), p. 62.

revived from its late Qing form and revised to synchronize with the zeal of Chinese nationalism. Resisting imperial economic encroachment and exploitation and developing self-supporting industrial state were very popular among Chinese industrialists, business leaders and urban intellectuals. Finally, Chinese stakeholders in the Sino-Japanese firms, many of them provincial authorities and local elites, were pushed aside or nudged out from the benefits and rights of these firms. Represented mainly by the newly chartered chambers of commerce, they wanted to curb the expansion of Japanese interests, regain control of native resources and wrestle with Japanese capital in any possible industry.

As a result, Zhang Zuolin began to reduce licensing to the new Sino-Japanese joint firms and to encourage economic competition with the Japanese businesses in Manchuria. In his telegram to the government in Beijing on April 16, 1920, Zhang asked for funds to develop forestry and for diplomatic help to reclaim Sino-Japanese joint mining companies.³⁴ With the consent of Zhang and the support of Manchuria's business leaders, Wang Yongjiang, who became the Governor of the Fengtian Province in 1922, reformed government investment allocation and focused government funds on profitable industries, public utilities, and minerals mining.

The regional development approach championed by Wang had a moderate edge over the militarist expansionist agenda between the two Zhili-Fengtian wars. The military-political meetings during this period were filled with the topics like industrial development and economic sovereignty. The January 11, 1924 conference was typical in such respect. Zhang presided over the meeting and it passed a resolution to raise 20 million yuan in 3 months for a Three Eastern Provinces Industrial Fund; to set up state-run factories in ten local sites; to develop 20 high

³⁴ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 222.

quality state-owned mines within the year in Manchuria; and to increase capitalization by 2 million yuan and carry out large scale expansion in the Hulan Beet Sugar Mill, the Mukden Cotton Mill, the Yalu River Timber Company and the Benxihu Colliery within the year.³⁵ Five days later, Wang drew up the plan to expand industries and promote domestic products, and relayed it to Zhang Zhihan, Director of the Department of Industry, for further actions. In March, Wang gathered superintendents and prefects from all districts and prefectures to announce and discuss financial and industrial plans, and he asked each district to promote a model industrial enterprise and enhance professional education.

One of the biggest undertakings by the provincial government was the Mukden Cotton Mill (MCM). By the time of WWI, machine made cotton goods have largely replaced homespun in Manchuria. Most cotton products in Manchuria were imported from the British and American textile factories. The Japanese cotton industry caught up swiftly and edged out western producers from the Chinese market during the First World War. Cheap Japanese cotton cloth swept the market and the healthy profit margin attracted Chinese business to invest in textile mills as well. However, underdeveloped capital market hindered the scale of Chinese mills and repressed their market share.³⁶ Meanwhile, the May Fourth Movement in China and the following movement of boycotting Japanese goods created a social demand for greater share of domestic products.

Realizing the potential return of the textile industry, Wang Yongjiang proposed to Zhang Zuolin a government-sponsored cotton mill to help expand the cultivation of cotton in southern

³⁵ JACAR: B03050190000. “*Miscellaneous articles concerning the internal political situations of various countries. /China/Manchuria*”, Diplomatic Archives of the Ministry of Foreign Affairs, 1-6-1-14. It is worth noting that the companies designated for expansion were aiming at corresponding Japanese or joint venture companies in the same industry, such as the South Manchuria Sugar Refining Mill, Manchuria Spinning Company, and Yalu River Paper Mill.

³⁶ For details see “Manchurian Cotton Mills”, in *American Wool and Cotton Report*, vol.28 no. 39. September 24, 1914: p. 28.

Manchuria and to challenge the market domination by imported Japanese products. Zhang had sponsored and personally invested in a Tianjin-based forerunner, the Hengyuan Textile Co., Ltd. in 1919 and he was more than happy to set up a new factory for the Manchurian market.

The equity structure of the MCM was set to half government and half public (exclusive to Chinese citizens). The public shares were offered on the open market, promoted by the Fengtian Chamber of Commerce, and by January of 1922, at least 2,740,000 yuan of the public shares were subscribed, increasing the total capitalization of the Mill from 4.5 million to 6 million yuan. The Fengtian Department of Finance ordered state-of-the-art equipment, a total of 40,816 spindles, 300 looms and a 1000kw thermoelectric generator, through Anderson and Meyers Co. Ltd. from the United States and the provincial government helped to recruit technicians and workers.³⁷

On October 1, 1923, the MCM started full production, producing 55 bales of no.16 cotton yarn weighing 400 pounds each, 350 rolls of cotton cloth weighing 11 pounds, and 30 dozens of socks each day. Covering 52 acres of land and employing 1,862 workers at its peak in 1930, the Mill was one of the largest textile manufactures in Manchuria. It also diversified production from cotton yarn and cloth to dyed yarn and cotton socks, churning out 50 assortments of cotton goods with a distribution network of more than 50 retailers in the city alone. Four years into the business, the Mill had a net profit of 7.13 million yuan, of which 2.8 million yuan went into the provincial treasury.³⁸ The success of the MCM instigated a wave of indigenous textile industry investment, which in turn generated 53 textile factories in the city of Fengtian and many more in Manchuria. Together, they effectively broke the Japanese monopoly.

³⁷ Liaoning Sheng dang an ju ed., *Fengtian Ji Shi* (Shenyang: Liaoning ren min chu ban she, 2009).

³⁸ Minami Manshu Tetsudo Kabushiki Kaisha Toa Keizai Chosakyoku ed., *Man-Mo Seiji Keizai Teiyo* (Tokyo: kaizosha, 1932), p. 209.

Electricity is the bloodline of modern manufacturing and the neural network of modern cities. During the WWI investment rush, 18 Japanese and 10 Chinese electric companies were set up in Manchuria. In early 1921, Japan proposed a joint power grid corporation that would send electricity to the city of Fengtian, but Zhang declined it and started to build Fengtian's own power company. Between 1923 and 1927, Fengtian Provincial Government and domestic capital investments registered 20 electric power companies, which formed a state power grid that covered major cities in Manchuria.³⁹ In the north, Harbin Electric Power Company signed a 2.5 million contract with German company SIEMENS for the latter to provide equipment to a power plant and an electric car system. The Harbin Power Plant was installed in 1925 with the capacity of 5000 kilowatts.⁴⁰ Though provincial government sponsored enterprises spread into a number of sectors, Zhang Zuolin could only give Wang Yongjiang limited direct support for government funding. Fortunately, he could tap a large pool of native capital and ask local industrial and commercial elite to join him in developing Manchurian industry.

Zhang Zhiliang, a key player in the Manchurian business circle, was instrumental in many fledgling private industries promoted by the government. Zhang, styled name Huilin, used to be Zhang Zuolin's personal secretary and he became the Director of the Fengtian Savings Association a month before Wang Yongjiang was promoted to the Department of Finance in 1917. Then he was asked to hold the position of the Chief Inspector at the OBTEP. Backed by Wang's supportive industrial policies such as lower sales taxes and protective regulations, Zhang Zhiliang took the lead in private investments into a number of consumer goods manufacturing companies.

³⁹ Manshikai ed., *Manshu Kaihastu Yonjunenshi*, 3 vols. (Tokyo: Manshu Kaihatsu Yonjunenshi Kankokai, 1964), vol.1, pp. 516-521.

⁴⁰ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 403.

The first company Zhang Huilin set up was the Huilin Match Company. The rationale behind investing in match manufacturing was quite similar to the textile industry: the match was indispensable in daily life; its industrial threshold was low; and the Japanese matches monopolized the market. Zhang raised a total of 180 thousand yuan to found the company in Fengtian and held the Chairmanship on its board. Huilin match was an instant hit in the market since 1921 for its low price and high quality. Before long, Huilin Match was able to buy out the Japanese Mukden Match Company with 180 thousand Japanese yen.⁴¹

Following Huilin's steps, 10 more match companies sprouted out and a powerful Fengtian Match Federation was set up to coordinate sales and regional price strategies. By the end of 1928, 11 Chinese and 4 Japanese match companies were making 700 thousand cases of match, more than 70% over the estimated demand in Manchuria. Price war bled the Japanese firms out and fed them to the Swedish match conglomerates that were eager to dominate the Manchurian market. The Liaoning provincial government answered to the request of the Match Federation and effectively ceased to grant new match licenses. Again in August 1930, the Northeast Administrative Commission went further to match monopoly in Manchuria, establishing a Match Monopoly Bureau to oversee the price and delegating match trade exclusively to the Match Federation.⁴² Since Japanese companies no longer in the play, this undisguised protectionist policy successfully made native manufactures dominant in the match industry.

In 1922, Zhang Huilin pooled 320 thousand yuan with Jin Zhechen and Gao Rongjiu, both were native capitalists, to found the Fengtian Bawangsi Soda, Beer and Soy Sauce Co. Ltd, which boasted an annual production capacity of 4.8 million bottles of soda and beer each, and 5

⁴¹ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, pp. 281, 366.

⁴² Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, pp. 123, 91.

million kilograms of soy sauce.⁴³ The Bawangsi Soda promptly became a popular drink for the Manchurian people until it was taken over by the Japanese in 1931. No more than a year after the founding of the soda company, Zhang again invested over 100 thousand yuan in a star-up company founded by a returned overseas student named Du Zhongyuan.

Du studied ceramics in the Tokyo Advanced Institute of Industries and believed that given a chance, he could make competitive ceramic products and restore China's reputation as a world leading ceramic maker. Du's mechanized ceramic factory was named Zhaoxin Ceramics Company and it started with making bricks and building materials. The new company baked 5 million red bricks in 1924, but sales were depressed due to very limited name recognition in the market. Du had to set up construction and hardware departments to bid contract works in order to clear the inventory. Luckily, Zhang Zuolin authorized Wang Yongjiang to establish the new Northeastern University and the university buildings were under construction. Wang recruited Zhaoxin Company as a major supplier of bricks for the college building, the library, two lecture halls, student dormitories and the university stadium. This marked the break point for Zhaoxin's business and a breakthrough for the modern ceramic industry in Manchuria.

Du expanded his business to porcelain with the government expedited his request for clay mine permits. By 1926, the company raised its equity capital to 360 thousand yuan and secured additional government loan of 300 thousand yuan to purchase more land and equipment for production expansion. After Zhang Xueliang succeeded his father, he continued to offer help to Du's company, authorizing new loans and even privately invested 120 thousand yuan as a

⁴³ Dongbei wen hua she ed., *Dongbei Nian Jian: 1931*, 3 vols. (Washington, D. C.: Center for Chinese Research Materials, Association of Research Libraries, 1976), p. 1048.

shareholder.⁴⁴ Publicly, the Northeast Administrative Commission exempted Zhaoxin Company's sales and excise tax for 5 years and granted its products one-level transportation fee reduction in 1929.⁴⁵ Sustained by these measures, Zhaoxin Company's sales in the late 1920s reached 20 million yuan annually and grew steadily into an iconic enterprise, showcasing what Chinese industrialists could accomplish in a favorable environment shaped by the Manchurian government.

Zhang Zhiliang also helped to finance Chen Chucai's Dongxing Dyeing and Weaving Company, the Sixian Trading and Construction Company, and the Siheng Pawnshops. Zhang's active participation in the regional industrial development and the National Products Movement earned him wide support from the Fengtian business class. In the spring of 1924, he was elected President of the Fengtian Chamber of Commerce, the most powerful Chinese business association in Manchuria. Reaching out to the other two provinces, Zhang advocated a federation of chambers of commerce in Manchuria. Finally in June of that year, he was elected President of the Three Eastern Provinces Federation of Chambers of Commerce.

Zhang Zhiliang's nationalist view was influenced by and coincided with Wang Yongjiang. In his year-end speech at the Fengtian Chamber of Commerce in 1924, Zhang stated that he was "aimed at developing national industries and recovering economic rights, pursuing satisfaction for the businesses directly and advantage for the people indirectly." But contrary to his expectations, "military actions are rising before all those could be accomplished, so for the time being, things will remain the same".⁴⁶ Despite his frustrations, Fengtian has secured its position as a rapidly industrializing city and a center of economic development in Manchuria, wrestling

⁴⁴ Shenyang Shi gong shang lian, "Du Zhongyuan zhuan lue", in *Liaoning Wen Shi Zi Liao*, vol. 26, p. 305.

⁴⁵ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, pp. 103, 69.

⁴⁶ Shenyang Shi gong shang lian, "Zhang Huilin zhuan lue", in *Liaoning Wen Shi Zi Liao*, vol. 26, pp. 311-313.

with another modern city Dairen in the Kwantung Lease Territory for economic might and national pride.

With Wang Yongjiang working on the provincial enterprises and Zhang Zhiliang on private industries with official backing, Zhang Zuolin put his top aide Yang Yuting, an Imperial Japanese Army trained professional military staff, to work on the crown jewel of the Manchurian industrial system, a factory he wanted and needed the most, the Arsenal of Three Eastern Provinces (ATEP). After Zhang took over Manchuria, he set up a small armory inside the Fengtian Mint in 1919. With a determination to build a modernized and self-sufficient military industry, Zhang allocated 300 acres of land to the armory in order to convert it to an arsenal. Initially, Zhang planned to invest a total of 3 million yuan, half by Fengtian Province and one fourth by Jilin and Heilongjiang each. Most of the machinery used by the Arsenal had been manufactured in Germany and sold to Zhang through the Danish firm Nielson and Winter, Ltd. of Copenhagen, but machinery produced in China and Japan was also used. The Arsenal opened its door in 1921 and consisted of 4 factories: a gun factory, a bullet factory, a smokeless powder factory and a weapons factory. It also included a workshop capable of producing tempered steel in small quantities and shops to make machines and machine parts. Zhang was not satisfied with the progress and he appointed Yang Yuting to take over the project.

Since Yang Yuting became the head of the ATEP in June 1924, he greatly expanded the factory. Yang, a graduate from the Imperial Japanese Army Academy, was devoted to the modernization of military production for the army. He built 4 more factories – a shell factory, an artillery factory, a fuse factory, and a casting factory - in addition to the existing ones. By 1929, the Arsenal had grown to over 1000 staff and 20,000 workers, up from 100 and 300 respectively in the early 1920s. The ATEP also occupied more than 500 acres of land and had over 9000

pieces of machines, including 4 generators that could output 10,000 kilowatts of electricity.⁴⁷

Most of these machines were imported from Germany and some of the testing equipment, such as chemical analysis instruments, tensile testing machine, compression tester, shearing press tester, torsion testing machine and hyper thermal meter, were state-of-the-art in the world. Others such as PT-based three-stage nitration TNT maker, phenol-based picric acid maker and 3-ton electric furnace, enabled ATEP to produce its own high explosives as well as machine tools.⁴⁸

Zhang and Yang had to rely mostly on Japanese military technology, but they didn't want to be dependent upon the Japanese. On the one hand, Zhang Zuolin's Military Advisor since 1924 was Matsui Nanao, Staff Officer of the Kwantung Army and Chief Officer of the Fengtian Special Service Agency, who delivered a total 92 blueprints of Japanese rifle, machine gun, and howitzer to Zhang, trying to steer the Arsenal towards Japanese standards.⁴⁹ On the other hand, Zhang and Yang diversified ATEP hired more than 30 engineers and specialists, though more than half of them from Japan, from Russia, Germany, Austria, Sweden, Britain and France. They help to purchase and install necessary machines, design fittings and tool mold, test metal alloy and gunpowder, inspect product quality and train Chinese technicians. As a result, the Arsenal was able to improve on Japanese weapons and copy superior Austrian field artillery and howitzer.

With a professional work force and strict quality control system, ATEP was able to expand rapidly and localize most of its imported products without hurting the quality. For instance, after repeated experiment, the ATEP casting factory produced silicon-manganese alloy that was

⁴⁷ Zhenrong Shen, "Dongsansheng bing gong chang", in *Liaoning Wen Shi Zi Liao*, vol. 8, pp. 48-50.

⁴⁸ Zhiqiang Zhang, "Feng xi jun shi gong ye di jian li yu fa zhan," in *Dong Bei Di Fang Shi Yan Jiu*, ed. Liaoning she hui ke xue yuan li shi yan jiu suo (Shenyang Shi: Dong bei di fang shi yan jiu bian ji bu), vol. 24 issue 3, 1990, pp. 69-71.

⁴⁹ JACAR: C03012137700. "The issuance of the standard weapons charts", Rikugunsho Dainikki, Dainikki Otsushu, 1925, The National Institute For Defense Studies, Ministry of Defense; C03022757000. "Disposal of the charts of service type weapons", Rikugunsho Dainikki, Mitsu Dainikki, 3 of 6, 1926, The National Institute For Defense Studies, Ministry of Defense.

comparable to the imported material for gun barrels. Using government controlled Xi'an Colliery, Daye iron ore, and Shanxi, Hebei Provinces' saltpeter and sulfur, the ATEP managed to build a domestic supply line of basic materials and avoided Japanese monopoly of special steel production. By 1931, ATEP munitions production increased 30 folds from its capacity in 1920 and at full capacity it could deliver 4,000 rifles, 140 machine guns, 15 million bullets, 10,000 shells, and 174 tons of gunpowder and TNT a month. It also made a total of 1,201 artillery pieces and hundreds of machine tools in 6 years.⁵⁰

The production capacity of the ATEP made it China's largest and most advanced arsenal, comparable to that of the Tokyo Artillery Arsenal during the Russo-Japanese War. Even at this level, the Arsenal still could not catch the expansive demand of Zhang's Feng Army. Between 1924 and 1929, Yang Yuting, entrusted by Zhang Zuolin, shoveled over 300 million silver dollars into the ATEP and total asset of the Arsenal was estimated at 329,962,294 yuan at the time of the Japanese takeover. Annual cost of production also exploded from 5 million to 24 million yuan.⁵¹ The whole budget of Zhang Zuolin's government was prioritized toward the military buildup and the ATEP ate a large proportion of it, which brought Manchurian public financing to the brink of bankruptcy when Zhang Xueliang took office.

The Arsenal reached its zenith under the guidance of General Yang Yuting, but Zhang Xueliang executed Yang and his ally Chang Yinhuai, Governor of Heilongjiang and Director of the Peking-Mukden Railway, in the Tiger Hall Incident in January 1929. Since then, the Arsenal-centrism that overhung the Manchurian industrial structure was substituted by Zhang Xueliang's

⁵⁰ Zhenrong Shen, "Dongsansheng bing gong chang," in *Liaoning Wen Shi Zi Liao*, vol. 8, pp. 51-55. Also see JACAR: C03022682100. "Weapon production capacity at the Mukden Arsenal", Rikugunsho Dainikki, Mitsu Dainikki, 5 of 5, 1924, The National Institute For Defense Studies, Ministry of Defense.

⁵¹ Zhenrong Shen, "Dongsansheng bing gong chang," pp. 62-64.

“New Manchuria Pioneer” plan, which was practically a regionalized developmental plan envisioned by Sun Yat-sen in his 1922 book *International development of China*.

As Sun presciently pointed out in the English preface, “China is now a prey of militaristic and capitalistic power. Unless the Chinese question can be settled peacefully, another world war greater and more terrible than the one just past will be inevitable.” Sun suggested that China could “be developed internationally under a socialistic scheme.”⁵² In the Chinese preface, however, Dr. Sun revealed his real intention, “Only if the right to develop is in our hands can we survive, otherwise, we will perish. From now on, the key to China’s survive is in industrial development alone.” For Sun, “the unification and nationalization of all the industries” (what he called the Second Industrial Revolution) was more far-reaching than that of the first one in which manual labor was displaced by machinery, but the end of the war deprived it of the market and capital investment opportunity. “War industries”, however, could be mobilized and turned into “peace industries”, serving the civilian industrial development in China. Therefore, for the benefit of international surplus capital and Chinese economic development, “China has to begin the two stages of industrial evolution at once by adopting the machinery as well as the nationalization of production.”⁵³ Less than a year later in the Nationalist Party Declaration, Sun made it clearer that the “socialistic scheme” meant that “railways, mines, forestry, water projects and all the other large scale industries and commerce should be owned by the people and managed by the offices established by the state.”⁵⁴

⁵² Yat-sen Sun, *The International Development of China* (New York; London: G. P. Putnam's Sons; Knickerbocker Press, 1922), pp. v, 5.

⁵³ Zhongshan Sun, *Sun Zhongshan Quan Ji* (Beijing: Zhonghua shu ju: Xin hua shu dian Beijing fa xing suo fa xing, 1981), vol. 6, pp. 248-49.

⁵⁴ Ibid., vol. 7, p. 4.

The ideas radiating from Sun's industrialization plan influenced Zhang Xueliang since 1922 when Zhang Zuolin allied with Sun (Southern revolutionaries) and Wan (Anhui) Clique against the Zhili Clique. Unlike his calculating and hardheaded father, not only Zhang Xueliang found Sun's nationalist "international" industrialism the only way to the Chinese redemption, but the way that was already implemented and called upon by his mentors Wang Yongjiang and Guo Songling. If state-sponsored industrial development for the father means wealth created for power, it was first and foremost a symbol of national independence for the Christianized son.

Under the banner of the New Manchuria Pioneer, Zhang laid out his industrial policy, featuring retooling the military industry to produce for the civilian machines and tools market, supporting consumer products manufacturing that could break foreign monopolies, encouraging the formation of industrial associations in a number sectors with government auspices or endorsement, welcoming foreign investments that don't infringe Chinese sovereign rights, and last but not least fighting for mining rights with the Japanese. All of these were aimed at protecting domestic capital, raising national industrial capacity, and ultimately creating a national economic power under the condition in which usual sovereign economic shields such as protective tariff or restrictive government regulations were inapplicable due to unequal treaties and imperial threats.

Zhang Xueliang opened up the New Manchuria Pioneer plan first by retooling the Arsenal of Three Eastern Provinces into a "peace factory" at the end of 1928. He ordered the ATEP to manufacture civilian goods such as bicycles, rickshaws, weaving machines, heating radiators, water pumps and agricultural tools. Meanwhile, Zhang sent Wang Zhuoran, a professor at Northeastern University and his personal adviser, and Ye Biliang abroad to seek engineers that could refit the factory to produce trucks and tractors. They hired an American engineering

company, Stone and Forbes Co. Ltd, to do research and provide refit design. Zhang also named Zang Shiyi, Superintendent of the ATEP and soon after Governor of Liaoning Province, to head the newly established Northeast Economic Council, which was specifically charged with the responsibility of overseeing the reorganization of the ATEP.⁵⁵

To help the shift of production, Zhang appropriated 700,000 yuan for the preparation of producing trucks and tractors at the Minsheng (People's Livelihood) Factory, an ancillary factory set up in the Fengtian Mortar Plant. The symbolic outcome was Manchuria's as well as China's first cargo truck. A group of engineers and technicians sent abroad by the Northeast Economic Council to study auto design successfully developed a 4000-pound cargo truck. In June of 1931, the Minsheng Type 75 rolled off the production line that could make 100 trucks annually. Unfortunately, the ATEP dual production experiment was cut short due to the Japanese invasion, but a Japanese automobile concern expanded on the Minsheng Factory soon resumed the production and manufactured 3800 cars a year.⁵⁶

On November 3, 1928, the Director of the Department of Industry in Liaoning Province (Changed its name to the Department of Agriculture and Mining or DAM in February, 1929) submitted the “Administrative Outline on Industrial Development (30 Articles)” to Governor Zhai with detailed programs that the Department was preparing to implement. In the Outline, the Department pointed out that the administration had only validated mining permits and managed mining taxes, but had not done hands-on development. To better manage the mining resources, the Department proposed to found geological survey, mineral laboratory, metal refinery, mining

⁵⁵ Zhenrong Shen, "Dongsansheng bing gong chang," p. 61.

⁵⁶ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, pp. 503, 510.

bank, and mining schools so that the government could provide comprehensive services to the entire mining industry.

In the articles about manufacturing, the Department complained about the limited scale of the native industries and confined government sponsorship in textile industry. “Materials are exported and manufactured products imported, hence economic rights are at loss,” the Department reported. Proposed government sponsorship expanded to paper mills, glassworks, electrical appliance factory, machinery plant, locomotive works, and chemical and pharmaceutical factory. According to the Outline, the government promise to protect domestic industries from foreign competition and reward invention and innovation. Overall, the Department summarized its industrial policy as “Connectionism” (*lian luo zhu yi*): “to develop industries, [the government] must lead and protect. The Department rarely connected with the people, therefore there was lack of progress. Now [the Department] will remove the barrier and implement Connectionism, which means that each industry will meet with the Department and discuss the situation thoroughly so that their businesses will improve and excel.”⁵⁷

One important change following the call of “Connectionism” was the reform of the Liaoning (Fengtian) Chamber of Commerce to incorporate industrial associations and to transform it into the Liaoning General Federation of Industry and Commerce. Renowned industrialists Jin Zhechen, Director of Bawangsi Soda, and Lu Guangji, General Manager of the Daheng Ironworks, became President and Vice-president of the new Federation and industrial interests were better represented at the state level.⁵⁸

⁵⁷ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, pp. 105-111.

⁵⁸ Ibid., p. 142.

The other change driven by the “Connectionism” was Zhang’s active pursuit of foreign investment, particularly overseas Chinese capital, in Manchuria. In April 1929, the DAM promulgated the “Overseas Chinese Industrial Investment Encouragement Ordinance”, which listed construction, transportation, manufacturing and mining as investment priorities. A year later, Zhang again asked the Department of Construction to submit a larger plan for attracting overseas Chinese investments. The Department compiled the “Plan for Overseas Chinese Investment in Industries”, a plan that included railroad and highway investment opportunities as well as frontier development possibilities.⁵⁹

In less than 3 years following the Outline of 1928, the DAM made a lot of effort to carry out the programs it proposed, which require the expansion and reorganization of the Department. Previously on the prefecture level, no designated government agency was in charge of the local industry. The DAM began to set up direct subsidiaries, the Bureau of Industry, in the prefecture governments, absorbing prefecture Bureau of Water Resources and Bureau of Forestry. The Prefecture Bureau of Industry was accredited the responsibility for serving and promoting agricultural and forestry, fisheries and stock farming, mining, industry and commerce as well as business registration and labor regulations.⁶⁰ Working with local chambers of commerce, the prefecture bureaus provided the provincial government with improved statistical feedback and timely implementation of industrial policies. The reform empowered the DAM, making it more forceful and active in policymaking and economic rights claiming.

The effectiveness of the reorganized DAM was reflected most saliently in the two mining cases. Since railway was in the center of the Manchurian struggle and 47% of the railway

⁵⁹ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, pp. 193-194.

⁶⁰ Ibid., pp. 154-156.

payloads were minerals, mining (coal and iron mining in particular) was extremely important for the DAM. The first case was the official-merchant joint stock Xi'an Colliery, which was established in 1926 by merging 10 small mines in the area. The DAM sent mining specialist Bai Mingzhang to investigate the slow progress at the mine in April 1929 and Bai found that out of 2.7 million yuan registered capital, only 700 thousand yuan merchant capital and 100 thousand yuan Department of Finance capital were paid in. Other initial investors, the ATEP, the Fengtian-Hailong Railway, and the Fengtian Chamber of Commerce, did not make the payment. Bai believed that since the Colliery was a major supplier to the Feng-Hai Railway, the Railway should pay up. The DAM informed the Railway and asked for 300 thousand yuan for the Colliery. Both ATEP and the Chamber of Commerce were delisted from the stockholders and their capital contribution was fulfilled in by the Department of Finance. In the end, official paid-in capital was raised to 1 million and merchant capital 1 million. Though downsized in registered capital, real capital increased 1.2 million yuan. The DAM also reorganized the board of directors and appointed general manager and chief accountant for the mining company. Total output at Xi'an recovered and at least tripled over the 1926 level to 200,000 ton in 1930.⁶¹

The second case, Fuzhou Bay clay mine, was more complicated. Fuzhou Bay had seven small-capital Chinese mining companies working in the mine area, but some of them mortgaged out their equities to the Japanese Fuzhou Bay Mining Corporation associated with the South Manchuria Railway Company in 1928. Backed by Japanese police, a light rail controlled by the Japanese was built into the clay mine and a conflict erupted between the Chinese miners and Japanese policemen. In the ensuing chaos, the Japanese established a de facto occupation and replaced Chinese miners with Koreans, brushing aside all prefecture government injunctions.

⁶¹ Jingwei Kong, *Dongbei Jing Ji Shi* (Chengdu: Sichuan ren min chu ban she: Sichuan sheng xin hua shu dian fa xing, 1986), p. 247.

The DAM sent an inspector, Gu Liang, at the request of merchant Zhou Wenfu, to help restructuring the mine in early 1930.

Based on Gu's report, the DAM accepted Zhou's restructuring plan and authorized him to merge all seven mines into a state-supervised merchant-managed Fuzhou Bay Mining Company with capitalization of one million yuan. The DAM agreed to station an inspector at the mine to help with production and in exchange the said company would pay the government 2% of its total sales.⁶² However, the Japanese refused to give up the mine and the SMRC sent a special envoy Kawazu to negotiate for a deal to turn the mine into a Sino-Japanese joint venture. The negotiation broke down repeatedly, but the DAM and Inspector Gu stood their ground on the Chinese ownership. To make the deal palatable, Zhou signed a sales contract with Kamei, President of the Japanese Fuzhou Bay Mining Corporation, promising to provide mutually agreed tonnage at negotiated price on a yearly basis.⁶³ The settlement of the Fuzhou Bay clay mine showed that a determined and able state agency could be instrumental in leading industrial combination and protecting sovereign rights.

These mining management experiences and policies were integrated into a complete "Liaoning Province Mining Consolidation Plan" in May 1931, in which a differentiated strategy to deal with different ownership structures of the mines was adopted. For Japanese-owned companies, such as Fushun Colliery and Yantai Colliery, the Department asked the Northeast Administrative Commission to negotiate with the Japanese about the boundary and installation violations and to prepare for taking back the mines. Meanwhile the Department would regularly check them according to mining regulations and international treaties. For joint ventures like

⁶² Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, p.172.

⁶³ Ibid., pp. 176-178.

Benxihu Ironworks, Gongchangling and Anshan iron mines, the Department was getting ready to regain control of them once the contracts were expired. If unobtainable, at least the contracts must be modified to reflect sovereign rights. For state-owned enterprises or official-merchant enterprises, such as the state-run Liaoyang Colliery, official-merchant Xi'an and Jinxi mining companies, the Department would send officials to mark the boundaries, improve mining machinery and reform corporate governance.⁶⁴ Though impossible for the DAM to complete its plan in the remaining four months of Zhang Xueliang's governance, the evolutionary trajectory of the DAM as an industrial state planning and operating agency that grew out of the interaction with domestic and foreign capital/pressure was unmistakable.

In June 1929, the Liaoning Provincial Government issued a general instruction to regulate government procurement. The order required that all government supplies must be native products and all administrative offices must burn Chinese coal. Zhang Xueliang also terminated the Fushun coal export agreement with Japan, denied Japan's drilling rights at the Fushun oil shale mine, and increased iron tax on the Japanese Anshan Steelworks later that year.⁶⁵ Considering the dominant role of Fushun coal and Anshan iron in Manchuria and the Japanese diplomatic and military assertiveness, these decisions were daring and challenging, but deemed necessary for pursuing industrial independence by the policymakers.

When Zhang's rule ended in 1931, a decade of industrial development, consistently promoted by the Manchurian government to sustain a military superiority, to compete with foreign producers on niche markets, and to process native agricultural outputs for export, yielded an ambitious but nascent military industrial state, dreaming of regaining mineral resources,

⁶⁴ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, p. 213.

⁶⁵ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 539.

making its own steel and manufacturing its own machineries. Industrial independence, now seen as the foundation of national sovereignty and security, was consciously trumpeted and actively pursued by the newly established government industrial management apparatus.

A pyramid-like industrial structure gradually took shape under the guidance of industrial state institutions. The tip of the pyramid was state-capital backed military-industrial enterprise, followed by semi state-capital provincial enterprises, then by official invested or associated private industries, and at the bottom was a large sum of private-capital rural and small town industries.⁶⁶ This quasi-state capitalism was fermented in Manchuria, where Owen Lattimore called the “cradle of conflict”, precisely because its geopolitical intensity vaulted the urgency of industrialization to the state and trumped the logic of market capitalism. Indeed, in the realm of transportation and communication, the backbone and the nerve system of the modern state, more fierce battles were fought in the name of guarding the “lifeline” of the nation.

1.3 Trisecting the Manchurian Railway System

Railroad is the most important factor in both economic development and national security in modern Manchuria. But at the end of 19th century and early 20th century, railroad development in China became an imperial race to carve up spheres of influences. As noted by Frederick A. Talbot in 1911, “there is spirited competition among the various powers to bring about the

⁶⁶ Nishimura, Zhang Xueliang: "Manzhou" Yu Ri Zhong Zhi Ba Quan, p. 46.

complete conquest of the Celestial Kingdom by the iron road.”⁶⁷ The competition to seize the rights of railroad finance, construction, and operation grew more and more intense since the Qing made the concessions in the Sino-Russian Secret Treaty in 1896 to the Russians that allowed them to build the Chinese Eastern Railway (CER) across Manchuria.

The British tried to balance Russian influence in Manchuria by financing Qing’s effort to extend the Peking-Yuguan (Shanhaiguan) railway to Fengtian. The Peking-Fengtian Railway (PMR) was completed with a loan of 2.3 million pounds from the Hongkong and Shanghai Banking Corporation and the Jardine, Matheson & Co., but the British had to compromise and reach a mutual understanding with the Russian government in 1899. In this Scott-Muraviev Agreement, the British acknowledged Russian claim to priority in Manchuria in exchange for the Russian acknowledgement of the same claim by the British in the Yangtze River Delta.⁶⁸ Since then, Britain was even more prone to an alliance with the Japanese to stem Russian expansion in the Northeast Asia, which culminated in the Anglo-Japanese Alliance in 1902. The Russian-British railroad rivalry created 2800 km railway in Manchuria in less than 10 years.⁶⁹

After Japan fought and won the Russo-Japanese War, the South Manchuria Railway Company (SMRC) was established in 1906 to takeover the Russian railway connecting Port Arthur in the southern tip of the Liaodong Peninsular to Changchun on the southern branch of the CER in Jilin Province. Controlling major railways and navy bases of Vladivostok and Port

⁶⁷ Frederick Arthur Ambrose Talbot, *Railway Conquest of the World* (London: W. Heinemann, 1911), p. 295.

⁶⁸ John Van Antwerp MacMurray, *Treaties and Agreements with and Concerning China, 1894-1919; a Collection of State Papers, Private Agreements, and Other Documents, in Reference to the Rights and Obligations of the Chinese Government in Relation to Foreign Powers, and in Reference to the Interrelation of Those Powers in Respect to China, During the Period from the Sino-Japanese War to the Conclusion of the World War of 1914-1919*, 2 vols. (New York: H. Fertig, 1973), pp. 204-205.

⁶⁹ For details of British-Russian rivalry in Manchuria and the formation of Anglo-Japanese Alliance see Pi Cui, *Jin Dai Dong Bei Ya Guo Ji Guan Xi Shi Yan Jiu* (Changchun Shi: Dongbei shi fan da xue chu ban she, 1992), pp. 193-213.

Arthur, Russia (later the Soviet Union) and Japan were both positioned to command strategic advantages in the region. Japan and Russia invested enormous amount of money on railroads and other transportation enterprises. In the estimated 10-billion-yen foreign investment in the Manchuria transportation industry prior to 1931, Japan invested 526.27 million yen and Russia (the Soviet Union included) invested 397.66 million yen, which was 30% of Japan's and 76.3% of Russia's total investments in Manchuria respectively.⁷⁰

On one hand, any Manchurian authority would have to deal with this sandwich situation in which sovereign as well as economic rights were constantly violated, infringed upon and exploited. But on the other, they came to the acute understanding of the value of railways in terms of revenue generation and resource development as the other imperialist powers did. In early 1920s, Zhang Zuolin took control of the PMR north of the Shanhaiguan, which connects with the SMR in Fengtian when it was completed in 1912. To Zhang, who grounded his power mostly in the Fengtian Province, both PMR and SMR were essential to the economic prosperity of Manchuria and military mobility of the Fengtian Army. However, he has no control over the SMR, be it the price of transportation or the freedom to move the troops without the consent of the Japanese Consulate in Fengtian and the Kwantung Army Command. Zhang also had to accept SMR's new branch lines, Changchun-Jilin and Sipingjie-Taonan railways, that were on paper owned by China but in reality built on loans from Japan and managed by the SMR.⁷¹

In order to seek independence and revenue, Zhang conceived a grand plan that synthesized Yang Yuting, Sun Liechen and Wu Junsheng's proposals in 1922. The plan called for two "main arterial routes" to encircle the SMR from the east and the west and cut through the CER. On the

⁷⁰ Manshikai and Dongbei lun xian shi si nian shi Liaoning bian xie zu ed., *Manzhou Kai Fa Si Shi Nian Shi*, vol. 1, p. 80; vol. 2, p. 345.

⁷¹ Tieya Wang, *Zhong Wai Jiu Yue Zhang Hui Bian*, 3 vols. (Beijing: Sheng huo, du shu Xin hua shu dian fa xing, 1957), vol. 3, pp. 2-19.

western arterial route, a new line would start from Dahushan (on the PMR) through Tongliao, Taonan, to Qiqihar (Capital of the Heilongjiang Province), connecting Heilongjiang with Fengtian Province through eastern Mongolia. On the eastern route, the line would go from Fengtian City through Hailong, Jilin (Capital of the Jilin Province) and to Hulan (major agriculture center in northern Heilongjiang), connecting three provinces east of the SMR.⁷² Both routes would run roughly parallel to the SMR and eventually connect to the PMR. If the plan were carried out unimpeded, Japanese and Russian influence would be seriously reduced, but most importantly Zhang would obtain military independence from Japanese interference and emergency blockade against the Soviets.

In the second half of 1922, Yang Yuting persuaded Zhang to launch the estern route from Fengtian to Hailong first. But when Wang Yongjiang started the preparation, the Japanese soon stepped in to call off the project on the ground of treaty privilege that banned any SMR parallel line. The negotiation and standstill continued for two years and finally ended up with a compromise that Manchuria would take a loan from Japan to build the Taonan-Angangxi and the Jilin-Dunhua Railways in exchange for the right to build the Fengtian-Hailong Railway independently.⁷³ After Zhang won the Second Zhili-Fengtian War and took control of Beijing at the end of 1924, he ceased to ask more railroad loans from foreign lenders and kept the right to build new railroads mostly to the state.

In April 1924, the Fengtian Province Transportation Commission began to plan for the Fengtian-Tumen, Fengtian-Jilin, Kaiyuan-Hailong and Taonan-Suolun railways and the Comission decided to establish the Office of Railroad Superintendent for Three Eastern

⁷² Guizhong Wang, "Zhang Zuolin yu Dongbei tie lu," in *Liaoning Wen Shi Zi Liao*, vol. 22, pp. 125-27.

⁷³ Wang, *Zhong Wai Jiu Yue Zhang Hui Bian*, vol. 3, pp. 460-462.

Provinces. Zhang Zuolin reviewed the decision and upgraded the Office of Superintendent to the Three Eastern Provinces Transportation Commission (TEPTC) in May. The Commission consisted of 15 commissioners, with governors of the three eastern provinces as ex officio members and all others appointed by the Commander of the Northeast Security Command (Zhang himself). In the first 2 years, Wang Yongjiang was Chairman of the Commission and Yang Yuting (Chief of Staff of the Fengtian Army), Wang Shuhan (Acting Governor of Jilin Province), Yu Sixing (Acting Governor of Heilongjiang) and Zhang Xueliang were Commissioners.

With the most powerful civil and military leaders in Manchuria on board, the TEPTC not only displaced the authority of Beijing Ministry of Transportation and became the supreme state policymaking and executing agency for railroads, but also for all the other transportation (highway, waterway and air traffic) and telecommunication's development in Manchuria.⁷⁴ The TEPTC soon took over the administration at the Changchun-Jilin, Sipingjie-Taonan railway as well as the co-administration at the Sino-Soviet jointly administered CER.⁷⁵

Zhang also put the whole PMR, whose south half was captured by Zhang in September 1924, under the TEPTC. He chose Fengtian Army's Transportation Commander Chang Yinhuai to be the new Director of the PMR. Chang brought military efficiency to the PMR, increasing the revenue to 23 million yuan in 1926 and 34.72 million yuan in 1927 with net profit doubled to 20 million yuan.⁷⁶ The PMR not only supplied extra capital for railroad construction in Manchuria,

⁷⁴ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, pp. 358-359.

⁷⁵ China and the Soviet Union signed Beijing Agreement and Fengtian Agreement in 1924, restoring CER to Sino-Soviet co-commercial administration. See details in Daode Cheng, *Zhonghua Min Guo Wai Jiao Shi Zi Liao Xuan Bian* (Beijing: Beijing da xue chu ban she: Xin hua shu dian Beijing fa xing suo fa xing, 1985), pp. 198-207.

⁷⁶ Guizhong Wang. "Zhang Zuolin yu Dongbei tie lu," in *Liaoning Wen Shi Zi Liao*, vol. 22, p. 125.

it also provided technological support and management training to the other railways in the TEPTC system.

Once the TEPTC went full speed ahead on its plan, major railways broke grounds one after another. First, the Chang Yinhuai moved to finish the Dahushan-Tongliao Railway on the western arterial route because Zhang Zuolin had already started a line from Dahushan to Badaohao Coalmine, which he personally invested, so that the mine could supply coal to the PMR. By August of 1925, the railway reached Xinlitun and began to extend to its final station of Tongliao. In the summer, work begun on the Fengtian-Hailong and Taonan-Angangxi railways. The Department of Finance of the Fengtian Provincial Government invested over 16 million yuan or two thirds of the total capital in Fengtian-Hailong. Though Taonan-Angangxi borrowed 13 million Japanese yen, no conditions were allowed to attach to this loan. On September 4, Heilongjiang Provincial Government set up the Hulan-Haicheng Railway Company and invested 11.5 million yuan to build the railroad, connecting northern Heilongjiang to the CER. December 1929, PMR, Sipingjie-Taonan, Taonan-Angangxi, and Qiqihar-Keshan four railways started connecting services, materializing the western main arterial route and linking western Manchuria and part of eastern Mongolia together.⁷⁷

Meanwhile, Zhang Zuoxiang, Zhang Zuolin's sworn brother and Jilin's Military and Civil Governor since late 1924, was eager to start railroad construction in Jilin. Since Acting Governor Wangshuhan reformed government tax collection and spending, the provincial government began to run budget surplus in 1926. Zhang Zuoxiang and Wang Shuhan submitted the request to connect Jilin with Hailong in October and the TEPTC immediately gave the consent. Jilin provincial government invested 18 million yuan on the Jilin-Hailong Railway. By the time it was

⁷⁷ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 538.

finished in 1929, two provincial capital cities, Fengtian and Jilin, were finally linked up and the east main arterial route was mostly in place.

Table 1. Major Railways in Manchuria between 1910 and 1930

Name of the Railway	Construction Duration	Length (km)	Source of Financing
Changchun-Jilin	1910.4-1912.10	128	Japanese Loan (SMR Management)
Sipingjie-Taonan	1917.4-1923.10	426	Japanese Loan
Dahushan-Tongliao	1921.10-1922.12 Badaohao Coalmine 1925.8-1927.10 Tongliao	252	PMR
Taonan-Angangxi	1925.6-1926.7	225	Japanese Loan
Fengtian-Hailong	1925.7-1927.12	337	Fengtian Provincial-Merchant
Hulan-Haicheng	1925.9-1928.12	221	Heilongjiang Provincial-Merchant
Jilin-Dunhua	1926.6-1928.10	221	Japanese Loan
Jilin-Hailong	1927.6-1929.6	184	Jilin Provincial
Qiqihar-Keshan	1928.6-partial	158 out of (341)	Heilongjiang Provincial
Taoan-Suolun	1929.8-partial	83 out of (180)	Fengtian Provincial Manchukuo

Source: Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, p. 96.⁷⁸

During this wave of Manchurian railway construction, Japan's own SMR expansion plan, expressed in the 1913 Secret Exchange of Notes on the Manchurian-Mongolian Five Railways,

⁷⁸ According to Zhang Xueliang, total Japanese railroad loans and interests to Manchuria was 113.5 million Japanese yen by the end of 1930. The TEPTC planned to use boxer indemnity, tariff, public loan and private investment to cover principle and interest payment.

was annoyingly delayed and the SMR was threatened economically and strategically.⁷⁹ The Japanese Consul General in Fengtian Yoshida Shigeru, under Foreign Minister Shidehara Kijuro's instructions, repeatedly used rights to build Five Railways and Article 3 of the Secret Protocols in the Sino-Japanese Treaty and Additional Agreement Relating to Manchuria (1905), which prohibited the construction of "any main line in the neighborhood of and parallel to" or "any branch line which might be prejudicial to the interest of" the SMR, to protest Zhang's railway projects. But Zhang sent notes back to the Japanese saying that "all the railways are proposed by the local governments and the people, therefore these are domestic affairs and Japanese interferences are not warranted."⁸⁰

Japanese policy toward China became observably more hostile due to the Northern Expedition. The Far Eastern Conference's "General Plan of policies toward China" and the discussion during the Dalian Conference in the summer of 1927 showed Japanese resolution to keep Manchuria autonomous, with or without Zhang's help.⁸¹ Zhang's rebuff and his reluctance to cooperate with the Japanese on the issue of Manchurian railway finance and construction infuriated Japanese authorities in Manchuria and in many ways contributed to his death in the hands of the Kwantung Army.

Zhang Xueliang, with his strong nationalist conviction and personal hatred against Japanese aggression, made the decision to further develop his father's plan. The Japanese, on the other hand, fixated the realization of the SMRC's "2 lines, 2 ports" plan, which aimed at making a cross in the center of Manchuria consisted of a north-south line, the SMR, plus the Dalian port

⁷⁹ Wang, *Zhong Wai Jiu Yue Zhang Hui Bian*, vol. 2, pp. 928-930. For the following Chinese-Japanese negotiations see Huanjie Zhu, "Man Meng wu lu jiao she geng gai," in *Liaoning Wen Shi Zi Liao*, vol. 22, pp. 139-140.

⁸⁰ Jilin Sheng she hui ke xue yuan "Man tie shi zi liao" bian ji zu ed., *Man Tie Shi Zi Liao* (Beijing: Zhonghua shu ju : Xin hua shu dian Beijing fa xing suo fa xing, 1979), vol. 2, p. 876.

⁸¹ JACAR:B02030037600. *Order concerning general plan of policies toward China*. And JACAR:B02030038400. *Conference in Dalian*. Diplomatic Archives of the Ministry of Foreign Affairs, B-A-1-1-004.

and an east-west line, the Jilin-Hoeryong line, plus the Korean port of Chongjin. Based on this plan, Japanese diplomats proposed the “new five railways” agreement for Zhang Zuolin to sign, but Zhang circumvented it till his death. Zhang Xueliang skillfully declined all the Japanese demands and after the change of flags, he insisted that the railroad rights were sovereign rights that should be dealt with diplomatically between national governments.⁸²

Japan was very vigilant on the “aggression of American capital” in China. In their eyes, American capital was behind the Nanjing Nationalist government and Nanjing’s influence had penetrated into Manchuria, embolden the Zhang Regime and native capital to confront the Japanese in railway investment and construction. That’s why Zhang would not cooperate or compromise on a series of issues concerning Japanese railroad interests in Manchuria and Mongolia.⁸³ Despite Japanese diplomatic threats, SMR railroad plan was stalled for 3 years and that gave Zhang a window to execute his rival plan.

Zhang renamed the TEPTC to the Northeast Transporation Commission (NTC) after Rehe (or Jehol) Province was put under the Northeast Administrative Commission at the time Manchuria joined the Nationalist government. After the conflict with the Soviet Union in 1929 due to Zhang’s failed attempt to drive the Soviets out of the CER, the NTC resumed its work by making a “New Northeast Railroad Network Plan” between April and September of 1930.

The New Network Plan called for extensions of the two main arterial routes and added the third one. It also required that all three main routes eventually be connected with the Port of Huludao. The eastern route would go from Jilin, through Wuchang, Yilan, along the Sungari River, all the way to Tongjiang and Suiyuan on Amur River. The western route would directly

⁸² Fatao Ren, "Heng geng Dongbei zhi Zhong Ri tie dao wen ti," in *Dongbei xin jian she* (1931): vol. 3, issue 2, pp. 4-8.

⁸³ *Man-Mo Seiji Keizai Teijo*, p. 312.

connect Tongliao with Taonan and extend the line from Qiqihar all the way up to Heihe, a border town between Russia and Manchuria. The third “far western route” designed to steer west from Huludao to Chifeng, Xinlin in Rehe and Inner Mongolia, and finally to Kulun (today’s Ulan Bator). The entire plan amounted to 2254 km more main railroads and 4070 km more branch railroads. The Plan estimated that it would cost 90 million yuan and 20 years to complete and Zhang Xueliang hoped that he could get 20 million from the Nationalist government.⁸⁴ However, the NTC spent most of its resources on finishing what Zhang Zuolin started. Zhang was only able to launch the Taoan-Suolun Railway on his watch.

Under the leadership of the TEPTC/NTC, government and private investment increased dramatically and railroad construction made a wave in Manchuria. Up to 1924, there were 946 km railroad out of 3768 km under Chinese control and about half of that was northern part of the PMR. From 1922 to 1931, under Zhang Zuolin and Zhang Xueliang, approximately 80 million yuan (government and private capital combined) were spent to build more than 10 railways, which added up to 1513 km, 58.45% of the total railways built during that time. Nine major railways in the TEPTC system of eastern and western main arterial routes generated consolidated revenue of 64.88 million yuan and transported 12.08 million passengers in 1930.⁸⁵ By early 1931, Chinese railways covered 37% of the 6507 km railways in Manchuria, while Japanese owned (1129 km) and controlled (1213) railways covered 36% and the Soviet-Chinese jointly owned and operated covered 27%, making the railway system effectively a Chinese, Japanese, and Russian three-way race in the region.⁸⁶

⁸⁴ Hu and Li, *Feng Xi Jun Fa Da Shi Ji*, p. 555; *Dongbei Xin Jian She*, vol. 3, issue 2, pp. 8-9.

⁸⁵ *Dongbei Xin Jian She*, vol. 3, issue 2, pp. 32-33.

⁸⁶ But Japanese and Sino-Soviet railways were 2 to 6 times more profitable. Calculated from *Man-Mo Seiji Keizai Teijo*, pp. 313-316.

Zhang reorganized Liaoning Provincial Government and created a new Department of Construction (DOC) in April 1929. The DOC was a direct result of the “New Manchuria Pioneer Plan” that Zhang declared at the beginning of his rule. Zhang was very ambitious in the infrastructure constructions and the DOC’s mission and structure reflected his will. The DOC had 4 divisions. The first division was in charge of privately invested provincial railways, long distance coach, roads and bridges, new cities and towns, commercial ports and airports. The second division was in charge of the water conservancy, seawalls, inland waterways, shipping companies, electric power, streetcars, and telecommunications. The third and fourth division handled budgeting and accounting respectively. Zhang invited Peng Jiqu, a French-trained astrophysicist and water management engineer, to head the new department. However, since most of the DOC’s work was focused on the construction of the Port of Huludao, Peng was reassigned to the Port Director of Huludao in 1931 when it started initial operations.⁸⁷

At the southern tip of Manchuria, the new Port of Huludao was considered a direct competition to the Port of Dalian, which was under the Japanese Kwantung Administration. British engineers recommended Huludao as an ice-free seaport to Xiliang, then Governor-General of the Three Eastern Provinces, in 1908. Xiliang realized that Huludao was “good enough to stand against Dalian” and it should connect with the Jinzhou-Aihui Railway. Such scheme was “vital to the overall situation and lifeline of Manchuria”, Xi claimed. He appropriated 200,000 taels of silver from the treasury and the salt tax to initiate the port project in 1910. Only a short railway connecting the port to the main PMR line and a breakwater was

⁸⁷ Zhang and Dong, *Zhang Xueliang Yu Dongbei Xin Jian She Zi Liao Xuan*, pp. 140-141.

finished before the fall of Qing.⁸⁸ The Republican Revolution disrupted the construction of the port and for the next 20 years, Huludao's development remained elusive.⁸⁹

Seen as the new gate to Manchuria and a showcase for Zhang's resolution to regain national independence, Zhang took a personal interest in the construction of the port. On December 27, 1929, Gao Jiyi, Vice-Chairman of the TEPTC and Director of the PMR, signed a financing agreement with the Hongkong Branch of the Dutch Banking Group. The Group agreed to provide 6.4 million US dollars for the port construction by the Holland Harbor Engineering Corporation and the loan was secured by the PMR revenue. The project duration was set to 5 years and all construction materials were to be sourced by the Dutch companies.⁹⁰ July 1930, the harbor construction broke ground. With the Port of Huludao emerged at the end of the western route, Xiliang's proposition was near complete and the threat to the Japanese SMR system became discernible.

By late 1931, the initial stage of the Port of Huludao had been completed and the Port was equipped with basic throughput capacity. Hu Shuhua, Director of the Agriculture and Forestry Division in the Ministry of Agriculture and Minerals of the Nationalist government, who was a Berlin Mining Academy graduate and the General Manager of the Shanghai Iron Works and the Hanyang Arsenal, proposed a large-scale iron and steel works in Huludao. Hu estimated that for Manchurian railroads construction alone, the demand would top 1.44 million tons of steel rails. If coalmines and iron ore were properly developed outside Japanese control, Hu was confident that

⁸⁸ Xiliang and Zhongguo ke xue yuan. Li shi yan jiu suo di 3 suo ed., *Xiliang Yi Gao (Zou Gao)*, 2 vols. (Beijing,: Zhonghua shu ju, 1959), vol. 2, pp. 1203-1260.

⁸⁹ There were reports on a temporary agreement reached between Zhang Zuolin and a Belgian Syndicate on construction for a figure of 10 million yuan, the amount to be secured partly on the port dues and partly on a second mortgage on the PMR, but it was not executed. See Henry George Wandesforde Woodhead and Henry Thurburn Montague Bell, *The China Year Book*, 20 vols. (Shanghai: North China Daily News & Herald.), 1924-25, p. 321.

⁹⁰ *Man-Mo Seiji Keizai Teiyo*, p. 358.

Manchuria could supply enough raw materials for the plant. He believed that Huludao could not only become a commercial port, but an industrial district that could counter the Japanese monopoly on shipping as well as heavy industry.⁹¹ However, neither the parallel railroad system nor the new port was advanced enough to alter the dominant position held by the SMRC in Manchuria. And yet, the psychological impact on both the Japanese and the Chinese societies was quite noticeable.

On top of the railway system and port service, the government in Manchuria promoted highways, waterways and telecommunications. Among these developments, radio communication was a top priority and grew the most. In 1922, the Nine-Power Treaty allowed China to take unauthorized foreign radio stations with compensation (Lease Territory and Railway Zones were excluded). Zhang Zuolin then seized the radio station of the CER during the Russian Civil War and established the Northeast Bureau of Radio Supervision. The First Zhili-Fengtian War precipitated the process of building a radio network for faster military communications. The Bureau started to train radio operators, build radio stations, and equip Marconi transmitters. In 1923, Harbin upgraded from 10kw to 25kw transmitter, Fengtian installed 10kw and Changchun installed 2kw transmitter.⁹² By then, the government could communicate official directives and feedbacks between major cities in Manchuria. During the Second Zhi-Feng War, Fengtian Army's Chief of Engineering Department, Zhang Xuan, was appointed Superintendent of the Bureau and Qiqihar, Heihe, Yingkou, Suifenhe, Manzhouli all installed radio transmitter. After the war, civil radio transmission was permitted.

⁹¹ *Dongbei Xin Jian She*, vol. 3, issue 2, pp. 25-31.

⁹² *Man-Mo Seiji Keizai Teiyo*, pp. 363-364.

In 1918, Japanese company Mitsui built a radio station in Fengtian for the purpose of foreign communication, but after the establishment of the Northeast Bureau of Radio Supervision, no Japanese radio station was allowed outside the Lease Territory and the Railway Zone. Zhang Xueliang further tightened government control by incorporating the Bureau into the NTC and put it under the direct supervision of the Vice-Chairman Gao Jiyi in 1929. Gao ordered new German and American 20kw transmitter to Fengtian, which enabled the station to communicate with Europe and the United States. Accepting the director of Fengtian Station Chen Xianzhou's recommendation, the Bureau was renamed the Northeast Telecommunication Administration, which integrated the management of telegraph, telephone, and radio services. Before 1931, close to a dozen new radio stations in railway towns and frontier towns were built. Combined with 11,768 km land cables and 19272 km submerged cables, Zhang had developed the communications system in Manchuria into a sophisticated wire and radio network.⁹³

Undoubtedly, Zhang's endeavor to develop transportation and communication systems in Manchuria was intimately connected with his conceptions of national rights and sovereignty. Though some have pointed out that these projects were hardly successful enough to either consolidate Zhang's own power over other Manchurian warlords or make Zhang's regime capable of fending off the Japanese invasion.⁹⁴ Indeed, the rush to address sovereign control on the CER had led to disastrous border war with the Soviet Union that emboldened the Japanese Kwantung Army. Nonetheless, the state-building initiatives, particularly railway development, conjured up in a time of national and regional crisis and carried out by Zhang's Manchurian government, were clearly products of geopolitical competition and strategic state planning.

⁹³ Jiayan Wang, "Zhang Zuolin jian li Dongbei wu xian dian wang." in *Liaoning Wen Shi Zi Liao*, vol. 22, pp. 109-112.

⁹⁴ See Rana Mitter, *The Manchurian Myth: Nationalism, Resistance, and Collaboration in Modern China* (Berkeley: University of California Press, 2000).

Summary

In a book published by the US Department of Commerce, Julean Arnold, the Commercial Attaché described the “industries” in Manchuria in 1919 as follows, “bean oil, bean cake, and bean products generally constitute a great industry in Manchuria. Raw silk, tobacco, flour, furs and skins, lumber, and iron and coal are developing into profitable industries, employing in some cases enormous capital. The South Manchuria Railway, with its ramifications of industry, is the biggest institution in Manchuria.”⁹⁵ It was an accurate account of the industrial landscape of Manchuria before Zhang Zuolin and Zhang Xueliang moved to transform the land into an industrial boomtown in the next decade.

Beginning with raw material extraction as indicated in Arnold’s narrative, this colonial form of development in Manchuria was initially very similar to other colonial domains elsewhere in the world. And yet, amidst imperial competitions and Chinese warlordism, a relatively strong developmental state, constituted of a group of modern agencies such as the OBTEP, the Fengtian Provincial Government, the ATEP, the DAM, and the TEPTC, emerged to shake that system with bold plans, aggregated investments and tenacious actions. In the 14 years of Zhangs’ rule, a state-directed, heavy industry leaning, and military-gravitating economic leviathan started budding in Manchuria. In the geopolitical setting of 20th century East Asia, whoever takes this “Far Eastern Ruhr” would undoubtedly gain the strategic advantage and regional predominance.

As laid out in this chapter, the rise and fall of Zhang’s family in Manchuria is not a simple story of military adventurism, which surely is at the center of the regional geopolitical struggle.

⁹⁵ United States Bureau of Foreign and Domestic Commerce, and J.H. Arnold, *Commercial Handbook of China* (Govt. Print. Off., 1919), vol. 1, p. 26.

On the contrary, military prowess was clearly a catalyst and a derivative of the regional reforms initiated, reinforced and adjusted throughout the 1920s in Manchuria. These ideological, institutional and policy planning changes, though hardly original or unprecedented, were much more comprehensive, effective and urgently pushed forward comparing to other regions in China. The urgency and motivation felt by warlords of Fengtian was vividly demonstrated in the “two-faced diplomacy” practiced by Zhang Zuolin.⁹⁶ Boxed in by nationalist pressure and Japanese demands, swift military industrialization with state-capital seemed to be the best way to stave off both revolution and aggression.

The uniqueness of the 1920s was that neither force could overwhelm Zhangs’ autonomous regional government, which gave them a time window to experiment how far the state in Manchuria could go. In fact, the direction Manchuria was heading was so threatening to the Japanese colonial establishment that the radical elements in the Japanese policymaking circle would ditch diplomacy and risk total invasion to stop it.⁹⁷ However, what the Japanese worried about was not the capacity of the military industrial state in Manchuria, but the fact that they were not in control of such competing power. Once this enterprise fell into their hands, they quickly integrated it with the vastly advanced colonial industrial state that they had been building in the Lease Territory and the Railway Zone to form an even more formidable military-industrial complex under the umbrella of the Japanese empire.

⁹⁶ McCormack, *Chang Tso-Lin in Northeast China, 1911-1928: China, Japan, and the Manchurian Idea*, pp. 124-126.

⁹⁷ Louise Young, *Japan's Total Empire: Manchuria and the Culture of Wartime Imperialism*, Twentieth-Century Japan (Berkeley: University of California Press, 1998), p. 38.

CHAPTER TWO

PLANNED HEAVY INDUSTRIALIZATION IN MANCHUKUO, 1931-1945

The Japanese economy reaped the benefit of the First World War and became an industrialized state in the 1920s. But the wartime boom ended quickly. Shrinking demands not only hurt the prospering manufacturing sector, but also led to financial crisis, which was multiplied by the devastating Kanto earthquake in 1923 and the global depression in 1929. Continuous economic headwinds and social unrests fanned intellectual reflection on the nature of Japanese capitalism, and incidentally many of the academic criticisms and solutions echoed with the development of Japanese military theories after the war in which planned economic mobilization for total war was given a special attention. Heavily influenced by the recent changes in the Soviet Union, economic planning became a focus of discussion in both military circles and politics in the late 1920s and early 1930s, leading to further steps of government control such as the Major Industries Control Law of 1931 that legalized cartels and authorized government interventions beyond emergency times.

These ideas of overcoming capitalist economy were particularly popular among the Kwantung Army officers who were deeply concerned about the military industrial capacity of the Soviet Army, the growing threat posed by the Chinese unification, and the worsening of Japanese domestic class conflicts. Ishiwara Kanji, then staff officer of the Kwantung Army, laid out his ideas on the “Final War” between Japan and the United States and called for the Japanese Empire to prepare itself for such showdown through planned economic construction. The

Manchuria Incident of 1931 and the establishment of Manchukuo provided the army planners and the “reform bureaucrats” with an ideal playground to try out their economic policies.¹ In the ensuing 14 years, the Kwantung Army and the Japanese officials of Manchukuo reorganized and modernized the state finance, established a “special (national policy) corporation” system, and executed two Five-Year Industrial Development Plans in Manchuria. The result was a complete facelift of Manchuria from a soya bean-centered agricultural economy to a heavy industrialized “national defense state”. This dramatic experiment on the one hand marked a clear rupture of colonial policies adopted by Japan following the western practices, and on the other constituted a continuous political economic response to the geopolitical crisis that the warlord government had to face before Manchukuo.

The level of state control, central planning, and heavy industrialization in Manchuria was proportionate to the increased intensity of regional and ultimately global conflicts. Prior to 1936, the Kwantung Army was focused on eradicating Chinese resistance and obtaining total control in Manchuria while the Manchukuo Government was busy reorganizing state finance and establishing the “special corporation” system. Between the Marco Polo Incident and Pearl Harbor, the first Manchurian Industrial Development Five-Year Plan (MFYP) and the newly created Manchuria Heavy Industrial Development Company (MHID) occupied the central stage. Manchukuo’s industrial production reached its peak in 1943-1944, but the economy was quickly crashing down towards the end of the war and the second MFYP was dissolved by wartime emergency policies that focused on supplying Japan with more food and fuel.

¹ Tetsuji Okazaki, *Nihon No KoGyoKa to Tekko Sangyo: Keizai Hatten No Hikaku Seido Bunseki* (Tokyo: Tokyo Daigaku Shuppankai, 1993), p. 183.

Though the “controlled economy” derived its key ideas like central planning, nationalization of strategic industries, state intervention in pricing and labor market, economic autarky and regional economic bloc, and rapid development of heavy industry and infrastructure to prepare for war from the Soviets and the Germans, the Japanese called their economic model the “controlled economy” (tosei keizai) to distinguish it from the “planned economy” and the “national socialist economy”. However, because of the intertwined origins, the heavy industrial state built by the Japanese military and bureaucrats in Manchuria was actively pursued by both the Chinese Nationalist and Communist forces after WWII, and it was easily taken over and reconnected with their own economic apparatuses without major modifications.

2.1 Building a Modern Monetary and Fiscal System

For the Japanese state-builders of Manchukuo, one of the biggest problems with the former warlord regime was the chaotic, inefficient, and primitive state finance system in Manchuria. To make the puppet state appear to have its sovereignty and capable of self-sustaining development, a complete revamp of the old system was required.

In December 1931, the Japanese Army General Staff approved the Kwantung Army’s request of establishing the Department of Governing (renamed the Department of Special Service a month later, henceforth DSS), a civic institution assisting the army in building a new regime in Manchuria. The DSS had five committees initially: administration, finance, industry, transportation, and negotiation, with more than 70 staff members transferred from the South Manchuria Railway Company (SMR) and the Kwantung Administration. Once operational, the

DSS held a series of meetings in January 1932 to solicit economic policy recommendations from the Japanese academia, banks and business associations, the SMR, and the Kwantung Administration.

By February 1932, a month prior to the establishment of Manchukuo, the DSS drafted the “General Policies On the Monetary System, Fiscal System, Finance, Industry, and Transportation” as a guiding outline for the new state. The General Policies listed “collecting necessary funds, tariff autonomy, establishing a central bank, and creating a monetary system” as “items that must be done immediately”. And “planning state budget, creating tax system, implementing state monopoly, making banking laws and clamping down money shops” were considered as “items to be executed after the establishment of the new government.” Finally, the document also suggested the establishment of special banks and reorganization of Japanese financial institutions in Manchuria.²

Under the DSS’s guidance, the Kwantung Army and the Manchukuo government carried out the steps to lay down the foundations of the monetary and financial system in Manchuria. Aiming at two main sources of revenue for the failing Northeast government, salt tax and tariff (around 50% of the total revenue), the army quickly sent representatives to the salt transportation and tax inspection offices as well as customhouses to take over control. From June 1932 to January 1933, all customs (including 7 custom houses supervised by the Inspector-General of Chinese Maritime Customs Service in Shanghai and 5 custom offices supervised by the Nanjing Government) in Manchuria were taken over by the state and local salt tax system was also quickly reestablished.³

² Showa zaiseishi shiryo (Showa Financial History Documents): R-257-008-3 and R-258-002-4

³ Manshukokushi Hensan Kankokai ed., *Manshukoku Shi*, 2 vols. (1973), vol.1, p. 271.

At the same time, the Kwantung Army invited Genda Matsuzo, Chief of Finance Department of the Kwantung Administration, to take control of the Liaoning Provincial Department of Finance. Genda brought in a group of his colleagues to collect information on the state finance and prepared for resuming the tax collection in Manchuria. Irobe Mitsugu from the Bank of Chosen was called in as advisor to help rebuild the finance department and the SMR specialists were also dispatched to take control of the salt transportation offices. Genda became the tax director in the Ministry of Finance after Manchukuo was erected and based on his understanding of the previous regime, Genda decided to maintain the old tax system and focus on tapping the custom duties and salt tax when other domestic tax levy was in disarray. For the first 5 years of Manchukuo, custom duties and salt tax constituted nearly 50% of the state revenue. Duties alone claimed 53% of all tax revenue in 1932 and up to 60% in 1939 when foreign trade was finally succumb to the wars in Europe and China. In the later years of Manchukuo, domestic income tax and excise tax picked up the tab that left by the custom duties and maintained the overall level of general revenue.⁴

The new Manchukuo Ministry of Finance initiated an investigation into the departments of finance in the former provincial governments from late April to the end of May. On July 2, the Ministry decided to replace all the provincial finance departments with tax inspection departments and all provincial taxes would come to the central government as national tax income. In addition, 160 local tax bureaus and 12 tax inspection department branch offices were established to run the tax system in Manchuria. These tax offices were filled with Japanese bureau chiefs and trained Chinese tax officers. The old tax contract system was abolished and tax

⁴ After December 1941, the government added the sugar tax, special sales tax, transportation tax, capital gain tax, oil and fat tax, and raised the housing tax, liquor tax, cigarette tax, and land tax. New taxes and higher rates obtained more than 100 million yuan revenue in 1942, 70% increase than 1941. Zhong yang dang an guan, Zhongguo di 2 li shi dang an guan, and Jilin sheng she hui ke xue yuan ed., *Dongbei Jing Ji Lue Duo* (Beijing: Zhonghua shu ju: Xin hua shu dian Beijing fa xing suo fa xing, 1991), p. 759.

collection was centralized to ensure revenue sources of the state. By 1933, Manchukuo began to draw enough tax revenue to sustain its government.⁵

When the tax system reform began, the Manchukuo government was still running on monthly appropriations. No regular budget was established and the temporary help from the SMR and the Kwantung Administration was not enough to properly manage the state finance. The Kwantung Army sent for professional civil servants from the Japanese government, particularly the Ministry of Finance in June 1932. Hoshino Naomi, Chief of the National Properties Section of the Japanese Ministry of Finance, left for Manchuria to take the new position as Section Chief of the General Affairs in the Ministry of Finance. He handpicked a group of junior bureaucrats from the ministry to go with him. His followers, Tanaka Kyo, Matsuda Reisuke, Furumi Tadayuki, Genda Shozo, and Nagai Tetsuo were all in their early 30s when they became key section chiefs in the Manchukuo government.⁶

Following Hoshino's appointment, he introduced a series of financial reforms in Manchuria. Hoshino's men, Matsuda and Furumi, became Chief of the Accounting Department and Section Chief of General Affairs in the Accounting Department of the General Affairs Board (GAB).⁷ They immediately made a quarterly appropriation plan to replace the emergency procedure of the government spending that was on a monthly basis. After two months of reexamining the revenue and expenditure of each government branch in the former Northeast government, the Accounting Bureau compiled the first annual budget in October 1932. Before the end of the year, the

⁵ Kyoji Asada and Hideo Kobayashi ed., *Nihon Teikoku Shugi No Manshu Shihai: 15-Nen Sensoki O Chushin Ni* (Tokyo: Jichosha, 1986), pp. 638-639.

⁶ By 1937, 122 Japanese officials were working in the Ministry of Finance of Manchukuo government and 132 for the General Affairs Board of the State Council. Career bureaucrats from the Japanese Ministry of Finance dominated these two institutions, which had the highest percentage of Japanese officials in the Manchurian central government. See Manchoukuo zong wu ting tong ji chu ed., *Manshu Teikoku Tokei Tekijo* (Shinkyo: Kokumuin Somucho Tokeisho), 1937, pp. 181-182.

⁷ The GAB was the nerve and power center of the State Council, Manchukuo's nominal administrative headquarters.

provisional budget and accounting rules were in place and the formal codes and regulations were handed down in August the following year. The budgeting process was gradually refined and by July 1935, the fiscal year was synchronized with Japan and changed to the calendar year.⁸ The budget making process helped the Japanese elite bureaucrats to wield the power of allocating financial resources among government agencies and provided them the means to curb the army's arbitrary spending in Manchuria.

By the end of 1936, Manchukuo had achieved a regular and balanced annual budget with an efficient tax system and stable sources of income. In order to support the Industrial Development Five-Year Plan, the Japanese colonization plan and the Northern Development Plan, Manchukuo's fiscal policy reversed its austere policy and began to launch a hugely expansive budget based on accumulative national debt since 1937. Throughout the rest of the war period, the state actively intervened in militarized industrialization, putting an ever-growing portion of its revenues into heavy industrial development, particularly raw material extraction towards the end. Comparing to 1932, Manchukuo government spent 4 times more (223% in real terms) in 1941. Prior to 1936, economic development budget only took half of what the military and security budget did, but economic development related spending crawled up steadily since 1937 and surpassed the military and security expenditure in general accounting in 1942.

At the center of Manchukuo's fiscal system was the divide between the general and the special accounting, which were the two main sections of the Accounting Department. The general accounting covered Manchukuo's daily administrative expenses, but it was the special accounting that managed the financing of various state enterprises. Initially, the special accounting only had 5 items on its book and the biggest ones were the construction of Xinjing

⁸ Isamu Miyauchi ed., *Manshu Kenkoku Sokumenshi: Kenkoku JisshuNen Kinen* (Tokyo: Shin Keizaisha, 1942), p. 140.

(the capital city of Manchukuo) and state roads. Later it was also used for setting up research and training institutions and facilities as well as balancing budgets across provinces on the national level. However, when Hoshino was appointed Chief of the General Affairs Board in the fall of 1936 and his protégé Matsuda and Furumi took control of the Planning and Accounting Departments, they began to manage state projects and enterprises through the special accounts. The special accounting items increased to 25 and the total spending bloated from 25 million yuan in 1932 to 2.3 billion yuan in 1941, almost 100 times, while total revenue of both general and special accounting, after adjustment, only increased 14 times for the same duration.

Table 2. Manchukuo National Budget General and Special Accounting, 1932-1942
(in thousand yuan)

Year	General Accounting	Index	Special Accounting	Index
1932 Expenditure	129,635	100	24,882	100
1932 Revenue	152,923	100	26,363	100
1934 Expenditure	187,242	144	132,437	532
1934 Revenue	214,899	141	173,972	660
1936 Expenditure	220,790	170	174,091	700
1936 Revenue	263,610	172	260,553	988
1937 Expenditure	267,572	206	550,548	2213
1937 Revenue	312,755	205	676,848	2567
1939 Expenditure	440,746	340	1,222,207	4912
1939 Revenue	603,902	395	1,407,314	5338
1941 Expenditure	708,207	546	2,294,848	9223
1941 Revenue	813,881	532	2,389,487	9064
1942 Expenditure	809,238	624	1,657,768	6663
1942 Revenue	1,103,037	721	1,750,736	6640

Source: *Manshukoku Shi*, vol.2, pp. 672-673.

Since regular state revenue could no longer sustain the large investment made on state enterprises through special accounting, public debts were issued both in Manchuria and Japan to cover the majority of the expenditure. Up until 1936, only 230 million yuan of bonds were sold for the special accounts, but by the end of the first Five-Year Plan, bond issuance reached 1.48 billion yuan, 45 times of the amount issued in 1932. Every year, around 40% of the special accounting operation was revolved around new debt issuance.

Table 3. Manchukuo Public Debt Balance, 1932-1945 (million yuan)

Year	Total Issuance	Proportion in Japanese yen	Repayment	Outstanding Balance
1932-1936	258	63.9 %	7	251
1937-1941	1,844	38.8%	41	2,054
1942-1945	1,954	7.7%	96	3,912
Total	4,056	25.4%	144	3,912

Source: Jilin sheng jin rong yan jiu suo ed., *Wei Manzhou Zhong Yang Yin Hang Shi Liao Wei Manzhou Zhong Yang Yin Hang Shi Liao* (Hong Kong: s.n., 1984), p. 520.

Within the special accounts, the direct investment account played a key role to kick-start the heavy industrial projects. Before 1936 and after 1941, direct investment account only took 12-15% of the special account expenditure, but between 1937 and 1939, the proportion rose to 26.3%, 40.1%, and 21.6%. During the first MFYP, state direct investments through special accounting topped 1.46 billion yuan, which was bigger than the entire original planned investment in the industrial sector. Most of the capital went into newly established special corporations and these corporations laid the foundation for the future Manchuria heavy industrial system.⁹ The special accounting became the tools of the state to execute its national policy and

⁹ Up to April 1940, state-invested corporations totaled 63 and their total nominal capital was 1.82 billion yuan (paid-in capital 1.33 billion), among which the government's share was 0.9 billion (0.646 billion paid). By 1945, state capital rose to 1.8 billion (1.5 billion paid-in). *Dongbei Jing Ji Lue Duo*, p. 764.

its separation from the general accounting gave it flexibility of operation and responsiveness of adaptation. The development of Manchuria's monetary system was in parallel with the consolidation of the fiscal system. According to the SMR's estimate, the old regime issued over a dozen silver currencies and bank notes worth over 230 million silver yuan. In addition to these currencies, foreign currencies in circulation included: Bank of Chosen gold yen notes, Yen 41,454,000; Yokohama Specie Bank silver yen notes, Yen 5,971,000; Soviet rubles, 700,000.¹⁰

Table 4. Circulation of Bank Notes in Manchuria by the End of 1929

Kind	Estimated Amount in Circulation (million)	Exchange Rate against 100 Silver Yuan	Value in Silver Yuan (million)
Fengpiao	Yuan 3,000	6,000	50
Silver Yuan Note (Dayang Piao)	Yuan 45	100	45
Harbin Dayang Piao	Yuan 37.3	140	26.643
Jilin Guantie (Jilin Official Note)	Diao 10,000	2,000	50
Jilin Dayang Piao	Yuan 10	145	6.881
Heilongjiang Guantie	Diao 12,000	40,000	30
Heilongjiang Dayang Piao	Yuan 10	140	7.143
Andong Silver	Taels 2	82	2.439
Yingkou Silver	Taels 15	210	7.143
Silver Yuan	Yuan 1	100	1
Xiaoyang Qian	Yuan 5	114	4.386
Total in Chinese Silver Currencies and Notes			230.635

Source: Skatani, Clark, and Carnegie Endowment for International Peace Division of Economics and History ed., *Manchuria, a Survey of Its Economic Development*, p. 31.

After the Manchurian Incident, the Official Bank of the Three Eastern Provinces and the Frontier Bank were immediately taken over by the Kwantung Army and the Official Banks of

¹⁰ There were 12 Japanese banks doing business in Manchuria with 46 branches and most of their currencies circulated in the SMR railway zone. *Manchuria, a Survey of Its Economic Development*, pp. 50-52.

Jilin and Heilongjiang fell to the Japanese hands before the end of November 1931. Total bank assets confiscated by the invaders were estimated at over 585 million yuan.¹¹ The army promptly ushered in staff from the SMR, the Bank of Chosen and the Yokohama Specie Bank to audit and check the inventories of these banks and the reorganization of banking system came right after the takeover. Led by DSS Section Chief of Finance, Igarashi Yasushi, the SMR finance experts drew up the “Policy Outline for Setting Up the Central Bank of Manchuria (CBM)”, which recommended the use of Chinese banks’ assets to found the new central bank. The plan was circulated among the Kwantung Army Commander Honjo, the Japanese Minister of Finance Takahashi, Japanese financial experts, and the SMR leaders.

Two weeks after the establishment of the Manchukuo, the Central Bank Preparatory Commission was convened with 11 commissioners headed by Igarashi. The commission discussed and drafted the “Monetary Act”, the “Central Bank of Manchuria Act”, the “Central Bank of Manchuria Organization Act”, and the “Old Currency Cleanup Ordinance” in March. However, the central bank only took shape in June and opened its door in July. Two issues prolonged the process.

First, the new CBM was established through the amalgamation of the four major banks of the Northeast government with a total authorized capital of 30 million yuan. To liquidate the liabilities of these banks, which totaled 198 million yuan, the CBM used 165 million yuan deposited by General Zhang’s Northeast government and his family and issued 33 million yuan bonds with 5% interest. The government also took a loan of 15 million Japanese yen from the Mitsui and Mitsubishi zaibatsu through the Bank of Chose as reserve for the issuance of Manchukuo yuan. Moreover, to help with the transition, the Ministry of Finance appointed 38

¹¹ Manchoukuo Zong wu ting ed., *Manzhouguo Zheng Fu Gong Bao* (Changchun: Guo wu yuan zong wu ting, 1932), November, 23rd.

preparatory assistants to the Preparatory Commission and 18 inspectors to the Official Banks and the Frontier Bank.¹²

Secondly, Japanese policy makers were divided on the issue of monetary standard. Some in the army and the Bank of Chosen strongly advocated the gold standard, which was used by the Central Bank of Japan and the Japanese banks in Manchuria. The adoption of gold standard would better integrate the Japanese-Manchuria economy and facilitate trade relations between the two. But the DSS and the Preparatory Commission, supported by the Japanese financial experts and the SMR, voted for keeping the silver standard in Manchuria so that the transition period could be smooth and the local businesses would not be hit by higher gold price against silver.¹³

On June 11, the revised Monetary Act and Central Bank of Manchuria Act were promulgated, and the CBM opened for business on July 1, 1932. The new national currency, Manchukuo yuan, was set at 1 yuan to 23.91 grams of silver and all old currencies were ordered to be withdrawn from circulation in two years. The right to issue official yuan note was placed exclusively under the CBM, which conservatively issued 130 million yuan in notes and 20 million yuan in coins in the next 4 years while continuing the exchange and withdrawal of old currencies from circulation in Manchuria. By the summer of 1935, 138.2 million yuan or approximately 97% of the outstanding old currencies had been redeemed and the Manchukuo yuan was firmly established as the state currency.¹⁴

The success of yuan in circulation, combined with conservative government budgeting, quenched the persistent problem of runaway inflation, eliminated the high cost of currency

¹² Manshu Chuo Ginkoshi Kenkyukai ed., *Manshu Chuo GinkoShi: Tsuka, Kinyu Seisaku No Kiseki* (Tokyo: Toyo Keizai Shinposha, 1988), p. 34.

¹³ Manshu Chuo Ginkoshi Kenkyukai ed., *Manshu Chuo GinkoShi: Tsuka, Kinyu Seisaku No Kiseki*, pp. 41-49.

¹⁴ *Manshukoku Shi*, vol.1, pp. 459-461.

exchange, and stabilized the prices in Manchuria. However, the American Silver Purchase Act of June 1934 caused an upheaval in the world silver countries.¹⁵ The CBM tried to keep the value of silver-based yuan steady, but it had to abandon the attempt in the spring of 1935. The yuan rose significantly against the Japanese gold yen and the appreciation further repressed export of Manchurian goods. However, this crisis gave the opportunity to the proponents of yen bloc and the advocates of Japanese investments to propose their plan of yuan-yen parity in 1935.

Hoshino first obtained consent from Chief of Staff Itagaki and other Kwantung Army officers and then he went to Tokyo for the approval of the Minister of Finance Takahashi Korekiyoto to proceed with the currency reform. On November 3, 1935, the policy of pegging the yuan and the yen was declared, which paved the way for the incoming of massive Japanese investment for industrial development in Manchuria. The yuan-yen parity was maintained until the end of Manchukuo.¹⁶ After the peg, the CBM also stopped the circulation of bank notes issued by the Bank of Chosen and the Yokohama Specie Bank when the sovereignty of the railway zone was returned to Manchukuo by the end of 1936 to prevent yuan from depreciation. Thus, Manchuria was finally unified under one central bank and one state currency, and the Manchurian monetary system was fully integrated into the “yen bloc” of the Japanese Empire.

Accompanying the issuance of new bank notes, the CBM began to dramatically lower interest rates that led to broad reduction of financing cost for businesses. Comparing to over 10% loan interest rate in 1930, daily interest for loans in average gradually came down from 3.21% in

¹⁵ For more details see Dickson Hammond Leavens, *Silver Money*, Cowles Commission for Research in Economics Monograph (Bloomington, Ind.,: Principia Press, inc., 1939).

¹⁶ The currency reform in Manchuria, though triggered by the Silver Act, was most likely catalyzed by the British Leith Ross Mission to China around the same time. On the same day of November 3, the Nationalist government in Nanjing also promulgated a new law that created a national currency, Fabi (literally Legal Tender), which pegged with the British pound at 1 yuan to 1 chilling and 2.5 penny. The government also nationalized silver to prevent further outsourcing, effectively abandoning the silver standard. Manchukuo’s move could be seen as a quick counter measure to the British-Chinese alliance. See Anthony Best, “The Leith Ross mission and British policy towards East Asia, 1934-1937”, *International History Review*, 35 (4), pp. 681-701.

September 1932 to 1.65% in January 1937, creating a favorable environment for large industrial investments.¹⁷ Meanwhile, the CBM stood fast in easing credits and pumping new bank notes so that the government could execute an active monetary policy to sustain rapid industrialization after 1936.

Table 5. Accounts of the Central Bank of Manchuria (in million yuan)

Accounts		1934	1937	1941	1944
Deposits	Total	101	265	675	1,645
	Government	51	133	210	632
	Public	50	132	465	1,013
Loans	Total	165	233	758	6,586
	Government	25	57	185	244
	Public	140	176	573	6,342
Securities	Total	59	194	1,222	1,620
	Domestic Bonds	47	117	832	653
	Japanese Bonds		65	272	712
	Share Holdings	12	11	118	255

Source: *Wei Manzhou Zhong Yang Yin Hang Shi Liao*, p. 510, 512, 519.

In all, the CBM monopolized the authority to issue notes, manage treasury reserves and economic balance fund, purchase gold, and control monetary circulation. Hence, the central bank as the first “special corporation/national policy corporation” in Manchukuo actually operated as a central state policy agency and it played a central role in stabilizing the economy and promoting heavy industrialization.

After the establishment of the CBM and the Manchukuo yuan, the remaining problem towards the end of 1935 was the Japanese banks that used to issue bank notes in Manchuria. These banks were still outside the state financial control system. The Japanese Army Ministry

¹⁷ *Manshukoku Shi*, vol.2, p.757.

and the Manchukuo government, in accordance with the second phase of economic development in Manchuria, were determined to reorganize these banks to provide long-term credits for the large industrial projects. Their plan of merging the Bank of Chosen (Manchurian branch), the Chenglung Bank, and the Bank of Manchuria into the Manchuria Industrial Bank (MIB) took almost a year to complete. Manchukuo government and the Bank of Chosen each held 50% of the new bank, which had 30 million yuan in registered capital, 45 branches and a combined deposit of over 200 million yuan.¹⁸ Since its inception in December 1936, the MIB quickly became a key channel of capital investment for the planned industrial development. During the first Five-Year Plan, the MIB lent out 3.85 billion yuan or 41.2% of the total bank loans, and more than 60% of them went to the heavy industrial projects. Between 1937 and 1945, the MIB provided 21.6 billion yuan of credit, 13.6 billion in loans and 8 billion in securities, and the majority of them went to the mining and industrial sector.¹⁹

Table 6. Lending By Major Banks in Manchuria, 1936-1941 (in thousand yuan)

Year End	CBM	MIB	Other Domestic	Japanese	Chinese	American and European	Total	Index
1936	174,541	---	36,586	368,012	23,540	24,457	627,136	100
1937	183,776	258,995	57,288	162,917	17,866	30,070	710,912	123.4
1938	329,187	413,419	71,300	290,223	14,901	22,247	1,140,777	181.9
1939	667,192	790,373	98,730	509,722	14,874	11,154	2,092,045	333.6
1940	469,924	1,294,574	168,141	770,494	12,880	4,584	2,720,597	433.8
1941	415,693	1,091,984	281,178	883,260	15,929	2,255	2,690,299	429.0

Source: *Manshukoku Shi*, vol.2, p. 764.

Comparing to the dominance of the CBM and the MIB, Chinese private financial institutions

¹⁸ *Manshukoku Shi*, vol.2, p. 755.

¹⁹ *Wei Manzhou Zhong Yang Yin Hang Shi Liao*, pp. 516-517.

and foreign banks were gradually suffocated and perished. In November 1933, the state enacted a new banking law to regulate all native and foreign banking organizations. The law required these financial institutions to reapply for business licenses and almost half of the applications were denied, leaving 88 banks with permissions. But the government was still not satisfied with the scale and capacity of the new banks. Two years later, another directive was sent down to the 40 small banks, asking them to reorganize into stock companies and to increase bank capital to over 100,000 yuan (could meet the capital requirement through mergers) within a year. Only 19 of these banks survived and all Chinese private organizations were eliminated.²⁰

To better apply banking control, the state continued its tightening of banks after the beginning of the first MFYP. The 1933 Manchukuo Banking Act was revised and promulgated on the Christmas Eve of 1938. Capital requirement for banks was raised to half a million and a million yuan if banks had headquarters or branches in the large cities. By the end of 1941, 44 domestic banks were left open and with further consolidation, only 23 of these commercial banks remained in 1944. However, combined nominal capital of the banks was only 180 million yuan with total deposits and loans of 589 million and 456 million yuan respectively. Compared to the national policy banks—CBM and MIB—regular banks were increasingly marginalized. And so did the foreign banks other than the Japanese ones: all foreign banks but Bank of China and HSBC had to close their doors after the breaking of the Pacific War, though their declining business suggested such ending even before the war.²¹

When the Manchukuo government achieved a unified currency, a centralized banking system, and a balanced budget by the end of its “first phase” of economic construction, the increasing trade deficit with Japan was posing a threat to the health of public finance. Although total foreign

²⁰ *Manshukoku Shi*, vol.2, p. 749.

²¹ Ibid., pp. 772-773.

trade of Manchuria was stable at around 1 billion yuan since 1930, the export decline of 292 million yuan was partly filled by the import growth of 252 million yuan in 1934, comparing to 1931. The structural change—shrinking export of soya products and foodstuff due to weak global demand coupled with swelling import of Japanese construction materials for the new state and consumer products—locked Manchuria into a bleeding deficit with Japan that it had not nearly enough reserve to pay.

The situation worsened after the yuan-yen parity and the beginning of the MFYP in 1937. The value of consumer goods gradually dwindled from 61.5% of the total imports in 1932 to 43.8% in 1940 while the value of capital goods leaped from 23.5% to 41.7% during the same period. By 1940 Manchukuo's imports from the Japanese Empire accounted for 88.8% of the total and imports from other countries dropped from around 20% before 1937 to less than 5%. From 1936 to 1939, Manchuria's exports to Japan increased from 289 million to 521 million yuan, but imports from Japan increased from 535 million to 1.54 billion yuan. As a result, total trade deficit jumped 10 times in 4 years from 90 million to 980 million yuan.²²

Table 7. Japan's Trade Surplus with and Investments in Manchuria, 1933-1944
(in thousand yuan)

Year	Trade Surplus	Total Investment	Investment/Surplus Ratio
1933-1936	808,204	1,058,566	1.31
1937-1941	4,209,576	4,703,779	1.12
1942-1944	2,035,730	3,269,564	1.61
Total	7,053,510	9,031,909	1.28

Source: *Wei Manzhou Zhong Yang Yin Hang Shi Liao*, pp. 522-523, 530.

The Manchukuo government's solution to the imbalance was to attract the Japanese trade

²² *Manshukoku Shi*, vol.2, pp. 795, 802-803.

surplus back into the Manchurian enterprises in the form of corporate bonds, paid-in capital and loans. By creating a large number of heavy industrial enterprises and issuing corporate bonds with government endorsement or guarantee, 75% of total Japanese investments came into Manchuria through the form of corporate bonds and paid-in capital. Before the outbreak of the Pacific War, Japan invested over 4 billion yuan were invested in Manchuria and a growing pattern of state-directed, vendor-financed industrialization emerged in Manchukuo.

During the existence of Manchukuo, Japan directly invested a total of over 10 billion yuan in Manchurian enterprises as it exported goods and services worth 12.2 billion yuan to the latter. However, investments from Japan compare to capital needs of Manchuria decreased year over year since 1941 because of domestic capital shortage. The CBM had to print more money and buy more public debts to help with the government deficit, which inevitably led to rampant inflation and subsequent price control over 60,000 products. The government also enacted the People's Saving Association Law in June 1942 to mandatorily keep private savings in banks or post offices.²³

In 14 years of reign, the Kwantung Army and Japanese bureaucrats succeeded in laying the foundation of modern state finance in Manchuria. Based on the original design of a controlled economy that was efficient for wartime mobilization, young and professional Japanese bureaucrats built the Manchukuo financial system in the image of the Japanese state, but with much more state control and central power. The puppet state came to have a central bank, a unified currency, an annual budget, a modernized taxation and customs system, and a public and corporate debt market. All of which are imperative for the state to master and command the funds as required by the economic planning and the rapid industrialization.

²³ Dongbei Jing Ji Lue Duo, p. 762. More details of capital control in Dongbei wu zi diao jie wei yuan hui yan jiu zu, Dongbei Jing Ji Xiao Cong Shu, 20 vols. (Shenyang: s.n., 1947), vol.19, pp. 184-188.

2.2 Evolution of Economic Planning Agencies and the Making of Manchurian Industrial Development Plans

The original idea of building Manchuria into a heavy industrial base came from Ishiwara Kanji, who joined the Kwantung Army General Staff (KAGS) in October 1928. Ishiwara belonged to a growing movement within the Japanese Imperial Army that advocated military control of the political and economic life for the benefit of total war. The leadership of the movement, a secret society called the Issekikai, was organized in May 1929 and consisted of over 40 top graduates (from 1902 to 1913) of the Japanese Army Academy, including Nagata Tetsuzan, Tojo Hideki, Okamura Yasuji, Itagaki Seishiro, and Ishiwara. Many of them had first hand experience of the First World War in Europe and admired German military thoughts on national total mobilization. Issekikai's central policy goal was to "solve the Manchuria-Mongolia problem," which meant to instigate regional independence and subsequently develop Manchuria as a model of controlled economy for the reform of Japan.²⁴

Ishiwara's vision for Manchuria was based on his "World Final War" theory in which Japan and the United States would face off in the final struggle and Japan must occupy and develop Manchuria, and China if necessary, to win the protracted war. The Japanese army should begin by confiscating the properties of the Manchurian warlords and bureaucrats as national assets.²⁵ To Ishiwara, heavy industrial development in Manchuria could not be shouldered by indirect or colonial rule that only aimed at extracting resources and securing markets. Instead, direct military rule and modern state control system must be imposed to ensure the rapid growth of

²⁴ For detailed discussion of the Issekikai, see Chapter 5 of Leonard A. Humphreys, *The Way of the Heavenly Sword: The Japanese Army in the 1920's* (Stanford, Calif.: Stanford University Press, 1995).

²⁵ Jun Tsunoda ed., *Ishihara Kanji Shiryo: Senso Shiron* (Tokyo: Hara Shobo, 1968), pp. 38, 40-47.

economic capacity.²⁶

At the time, the Research Section was the only institution in Manchuria that was capable of providing reliable economic information and planning for industrialization on a large scale for the Kwantung Army. Section Chief Sata Kojiro, Law Department Chief Matsuki Tamotsu, and Russian Department Chief Miyazaki Masayoshi were invited to participate in the “Research on Manchuria-Mongolia Occupation and Governance” as early as July 1929. Since then, Ishiwara and Miyazaki discovered their common interest in the Soviet Five-Year Plan and their partnership became the driving engine of economic planning in Manchuria. On May 1, 1930, Ishiwara visited the Research Section and declared the Kwantung Army and the Research Section as two institutions responsible for the management of Manchuria once it was occupied.²⁷ Close working relations were already established between the army staff officers and many pro-military SMR employees prior to the Manchurian Incident.

After the Kwantung Army wrapped up major battles in Manchuria, Chief of Staff Miyake Koji sent to the SMR vice president on January 18, 1932 and requested that a research agency be established to assist the Kwantung Army on “political and economic policy planning and necessary surveys.” Three days later, the Economic Research Association (Keizai Chosakai, ERA) was established and a large portion of the SMR Research Section staff was reassigned to the ERA, which directly reported to the Kwantung Army’s Department of Special Services (DSS).²⁸ As a result, a strategy—planning—execution mechanism was devised and divided among the DSS—ERA—Manchukuo/SMR. The ERA was chaired by Sogo Shinji, one of the most pro-army board directors of the SMR, and comprised of five departments: general economy,

²⁶ Asada and Kobayashi, *Nihon Teikoku Shugi No Manshu Shihai*, p. 16.

²⁷ Xueshi Xie, *Ge Shi Yi Si: Ping Man Tie Diao Cha Bu* (Beijing: Ren min chu ban she, 2003), p.185, 76.

²⁸ Minami Manshu Tetsudo Kabushiki Kaisha, *Minami Manshu Tetsudo Kabushiki Kaisha Dai Sanji Junenshi* (Tokyo: Ryukei Shosha, 1976), vol.3, pp. 2381-2382.

agriculture and immigration, transportation and communication, finance and commerce, and legislative affairs. Besides its name, the central work of the ERA actually focused on drafting economic policies and plans for Manchuria as requested by the Kwantung Army. The number of ERA researchers and consultants quickly increased from 109 to 291 by the end of 1933.²⁹

The most important department in ERA was the First Department (general economy) headed by Ishiwara's trusted Soviet expert, Miyazaki.³⁰ Equipped with six units (Japan-Manchuria economic policy, economic statistics, industry, labor, world economy, and Soviet economy), the department was tasked with the mission to investigate present conditions of the Manchurian economy and Manchuria's economic relations with the world; to make basic policies for the development of Manchurian economy; and to synthesize drafted plans from the other departments. Miyazaki and his team followed the Kwantung Army Command to Changchun the DSS on drafting a fundamental economic roadmap for Manchukuo.³¹

Based on the Kwantung Army's "Manchuria-Mongolia Development Policy" drafted in December 1932, which called for the "integration of the Manchuria-Mongolia economy with Japan and its colonies" and the "implementation of control under a planned economy", the ERA prepared two drafts for the economic development in Manchuria between June and December 1932.³² "The Keynote of the Manchurian Economic Control Policy" was drafted by the First Department and submitted on June 20. At the center of the outline was the differentiation of industries into national, semi-national, and free classes, corresponding to management, supervisory, and legal controls by the state. The basic industry, defense industry, financial

²⁹ Calculated from Minami Manshu Tetsudo Kabushiki Kaisha, *Tokei Nenpo*, (1932, 1933).

³⁰ Miyazaki borrowed the concept of the economic bloc from a German Marxist, Werner Sombart, and applied it to the design of a self-sufficient East Asian bloc led by Japan. In the SMR, Miyazaki was gradually recognized as a Russian expert and he held the chief of the Russia Section of the SMR Research Bureau since 1929.

³¹ Xie, *Ge Shi Yi Si: Ping Man Tie Diao Cha Bu*, pp. 194, 197.

³² *Gendaishi Shiryo* (Tokyo: Misuzu Shobo, 1962), v.7, pp. 291-292.

industry, transportation and agriculture were all put under the supervisory control and the SMR were strengthened to monopolize most of the heavy industry and transportation in Manchukuo. On August 5, the DSS revised the ERA draft and called its own version “the Fundamental Policy Plan for Manchurian Economic Control”. Ishiwara acquiesced with the role of the SMR so that the rapid buildup of military-related industrial capacity would be realized. But he stressed that the Kwantung Army Command had the final authority over the personnel and business decisions of the SMR and the Manchurian enterprises.

However, the Kwantung Army went through reshuffling in August and September and a slew of co-conspirators of the Manchurian Incident, including Ishiwara and Katakura Tadashi, were removed from Manchuria. The Army Ministry sent Commander Muto Nobuyoshi and Chief of Staff Koiso Kuniaki to head the Kwantung Army and they adopted a pragmatic, low key approach. They walked a fine line between encouraging Japanese zaibatsu investment on the one hand, and quietly preparing the way for a planned economy on the other.³³ The new leadership gave their “Opinions on Fundamental Conditions for the Implementation of the Japanese-Manchuria Economic Control” in late September. Their view of the SMR shifted from an useful help in developing Manchuria to an impediment to the authority of the Manchukuo government and foreign investment, ultimately a monopoly to be broken up and reorganized for good. However, given the SMR’s dominant position in Manchuria, the Kwantung Army’s challenge had to be kept subtle and wait for its chance until the state bureaucracy could overpower the SMR in economic management.

On December 25, the ERA returned with a more detailed plan for economic control and for the first time set the economic development on five-year terms. The new draft, entitled “the

³³ Peter Duus et al., *The Japanese Wartime Empire, 1931-1945* (Princeton, N.J.: Princeton University Press, 1996), pp.112-120.

Comprehensive Plan for the First Phase Manchurian Economic Construction”, marked 1932 to 1936 as the “first phase”, and the “second phase” later materialized as the first MFYP. The DSS approved the draft on February 11 and the final version was the “General Outline of Economic Construction Program of Manchukuo”. It was submitted to the Manchukuo government for publication on March 1, 1933, the one-year anniversary of the new state.³⁴

The General Outline laid out four ground rules for the new state: the construction of a Japan-Manchuria economic bloc, the supremacy of national defense, the promotion of special corporations under the direct supervision of the state, and the control of capitalism.³⁵ But beyond the lofty words, it was abstract and vague on important issues like the policy towards foreign investment, the long-term prospect of the SMR, and the establishment of semi-state enterprises. Due to the ambivalent nature (anti-market capitalism vs. the need for industrial capital) of the final outline, the SMR kept its predominance in Manchurian economy and very limited capital investments went into the special and semi-special corporations before 1935.

The General Outline was a result of collaborations between the DSS and the ERA, but the state bureaucracy, both Japanese and Manchukuo, was missing in the process. The Japanese Ministry of Finance and Ministry of Commerce and Industry were both cautious about the prospect of developing industries in Manchuria, worrying about the negative effects on the Manchukuo state finance and the Japanese domestic industries. Hoshino Naoki, then Chief of General Affairs of the Ministry of Finance in Manchukuo, saw the outline as being “abstract and irrelevant to the real demand of Manchuria and Japan,” and as “the short statement which had

³⁴ “Outline of Manchukuo Economic Construction (announcement)” in JACAR, Ref B02030713200. See also Akira Hara and Manshu Shi Kenkyukai ed., *Nihon Teikokushugi Ka No Manshu: ManshuKoku Seiritsu Zengo No Keizai Kenkyu* (Tokyo: Ochanomizu Shobo, 1972), pp. 19-33.

³⁵ *Manshukoku Shi*, vol.1, pp. 390-392.

little practical content, therefore its existence did not mean real planning.”³⁶ Ultimately, the Japanese bureaucrats would step in to fill in the blanks of industrial policy and central planning, and the Kwantung Army would ally with the technocrats to attract capital from Japan to the detriment of the SMR.

Prior to 1935, Japanese bureaucrats were not strong enough to speak their mind on future plans of the Manchurian economy. In fact, they were busy building the bureaucratic structures and procedures for the foundation of Manchukuo. However, a series of power structure changes in Manchuria greatly enhanced the bureaucratic position in decision-making and policy execution. First, a new “trinity” of Kwantung Army Commander, Japanese Ambassador Extraordinary and Plenipotentiary to Manchukuo, and Governor of Kwantung Leased Territory was created in August 1932 so that the army could unify control of the military, diplomatic and administrative powers in Manchuria. Back in Tokyo, a cabinet agency, the Manchurian Affairs Bureau (MAB), was established on December 22, 1934 at the request of the Army Minister Hayashi Senjuro.³⁷ The Japanese Ministry of Colonial Affairs reluctantly transferred the management of the Kwantung Leased Territory, the SMR, and the Manchuria Telegraph and Telephone Corporation to the MAB.

The MAB was headed by the Army Minister and directly supervised by the Prime Minister. A high-ranking official from the Ministry of Finance took the position of vice bureau chief. This new institutionalized governmental organ reflected both the growing power of the Imperial Army in state affairs and the military’s reconciliation with the bureaucracy. Three sections were set up within the bureau: general affairs, administration, and industrial promotion. The industrial

³⁶ *Manshu Kenkoku Sokumenshi: Kenkoku JisshuNen Kinen*, p. 109.

³⁷ *Gendaishi Shiryo*, vol.7, pp. 600-601.

promotion section welded the power of overseeing the SMR and special, semi-special corporations in Manchukuo. The unification of decision making structure on Manchuria and the forming of military-bureaucracy coalition in late 1934 created a favorable environment in Japan's central government for adopting a more state-controlled economic model and implementing a centrally planned heavy industrialization in Manchuria. As a result of the central reorganization, the DSS was abolished with its internal guidance function transferred to the new Fourth Section of the KAGS, and its economic policy planning function transferred to the Japanese bureaucrats in the Manchukuo government. At this point, the Manchukuo government was also ready to take charge of the economic planning and management works.

Following the arrival of the career bureaucrats from the Japanese Ministry of Finance, elite technocrats from the Ministry of Commerce and Industry were also dispatched to Manchukuo's Ministry of Business. Supported by Vice-Minister of Commerce and Industry Yoshino Shinji and Chief of the Documents Section Kishi Nobusuke, young officials like Shiina Etsusaburo, Takahashi Kojun, and Minobe Yoji were sent to Manchukuo in the spring of 1933. Shiina joined the ministry in 1923 and worked as Chief of the Industry Rationalization Bureau before leaving for Manchuria. The first job for Shiina in Manchukuo government was the head of the Planning Section in the Ministry of Business.³⁸ Not only did he have to help building the Ministry of Business from scratch, he also found that there was very limited economic data to begin with. Therefore, Shiina requested a budget for a governmental research organ that could collect and supply reliable data for the long-term industrial development.

The new agency, started in December 1934 with 800 thousand yen appropriation, was named the Provisional Industrial Research Bureau (PIRB). The PIRB consisted of 5 divisions: 1) rural

³⁸ Nihon Keizai Shinbunsha, *Watakushi No Rirekisho*, 41, (1970), pp. 189-190.

society, 2) forestry, agriculture and construction, 3) livestock, 4) manufacturing, mining and hydroelectric power, and 5) commerce. The first and the fourth division were the most important ones and the PIRB collaborated with the ERA on rural surveys in Manchuria. However, the PIRB differed from the ERA in several ways. Its staff was technocrats from Japanese government ministries or academic experts from Japanese universities, and their survey was more technical with ample statistical data collected through governmental systems. Secondly, though the research covered agriculture, forestry, natural and water resources, the central theme was to understand the potential and prepare for industrialization in Manchuria. In two years, the agency would have 3 million yuan in annual budget and over 300 researchers to conduct the survey and research on the development of Manchurian industry.³⁹ Between 1935 and 1936, the PIRB published a series of industrial surveys, such as “Manchukuo Factory Statistics” and “Special Investigation on Important Industries”, which provided the basis for the making of the first MFYP.⁴⁰

As early as June 1932, the Kwantung Army Chief of Staff Hashimoto had drafted a policy guideline to dissolve the DSS and gave the planning half of the department to a planning agency in Manchukuo government and the administrative half to the corresponding ministries once the civilian rule was consolidated.⁴¹ But the General Affairs Board of the State Council had only four departments by mid 1935: secretariat, personnel, accounting, and logistics. Its focus was daily management of the state affairs and no planning capacity existed. With the MAB and the PIRB erected, the Army and the bureaucrats began to push for a tighter Japan-Manchukuo economic integration, the return of extraterritorial rights from Japan to Manchukuo, and a new

³⁹ *Manshu Kenkoku Sokumenshi: Kenkoku Jisshunen Kinen*, pp. 254-260.

⁴⁰ See Manchoukuo jing ji bu gong wu si, "ManshuKoku Kojo Tokei," (Shinkyo: Keizaibu Komushi), 1935, 1936.

⁴¹ *Gendaishi Shiryo*, vol.11, pp. 640-641.

agenda for the “Second Phase of Economic Construction”, all of which required comprehensive planning. In May of 1935, the Kwantung Army purged the Manchukuo State Council of the elders from the former Chinese Northeast government, such as Finance Minister Xi Qia and Civil Affairs Minister Zang Shiyi, and replaced Prime Minister Zheng Xiaoxu, who complained about the Japanese repression and often at odds with the Japanese officials in the GAB, with more obedient Zhang Jinghui. After the adjustment, the Japan-Manchukuo Joint Economic Commission was established on July 15 by order of the Kwantung Army Commander Minami Jiro. The Commission sat 8 commissioners, 4 from each country, and it was asked to consult and offer policy recommendations to the governments on “important matters pertinent to economic relations between the two countries and to the Japanese-Manchurian joint special corporations.”⁴²

Consequently, the GAB was reorganized from 4 to 7 departments in November, adding the Planning Department, the Legal Affairs Department, the Statistics Department, and the Information Department. The Logistics Department was merged into the Secretariat, while the Personnel Department and the Accounting Department were kept intact. Vice Minister of Finance Hoshino’s closest protégés Matsuda Reisuke, Furumi Tadayuki, and Genda Shozo were appointed to the most important chief positions of the Planning, Accounting, and Personnel Departments. With the new Planning Department, the GAB finally acquired the role of drafting, reviewing, and coordinating economic plans. In the following years, the Planning Department maintained a compact 14 to 16 staff member team that was responsible for the compilation and revision of the Five-Year plans for Manchuria.⁴³ The state research and planning agencies filled

⁴² Gaimusho, *Nihon Gaiko Nenpyo Narabini Shuyo Bunsho* (Tokyo: Hara Shobo, 1965), vol.2, pp. 295-296.

⁴³ Matsuda led the bureau from November 1935 to March 1939 when he was promoted to the Vice Minister of Economic Affairs. He played an instrumental role in straighten out the financing plan for the MFYP. His successors,

a blank between the Kwantung Army's strategic visions and the ERA's rural and transportation focused research in Manchuria. Japanese elite bureaucrats could utilize the data collected and analyzed by the SMR and turn the military's general outlines into practical industrial plans for implementation. Their knowledge, skills, organizational resources, and efficiency were indispensable as the MFYP was brewing in Japan and came to Manchuria in late 1936.

The making of the Five-Year Plan was initiated in Tokyo when the Manchukuo government was going through its reorganizations. In 1933, the Soviet Union completed its First Five-Year Plan and published its targets for the second. On the one hand, the great advance in industrial development of the Soviet Union (with tremendous capital and technological assistance from the United States) in comparison to the economic depression of the capitalist countries became the envy of the Japanese observers, but on the other hand, the growing Soviet capacity had altered the balance of military power around the Manchuria-Mongolia border and agitated the army planners. Between 1931 and 1935, Soviet forces in the Far East tripled in strength but constant frictions were temporarily disguised by the Soviet sale of the Chinese Eastern Railway to Manchukuo in March 1935. The Soviet military superiority became apparent by the end of that year according to the "Army Operations Report for 1937" in which the military advantage of Japan in Manchuria against the Soviets was evaluated as "vanishing".⁴⁴ The strategic reversal incentivized the Japanese to put the emulation of the Soviet Five-Year Plan, though without the communist ideology or the socialist state, on a fast track.

Ishiwara Kanji was called back to the Japanese Army General Staff just days before his

Kanda Susume, Aoki Minoru, and Furumi were either former officials at the Japanese Ministry of Commerce and Industry or Ministry of Finance, and the latter two also succeeded Matsuda's post at the Ministry of Economic Affairs. Manshūkoku Tsūshinsha., "ManshūKoku Gensei," (Shinkyō: Manshūkoku Tsūshinsha), pp. 44-47.

⁴⁴ Jun Tsunoda ed., *Nitchu Senso*, 5 vols. (1964), vol.3, xvi-xvii. Similar report a year later assessed much superior air and armored forces on the Soviet side and concluded that Japan could hardly won a limited war with the Soviet in the region. *Gendaishi Shiryo*, vol.10, pp. xvii, xix.

Issekikai colleague, General Nagata Tetsuzan, was assassinated in August 1935. Inspired by the total war theory, Nagata was a strong advocate of national mobilization planning and a central leader of the army "Control Faction". Pushing from his position as Chief of the Mobilization Section at the Economic Mobilization Bureau of the Army Ministry, and later as Chief of the Second Bureau (Intelligence and Strategy) of the Army General Staff, Nagata and the like-minded reformist bureaucrats such as Yoshino Shinjin and Kishi Nobusuke led the "Strategic Industries Control Act" through the Japanese government in April 1931, five months before the Manchurian Incident. Nagata was promoted to Chief of the Military Affairs Bureau of the Army Ministry in March 1934 and the "Control Faction" grew even more powerful. Ishiwara picked up where Nagata left off on the construction of a national defense state. Between 1935 and 1937, Ishiwara was at first Chief of the Operations Section, then concurrently as Chief of the War Guidance Section, and later as Chief of the First Department (operations and mobilization) of the Army General Staff.⁴⁵ These prestigious military positions provided him the opportunity to place his idea of planned heavy industrialization on the agenda of political decisions.

By the recommendation of Ishiwara, the General Staff established the War Guidance Section in June 1936 to devise state policy for national defense, war leadership, and the assessment of international situations. The new section expanded the definition of operational planning to include war planning, industrialization planning, and cooperation between Manchuria and Japan for economic construction. The Army Ministry also formed a corresponding Military Affairs Section within the Military Affairs Bureau in August 1936 for long-term economic planning. Most of the members of these two sections were sympathizers of Ishihara's strategic vision and

⁴⁵ Mark R. Peattie, *Ishiwara Kanji and Japan's Confrontation with the West* (Princeton, N.J.: Princeton University Press, 1975), pp. 206-207.

they became the engine of promoting national defense state through economic planning.⁴⁶ The key to national defense state for Ishiwara and his circle was to have all the war related industries present in the Japanese-Manchurian bloc so that the Japanese war machine would achieve self-reliance. To accomplish such independence, it would require state planning of industrial development to prioritize the resources and products in short supply.

In the “Outline of State Policy for National Defense”, drafted in June 1936, Ishiwara persuaded the Army, the Navy and the Ministry of Foreign Affairs to adopt that “the completion of industrial and economic cooperation between Japan, Manchuria, and North China to provide the military tools for a protracted war.” He wanted Japan to complete major preparations for war against the Soviet Union by 1941, which included the establishment of munitions industry in Manchuria and rapid development of the aviation industry. For the scheme to work, Ishiwara argued, Japan must focus on the Soviet Union, relax hostilities towards China, and maintain sound relations with the United States.⁴⁷

In order to translate his strategic vision into feasible and practical industrial development plans, Ishiwara had to enlist external expertise, particularly from Miyazaki Masayoshi and his Japan-Manchukuo Financial and Economic Research Association (Nichiman Zaisei Keizai Kenkyukai, JMRA).⁴⁸ Ishiwara established the JMRA and invited Miyazaki to take charge of the association immediately after his return. Miyazaki’s agency consisted of 20 to 30 researchers, most of them coming from top Japanese universities and big businesses, and received funds from

⁴⁶ Tadashi Katakura and Tadayuki Furumi, *Zasetushita Risokoku Manshukoku kobo no shiso* (Tokyo: Gendai Bukkusha, 1967), pp. 98-99.

⁴⁷ Peattie, *Ishiwara Kanji and Japan's Confrontation with the West*, p. 201.

⁴⁸ Toshihiko Shimada and Masao Inaba, *Gendaishi Shiryo. 8, 1* (Tokyo: Misuzu Shobo, 2004), p.703. When the ERA Tokyo office was established in December 1933 per the request of the Kwantung Army to conduct research on the “Economic Control Policy in the Japanese-Manchukuo Economic Bloc”, Miyazaki was transferred to head the office. Liaoning sheng dang an guan li shi dang an 2 bu, *Man Tie Yu Qin Hua Ri Jun: Man Tie Mi Dang*, 21 vols., (Guilin Shi: Guangxi shi fan da xue chu ban she, 1999), vol.10, p. 45.

the Army General Staff as well as the SMR.⁴⁹ With Ishihara's blessing, the JMRA became a quasi-governmental organ that provided consulting services to the military.

Miyazaki shared a conviction with Ishiwara that the national economy should be centrally controlled and the base for such control would be thorough investigation of the nation's economic potential and sufficient expertise on systematic planning for military-industrial integration. Their advocacy for controlled economy was first reflected in the "General Outline of Economic Construction Program of Manchukuo" of 1933, but such proposal failed to inspire positive responds from either the SMR or the Japanese capitalists. Miyazaki's knowledge about the Soviet Five-Year Plans and ability to draw up economic plans became useful again at the JMRA. Towards the end of 1935, top business leaders such as Tsuda Shingo of the Kanebo Company, Ikea Seihin of the Mitsui Company, and Aikawa Yoshisuke of the Nissan Company also began to offer financial and personnel support to the JMRA.⁵⁰

On August 17, 1936, the JMRA made a break through on the drafting of the five-year plan for Manchuria by completing a report called the "Revenue and Spending Plan for Five Years from 1937". The first attachment of the plan was the "Construction and Expansion Plan of Military Industries in Manchuria" in which Ishiwara's vision was translated into a set of industrial production targets, necessary funds and estimation of future demands for the first time. The August Report called for iron and steel production to increase 10 times and coal production 4 times in 5 years.⁵¹ The second, more detailed report entitled the "Expansion Plan for Military Industries in Manchuria" was submitted to the General Staff and the Army Ministry on September 3. This plan went further to show industry by industry production targets in which

⁴⁹ Tetsunari Matsuzawa, *Nihon Fashizumu No Taigai Shinryaku* (Tokyo: Sanichi Shobo, 1983), p. 248.

⁵⁰ Ibid., p. 249.

⁵¹ Nichiman Zaisei Keizai Kenkyukai, *Manshu Ni Okeru Gunju Sangyo Kensetsu Kakusu Keikaku* (1936).

aircraft, military vehicles and the arms industry were asked to grow by 37, 33 and 5 times respectively. Miyazaki traveled to Manchuria on September 15 carrying the plans and showed them to the Kwantung Army Chief of Staff, Itagaki Seishiro, and the SMR President, Matsuoka Yosuke.⁵² At the same time, Katakura Tadashi, Chief of the Manchuria Unit at the Military Affairs Section and Ishiwara's ally, discussed the JMRA's plan with the Army Logistics Bureau and they slightly revised it to the "Target Plan for the Manchuria Development Five-Year Plan" with a lowered sum of 2.4 billion yen. The Target Plan became the baseline on top of which the first Manchurian Five-Year Plan was negotiated and conceived.⁵³

In early October, Kwantung Army staff officer of the Third Section, Colonel Akinaga Tsukizo, brought back the permission of moving forward with the MFYP from the Army Ministry and convened a meeting at Tanggangzi, a resort south of Fengtian, on October 6, 1936. Two staff officers, Akinaga and Kokubu Shinshichiro, were present at the meeting, together with seven Manchukuo government officials led by Vice Minister of Finance Hoshino, and six ERA researchers headed by two section chiefs, Sera Shoichi and Okumura Shinji.⁵⁴ After Akinaga circulated the Target Plan to the participants of the meeting, a brainstorm lasted three days to try to convert it into an executable plan for the Japanese and Manchurian governments to take on. Manchukuo officials and ERA researchers broke down the target plan by sector and analyzed the feasibility of production and estimated the cost of the major products.

⁵² The second plan estimated an overall budget of 2.95 billion yen with special allocation of 675 million yen to the liquid fuel industry and 134 million to the arms industry. Nihon Kindai Shiryo Kenkyukai, *Nichiman Zaisei Keizai Kenkyukai Shiryo: Izumiya Sanrokushi Kyuzo. 11* (Tokyo: Nihonkindaishiryokenkyukai, 1970), pp.141-47.

⁵³ Tadashi Katakura, Kido Nikki Kenkyukai, and Nihon Kindai Shiryo Kenkyukai ed., *Katakura Tadashi-Shi Danwa Sokkiroku*, 2 vols., (Tokyo: Kido Nikki Kenkyukai : Nihon Kindai Shiryo Kenkyūkai, 1982), vol.1, p.300.

⁵⁴ Manchukuo: Matsuda Reisuke, Chief of the Planning Section, Tanaka Kyo, Vice Minister of Finance, Matsushima Kan, Vice Minister of Business, Shiina Etsusaburo, Chief of PIRB, Tsuda Hiroshi, Chief of Industrial Work Section, Takatsu Hikotsugu, Secretary at Ministry of Business; ERA: Oshikawa Ichiro, Sakaie Hikotaro, Nango Ryuin, Takada Seisaku. Nihon Teikokushugi Ka No Manshu: Manshukoku Seiritsu Zengo No Keizai Kenkyu, p.63.

Table 8. Target Plan for the Manchuria Development Five-Year Plan (Budget in million yen)

Items	Expansion Targets	Budget	Items	Expansion Targets	Budget
Arms	5 times	75.0	Pulp	60 kt	18.0
Aircraft	2,400	44.0	Cotton	24 kt	3.4
Tanks	720	40.0	Wool	1.6 kt	5.3
Iron and Steel	1,500 kilotons	82.5	Meat	100 kt	1.7
Pig Iron	1,200 kt	84.0	Salt	350 kt	7.5
Iron Ore	4,500 kt	22.5	Other Farm		30.0
Liquid Fuel	1,350 kt	309.5	Railway		514.3
Coal	18,000 kt	144.0	Port		20.0
Electricity	500 MW	200.0	Road		42.0
Locomotives	250	28.0	Waterway		20.0
Carriages	1500		Communication		50.0
Automobile	5,000	4.0	Immigration		163.0
Gold Mining*	250	62.5	Industrial Bank		60.0
Aluminum	20 kt	36.0	Treasury Bond		45.0
Magnesium	2 kt	5.6	China Deve. Co		7.50
Soda Ash	36 kt	4.0	Govern. Grants		257.10
Grand Total	2,386.40 (49% allocated for industrial production)				

Source: *Gendaishi Shiryo*, vol.8, pp. 712-714.

In the end, a framework emerged from the meeting with a price tag slightly higher than the Target Plan at 2.6 billion yen. This new plan grounded on the research and administrative works of the ERA, PIRB, and the Manchukuo government. It increased the ratio of investment to the development of industries to over 50% of the total and it also made the government's intention of finding new funding sources and reducing the reach of SMR clear. The meeting transformed a

military plan of expanding the arms industry in Manchuria into a comprehensive plan to develop heavy industry in general for the long-term sustainability of a self-sufficient national defense state.⁵⁵

Hoshino brought the draft back to the Manchukuo government. The General Affairs Board, centered on the Planning Department, spent two months to refine and hammer out a set of concrete proposals in compliance with the demands of the army. They finally completed the "General Outline of the Manchurian Industrial Development Five-Year Plan" (MFYP), on December 16, 1936. A delegation consisted of Kwantung Army staff officers, Manchukuo government officials, and ERA researchers flew to Japan on December 20 and started intensive lobbying for the plan in the Army Ministry and the relevant ministries. In early January, they explained the MFYP to the Manchurian Affairs Bureau, the Japanese Ministry of Commerce, and Industry and the Ministry of Finance. Japanese officials wanted the plan to be more focused on the production of pig iron, liquid fuel and coal, the most needed resources and raw materials for the Japanese heavy industries, and they warned any direct competition from Manchuria that could impact Japanese industry negatively. The planners assured the Japanese central ministries that 69% of the industrial investment would be made in the three major products in Manchuria and the single largest investment would be in liquid fuel. Colonel Katakura even cited economist Akamatsu Kaname's flying geese model to ensure that the development of Manchurian industry was not detrimental to the Japanese economy.⁵⁶

An agreement with the army and the government was reached a week later and the modified MFYP was brought back for the Manchukuo government's authorization. On January 25, the

⁵⁵ Naoki Hoshino, *Mihatenu Yume: Manshukoku gaishi* (Tokyo: Daiyamondosha, 1963), pp. 208-212.

⁵⁶ Minamimanshu Tetsudo Kabushiki Kaisha, *Manshu Gokanen Keikaku Ritsuan Shorui* (Tokyo: Ryuukeishosha, 1980), vol.1, pp. 119-122.

KAGS formally requested Manchukuo to initiate the implementation of MFYP. The Japanese government, after further internal review, gave its consent on April 1.

The entire plan had four main components that initially budgeted at 2.58 billion yuan: industry and mining (iron, coal, fuel, electric power, aluminum, gold, lead, salt and automobile), 1.39 billion yuan; transportation and communication (railway, telecommunication, telephone, highway), 0.77 billion yuan; and the rest 0.42 billion yuan for agriculture, animal husbandry, and immigration. For the investment in the industrial sector, the sources of capital were Manchukuo government (34.1%), SMR (20.9%), capital market (20.1%), corporate bonds (18.4%) and Japanese government (6.5%). The Manchukuo state capital was invested averagely in each industry, but Japanese government's 80 million yuan was 100% invested in the weapons' production. In contrast, most of the corporate bonds went into three basic industries: iron and steel, coal and electric power development. Overall, 78% (or a little over 2 billion yuan) of the MFYP capital was planned to come from Japan in the form of equity and bond investment.⁵⁷

The implementation of the MFYP did not went as planned since Japan enter into all-out war with China soon after the Marco Polo Incident on July 7, 1937. The war, opposed by Ishiwara who was subsequently isolated and banished from the Army leadership, quickly altered the regional and global dynamics and caused ripple effects from the political-military sphere into the economic sphere. Not only had the MFYP to be substantially modified in 1938 and again in 1939, but the "One Industry One Corporation" industrial enterprise system was also remodeled to strengthen the state's capability to comprehensive planning, industrial management and production expansion.

⁵⁷ *Manshu Gokanen Keikaku Ritsuan Shorui*, vol.1, p.57.

Table 9. MFYP Production Targets and Required Capital Investments for the Mining and Industrial Sector (Investment in thousand yuan)

Products (Unit)		1936 Yearend Capacity	Finalized Targets (Jan 1937)	Finalized Capital Invest.	Revised Targets (May 1938)	Revised Capital Invest.
Iron and Steel (kiloton)	Steel Ingots	580	1,850	71,000	3,550	726,000
	Pig Iron	850	2,530	117,600	4,850	
	Iron Ore	2,473	7,740	42,800	15,990	118,500
	Subtotal			248,485		844,500
Liquid Fuel (kiloton)	Coal Liquefaction	14	800	339,000	1,770	936,000
	Shale Oil	145	800	81,900	650	105,000
	Alcohol	15	56.69	15,470	56.69	15,000
	Subtotal			434,700		1,056,000
Coal (kiloton)	Coal and Lignite	13,558	27,160	150,010	34,910	315,000
Electric Power (megawatt)	Thermo	458.6	814.6	245,958	1,330.55	347,000
	Hydro	0	590		1,240	
Train*	Locomotive	650 (10)	1,664 (85)			
	Railroad Car	6,900 (1,800)	18,490 (2,150)			
	Subtotal			27,813		28,000
Weapons			Quintuple	100,000	Quintuple	100,000
Automobile		0	4,000	20,000	30,000	180,000
Aircraft		0	340	30,000	5,000	500,000

Table 9, continued.

Products (Unit)		1936 Yearend Capacity	Finalized Targets (Jan 1937)	Finalized Capital Invest.	Revised Targets (May 1938)	Revised Capital Invest.
Light Metals (ton)	Aluminum	0	20,000	38,000	30,000	78,000
	Magnesium	0	500	560	3,000	9,000
Lead (kiloton)		1.22	12.4	4,800	29	4,450
Pulp (kiloton)		70	120	15,000	400	194,000
Salt (kiloton)		275	973.6	11,250	910.5	22,000
Gold (million yuan)		10	212	51,325	304	120,000
Soda (kiloton)		12	72	4,000	72	15,000
Asbestos (ton)		150	5,000	500	5,000	2,500
Meat Processing (kiloton)			50	7,000	Other metals and machine tools	64,850
Grant Total				1,391,071		3,880,300

Sources: *Manshu Gokanen Keikaku Ritsuan Shorui*, vol.1, pp.42-44. Kyokai Kokumin Keizai Kenkyu and Chosakai Kinzoku Kogyo, *Manshu Sangyo Kaihatsu Gokanen Keikakushu* (Tokyo: Kokumin Keizai Kenkyu Kyokai, Kinzoku Kogyo Chosakai, 1946), pp.106-08. Numbers for trains are annual repairing capacity and the numbers in parenthesis are manufacturing capacity. By 1941, the planners wanted Manchuria to have a total of 1,700 running locomotives and 32,250 train cars. The revised plan added production of 5,000 machine tools, 50,000 tons of zinc and 3,000 tons of copper.

When the MFYP was finalized at the end of 1936, Hoshino Naoki had been promoted from Vice Minister of Finance to Chief of the GAB, and Kishi Nobusuke also arrived in Manchuria as Chief of General Affairs of the Ministry of Business. They worked closely to persuade the Japanese government to support the MFYP in February 1937 and reorganize the Manchukuo

government in July to centralize more power in their hands. The most significant change was to rename the Ministry of Business to the Ministry of Industry and the Ministry of Finance to the Ministry of Economic Affairs (MEA). Kishi became the Vice Minister of Industry, taking control of the management of industrial development, and Shiina was appointed Chief of the Mining and Industry Bureau at the MOI, with his PIRB absorbed into the bureau. Meanwhile, the transferring of budget and final account from the Ministry of Finance to GAB's Accounting Department enhanced the “GAB centralism” and the board’s planning ability.⁵⁸

With the Manchuria Heavy Industrial Development Corporation (MHID) replacing the SMR and the industrial enterprise system revamped by the end of 1937, Hoshino and Kishi began to revise the MFYP at the request of Kwantung Army Chief of Staff Tojo and Chief of Fourth Section Katakura. In conjunction with the Japanese Army Ministry’s “Important Industries Five-Year Plan”, which was also predicated on a previous JMRA report on economic control in Japan produced in parallel to the MFYP and encouraged local development of national defense industries, the Planning Department and the Ministry of Industry decided to double the investment in liquid fuel, aircraft, iron and steel, electric power, coal, automobile, and pulp production.⁵⁹ This time, the Japanese Government, under the pressure of war against China, actively supported the expansion of machine manufacturing in Manchuria and synced its own economic plan with the MFYP.

In the modified version of the MFYP that came out in May 1938, the investment in mining and industry sector was actually tripled to 3.88 billion yuan, which dramatically increased the

⁵⁸ Zhongyang dang an guan, Zhongguo di 2 li shi dang an guan, and Jilin sheng she hui ke xue yuan ed., *Wei Man Kui Lei Zheng Quan* (Beijing: Zhonghua shu ju, 1994), p. 277.

⁵⁹ The plan identified 13 industries as the important and necessary industries: weaponry, aircraft, automobile, machine tools, iron and steel, liquid fuel, coal, regular machinery, aluminum, magnesium, shipbuilding, electric power, and railcars, and all of them was planned be locally developed in Manchuria. See Ikuhiko Hata, *Gun Fashizumu Undo Shi* (Tokyo: Kawade Shobo, 1962), pp. 328-333.

proportion of heavy industrial development in the MFYP from 54% to 78% of the total investment (4.96 billion yuan after revision). The highest increase went into the production of liquid fuel (667 million yuan), aircraft (470 million yuan), iron and steel (391 million yuan), electric power (235 million yuan).⁶⁰ The Planning Department raised the industrial production targets again in April 1939 in service to the Japanese “Outline of Production Expansion Plan”, which was compiled on top of the Army’s “Important Industries Five-Year Plan” and adopted by the Japanese Cabinet in January. Total investment expanded to 6.06 billion yuan in which 83% (4.99 billion yuan) was allocated to stimulate mining and industrial production. However, the latest adjustment deviated further away from the original MFYP and devoted most of the additional funds to the production of iron, steel, coal, and electricity that were intended to meet the demand of Japan and other occupied territories. In fact, these unobtainable targets stayed mostly on paper because neither Japan nor Germany or America could provide Manchuria with the means of production to quickly multiply its capacity.⁶¹

Since late 1938, the Planning Department had been gradually caved in to the quarterly and annual materials mobilization plans compiled by the newly created Material and Price Commission within the department. Thus the long-term economic planning was disrupted and replaced by temporary total war mobilization plans that hollowed out industrial development projects for pure resource extractions. As a result, and also because of the increasingly toxic international market to acquire advanced technology, local production of some key finished goods in Manchuria were suspended or abandoned. The MHID had to give up the plan to manufacture cars and changed to auto repair and maintenance (6,000 to 10,000 annual capacity). The synthetic oil plant in Jilin was closed and the liquefaction factory in Siping sold to the Army

⁶⁰ Kokumin Keizai Kenkyu and Kinzoku Kogyo, *Manshu Sangyo Kaihatsu Gokanen Keikakushu*, pp. 111-112.

⁶¹ *Dongbei Jing Ji Lue Duo*, pp. 203-204.

as a fuel depot. Ultimately, the shale oil plant in Huludao was only half completed by the end of the war. Similarly, the Dongbiandao coal and iron development was far below expectations.⁶²

Table 10. Planned and Actualized Investment For the MFYP (in million yuan)

Year	Planned	Actualized	Japan/Manchukuo %
1937	418	305	62/38
1938	858	869	58/42
1939	1,489	1,654	56/44
1940	1,743	1,993	54/46
1941	1,551	1,970	66/34
Total	6,060	6,792	59/41

Source: *Manshukoku Shi*, vol.2, p. 780.

The first MFYP actualized over 6.7 billion yuan investment in Manchuria and Japan provided over 1 billion yen each year since 1939. 4.13 billion yuan was spent on industrial and mining development, 6.4% higher than the 1938 Plan but 17.3% lower than the 1939 Plan. The money gap was largely reallocated to fund the defense and migration projects in northern Manchuria out of the fear that the Soviet Union might invade when Japan was fighting China in the south. At the end of 1941, though many mining and industrial products grew substantially, none of the targets set in the ambitious MFYP (finalized version of 1937) was met and the closest was coal, the production of which was heavily depended upon hundreds of thousands of Chinese miners instead of machines. According to Furumi's estimate, the industry and mining sector of the first MFYP was 75% accomplished, and the agriculture and transportation sectors were 50% and 85% respectively. Comparing to the level of 1936, basic industrial output such as iron and steel, coal and electric power relatively doubled.⁶³

⁶² *Dongbei Jing Ji Lue Duo*, p. 206.

⁶³ Ibid., pp. 207, 253.

Table 11. Real Results of Key Industrial Products in the MFYP (in thousand tons)

Product	1937	1938	1939	1940	1941	%1937 Plan
Coal	14,078	14,984	19,496	21,056	24,147	94.7%
Iron Ore	2,256	2,696	3,075	2,977		
Pig Iron	762	827	1,123	1,643	1,433	48.2%
Steel Ingot	452	604	521	532	561	30.3%
Oil	75	80	87	87	280	35.0%
Aluminum	0	0.56	3	4.5	6.5	32.5%
Lead	1.22	2.57	2.8		3	24.2%
Elec. (MW)	554	597	771		1000	71.2%

Source: *Dongbei Jing Ji Lue Duo*, p. 207, 253; *Manshukoku Shi*, vol.2, p. 873

The chain of events in 1939 and 1940 fundamentally changed the trajectory of the MFYP and its planners. Global and regional conflicts not only shifted Japan's national strategy, but also gave the military "Control Faction" and civilian economic planners from Manchuria the opportunity to reorganize the Japanese political and economic system after the model of Manchukuo. However, the consequence was that the motor of economic control and planning gradually shifted back to Japan, as Ishiwara predicted, and the Manchurian industrial planning was increasingly subjected to the order of Japanese wartime production. The men left in charge of Manchuria were loyal executives to the Tokyo policy makers and the long-term balanced industrialization in Manchuria was no longer their priority.

During the Battle of Wuhan in the summer of 1938, the Kwantung Army and the Soviet Union engaged in a border conflict at Zhanggufeng (or Lake Khasan) area on the east bank of the

Tumen River. Like Wuhan, the outcome of Zhanggufeng was also a stalemate. After the winter, the Kwantung Army, without the authorization of the Japanese government, decided to challenge the Soviet and Mongolian forces again at Nomonhan, a border area between Manchuria and Mongolia. The border skirmishes in May 1939 soon escalated into a major incident, which run parallel with the swirling diplomatic exchanges in Europe where Stalin gave up the stalling British and French alliance and finally signed a Nonaggression Pact with Hitler on the eve of German invasion of Poland that marked the beginning of WWII. The heavy losses of the Kwantung Army at the Soviet offensive commanded by General Zhukov and the sudden German-Soviet détente forced the Japanese to accept a humiliating truce on September 15.⁶⁴

The defeat in Manchuria greatly damaged the “North Strike” policy favored by the Japanese Army and the display of powerful Soviet war machines convinced the General Staff in Tokyo to abandon invasion plans to the Soviet Far East. The strategic shift was so firm that Matsuoka and Molotov negotiated and signed the Soviet-Japanese Neutrality Pact in April 1941 even after Japan joined the Tripartite Pact with Germany and Italy six month earlier. Japan refrained from shredding the neutrality treaty and never took advantage of the German invasion throughout the Second World War. Such decision was based mostly on the Navy’s “South Strike” strategy and ultimately on the perception that the most serious threat to Japan came from the United States.⁶⁵

As the Nomonhan incident was raging, the United States gave formal notice to Japan for termination of the 1911 Treaty of Commerce and Navigation on July 26, and the treaty would be terminated on January 25, 1940. This was the gravest action the US adopted since the Japanese invasion of China and it opened door for President Roosevelt to implement economic sanctions

⁶⁴ More details see Boei Kenshujo Senshishitsu and Yukio Nishihara, *Kantogun*, 2 vols. (Tokyo: Asagumo Shinbunsha, 1969), vol.1: Tai-So senbi; Nomonhan Jiken.

⁶⁵ Takushiro Hattori, *Dai Toa Senso Zenshi*, 4 vols., (Tokyo: Hara Shobo, 1953), p. 162.

against Japan, which was realized in steps between July 1940 and November 1941.⁶⁶ However, the US economic pressure failed to curb Japanese aggression, rather, it gave excuses to the Japanese “South Strike” advocates to expand war into Southeast Asia to secure strategic resources, especially oil which Japan failed to mass-produce in Manchuria.

Table 12. Return of Key Advocates of the MFYP from Manchuria to Japan

Name	Last Manchukuo Post	Transfer Date	Tojo Cabinet Post (Oct. 1941)
Tojo Hideki	Chief of Staff, Kwantung Army	May 1938	Prime Minister and Army Minister
Hoshino Naoki	Chief, GAB	July 1940	Chief Cabinet Secretary
Kishi Nobusuke	Deputy Chief, GAB	October 1939	Minister of Commerce and Industry
Shiina Estusaburo	Chief of Mining and Industry Bureau, Ministry of Industry	March 1939	Vice Minister of Commerce and Industry
Matsuda Reisuke	Lieutenant Governor of Fengtian Province	October 1940	Chief of Fund Management Bureau, Ministry of Finance
Kanada Susume	Chief of Planning Bureau, GAB	July 1940	Chief of General Affairs Bureau, Ministry of Commerce and Industry
Akinaga Tsukizo	Section Three Staff, Kwantung Army	September 1937	Chief of First Department, Cabinet Planning Board
Miyazaki Masayoshi	Chief of First Department, ERA	May 1933	Miyazaki Agency worked with Akinaga until early 1941
Matsuoka Yosuke	President of SMR	March 1939	Former Minister of Foreign Affairs
Aikawa Yoshisuke	President of MHID	December 1942	Member, the House of Peers (January 1943)

Source: *Kensei Shiryo* (Modern Japanese Political History Materials), Japan National Diet Library.

⁶⁶ United States Department of State, *Japan: 1931-1941*, 2 vols., (Washington,: U.S. Govt. Print. Off., 1943), vol.2, pp.189-98.

Domestically, the strategic shift lent the opportunity to the “Control Faction” militarists and the “reformist bureaucrats” to combine forces. And it was against this background, key Japanese planners were drawn from Manchuria back to Japan and the planned economy in Manchukuo began to dissipate. The consequence of Japan’s imperial policy shift from “Strike North” to “Strike South” was not only marked by the rise of “Tigers of Manchukuo” in the Japanese top leadership and the ensuing restructuring of Japanese economy, but also by the receding of Manchuria in the ever-expanding “Greater East Asia Co-Prosperity Sphere”.

On November 4, 1940, the second Konoe Cabinet adopted the “Outline for Economic Development in Japan-Manchuria-China” in response to the American embargo and the call for a new East Asian economic order. It identified three processes—the reorganization of the national economy, the formation of the Japan-Manchuria-China bloc economy, and the expansion of the East Asian Co-prosperity Sphere—that required comprehensive planning and stated the goal of economic development as “establishing autarkic economic situation in ten years based on a Japan-Manchuria-China trinity and promoting the development of East Asian Co-prosperity Sphere so that the position of East Asia in world economy can be strengthened.”

More specifically, the outline called for “rapid consolidation and development of important basic industries” and “rapid completion of Japan-Manchuria-China comprehensive planning agency to adjust and facilitate developmental plans.” The function of Manchuria in the bloc was to “realize epochal development in mining and electric power industries” and “develop heavy and chemical industries with necessary Japanese assistance.” Differing from the MFYYP, the outline emphasized the transfer of light industrial production from Japan to the continent and a “substantial increase of agricultural production in Manchuria due to its role as Japan-Manchuria-China food and feed supply base.” Japan on the other hand, promised more workers’ training,

financial assistance, and closer internal trade.⁶⁷

To make the execution of the revised first MFYP more efficient, the Manchukuo government again reformed the Ministry of Economic Affairs and the Ministry of Industry. It combined all industrial and mining management into the new Ministry of Economic Affairs in the summer of 1940. The adjustment intended to erase the constant frictions between the two ministries on funding and development. The rest of the Ministry of Industry—agriculture, husbandry, and forestry—reconstituted as the Ministry of Agriculture Development.⁶⁸ Led by Vice Minister Furumi who became the deputy director of the GAB in charge of planning, accounting and propaganda later in November, the enlarged Ministry of Economic Affairs spent months in the summer of 1941 to prepare the industrial part of the second MFYP based on the results of the first plan and the “Outline for Economic Development in Japan-Manchuria-China”.

Since most of the leaders responsible for the creation of the first MFYP left Manchuria for Japan by late 1941, the making of the second MFYP contained no new initiatives but to consolidate the coal, iron, hydro power, liquid fuel, light and nonferrous metals, and chemicals industries that were absolutely necessary for a self-sufficient economy and the war effort. Overall, only coal and food production was elevated to top priority in the second MFYP. Industrial products that were related to the production and transportation of coal and foodstuff, such as “cement, mining machinery, rails, locomotives, ships, agricultural machinery and sacks,” were required to be manufactured locally. With almost all foreign connections cut off, the second plan specifically stated that no third party technology, materials, or capital outside the East Asian economic bloc should be expected.⁶⁹

⁶⁷ *Dongbei Jing Ji Lue Duo*, pp. 261-263.

⁶⁸ *Wei Man Kui Lei Zheng Quan*, p. 337.

⁶⁹ *Dongbei Jing Ji Lue Duo*, pp. 280-281.

Table 13. Second MFYP Mining and Industry Production Targets

Products (kiloton)	1942	1946	Products	1942	1946
Pig Iron	1,600	2,590	Asbestos	7	10
Steel Ingots	705	1,318	Shale Oil	282	667
Steel Products	517	952	Liquefied Coal	268,500 kiloliters	625,000 kiloliters
Coal	27,500	44,930	Soda	68	128
Aluminum	10	15	Ammonium Sulfate	246.4	301.4
Magnesium	1	2	Salt	1,262	2,332
Copper	1.1	5.2	Pulp	92.7	138.3
Lead	9	12.2	Cement	1,862	2,890
Zinc	3.82	8.92	Electric Power	1,114 MW	2,708 MW

Source: *Manshukoku Shi*, vol.1, pp. 754-755; *Wei Manzhou Guo Shi Xin Bian*, p. 693.

In the draft submitted to the GAB Planning Department in September, the MEA asked for 6.9 billion yuan in funds for heavy industrial products to grow by 50 to 100% from 1942. The Planning Department proposed to move some special steel and electrical chemical factories from Japan to Manchuria. Listing 1.4 billion for transportation, 0.9 billion for agriculture, and 0.8 billion for immigration and land development, the budget for the second MFYP was estimated at 10 billion yuan, which was approved by the Manchukuo government alone in November 1941 absent of Japanese Cabinet's consent.

Once the Pacific War broke out, GAB Director Takebe Rokuzo called for a series of meetings to discuss Manchuria's next move at the Planning Department with all the Japanese vice-ministers. On December 22, 1941, the government announced the "Outline of Wartime Emergency Economic Policy" at an official-civilian conference, which led to major revisions of the second MFYP that had just completed a month ago. The emergency policy ended long-term

and non-urgent projects, devoted all efforts to increase production of wartime supplies, expanded material support to Japan, reduced imports from Japan but enlarged exchanges between Manchuria and Korea and North China, and tightened economic control over labor and distribution quota. One of the major initiatives taken by the GAB and the Kwantung Army to implement these changes was to organize the Continental Liaison Conference among Manchuria, Korea, North China, Mongolia, and the Kwantung Leased Territory since March 1942. The conference tried to eliminate “localism” and to establish regional cooperative system in the Japanese occupied continental areas. In essence though, these semiannual meetings, 7 times in total, served to extend the power of GAB to plan and allocate resources beyond Manchukuo, and to advance Manchuria into an industrial semi-periphery between Japan and the peripheral areas so that when Japan was incapable to provide industrial goods and absorb raw materials due to war disruptions, Manchuria could step in and shoulder the bloc.⁷⁰

As Manchuria busy connecting itself with the other regions, the blitz of the Japanese military in the Pacific and the Southeast Asia prompted the Tojo regime to incorporate the newly conquered territories into the Japanese empire. The Japanese Cabinet established the Ministry of Greater East Asia in November 1942 and the new ministry absorbed the Ministry of Colonial Affairs, the East Asia Department and the South Pacific Department of the Ministry of Foreign Affairs, the Asia Development Board, and the Bureau of Manchurian Affairs. It was headed by Kazuo Aoki, former director of the Cabinet Planning Board, and divided into four bureaus: General Affairs, Manchuria, China, and the South.⁷¹ With this administrative “downgrade”, Manchukuo’s economic policy was even more subdued and confined to its role as a resources provider to the Japanese war machine. In fact, most material “assistance to Japan” was recorded

⁷⁰ *Dongbei Jing Ji Lue Duo*, pp. 300-302. Manchuria shipped machinery, timber and soya to the other areas and in reverse received coal, metal ores and other raw materials.

⁷¹ Japan and Gaimusho, *Nihon Gaiko Nenpyo Narabini Shuyo Bunsho*, vol.2, p. 578.

during the second MFYP.⁷²

Ultimately, the Emergency Economic Policy's strategy to poll all resources—estimated 6.5 billion yuan in spending and 1.6 million labor mobilized by 1945—for wartimes necessities pushed the industrial output to its upper limits in 1944 when the production capacity of coal, iron, liquid fuel, aluminum and chemical fertilizer reached 31 million, 2.12 million, 0.43 million, 8,000, and 0.25 million tons respectively, and the annualized training aircraft production rose to 1,200.⁷³ However, these numbers were well below the plan targets and towards the end of 1944 the entire industrial system was stretched to the brink of collapse. Although prepared to give up the rights obtained through the Treaty of Portsmouth (1905) and the Soviet-Japanese Basic Convention (1925), Minister of Foreign Affairs Togo Shingenori still hoped to let Japan keep Korea, maintain neutrality of southern Manchuria, and retain independence of Manchukuo as the bottom line in negotiations with the Soviets to keep the Red Army out of the war in Asia.⁷⁴ But Stalin was promised the return of lands and rights lost to Japan at the Yalta Conference in February 1945 and therefore agreed to fight Japan once Germany surrendered. On April 5, Foreign Minister Molotov formally denounced the Soviet-Japanese Neutrality Pact and the invasion took place on August 9, right before the second atomic bombing of Nagasaki. Such was the long-expected sudden death of the desperate second MFYP as well as the lopsided and exhausted heavy industry in Manchuria.

⁷² During 8 years of war, Manchuria supplied Japan with strategic materials including but not limited to 4.2 million tons of iron, 7.8 million tons of coal, 0.52 million tons of fuel, 12,000 tons of aluminum, 500 tons of magnesium, 17,000 tons of lead, 3,000 tons of molybdenum, 4,000 airplanes, and numerous ammunitions and chemical products. However, Japan's insatiable demand for war materials could not be met by Manchukuo production and the military turned to the South Region (Indochina, the Philippines, Malaysia, Indonesia and Burma) for alternative supplies. *Dongbei Jing Ji Lue Duo*, p. 299.

⁷³ New shale oil factories in Fushun, aluminum factory in Andong, special steel works in Tanggangzi, heavy machine tools factory in Jinzhou, and additional hydroelectric plants on the Yalu River were all still under construction. Ibid., pp. 211-212. Asada and Kobayashi, *Nihon Teikoku Shugi No Manshu Shihai*, p. 509.

⁷⁴ Rikugun Sambo Hombu and Gen Sugiyama, *Haisen No Kiroku* (Tokyo: Hara Shobo, 2005), pp. 278-279.

2.3 From SMR to MHID: Restructuring the Special Corporation System for Rapid Industrialization

Before the establishment of Manchukuo, the South Manchuria Railway Company (SMR) had been running a growing modern colonial industrial enterprise in Manchuria for a quarter of a century. By the time Zhang Xueliang was promoting the New Manchuria Reconstruction program, the SMR already had over 100 subsidiaries, ranging from railroads and ports, coal mining, iron and steel, shipbuilding, electric power, lumbering, sugar, to stock exchange and financial services. In 1929, the company raised its registered capital from 200 million to 440 million yen, which accounted for 78% of the combined capital of all the 120 large Japanese businesses (with registered capital over 100,000 yen) in Manchuria. Its total assets were valued at over 1 billion yen with annual revenue topped 120 million.⁷⁵ Thus, the interest of the SMR was closely tied to the Japanese colonial and commercial expansion in Manchuria, which became even more essential due to the competitive pressure exerted by General Zhang's national capital and the deepening global economic depression.⁷⁶

As the co-conspirator of the Manchurian accident and designer of the new state, the SMR played an instrumental role in the founding of Manchukuo and partnered with the Kwantung Army in forming a new controlled economic system. Between 1933 and 1936, the SMR took over the entire land and water transportation system, including the Chinese Eastern Railway bought from the Soviet Union, raised its capital to 800 million yen, and incorporated 80 major companies with the total assets reaching 2.1 billion yen. Since the SMR investment averaged 60% of the Japanese investments in Manchuria, most of the large corporations owned half of

⁷⁵ *Manchuria, a Survey of Its Economic Development*, p. 198.

⁷⁶ The net profit of SMR dropped from 74.9 million in 1929 to 47.8 million yen in 1931. *Manchoukuo guo wu yuan tong ji chu, Manzhou Guo Nian Bao* (Xinjing: Guo wu yuan tong ji chu, 1933), 1934, p. 578.

their registered capital to the SMR. Consequently, the SMR was transformed from a Japanese colonial agency to a comprehensive and dominant economic overlord in Manchukuo.

However, the SMR was a symbol of Japanese colonialism and administratively subject to the Japanese Ministry of Colonial Affairs. The company was not a Manchukuo entity that could be controlled and trusted by the Kwantung Army to accomplish the task of planned heavy industrialization. In October 1933, the Kwantung Army DSS staff officer Numata Takazo tested the water by making a statement to the press about the reorganization of the SMR after he reported the DSS plan to the Japanese Army Ministry.⁷⁷ The plan tried to cut all non-rail enterprises off from the SMR, transfer them to the Manchukuo government as individual companies, and return the railway zone to Manchukuo. But the SMR Employee's Association fiercely resisted the attempt and the Japanese capital market responded with severe pressure, which directly dampened the capital export to Manchuria. The Kwantung Army backed off from its original plan and allowed the SMR to keep the majority of its businesses while jointly establishing new companies with the state.⁷⁸

These new companies would have to follow the “One Industry One Corporation” policy laid down by the “General Outline of Economic Construction Program of Manchukuo”. The government declared that “the important industries pertinent to national defense, public interest, and social welfare must be run by a public enterprise or a special corporation”. In section six of the outline—“promoting manufacturing and mining industry”—the state drew up its plan to develop basic and military industry in a broad brush: all coalmines were to be integrated to supply “cheaper and more abundant” fuel; all defense related minerals were to be controlled by

⁷⁷ Also a leading proponent of controlled economy, Numata was later the chief of the First Department, Cabinet Planning Board, between August 1, 1939 and April 1, 1941.

⁷⁸ Takeo Ito, *Life Along the South Manchurian Railway: The Memoirs of Ito Takeo* (Armonk, N.Y.: M.E. Sharpe, 1988), pp. 130-131.

special corporations; and all gold mining was nationalized. Metal, machinery, oil, pulp, soda, alcohol, cement, textile, milling and brewing industries “must develop in proper order according to domestic needs and under unified management.” Electric power industry was also required to be centrally managed and providing “cheap electricity”. Finally, the cities of Fengtian, Andong, Harbin, and Jilin were designated to establish industrial districts to host the new factories and Benxi, Fushun, and Anshan (coal and iron production centers) were designated as special industrial districts to comprehensively develop heavy industry.⁷⁹

The so-called “special corporation” in the General Outline was state-invested and state-supervised national policy enterprises. It was given privileges in certain industry by law and its organizations, operations, financials, and personnel were all under state guidance, sometimes even command. (The semi-special corporations were not established by specific state law and had larger shares of private capital, but the government still had the right to intervene their business nonetheless.) Manchukuo began building its inventory of special corporations by establishing the Central Bank, the National Airways, and the Mukden Arsenal (2.3 million yuan) in its first year, all with the assets taken over from the Chinese Government. In the following years, the Telegraph and Telephone Co. (6 million yuan), the Dowa Automobile, the Coal Mining Co., the Gold Mining Co. (2.3 million yuan), and the Electric Power Co. (16.15 million yuan) also utilized the industrial legacy of the previous state enterprises.⁸⁰ The lack of state financial resources until the active employment of the state special accounting and the lack of direct Japanese capital investment obliged the SMR to fully engage in the development of the special corporations, which compromised the Kwantung Army’s intention of rapidly buildup

⁷⁹ The Tiexi or Iron West District in Fengtian was developed into a 14 square kilometers industrial district with 280 factories and 1 billion yuan investment in total by 1941. *Manshukoku Shi*, vol.2, p. 955.

⁸⁰ Kazue Kikuchi, *Manshu Juyo Sangyo no Kosei: Manshu Tokushu Kaisha no Kenkyu* (Tokyo: Toyo Keizai Shimposha, 1939), pp. 85-87.

industrial capacity in Manchuria.⁸¹

Gradually, a number of industrial assets were detached from the SMR and reincorporated as special or semi-special corporations. By the end of 1935, the SMR invested in 11 of the 16 special and semi-special corporations and paid a total of 160 million yuan in capital. The SMR to Manchukuo government investment ratio was almost 3:1.⁸² Within the 65 companies of the entire SMR corporate system, 14 were fully controlled by the SMR and 22 were at least 50% controlled. The largest special corporations that the SMR was holding stakes covered heavy industries ranging from iron and steel, coal mining, chemicals, petroleum, nonferrous metals, to electric power and automobiles. And the SMR's industrial investment exceeded its transportation investment since 1934.⁸³

On June 28, 1934, the government issued a statement to clarify the exact perimeter of the “important industries” that appeared in the “Policy Outline for Japan-Manchukuo Economic Control” published three months earlier. The statement named 22 industries as statutory business (government management) and another 24 industries as licensed business (government approval), which constituted the basis of Manchuria’s controlled economy, but it also opened up 19 industries for private investment.⁸⁴ Although the move was intended to welcome Japanese and foreign investments as a way to circumvent the SMR channels, the concept of economic control still repelled major Japanese zaibatsu from building branches in Manchuria. However, the resistance to more military control within the SMR began to evaporate since the leadership of the

⁸¹ Kazue Kikuchi, *Manshu Juyo Sangyo no Kosei*, p.82. Not until 1938 was the state's share of special corporations' total capital reaching 45% and semi-special corporations' 10%. 20% of the state investments in special and 60% in semi-special corporations were investment in kind.

⁸² Many SMR holdings in the new companies were using its existing industrial assets as in kind capital investments. *Ibid.*, pp. 56-57.

⁸³ Moriyoshi Cho, Kaisha Minami Manshu Tetsudo Kabushiki, and Chosakai Keizai, *Nichi-Man Gunju Kogyo Ni Kansuru Kenkyu* (Dairen: Minami Manshu Tetsudo Kabushiki Kaisha, 1936), p. 111.

⁸⁴ *Manshukoku Shi*, vol.1, pp. 393-94.

SMR was refilled with pro-military directors.⁸⁵

From 1932 to 1936, the transportation industry reduced its share of Manchukuo's total capital from 81% to 64%, while the mining and industry sector increased from 9% to 25%. And yet, the SMR's effort to develop modern industries in Manchuria under the Kwantung Army's guidance still could not meet the latter's demand. To the military and the government, the transportation and agriculture based SMR was simply not an ideal subject with state of the art technology and abundant capital to carry out the MFYP. Back in Japan, military budget had increased from 454 million yen in 1931 to 1.02 billion yen in 1935 and around half of that budget was used to buy military provisions and weapons. As a result, Japanese zaibatsu industries pocketed 32-37% of the national budget or 1.22 billion yen in revenue in just four years. Also a group of Japanese military-industrial giants like Hitachi, Mitsubishi Heavy Industries, Ishikawajima Shipyard, Nippon Sharyo, and Niigata Ironworks grew closer interests with the military expansion.⁸⁶ The lack of local production of weaponry and military equipment in Manchuria, particularly in contrast to the Soviet heavy industrial development in the Urals, urged the Kwantung Army and the Army General Staff to seek an alternative solution.

The establishment of the Japan-Manchukuo Joint Economic Commission in July 1935 accelerated the growing of special corporation system in Manchuria. In one and a half years, 13 special or semi-special corporations were authorized, making the number of such corporations 28 in total. Small in number they might be, but their total authorized capital and paid-in capital accounted for 59% (497 million yuan) and 70% (384 million yuan) of all the new Manchurian corporations registered in the same period. Within the special corporation system, half of the companies and capitals were committed to heavy industries such as arms, oil, coal, chemicals,

⁸⁵ Kazuo Nonomura, *Kaiso Mantetsu ChoSabu* (Tokyo: Keiso Shobo, 1986), pp. 67-68.

⁸⁶ *Nichi-Man Gunju Kogyo Ni Kansuru Kenkyu*, pp. 84-93.

light metal, and automobile. But compared to 42 special and semi-special corporations, 1.69 billion and 1.19 billion yuan in authorized and paid-in capital by the end of 1938, the level of state investment and capital intensity in the heavy industrial corporations remained underdeveloped.⁸⁷ The MFYP had to wait for the arrival of Nissan from Japan to jump-start its rapid heavy industrialization.

In July 23, 1936, the Army General Staff demanded the Kwantung Army to "carry out rapid development of necessary industries in Manchuria before 1941 for preparations of a protracted war with the Soviet Union". A month later, the Army Ministry in the "Outline of the Method for Developing Manchuria" asked the Kwantung Army to "take necessary measures to entice direct investment from Japanese enterprises."⁸⁸ On the one hand, the Fourth Section of the Kwantung Army reacted with the "Policy of Supervisory Guidance of Manchukuo's Special and Semi-Special Corporations" which tried to fine-tune the existing system by strengthening and centralizing control at the state planning level while curtailing bureaucratic interferences in daily management at the enterprise level. On the other hand, a group of top industrial leaders, including Aikawa Yoshisuke (Nissan), Noguchi Shitagau (Japan Nitrogen Fertilizer Company), Matsukata Kojiro (Kawasaki Shipbuilding), Tsuda Shingo (Kanegafuchi Textile), Yasukawa Yunosuke (Mitsui & Co.), Mori Nobuteru (Nippon Electric Corporation), and Isaka Takashi (Tokyo Gas), was invited by Chief of Staff Itagaki on a tour in Manchuria to solicit their help.⁸⁹

In his report to Chief of Staff Itagaki and Army Minister Terauchi, Aikawa criticized the special corporation system for pursuing the "line method" and recommended the "pyramid

⁸⁷ The Manchukuo government started capital increase for existing special and semi-special corporations in 1937 through special accounting. Top companies received capital increase included MHID, Showa Steel, Manchuria Mining, Manchuria Light Metal, and Manchuria Petro. In 5 years, the state injected 300 million yuan in average annually. See Sakae Hirakawa and Manchoukuo chan ye bu zi liao ke, *Manshukoku Sangyo Gaikan* (Shinkyo: Manshu Jijo Annaijo, 1939), pp. 35-40.

⁸⁸ Tsunoda, *Nitchu Senso*, pp. 681, 705.

⁸⁹ Colonel Katakura created the list of visitors in consultation with Kishi. In Masaru Udagawa, "Aikawa Yoshisuke Kaiso to Hofu Kohon 1," *Keiei Shirin*, vol. 42, no. 1 (2005): p. 47.

method" that vertically integrated the entire industrial system. The "One Industry One Corporation" policy sought to establish industries in a linear, one-dimensional fashion in which each product was isolated. So for Aikawa, various industries in Manchuria were established randomly without logical connection to one another. These special and semi-special corporations naturally grew into subordinates/branches to the Japanese industries, dependent on the Japanese funds and personnel, which was precisely why Manchuria's industrial development was tepid.⁹⁰

Aikawa's "pyramid method" instead proposed a new set of policies: resources should be developed across the board based on integrated and comprehensive plans; industries should be reorganized into a pyramid structure according to the new principle of "many industries, one corporation" or "totalism". "If control is implemented based on totalism, comprehensiveness will be achieved," Aikawa argued, "we must completely extricate ourselves from the Japanese way of thinking and devise a new method geared toward Manchuria itself." Aikawa continued to suggest that for Manchuria to develop in a large scale, plans were needed, as well as a "pioneer mentality" similar to that in America or the Soviet Union.⁹¹ Both the Soviet planned economy and the American Ford method of production were good examples of applying rational thinking to develop industries.

Ishiwara and Miyazaki had showed Aikawa and other business leaders the rough draft of the MFYP. After the tour, Aikawa told Ishiwara that the plan was a stack of numbers that corresponded with the "One Industry One Corporation" structure and it lacked organic connections and operability, particularly for making sophisticated machines like cars and

⁹⁰ Aikawa, Yoshisuke, "Nissan Manshu ichu e no hofu---Watashi no yaro to suru Manshu sangyo kaihatsu shin soshiki" interview, *Tokyo Keizai Shinpo*, November 1937, 27.

⁹¹ Aikawa spent a month in Manchuria and found it very much like North America in topology, climate, and resources. If properly developed, Manchuria's industrialization would change both Japan and the United States. Kenji Shimokaze and Yutaka Katayama, *Dattosan No Wasureenu Shichinin: Setsuritsu to Hatten Ni Kakawatta Otokotachi* (Tokyo: Asaito ; Hatsubaijo Miki Shobo, 2010).

airplanes. He continued to argue that five years were unrealistic for the SMR to carry out the plan for industrial development. For the MFYP to achieve its goal, at least 1 billion yen foreign capital, mostly American investment, and foreign technology must be brought in. Aikawa suggested Nissan could acquire American financing and machinery if the Japanese side was prepared to share the profit from Manchurian development with the American investors on a 50-50 basis.⁹² Ishiwara and Kishi fully embraced Aikawa's ideas and began to push for moving Nissan to Manchuria.

Kishi Nobusuke arrived in Manchukuo in November 1936 and later became the vice-minister of Industry. Kishi embraced the army's project to create a national defense state, but he had markedly different ideas about how to realize the goal. Kishi and his colleagues sought to win private industries over to the state's vision of controlled economy and to integrate the benefits of free enterprise, management expertise, capital and technology into a planned economy. In May 1937, Kishi pushed the "Important Industries Control Act" through the Manchukuo government right after the MFYP was initiated in April. As with Japan's own "Important Industries Control Act" of 1931, the Manchurian version designated 21 industries as "important industries" that came under state control and specified how these industries were to be controlled.⁹³ The law gave the Ministry of Industry a wide range of power to issue administrative orders, oversee business planning, check financial status, and give permission to merger or acquisition in managing the "important industries". But at the same time, the law deliberately left some aspects of internal corporate activities to business operations so that state intervention would not impair production efficiency.

⁹² Manshu Kaikoshu Kankokai, *Aa Manshu: Kunitsukuri Sangyo Kaihatsusha No Shuki* (Tokyo: Hatusbaimoto Nogyo Shuppansha), pp. 243-244.

⁹³ These industries related to munitions, aircraft, automobiles, liquid fuel, iron, steel, coal mining, textiles, cement, and fertilizer. Yutaka Fujiwara, *Manshukoku Tosei Keizai Ron* (Tokyo: Nihon Hyoronsha, 1942), pp. 411-412.

The economic bureaucrats of Manchukuo wanted to experiment on an economic institution that was more flexible than the anti-zaibatsu state monopolies but also more state-oriented than the Japanese capitalist system. By preserving individual firms' internal dynamics, they tried to keep profitability and productivity. But production target and market control would bring private firms in line with the state developmental goals. They used "supervisory guidance" to achieve a balance between direct state control of socialist systems and regulatory supervision of the capitalist system. "This industrial control seeks to develop the national economy based on totalistic goal and to positively embody the planned economy", said Kishi, "and aims for Manchuria to bypass the stage of light industry and advance directly to the stage of heavy industry."⁹⁴

Just like Hoshino, Kishi knew the capital and technological shortages of the MFYP from the very beginning and he was determined to find a Japanese zaibatsu to salvage the plan. However, "old zaibatsu" like Mitsubishi, Mitsui, and Sumitomo were rather passive on answering the calls to invest in Manchuria. Only the "new zaibatsu" Aikawa expressed enthusiasm.⁹⁵ Other than his deep ties within the bureaucrats from the Japanese Ministry of Commerce and Industry and his cozy relations with the army officers, Kishi was also part of the Choshu Circle (today's Yamaguchi Prefecture in Japan) elite network, which happened to include Commander Ueda of the Kwantung Army, President Matsuoka of the SMR, and Chairman Aikawa of Nissan. From the Kwantung Army's perspective, Nissan was a publicly held company that derived most of its fortune from popular financing and military demand boom. But for Kishi, what was more important than being less of a traditional Japanese monopoly capital was the fact that Nissan had

⁹⁴ *Aa Manshu : Kunitsukuri Sangyo Kaihatsusha No Shuki*, p. 239.

⁹⁵ Kazuo Yatsugi and Takashi Ito ed., *Kishi Nobusuke No Kaiso* (Tokyo: Bungei Shunju, 1981), p. 331.

outgrown both Mitsui and Mitsubishi in terms of total capital and employees in June 1937.⁹⁶

Most importantly, Nissan had close working relations with American auto companies and it was by far the largest Japanese auto producer. Convinced that moving Nissan was the key to breathe life into the MFYP, Kishi played a central role in negotiating the move of Nissan to Manchukuo.

In May 1937, staff officer Suzuki Eiji from the Manchuria Unit of the Army Ministry's Military Affairs Bureau passed on Ishiwara's invitation to Aikawa and Chief Hoshino of the GAB also met with him to talk about the details. Aikawa laid out his conditions: introducing American capital with Manchurian resources as collateral; developing heavy industry comprehensively under one corporation that controls all resources, enterprises, and capital; moving the entire Nissan corporation to Manchuria.⁹⁷ However, Commander Ueda and Chief of Staff Tojo did not want to alter the long-held "One Industry One Corporation" policy nor trouble themselves by provoking the SMR. Even Chief Matsuda of the Planning Department and Chief Shiina of the Industry and Mining Bureau feared that a Nissan monopoly might weaken the government's economic control.⁹⁸ But the all out war with China quickly changed their mind and the first Konoe Cabinet, particularly Finance Minister Kaya Okinori who wished to introduce large foreign capital to alleviate Japan's burden in Manchuria, expedited its approval of moving Nissan to Manchuria on October 22.

At the height of the Battle of Shanghai during the Japanese invasion, Manchukuo declared that "to adapt to the current situation that in need of rapid and large-scale expansion of production for the integrated Japanese-Manchurian economy, the Manchurian industrial

⁹⁶ Nissan zaibatsu held 18 corporations including Japan's most advanced industrial and tech companies such as Nippon Mining, Hitachi, Nissan Motors, Nippon Oil and Fats, Isuzu, NEC, Nichirei Co. and had 500 million yen in capital with close to 100 thousand employees. Richard J. Samuels, *"Rich Nation, Strong Army": National Security and the Technological Transformation of Japan* (Ithaca: Cornell University Press, 1994), pp.102-03.

⁹⁷ Hoshino, *Mihaten Yume*, p. 224.

⁹⁸ *Manshukoku Shi*, vol.1, p. 549.

development plan aims to establish the most imperative heavy industries, absorb domestic and foreign industrial capital, and most effectively mobilize its operative and technological strength under the state control for the economic development of both Japan and Manchukuo." For such a purpose to be realized, "the government of Manchukuo decides to establish a powerful national policy corporation that centers around heavy industry and takes comprehensive management as its goal."

The new enterprise was called the Manchuria Heavy Industrial Development Corporation (MHID). Aikawa was put in charge of the company and "all the heavy industries related to iron and steel, light metal, automobile, airplane, and mining will be invested and run by [it]." In the final agreement between Nissan and the Manchukuo government, each party invested half of the 450 million yuan registered capital in the MHID and therefore held 50% of the company. The Manchukuo government guaranteed 6% dividend on Nissan's shares for 10 years and provided tax and tariff benefits in exchange for a massive expansion of auto (100,000 annual capacity) and aircraft production. And foreign investment was allowed to take 49% stake in the joint ventures set up with the MHID.⁹⁹

President Matsuoka of the SMR willingly cooperated with the Japanese Army on dismantling the SMR Empire in Manchuria and transferring heavy industrial components to the MHID. To address the army's dissatisfactions with the slow progress of industrial development, he terminated the ERA and merged it into the SMR Department of Industry in October 1936. This new department actively participated in the making of the first MFYP and pledged 900 million yuan of investment in the initial plan of 2.35 billion. Less than a year later, the SMR investments and operations were further dragged into North China due to the war damage to

⁹⁹ Manshu Jukogyo Kaihatsu Kabushiki Kaisha, *Manshu JuKoGyo Shigen Kaihatsu No Genjo* (Shinkyo: Manshu Jukogyo Kaihatsu, 1939), pp. 3-8.

railways and other infrastructure. Matsuoka negotiated an emergency plan with Hoshino to sell half of the Showa Steel to Manchukuo so that he could release funds from Manchuria for other uses.¹⁰⁰

The establishment of MHID soon solved his capital shortage problem and initiated a massive transfer of industrial assets from the SMR to the MHID. Based on the reorganization plan, the SMR transferred its majority stakes (a total of 189 million yen) in the heavy industries such as Showa Steel, Manchuria Coal Mining, Japan-Manchuria Magnesium, Manchuria Lead Mining, Dowa Automobile, Manchuria Petro, and Manchuria Light Metal to Manchukuo. The government then transferred these assets, together with the former SMR employees in these companies, to the MHID in early 1938 as part of the state capital investment in the new corporation. After the sale, SMR's position in the special and semi-special corporations was reduced from 66.4% to 13.2%.¹⁰¹

From 1938 to 1943, the MHID recapitalized its subsidiaries taken over from the SMR with intra-company investment of over 380 million yuan and established a series of new heavy industrial companies, such as aircraft, mineral mining, and Dongbiandao, to try to materialize its original purpose of localizing production of strategic materials and military equipment. By the end of 1943, total direct subsidiaries under the MHID reached 38 corporations with over 3.27 billion yuan authorized capital. The corporate network continued to grow and it vertically integrated industries from mining, energy, metallurgy, machinery, and machine tools to auto and aircraft manufacturing. Aikawa's experimental concept of "One Corporation Many Industries"

¹⁰⁰ Hoshino, *Mihatenu Yume*, pp. 215-217.

¹⁰¹ The SMR still held 50% of Manchuria Film Co., 51% of Japan-Manchuria Trading Company, 25% of Manchuria Soda, 24% of Manchuria Electric Power, 23% of Showa Steel, 20% of Manchuria Salt, and 20% of Manchuria Colonization Co., but no majority control of any heavy industrial corporations in Manchuria. Kikuchi, *Manshu Juyo Sangyo no Kosei*, pp. 94-95.

was fulfilled, at least by appearance, in Manchuria.¹⁰²

Table 14. Major Holdings of the Manchuria Heavy Industrial Development Corporation, 1940

Special Corporations	Incorporated (Established)	Capital (Million Yen)	Investors
M HID	1937.12.27	450	Manchukuo 50% Nissan 50%
Showa Steel Works	1938.3 (1929.7.4)	200	M HID 77.5% SMR 21.5%
Dowa Automobile	1938.3 (1934.3.31)	30	M HID 84.8% Mitsubishi Heavy Industries and others 15.2%
Manchuria Coal Mining	1938.3 (1934.5.7)	200	M HID 99.5% Central Bank 0.5%
Manchuria Light Metals	1938.3 (1936.11.10)	80	M HID 98.4% Sumitomo and others 1.6%
Manchuria Mining	1938.2.28	100	M HID 100%
Manchuria Aircraft	1938.6.20	100	M HID 100%
Dongbiandao Development	1938.9.14	75	M HID 85.3%, Manchuria Coal Mining 13.3%, Benxihu 1.3%
Manchuria Automobile	1939.5.11	105	M HID 100%
Benxihu Coal and Iron	1939.5.25 (1910.5.22)	100	M HID 40%, State 20%, Okura 40%
Kyowa Iron Mountain	1939.8.5	10	M HID 40%, State 20%, Ueshima 40%

Source: Manshu Jukogyo Kaihatsu Kabushiki Kaisha, *Mangyo Zaiman Kankei Kaisha Teikanshu* (Shinkyo: Manshu Jukogyo Kaihatsu Kabushiki Kaisha, 1940). Major secondary subsidiaries of the M HID system, such as Manchuria Magnesium, Fushun Cement, and Manchuria Lead Mines, were excluded from the table.

With the rise of Japanese economic bureaucrats and the replacement of the SMR by the M HID, sources of direct capital investment in Manchuria changed dramatically. The Japanese and Manchukuo governments greatly expanded the corporate bond market and the securities exchange to encourage investments in Manchurian industries, and enacted laws and regulations on mortgage and trust to open up more channels. As a result, special and semi-special companies became the locus of attracting and accumulating capital in Manchuria.

¹⁰² *Manshukoku Shi*, pp. 403, 577-579.

However, the Kwantung Army and the Manchukuo bureaucrats bestowed upon the MHID the monopolistic status in heavy industry for believing that Aikawa could bring in foreign capital and technology to rapidly increase production in Manchuria. But global conflicts quickly got out of hand in 1939 and Aikawa was never able to realize what he had promised. In fact, he continued to believe that Japan should avoid further conflict with the US and keep on good terms with the Soviet Union; therefore he turned against the tripartite and the aggressive plans that could provoke the US. Such a stand alienated him from the military and eventually cost his leadership at the MHID.¹⁰³

The Japanese planners had high hopes for American capital when the MHID moved to Manchuria. As early as 1934, Aikawa noticed that Germany was expelling Jews and he conceived a plan to accept 50,000 Jews to Manchukuo so that Jewish American capital could be attracted to develop Manchuria and defend it against the Soviets. A group of military officers even created a secret “Fugu Plan” to make it happen.¹⁰⁴ In October 1937, the JMRA filed a report called the “Outline for Japanese-American Economic Cooperation”. The report imagined four Japanese-American joint ventures in making aircraft, automobile, machinery, and machine tools. Total capital was estimated at 600 million yen with half coming from the US. In Manchuria and North China, the JMRA also suggested a joint Japanese-American investment of 300 million yen each in developmental projects.¹⁰⁵

Based on the optimism that the US would keep its neutrality, the MFYP continued to budget in foreign (mostly American) capital investment: from the original 740 million yen to 1.33 billion yen in total, which accounted for 22% of the total. Though not getting even close to that

¹⁰³ Udagawa, "Aikawa Yoshisuke Kaiso to Hofu Kohon 3," *Keiei Shirin*, vol. 42, no.3 (2005): p. 117.

¹⁰⁴ The plan was put into action by December 1938. See Marvin Tokayer and Mary Swartz, *The Fugu Plan: The Untold Story of the Japanese and the Jews During World War II* (New York: Paddington Press, 1979).

¹⁰⁵ Nichinan Zaisei Keizai Kenkyukai, *Nichibei Keizai Teikeian Yoko* (1937), pp. 1-2.

amount, by mid-1939 Aikawa still secured \$50 million trade credits from major American and German companies such as Emerson Electric, Ford, GM, Penn Machine, Orenstein & Koppel, and Benz.¹⁰⁶ In addition, the MHID acquired 130 million yen of foreign investment in its stocks, bonds and long-term credits from German (Rheinmetall, BMW), Italian (Fiat), Swedish (SKF), and American (Mesta Machinery, Ford) companies.¹⁰⁷ But that was the best Aikawa could do.

The advent of WWII and the deteriorating relations with the US made further foreign investment impossible by 1940. Talks with the Ford Company to set up joint ventures in Japan and Manchuria to produce cars did not go far and the plan to trade 10 thousand tons of Manchurian soya beans for German machinery also failed.¹⁰⁸ In his final desperate act, Aikawa sought audience from President Roosevelt in July 1940, but his request fell on deaf ears because in the same month the Konoe Cabinet gave consent to the “Strike South” strategy that aimed at occupying Southeast Asia and the US was busy imposing sanctions on Japan that included weapons, military supplies, raw materials, aviation parts and oil, optic machines, and high quality scrap metal.¹⁰⁹

Without foreign investment and technology, the MHID struggled to follow its original plan of producing aircrafts and cars in Manchuria. By the time Japan and the United States were at war with each other, Aikawa had lost much control of the MHID to the Kwantung Army and the Manchukuo government who bent over backwards to meet the demands of the Japanese war machine. Frustrated with the reality and instigated by the Kwantung Army due to his anti-tripartite position, Aikawa resigned from the MHID and left Manchuria by the end of 1942.

¹⁰⁶ Aikawa’s initial attempt to get \$50 million credits from American businesses encountered cold response due to negative public opinion. See *New York Times*, January 18, 1938.

¹⁰⁷ Udagawa, "Aikawa Yoshisuke Kaiso to Hofu Kohon 2," *Keiei Shirin*, vol. 42, no.2 (2005): pp. 93-95.

¹⁰⁸ AikawaYoshisuke, “Watakushi no rirekisho”, in *Nihon Keizai Shinbun* (Tokyo: Nihon Keizai Shinbunsha), January 25, 1965.

¹⁰⁹ Udagawa, "Aikawa Yoshisuke Kaiso to Hofu Kohon 3," pp. 120-121.

Takasaki Tatsunosuke, former President of Toyo Seikan (Toyo Cannery) and President of Manchuria Aircraft, replaced him and concurrently held the chairman of the board of Showa Steel till the end of the war.

The financial health of the MHID as a heavy industrial holding company deteriorated continuously since its inception. Before Aikawa's departure, the entity could still maintain profitability, but after Takasaki took the helm in 1942, it had to rely on the government subsidy to survive. When the state planners detected the trend, they tried to reverse or at least ameliorate the situation by promulgating the “Outline for Renew and Reinforce the Functionality of Special Corporations” in September 1940. It reinforced the responsibility system of the heads of companies and streamlined the corporate administrations to strengthen the production lines. The new rules also called for reduction in unnecessary cost and focus on technological research, and for native Chinese to play a bigger role. Emphasizing management rationalization and cost reduction in the special corporations, the state meant to refresh corporate leadership to get better results and ease the financial burden on its shoulders.¹¹⁰

Table 15. MHID Government Subsidy and Profit, 1938-1944 (in million yuan)

	1938	1939	1940	1941	1942	1943	1944
Total Revenue	48.4	85.2	95.3	110.0	100.7	111.3	136.2
—Dividends	34.1	38.6	43.1	31.1	15.0	14.6	24.3
—Gov. Subsidy	7.8	19.2	28.9	39.4	48.7	66.8	75.0
—Other Receipts	6.5	27.4	23.3	39.5	37.0	29.9	36.9
Total Cost	14.1	24.4	40.4	55.0	57.9	70.2	100.5
Net Profit	34.4	60.8	54.9	55.1	42.7	41.1	35.7
Subsidy/Profit	22.7%	31.6%	52.6%	71.5%	114.1%	162.5%	210.1%

Source: Ayumu Yasutomi, *Manshukoku no Kinyu* (Tokyo: Sobunsha, 1997), p. 106.

¹¹⁰ *Manshukoku Shi*, vol.1, p.401.

In the end, the state had no other way but to pour more money into the MHID system, regardless of declining marginal productivity, and to achieve more production through ever-increasing scale, because meeting the materials mobilization plan and the MFYP targets was more important than efficiency and profitability in the time of war.

Ultimately, the success of relocating Japan's most advanced industrial conglomerate, the failure of attracting Western capital and technology, and the wartime exclusive focus on iron making and coal mining left Manchuria with a half-baked heavy industrial system. It was capable of producing almost all key industrial materials and some semi-finished products, but the self-contradicting pursuits of constructing a military-industrial autarky in Manchuria and serving as a strategic materials supplier in the Greater East Asia Co-Prosperity Sphere made the Manchurian developmental project inconsistent and incomplete. Still the transformation from the SMR system to the MHID system was significant because the former was essentially a traditional colonial enterprise that inherited its gene from 19th century western colonialism and the latter was a modern state-owned industrial corporate network that could be directly appropriated by a post-colonial state. In fact, the Nationalists and the Communists did indeed take over these corporate enterprises after the war and tried to rebuild them for their own industrializing plans.

Summary

The heavy industrial state in Manchuria was conceived and constructed by three groups of Japanese elites: the army staff officers, the government career bureaucrats, and the industrial

capitalists. The compact Japanese officer corps, most of whom Army Academy graduates with intimate German military knowledge, was convinced that Japanese political-economic system needed a complete revamp to avoid the corruption and polarization of western capitalism and to sustain a total war against all enemies in the future. The best way to go about it was to experiment their controlled economic system in Manchuria as a pilot program for Japan. In practice, they were as idealistic as militaristic. The Army's strong will and brutal force dominated the industrial development process.

The civil servants on the other hand turned out to be as nationalistic/imperialistic as they were bureaucratic. When they were sent down to Manchukuo, they did what was asked: building a modern state bureaucracy so that the puppet state could appear to be Japan's beacon against international exclusion and Chinese nationalism. However, they stepped out of their way to become active collaborators of the military in reorganizing Manchuria's economic system and implementing Soviet-style economic plans that disproportionately favored the heavy industry. These Japanese technocrats and researchers in Manchuria came mostly from the Tokyo Imperial University or other top universities, and their academic and professional training helped to convert the army officers' ideals into applicable policies.

Lastly, the industrial capitalists were called in to fill the managerial and technological gap between the economic backwardness and the production targets in Manchuria. They were as opportunistic as capitalistic. Many of the traditional capital group did not see investment potential in Manchuria given the military supervision and state-control of a wide range of industries. But once the war secured demands and the state guaranteed their profits, the capitalists got on board and rapidly advanced the industrial system to an unprecedented level.

The gradual convergence of these three group of elites in the mid-1930s under the growing

pressure of international and geopolitical conflicts led to a specific form of state capitalism that concentrated its resources on heavy industrial development. Despite of its ill-fated downfall, this Manchurian heavy industrial state has grown into a giant: between 1937 and 1945, it produced 10.3 million tons of iron, 4.75 million tons of steel, 183.5 million tons of coal, 1.1 million tons of oil, and 0.43 million tons of aluminum.¹¹¹ During the same period, Manchukuo leveraged over 10 billion yuan to develop the targeted “important industries”, which largely transformed Manchuria from a “frontier” agrarian society into a modern industrial economy, just as the Japanese economy went through a distinct change in the composition of industry from a preponderance of light to heavy industry in a decade.¹¹²

Table 16. Proportion of the Total Value of Production by Industries

Industry	Japan		Manchuria
	1929 %	1939 %	1940 %
Textiles	40.0	19.7	11.2
Foodstuffs	15.0	9.6	16.1
Chemicals	14.4	17.1	19.4
Metals	10.2	22.5	20.2
Machinery	9.1	22.2	10.2
Others	11.3	8.9	22.9

Source: Tun-yuan Hu and Chinese Council for Economic Research, *Japan's Economy under War Strain* (Washington: The Chinese Council for Economic Research, 1941), p.27; Takashi Kiniwa and Dongbei cai jing wei yuan hui diao cha tong ji chu, *Kyu Manshu Keizai Tokei Shiryo: Gimani Jiki Tohoku Keizai Tokei*, 1931-1945-Nen (Tokyo: Kashiwa Shobo, 1991), p.18.

Not surprisingly, the Manchurian heavy industrial system became the center of postwar

¹¹¹ *Dongbei Jing Ji Lue Duo*, p. 213; In contrast, China excluding the occupied areas produced a total of 45,264 tons of steel in 8 years of resistance, which was less than 1 % of Manchuria's. See “Kang zhan ba nian lai wo guo zhi gang tie gong ye”, in *Zi yuan wei yuan hui ji kan* (1941): 1946, vol.6, pp. 1-2.

¹¹² Japan invested a total of 13 billion yen in 14 years of Manchukuo's existence and Manchukuo spent around 15 billion yuan in economic development during 9 years of the planned stage, of that sum two third was invested in industrial development. *Dongbei Jing Ji Lue Duo*, pp. 209, 216.

geopolitical struggle among the Soviet Union, the United States, the Chinese Nationalists, and the Chinese Communists. Its final control by the communists to a large extent determined the outcome of the ensuing Chinese Civil War, and its reconstruction and further development also helped to steer the critical decisions concerning the Korean War and the economic path of the early People's Republic of China.

CHAPTER THREE

POSTWAR STRUGGLE OVER MANCHURIAN HEAVY INDUSTRIES,

1945-1948

Among the Soviet Union, the Chinese Communist Party, the Chinese Nationalist government, and the United States, the Soviets had the most power to determine the future of Manchuria at the end of WWII. At the Tehran Conference in November 1943 and the Yalta Conference in February 1945, Joseph Stalin had agreed that the Soviet Union would declare war on Japan two or three months after Germany's capitulation. The conditions of Soviet participation in the war against Japan gradually crystallized in the negotiations, but the outbreak of the Chinese Civil War and the looming Cold War between the Soviet Union and the United States overshadowed the American and the Chinese National Governments' intentions in Manchuria.

The collapse of the Japanese empire opened the door for regional power reorientation and reorganization. Before the Yalta Conference in February 1945, frustrated negotiations between Chongqing and Yan'an had led American Ambassador to China Patrick J. Hurley to suspect that "if Russia comes into the war in the Far East or if an open break between the Kuomintang and the Communists occurs", the Russians may be "strongly tempted to abandon its policy of non-interference in China's internal affairs declared in 1924" and would "utilize considerable Communist underground strength to establish an independent or autonomous area in north China

and Manchuria.” That scenario would run against American post-war political objective of making “a strong, stable and unified China” and economic objective of developing “an integrated and well-balanced Chinese economy” within a liberal trade system.¹

However, high cost incurred by fighting the Japanese in the Pacific necessitated Soviet’s second front in Asia and the US was willing to promote Sino-Soviet cooperation for peace and security in the Far East and to “interpose no objection to arrangements voluntarily made by China and the Soviet Union.”² According to Averell Harriman, Ambassador to the Soviet Union, the question for America was not whether the Soviet would join the fight, but whether it would launch the attack in time to save American lives in the attack on the Japanese mainland. Roosevelt wanted to get Stalin to recognize Chinese territorial integrity that included Manchuria and Mongolia, and support a unified government in China.³

The Soviet diplomats regarded China as an American client and assumed that Soviet interests in the Pacific required expansion to prevent the replacement of Japanese domination with American one.⁴ Nonetheless, Stalin’s foreign policy in early 1945 gravitated toward Europe and he tried to avoid frictions with the US in the region of northeast Asia. So at first, Stalin made it clear that “the former rights of Russia violated by the treacherous attack of Japan in 1904 shall be restored.” Otherwise Soviet people would not be convinced to support a war against Japan, Stalin so claimed.

¹ United States Dept. of State Historical Division, *The Conferences at Malta and Yalta, 1945*, Foreign Relations of the United States Diplomatic Papers (Washington: U.S. G.P.O., 1955), pp. 352-54.

² Ibid., pp. 356-57.

³ United States Congress Senate Committee on Armed Services and United States Congress Senate Committee on Foreign Relations, *Military Situation in the Far East: Hearings before the Committee on Armed Services and the Committee on Foreign Relations, United States Senate, Eighty-Second Congress, First Session, to Conduct an Inquiry into the Military Situation in the Far East and the Facts Surrounding the Relief of General of the Army Macarthur from His Assignments in That Area* (Washington: U.S. G.P.O., 1951), Appendix NN., 3328-42.

⁴ V. M. Zubok, *A Failed Empire : The Soviet Union in the Cold War from Stalin to Gorbachev*, The New Cold War History (Chapel Hill: University of North Carolina Press, 2007), p. 25.

But in the process of negotiating terms with President Roosevelt regarding the entry of the Soviet Union into war against Japan, Stalin stepped back from his original positions on the lease of Dalian and the Soviet operation of the Chinese Eastern Railroad and the South Manchurian Railroad.⁵ Now he agreed in the final Yalta Agreement that “the commercial port of Dairen (Dalian) shall be internationalized” and the railroads “shall be jointly operated by the establishment if a joint-Soviet-Chinese Company” with the concurrence of Generalissimo Jiang Jieshi. Also the Soviet Union, in exchange for China’s recognition of its “preeminent interests” in the port of Dairen and on the Manchurian railroad, agreed that “China shall retain full sovereignty in Manchuria” and that it was ready to “conclude with the National Government of China a pact of friendship and alliance in order to render assistance to China with its armed forces”.⁶

Sino-Soviet relationship in the summer of 1945 was far from cordial. To avoid war on two fronts, the Soviets entered into a neutrality pact with rather than declaring war against Japan in 1941. Since the Pacific War broke out, Jiang Jieshi felt that there was no need for the Soviet Union to join the war in the Far East and his actions to contain communism in China, particularly hostilities against the Soviets in the region of Xinjiang around the time of the Tehran Conference, strained relations further. But in March 1945, Jiang was informed of the secret agreement between Roosevelt and Stalin. Under the pressure from both Russia and America, Jiang entrusted Song Ziwen (or T.V.Soong, Premier of the Chinese Executive Yuan) and his son Jiang Jingguo to negotiate the treaty with Stalin.

⁵ United States. Dept. of State. Historical Division., *The Conferences at Malta and Yalta, 1945*, p. 769, 896.

⁶ Ibid., p. 984.

From June 30 to the Potsdam Conference, Sino-Soviet negotiations were arduous and bogged down due to the extra demands imposed by Stalin that exceeded the Yalta mandate and Jiang's recalcitrance to comply. As a result, Soviet war against Japan started without the treaty.⁷ In April 1945, the Soviet Union informed Japan that the Soviet Union would not renew the Soviet-Japanese Neutrality Pact of 1941. On August 8, two days after the atomic bombing of Hiroshima, the Kremlin revoked the neutrality pact with a declaration of war. Under the overall command of Marshal Aleksandr Vasilevsky, Soviet troops poured into Manchuria the next dawn from three fronts. The Kwangtung Army defenses quickly crumbled under the attack of the Soviet invasion forces and after the Japanese Emperor Hirohito's surrender speech on August 15, the Kwantung Army broadcasted a cease-fire message to the Soviet Command the next day.

Soviet airborne units and rapid strike forces secured Harbin, Jiamusi, Qiqihar, Changchun, Fengtian (Shenyang), Port Arthur, and Dalian in the following week, helped by the Chinese and Korean Communists trained in the Soviet camps north of Manchuria.⁸ In general, the Soviets took over an industrialized Manchuria capable of supplying itself and China proper with much needed materials. Communications system was in good condition and the warehouses were well stocked. Not surprisingly, this untouched industrial base became the center of postwar struggle for power in China as well as the entire region of Northeast Asia.

⁷ Jiang's resistance to the Soviet demands was encouraged by the Truman's administration, which tried to refute the Yalta Agreement and was intent on bringing the war to a rapid conclusion so that Soviet power in East Asia could be contained. See Melvyn P. Leffler, "Adherence to Agreements: Yalta and the Experiences of the Early Cold War," *International Security* 11, no. 1 (1986): pp. 108-10. Details of the negotiations can be found in Zhen Wang, *Dong Dang Zhong De Tong Meng: Kang Zhan Shi Qi De Zhong Su Guan Xi* (Guilin: Guangxi shi fan da xue chu ban she, 1993), pp. 299-331. Historical records are published in Xiaoyi Qin and Zhongguo guo min dang dang shi wei yuan hui, *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 3 Bian, Zhan Shi Wai Jiao*, 3 vols., (Taibei Shi: Zhongguo guo min dang zhong yang wei yuan hui dang shi wei yuan hui: Jing xiao zhe Zhong yang wen wu gong ying she, 1981).

⁸ Details of Soviet invasion are shown in David M. Glantz, *Soviet Operational and Tactical Combat in Manchuria, 1945 : August Storm* (London; Portland, OR: Frank Cass, 2003). And D. F. Ustinov, M. V. Zakharov, and Dongji Jin, *Sulian Chu Bing Zhongguo Dong Bei Ji Shi* (Chengdu Shi: Sichuan ren min chu ban she, 2005).

3.1 Soviet Destruction of Manchurian Industries

Soviet occupation of Manchuria forced the hands of the Chinese Nationalists. Generalissimo Jiang's apprehension of Manchuria becoming a Communist base superseded his resentment of Soviet infringement on the Chinese sovereignty and territorial integrity. After Stalin told Song that, "as to Communists in China, we do not support and don't intend to support them. We consider that China has one government." Jiang authorized the Chinese delegation to conclude the Sino-Soviet Treaty of Friendship and Alliance and other agreements concerning the Chinese Changchun Railway (CCR, includes former CER and SMR), Dalian and Port Arthur on August 14, one day before the Japanese surrender.⁹ Considering that the US has always cited military reasons to justify the Yalta Agreement and its legitimization of Soviet claims in Manchuria, the timing of the pact is nothing but ironic.

These agreements stipulated that the CCR, co-owned and co-operated by the Soviet Union and China, would have a Soviet manager to lead the railway administration; Dalian would be an international free port, but the master of the port must be a soviet official; Dalian Port and CCR should be tariff free for Soviet goods; and Port Arthur was designated as a Sino-Soviet joint naval base, but the chairman of the Sino-Soviet Military Commission supervising the base and the military zone should be assigned by the Soviet Union.¹⁰ 40 years after the defeat of the Russian Empire, Stalin regained what the last Czar lost and more in Manchuria by flexing Soviet military muscle and exploiting Chinese internal fissure.

⁹ Zubok, *A Failed Empire: The Soviet Union in the Cold War from Stalin to Gorbachev*, p. 26.

¹⁰ Tieya Wang, *Zhong Wai Jiu Yue Zhang Hui Bian*, vol. 3, pp. 1327-1338.

Much to Song Ziwen's surprise, before signing the treaty, Stalin indicated, "some of the Japanese properties including the shares of some Japanese enterprises should be considered as Soviet war trophies in areas occupied by the Red Army." Song inquired exactly what Stalin had in mind, but Stalin was evasive and left the matter for future discussion. At the time, Song made no attempt to resolve this issue with Stalin.¹¹ In none of the wartime conferences did Allied leaders discuss specifically how to deal with the industrial assets in Manchuria. Though Potsdam Declaration called for the destruction of Japan's war-making power and of the industries that would enable it to re-arm for war, the Cairo Communiqué had stated that Manchuria should be restored to the Republic of China.

The general understanding was that all Japanese assets, including assets located in territories detached from Japan, would be subject to reparation after the war. Chinese government stated in a memorandum to the US during the Cairo Conference that "all Japanese property in China, private as well as public, shall be taken over by the Chinese Government as indemnification in part for the losses sustained by the Chinese Government and people in the war".¹² But this was just an understanding between the US and China, the Soviet Union did not commit to the solution on Japanese property in China. Hearing Stalin's words, Jiang immediately asked Song to notify Stalin on August 7 that "all industries and their machines should belong to the Chinese

¹¹ United States Dept. of State, *Conferences at Cairo and Tehran, 1943* (Washington,: U. S. Govt. Print. Off., 1961), p. 448. Stalin's request was consistent with the Soviet wide definition of "war trophies" during the Potsdam Conference, see United States Dept. of State Historical Office, *The Conference of Berlin*, 2 vols. (Washington,: U. S. Govt. Print. Off., 1960), vol. 2, pp. 846-847, 888.

¹² United States Dept. of State, *Conferences at Cairo and Tehran*, p. 389.

as part of the Japanese reparation.” Allegedly, Stalin said that he sympathized with the Chinese losses and would reconsider the issue.¹³

Stalin and Song’s talk also alarmed Ambassador Harriman and he felt that if the Soviets defined war trophies like they did in Germany, they would “strip Manchuria of certain of its industries and obtain permanently complete industrial domination of Manchuria.” Harriman recommended US opposition to Stalin’s demands and clarifying US position that“all Japanese property whether in Manchuria or elsewhere should be available to all countries who had suffered damage by Japanese aggression.”¹⁴ Secretary Byrnes approved Harriman’s recommendations and stated that China was entitled to special consideration in regard to reparations by Japan, particularly Japanese properties located with Chinese territory. On top of the position regarding war booties, Byrnes specifically pointed out that the industrial equipment found in Manchuria is “an essential element in maintaining the economy of that area” and therefore the US would strongly oppose the removal of such equipment.¹⁵

Upon receiving this message, Stalin paused on raising the subject of “war trophies” and Soviet Foreign Minister Molotov, in his reply to the Chinese memorandum on September 18 claiming ownership of all Japanese property on Chinese soil, indicated that the issue on Japanese Reparation should be submitted to the Allied Council for Japan in Washington.¹⁶ But Stalin was determined to leave nothing to the Chinese Nationalists that could enable them to pose any threat

¹³ Xiaoyi Qin and Zhongguo guo min dang dang shi wei yuan hui, *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo* (Taibei Shi: Zhongguo guo min dang zhong yang wei yuan hui dang shi wei yuan hui : Jing xiao zhe Zhong yang wen wu gong ying she, 1981), vol. 1, p. 241.

¹⁴ United States Dept. of State Historical Office, *Foreign Relations of the United States: Diplomatic Papers 1945. Vol. 7, the Far East, China* (Washington: U.S. G.P.O., 1969), p. 958.

¹⁵ Ibid., pp. 965-66.

¹⁶ Xiantian Xue, *Zhong Su Guo Jia Guan Xi Shi Zi Liao Hui Bian, 1945-1949* (Beijing: She hui ke xue wen xian chu ban she : Xin hua shu dian jing xiao, 1996), vol. 1, pp. 243-44.

to the Soviet Union.¹⁷ Soon after the Japanese signed the Instrument of Surrender on September 2, the Soviet Army started the selective removal of industrial machinery in occupied areas.

First, the Soviet Command asked Yamazaki Motoki, last President of the South Manchuria Railway Company, to maintain the functioning of the SMR so that they could utilize the transportation system. Then they arrested Takasaki Tatsunosuke, President of the Manchurian Heavy Industries Company (MHIC), Hirajima Toshio, President of Manchuria Electrical Power Company, and other industrial executives to collect information on the Manchuria industrial system. Colonel M. I. Sladkovsky, a Soviet representative at the Far Eastern Department of the Ministry of Foreign Trade and Marshal Malinovsky's top economic advisor, asked Takasaki for a written request to hand over the MHIC to the Soviets. Various companies under the jurisdiction of the MHIC were identified as providers for the needs of the Kwantung Army, therefore subjected to the Soviet definition of "war trophies".

On October 29, 1945, Takasaki and some representatives of Manchurian companies in Changchun were forced to sign a document dated back to September 17 (when removal started), transferring entire assets of the MHIC to the Soviet Command. The attached catalog of assets included 72 industrial enterprises and 150 affiliated companies. Between October 30 and November 6, Hirajima and representatives of other companies in Liaoning, Fushun, Anshan, Dalian, Fuxin, and Harbin signed separate but similar assets transfer documents.¹⁸ With these

¹⁷ Marshal Malinovsky told General Dong Yanping, Deputy Chief of Staff of the Nationalist Army and head of the Chinese Military Delegation to the Soviet Army in Manchuria, "Soviet goal in Sino-Soviet economic cooperation is not economic interest but national security." Dong believed that the Soviet was overly concerned with the industrial capacity built by the Japanese for war in Manchuria and the Soviet Far East was vulnerable to this large military industrial complex next door. Soviet removal of heavy industries and demand to exclusive economic cooperation were part of Stalin's solution to secure the Soviet Far East. See Dong's Report on July 12, 1946 in *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, p. 223.

¹⁸ Zhang Jiaao got this information on November 13, 1945 and he prepared a "Summary List of Industrial Equipment and Material Removed by Soviet Forces" based on the catalog of assets provided by Takasaki. Zhang submitted his Summary to the Pauley Mission in June 1946. For the negotiations between Takasaki and Sladkovsky

documents mapping out the Manchurian industries, the Soviet Union sent out thousands of on-site representatives to takeover the assets. In one account, the Chinese Nationalists reported 783 Soviet representatives in 39 factories.¹⁹

Removal and transport of the industrial machinery, raw material stockpiles, and inventories of finished products from Manchuria to the Soviet Union happened mostly during the last three months of 1945, indicating a careful execution of a premeditated plan. For example, to dismantle the backbone of the Manchurian industrial system, the Anshan Steel Works, the Soviet Army employed 80 Russian technicians and 8000 Japanese and Chinese staff and workers. They spent 40 days to disassemble the factory and trucked all equipment to Dalian, then another month to ship them to Vladivostok.²⁰ In another instance, the Mukden Aircraft Manufacturing Company and its two branch factories in Gongzhuling and Harbin, with combined capacity of assembling 100 trainers, 10 fighters and 300 aero engines monthly, were completely removed.

Chinese consuls in the Russian Far East cities, such as Vladivostok, Khabarovsk, Blagoveshchensk, and Chita, all sent witnessing reports to the Chinese government, describing loads of covered containers coming from Manchuria.²¹ Just one month into the removal, Jiang Jieshi was informed that all heavy industries belong to the South Manchurian Railway Company were taken over by the Soviets and shut down. Most of the machinery in major factories was removed, including parts of two main hydraulic power plants.²²

see Kia-ngau Chang, Donald G. Gillin, and Ramon Hawley Myers, *Last Chance in Manchuria: The Diary of Chang Kia-Ngau*, Hoover Press Publication (Stanford, Calif.: Hoover Institution Press, Stanford University, 1989), pp. 111-115.

¹⁹ Xue, *Zhong Su Guo Jia Guan Xi Shi Zi Liao Hui Bian*, 1945-1949, pp. 233-234.

²⁰ Ibid., p. 243.

²¹ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 244-246.

²² Ibid., vol. 1, p. 242.

By the time the Soviets transferred Manchurian cities and industrial properties back to the Chinese Nationalists in the spring of 1946, the scale of the damage was gradually revealed to China and the West. Two authoritative reports on the conditions of the Manchurian industry emerged. One is the Pauley Mission Report on the Japanese Assets in Manchuria in July 1946 and the other is the Northeastern Industrial Association and Rehabilitation Liaison Office for Japanese in Manchuria Report in February 1947.

As early as August 10, 1945, Edwin W. Pauley, US Ambassador to the Allied Commission on Reparations, sent a telegram to President Truman from Moscow, suggesting that “our forces should occupy quickly as much of the industrial areas of Korea and Manchuria as we can...occupancy to continue only until satisfactory agreements have been reached between the nations concerned with respect to reparations and territorial rights or other concessions.”²³ Unrealistic as it turned out, the telegram showed Pauley’s deep concern after talks in Moscow with the Soviet leaders on the issue of Japanese reparations. Three months later, after failed attempts to enter Manchuria, Pauley only heard from Mr. Remmer, the French Consul at Shenyang, that the Russians were moving industrial equipment indiscriminately, whether it be Japanese or otherwise.

May 2, 1946, in a White House press conference, President Truman reiterated that the resources and industries of Manchuria and Korea were “basic to the formation of any long-range plan for the peaceful economy of East Asia.” Truman wanted to “utilize the productive ability of Manchuria and Korea,” but he admitted that the US had little information on that ability. Therefore he decided to send an American Reparations Mission, headed by Ambassador Pauley,

²³ United States Dept. of State Historical Office, *Foreign Relations of the United States: Diplomatic Papers 1945. Vol. 7, the Far East, China*, p. 149.

to “undertake this firsthand study of the situation.”²⁴ Pauley led a team of 23 specialists into China and spent three months to investigate Manchurian industries with the help of Chinese officials, local factory staff, and Japanese industrial executives. They reached 18 industrial and mining centers in Manchuria, but failed to secure authorization from the Soviets and Chinese Communists to enter Dalian and Andong.

Ambassador Pauley had an acute sense of what Manchurian industrial complex meant to the Japanese military state, the Chinese postwar recovery and US strategic goal in East Asia. “During pre-war and war periods an increasing percentage of Manchuria’s export went to Japan, and certain branches of Japanese industry were overdeveloped by consumption of these exports,” Pauley argued, “excess Japanese heavy industry, such as blast and steel-making furnaces, rolling mills, fabrication equipment, machine tools and small amounts of smelting and refining equipment for copper, zinc and lead, heretofore dependent on Manchurian resources, will be available for immediate removal from Japan.”²⁵ Therefore, the logical destination of these removals could only be Manchuria.

Pauley made it clear in the summary of his report that the objectives of his Mission was not only “to survey Japanese assets subject to reparations and to ascertain the present productive capacity of industry”, but also “to estimate what immediate reparations removals from Japan could be utilized to improve or rehabilitate that industry.” The real objective was consistent with the US postwar policy of establishing China as “a strong, stable and united nation, with a basic economic self-sufficiency” and demilitarizing Japanese industrial capacity to a peacetime level. Pauley believed that the tremendous Manchurian industrial complex created by Japan, if

²⁴ President United States and United States Office of the Federal Register, *Public Papers of the Presidents of the United States: Harry S. Truman: Containing the Public Messages, Speeches, and Statements of the President* (Washington: U.S. G.P.O., 1961), pp. 224-225.

²⁵ *Foreign Relations of the United States: Diplomatic Papers 1945. Vol. 7, the Far East, China*, p. 1045.

remained intact after the war, “could have readily been integrated with China’s growing economy and so greatly accelerated the overall Chinese industrial development.” And the large capacities in basic industries in Manchuria “would have made possible a rapid absorption by China of further processing equipment removed from Japan as reparations.”²⁶

Realigning productive forces between Japan and Manchuria seemed to be a perfect solution. On one hand, it would “prevent the resurgence of Japanese economic domination” and “lop off the source of strength in the Japanese war potential”, and on the other hand, an industrialized China could “fill the economic vacuum resulting from the reduction of Japan’s productive capacity.”²⁷ In the Basic Initial Post-Surrender Directive to Supreme Commander of the Allied Powers for the Occupation and Control of Japan, industries that were marked for reduction or elimination included “iron, steel, chemicals, non-ferrous metals, aluminum, magnesium, synthetic rubber, synthetic oil, machine tools, radio, and electrical equipment, automotive vehicles, merchant ships, heavy machines, and important parts thereof.”²⁸ These were exactly what Pauley had in mind of what should be transfer from Japan to Manchuria.

Unfortunately, the Soviet Union was too suspicious of a pro-American Chinese National Government in control of Manchuria to let the American scheme happen. In his dealing with the Soviet counterparts in late 1945, Zhang Jiaao, Chief Commissioner of the Northeastern Economic Commission, came to appreciate how concerned the Soviets were with the industry and mines of Manchuria and how much they desired to have a share in these. Not only did the Soviets not want to have an aggressive anti-Communist industrial neighbor—the memory of the

²⁶ Edwin Wendell Pauley and United States Reparations Mission to Japan, *Report on Japanese Assets in Manchuria to the President of the United States, July, 1946*, 1 vols. (Washington, D.C.: U.S. G.P.O., 1946), p. 1.

²⁷ *Report on Japanese Assets in Manchuria*, p. 3. In Europe, similar formula of removing western German industrial assets and transfer them to France and England as reparations was adopted and executed until 1950.

²⁸ Edwin M. Martin, *The Allied Occupation of Japan* (Stanford: Stanford University Press, 1948), p. 136.

battles of Lake Khasan and Khalkhin Gol was still fresh—but also they needed to make the penetration of American influence into Manchuria impossible. Since the Soviets could not touch the Japanese assets in Japan and had a friendly government in North Korea, they schemed to snatch industrial equipment in Manchuria as war trophies. Meanwhile, “fearing that scheme might not succeed, they dismantled important machinery and transferred it into their possession.”²⁹ Profound strategic distrust, competing policy goals in the region and opposing plans for Manchuria led to Soviet unilateral and preemptive destruction of Manchurian industries, which “materially delayed the implementation of announced U.S. policy.”³⁰

The Pauley Report noticed that Soviets’ principle attention was centered on power-generating and transforming equipment, electric motors, experimental plants, laboratories and hospitals. The Soviets also removed complete installation in the field of heavy industry, mining, chemicals, and cement. In machine tools, they took only the newest and best, leaving antiquated behind. For example, in the old Mukden Arsenal, about one-third of the tools were taken, while in the new Arsenal, virtually everything was taken or demolished.³¹ Many of the items removed were key installations and the removal of one essential item often paralyzed production in an entire plant.

Referencing to the Japanese accounting practice, the Report estimated that the total assets of Japanese corporations in Manchuria run from 10 to 12 billion yen. But total damage to the Manchurian industries was put at 895 million US dollars. At least one-third of the original Japanese investment would be required to restore the plants to their original productive level.

²⁹ Chang, Gillin, and Myers, *Last Chance in Manchuria: The Diary of Chang Kia-Ngau*, p. 115.

³⁰ *Report on Japanese Assets in Manchuria*, p. 4.

³¹ *Ibid.*, p. 23.

Adding depreciation and loss of production to the list, 2 billion US dollars is considered to be a conservative capital amount required to fix Manchurian industrial complex.³²

Table 17. Comparison Between the Pauley Report and the NIA Report

Industry	Pauley Report		NIA Report	
	Estimated Loss (Million US\$)	% Reduction in Capacity	Estimated Loss (Million US\$)	% Reduction in Capacity
Electric Power	201	71	219.54	60
Coal	50	90**	44.72	80
Iron and Steel	131.26	51-100*	204.052	60-100
Railroads	221.39	50-100*	193.756	
Metal Working	163	80	158.87	68
Non-Ferrous Mining	10	75	60.815	50-100
Liquid Fuels and Lubricants	11.38	75	40.719	90
Chemicals	14	50	74.786	33.5
Cement	23	50	26.234	54
Textiles	38	75	135.113	50
Paper and Pulp	7	30	13.962	80
Radio, Telegraph and Telephone	25	20-100*	4.588	30
Total	895.03		1236.211	Loss in Banks not included ³³

³² *Report on Japanese Assets in Manchuria*, p. 37.

³³ NIA reported bank losses (reserves and deposits in bank notes), including Manchurian central bank and commercial banks, totaled 812,478,059 Japanese yen; securities losses, including public debt, corporate bond, and stocks, totaled 7,070,970,000 yen; precious metal losses: gold 2,110,287.34 grams, platinum 32,401.55 grams, silver bullion 66,540 kilograms, and 714 carat diamonds. *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian --Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 311-312.

Sources: Xue, *Zhong Su Guo Jia Guan Xi Shi Zi Liao Hui Bian, 1945-1949*, p. 280; *Report on Japanese Assets in Manchuria*, p. 37. * Percentage varies in sub-categories. ** Coal estimates cover only mines visited. These produced 50% of total Manchurian coal.

The Chinese National Government appreciated Pauley team's work, but was not satisfied with the thoroughness of the Pauley Mission Report. During the winter of 1946, the Northeast Industrial Association (NIA) and Rehabilitation Liaison Office for Japanese in Manchuria organized another investigation of Manchurian industries. This time Kubo Makoto, General Manager of the Fushun Colliery, directed 21 former Japanese industrial executives and experts of the Manchurian enterprises to participate in the investigation. They were divided into 13 industrial sectors and sent to investigate as many places under the Nationalist's control as possible. Their resulting report, called "Havoc Done to Industries in Manchuria by Russian Occupation Army", estimated a total economic loss of US\$1,236,211,000 (presumptive exchange rate fixed at 100 Japanese yen to 23.53 US dollars and inflation adjusted), greatly surpassed the number in the Pauley report. They also put unidentifiable loss at half of the damage value and claimed that total losses exceeded 2 billion dollars.³⁴

Apparently, the two reports have very similar estimation on the percentage reduction in productive capacity, but they vary greatly in a number of industries in terms of the estimated value losses. The Pauley Report has more detailed estimates on each of the sub-categories in one industry. For instance, the iron and steel sector is divided into 8 sub-categories, including iron ore mining, iron ore concentration, coke making, pig iron, sponge iron, steel ingot, semi-finished steel and finished steel. Though iron ore concentration and sponge iron capacity was completely

³⁴ Xue, *Zhong Su Guo Jia Guan Xi Shi Zi Liao Hui Bian, 1945-1949*, p. 277. It is worth noting that Kubo Makoto was executed on April 17, 1948 after being convicted as a war criminal by the Chinese Military Tribunal in Shenyang.

gone, steel ingot and semi-finished steel capacity might have 40 to 50 percent left.³⁵ However, the NIA report has more details about individual factory losses. Comparing to 22 chemical plants and 2 main non-ferrous mines visited by the Pauley Mission, the NIA visited 140 chemical plants and 14 large mines respectively. Thus the NIA came up with 5 times more estimated damage in chemical industry and non-ferrous mining than the former.³⁶

On January 29, 1947, Soviet rebuttal to these Manchurian industrial damage reports was published in the newspaper Izvestia. The article claimed that American report was filled with “tendentious fabrications and silly accusations intended to defame the Soviet Union.” It estimated Soviet “war trophies” from Manchuria worth around 95 million US dollars and blamed the Chinese “internal struggle” as the main factor for industrial damages. To the Soviets, American twist was aimed at interfering Chinese domestic politics and facilitating American policy on Japanese reparation, which was to hide some key Japanese industries like aviation from Soviet reparation claims and keep some of the Japanese military industrial capacity.³⁷ Soviet calculation seemed substantially depreciated (up to 80-90%) the industrial equipment they removed and it attached no record of assets to verify the number.³⁸

Finally, the Chinese Communists did an internal check on the Manchurian industrial conditions and came up with a loss of 40,269 pieces of industrial equipment and a total damage of \$352,815,851. However, other than \$189,934,947 worth of equipment removed by the Soviets, the Communist damage report also included \$899,800 removed by the Nationalists after their takeover, \$12,151,773 removed by the Communists before their retreat, and \$ 135,129,331 worth

³⁵ Report on Japanese Assets in Manchuria, pp. 39-40.

³⁶ Xue, Zhong Su Guo Jia Guan Xi Shi Zi Liao Hui Bian, 1945-1949, pp. 295-299.

³⁷ E. Zhukov. “Reparations from Japan”, Izvestia, January 29, 1947, p. 4.

³⁸ Charles B. McLane, *Soviet Policy and the Chinese Communists, 1931-1946*, Studies of the Russian Institute, Columbia University (New York; Columbia University Press, 1958), p. 235.

of industrial property lost or destroyed in the Civil War.³⁹ Though differ in value and claims of responsibility, neither the Soviets nor the Chinese Communists denied the scale and degree of Manchurian industrial destruction. Whatever the precise dollar value, much of Manchuria's industrial wealth had been ravished by China's putative ally as thoroughly as that of Germany.⁴⁰

By the time the Pauley Mission left China, the Nationalist Government had most industrialized areas under its control, which covered the whole PMR and the part of CCR from south of Anshan to north of Changchun. Meanwhile, the Chinese Communists controlled northern and most rural Manchuria. The port of Dalian was sealed off by the Soviets and railway communications to the few remaining secondary ports were under constant harassment by Chinese Communists. Pauley believed that little could be done in Manchuria under such conditions and the road to recovery could take many years. And yet he remained hopeful and suggested that the preparation of plans should not be delayed so that when peaceful conditions were resumed and communications restored, a rapid and orderly process of rehabilitation of Manchurian industries could begin. Pauley started the recovery planning by pointing out that "Manchuria's power installations should be first priority in rehabilitation," which must include hydroelectric stations as well as thermal power plants at the coalmines.⁴¹ Chinese Nationalist's plan for Manchuria industrial restoration did begin with fixing the power problem.

At this point, the United States had comprehended Soviet actions in Manchuria. The reason behind Soviet removal was not likely just for the benefit of rapidly rebuilding the Soviet

³⁹ Shoudao Wang, *Wang Shoudao Hui Yi Lu* (Beijing: Jie fang jun chu ban she: Xin hua shu dian Beijing fa xing suo fa xing, 1988), p. 469.

⁴⁰ Steven I. Levine, *Anvil of Victory: The Communist Revolution in Manchuria, 1945-1948* (New York: Columbia University Press, 1987), p. 69.

⁴¹ *Report on Japanese Assets in Manchuria*, p. 15.

economy.⁴² Entirely different policy followed in North Korea where there were practically no capital removals or destruction of industry clearly indicated that Stalin would only leave industrial capacity with military potentials to a trusted regime that could safeguard Soviet security and interest in the Far East.⁴³ So, even if Manchuria's industrial complex were restored, "it must be remembered that Manchuria is practically surrounded by territory either wholly or partially under direct Soviet control. Manchuria will thus be vulnerable to further Soviet penetration."⁴⁴

However, Soviet's extravagant interpretation of the "war trophy" and the ensuing destruction of the Manchurian industries begot not only diplomatic tensions with China and Western powers, but also wide public outcry and disgust in China. Soviet justification for their actions only made them morally and legally more exposed to criticism.⁴⁵ During Soviet occupation, Stalin did not stop at destructing current Manchurian industrial capacity. Like the Japanese, the Americans, and the Chinese, he also was fully aware of the industrial potentials in Manchuria and wanted to control future development of it by following the Japanese model of exclusive "economic cooperation". But Soviet industrial removal alienated Soviet relations with China and the US and in effect worsened Soviet strategic position in the East Asia. Subsequently, brewing Soviet-American cold war standoff forestalled any possibility of a Sino-Soviet industrial cooperation in 1946.

⁴² Levine cited Slusser to argue that Soviet industrial recovery was the main reason for Soviet industrial removal in Manchuria and strategic concerns matter very little in Soviet Far East policy. See Levine, *Anvil of Victory*, p. 69. And Robert M. Slusser, *Soviet Economic Policy in Postwar Germany: a Collection of Papers by Former Soviet Officials* (New York: Research Program on the U.S. S. R., 1953), p. xii.

⁴³ The removal of Japanese-built Suiho (Shuifeng) hydroelectric installation on the Yalu River was the best case reflecting Soviet discriminating policy toward Manchuria. Suiho had two sets of generating systems, a 50-cycle system serving Manchuria and a 60-cycle system serving Korea. The Soviets only removed the former equipment. See *Report on Japanese Assets in Manchuria*, p. 27.

⁴⁴ *Ibid.*, p. 14.

⁴⁵ News reports on American and British diplomatic responses and protests to Soviet "war booty" claims and industrial removal appeared in Zhongguo guo min dang, *Zhong Yang Ri Bao* (Shanghai: Zhong yang ri bao she), February 28, March 3, 6-7, 11, 14, April 9, 27, May 17, July 27 and August 21, 1946.

3.2 Failed Sino-Soviet Economic Cooperation Negotiations

The Chinese National Government was actively preparing for the postwar takeover of Manchuria in 1945. The Central Planning Board under the Supreme National Defense Council, China's highest wartime government organ, set up a Northeast Investigation Commission to conduct a comprehensive study of Manchuria. Under the leadership of General Xiong Shihui, Secretary General of the Central Planning Board, the Commission collected a massive amount of material on Manchukuo between the Cairo Conference and the San Francisco Conference and published *The Present Situation in the Puppet State of Manchukuo* in March 1945 to reclaim Manchurian sovereignty and to disseminate knowledge about Manchuria. On August 11, Weng Wenhao, Vice-Premier of the Executive Yuan who was in charge of wartime production and economic affairs, drafted a plan for takeover 14 key industrial sectors in Manchuria and nominated 17 "most excellent specialists" to manage the transition.⁴⁶ Chairman Jiang incorporated the industrial takeover plan into *the Outline For Recovery of Northeastern Provinces*, which was passed by the Supreme National Defense Council on August 31.

The Outline redistricted Manchuria into 9 provinces and established a Northeast Headquarters of the National Military Affairs Commission in Changchun to handle all Manchurian affairs after the takeover. A Political Commission and an Economic Commission were also established under the Northeast Headquarters. Chairman Jiang appointed Xiong Shihui to serve as Director of the Northeast Headquarters and concurrently as Chief Commissioner of the Political Commission. Though Jiang did not trust the people who served under Zhang Zuolin and Zhang Xueliang prior to 1931 enough to appoint one of them director of the Headquarters,

⁴⁶ Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo, vol.1, pp. 27-30.

he did put six Manchurian heavyweights before Japanese invasion Mo Dehui, Zhu Jiqing, Wan Fulin, Ma Zhanshan, Zou Zuohua and Feng Yong on the Political Commission so that Xiong could preside over Manchuria with local support. Meanwhile Zhang Jiaao, former General Manager of the Bank of China and Minister of Communications, was tapped to serve as Chief Commissioner of the Economic Commission. Jiang also assigned his elder son Jingguo to the Northeast as Special Envoy of the Ministry of Foreign Affairs, presumably to make use of his 12 years of experience in the Soviet Union.⁴⁷

From these arrangements, Chairman Jiang carefully assembled a team of trusted generals, respected native leaders and top industrial experts to recover Manchuria. By sending this team and Nationalists' best-equipped troops into Manchuria, Jiang was determined to gain full control in the Northeast, recover and further develop its industrial power for Chinese use, and deny the Chinese Communists access to the abundant resources in Manchuria. Jiang was confident that his plan of political recovery and economic takeover would work once his military was on the ground, but the Soviet Union repeatedly frustrated Nationalist Army's landing requests and ground advances, all the while stripping away industrial equipment from Manchurian factories.

Xiong, Zhang and Jiang Jingguo arrived in Changchun on October 12, almost two months after the Japanese surrender. After the Northeast Headquarter was operational, the Soviet attempted in different occasions to talk with the Chinese officials about putting the remaining Manchurian heavy industries under the Sino-Soviet joint ownership and management. When December 3 (the original deadline for Soviet withdrawal in the Sino-Soviet Treaty) approached, Colonel Sladkovsky, who had obtained assets transfer documents from the detained Japanese

⁴⁷ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol.1, pp.33-35.

managers in late October, suggested to Zhang Jiaao on November 16 that the Sino-Soviet economic cooperation could use the old MHIC format, which was generally 70% Japanese and 30% Manchukuo capital. The Soviets would share these assets with China equally and manage them jointly. Zhang argued that the bulk of Japanese capital for industrial investment was coming from loans and bonds from Manchurian banks, which actually made the MHIC 70% Manchurian and 30% Japanese, not the other way around.⁴⁸

On November 20, Sladkovsky formally presented Zhang with a Soviet Government proposal for extensive Sino-Soviet economic cooperation in Manchuria. The list included up to 80% of the heavy industrial enterprises in the field of power production, metallurgy, chemicals, machine building, and cement. The proposal stated that the Soviets considered it necessary to organize a Sino-Soviet joint corporation for the purpose of managing the enterprises formerly belonging to the Manchurian Heavy Industry Company and the Manchurian Electrical Company.” Both sides would equally own 50% of the joint corporation and Soviet capital contribution would come from former Japanese assets, now considered Russian war trophies. To show the principle of equal ownership, the plan called for a Chinese director and a Soviet assistant general director, paired with a Soviet general manager and a Chinese assistant general manager.⁴⁹

Chief Commissioner Zhang realized that Nationalist’s attempt to recover Manchuria was directly related to the issue of economic cooperation with the Soviets and he knew that a blunt rebuff would only made Sino-Soviet relations worse. Zhang returned to Chongqing on November 25 to report Soviet demands to the Nationalist Government and seeking instructions for the economic negotiations. Generalissimo Jiang initially laid out his bottom line for the

⁴⁸ Chang, Gillin, and Myers, *Last Chance in Manchuria: The Diary of Chang Kia-Ngau*, p. 122.

⁴⁹ Ibid., p. 130.

diplomatic negotiations regarding Manchuria in a letter to the Special Envoy Jiang Jingguo, including limited military presence for public security, county self-rule and local government by popular election, and possible Sino-Soviet economic cooperation.⁵⁰ But stiff opposition from the party leaders to any extra-treaty concessions, represented by Premier of the Executive Yuan Song Ziwen and Foreign Minister Wang Shijie who were criticized for giving in to the Soviets during the Sino-Soviet Treaty negotiations, blocked Jiang from considering the issue before Soviet withdrawal.⁵¹

Zhang brought back a general outline of economic cooperation from Chongqing authorized by the Nationalist government on December 4, agreeing to limited commercial, technical and financial cooperation with the Soviets and avoiding more broad heavy industrial co-ownership.⁵² Zhang told Sladkovsky, “the Chinese government and informed Chinese opinion feel that if the Soviet follow the example of the Japanese MHIC by concentrating all heavy industries in one organization, they will be continuing to engage in the outdated tricks of Japanese imperialists.”⁵³ Sladkovsky was annoyed by the comparison and responded to Zhang that Manchurian industries, being entirely set up and operated for military purposes, functioned solely as instruments of hostility toward the Soviet Union. He then brushed aside China’s proposal and hardened his stand by stating “since the Soviet Army has the war trophies at hand, China has only one of two options, either cooperate and jointly manage these enterprises or see them all destroyed.” But

⁵⁰ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol.1, p. 146.

⁵¹ Chang, Gillin, and Myers, *Last Chance in Manchuria: The Diary of Chang Kia-Ngau*, pp. 137-138.

⁵² Ibid., p. 144.

⁵³ Ibid., p. 150.

Zhang refused to commit to any specific economic cooperation under Soviet military pressure or before Soviet withdrawal.⁵⁴

On December 9, Marshal Malinovsky met with Special Envoy Jiang Jingguo and told him that in requesting economic cooperation with China, “the Soviet Union merely seeks to obtain security for itself.” The key of economic cooperation for Malinovsky was to prevent Manchuria from becoming an anti-Soviet base again.⁵⁵ However, Saldkovsky still provided Zhang Jiaao with a detailed list of Soviet intended industries for cooperation that crossed the boundary of MHIC and MEPC. He threw in many former Kwantung Army enterprises, such as Dalian Shipyard, Sipingjie Gasworks, Jinzhou Oil Refinery, four cement plants in Dalian, Fushun, Harbin and Benxihu, and 17 coalmines in Manchuria. By Sladkovsky’s estimate, the proposed jointly operated industries would cover 18% of the coal mining, 33% of machine-building, 81% of the metallurgical industry, 89% of electric power, 37% of cement, and 94% of ferrous metal industry.⁵⁶

Facing Soviet prolonged occupation and hefty industrial cooperation demands, Jiang sent his son Jiang Jingguo as a personal representative to Moscow at the end of December to break the ice with the Russians. Jiang Jingguo promised Stalin that Manchuria would never be used as an anti-Soviet base and the Open Door policy would not weaken the leading role played by the Soviets in Manchurian economy. Stalin responded that the Soviets could help China build heavy industries in Manchuria and develop Xinjiang’s economy, but he insisted on applying Soviet treatment to eastern European industries to Manchuria, which made the issue of war trophy practically insolvable. Stalin also reiterated that the Soviet Government did not want Americans

⁵⁴ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, p. 392.

⁵⁵ Ibid., pp. 395-396.

⁵⁶ Ibid., p. 397.

set foot in Manchuria, despite Jingguo's claim that China would pursue policy of independence and American withdrawal from northern China would soon complete once its mission was over. Before Jingguo's departure, Stalin told him that Soviet economic advisor in Changchun had been instructed to "make necessary concessions" if the Chinese Government guaranteed that there would be no American gain in Manchuria.⁵⁷

Overall, no real progress was made during Jiang's Moscow visit. On January 16, 1946, Sun Yueqi, Special Envoy of the Ministry of Economic Affairs, arrived in Changchun with a plan drafted by Vice-Premier Weng Wenhao. The plan rolled back on the scope and scale of economic cooperation, excluding electric power, chemicals and oil industries. Three sectors where China was willing to set up joint companies were iron and steel, which would include Benxi Steel Works and its associated companies, machinery, which would include assets of former Manchuria Automobile and Manchuria Machinery, and coalmines, which would include three major mines with a limit of 40% Soviet ownership. In the joint iron and steel company, China asked for 50% ownership and board chairmanship, and in the machinery company, 55% ownership and control of both chairman of the board and general manager. The term of the joint enterprises was set to expire in 30 years and by then all assets would belong to China.⁵⁸

Within a week, Generalissimo Jiang amended the plan by removing all industries west of the SMR out of the list and increasing Chinese shares in all joint enterprises to 51%. All directors and general managers were required to be Chinese. Jiang also excluded Anshan Ironworks and all non-ferrous mines from the negotiations. Zhang was told that after careful consideration,

⁵⁷ Chunhua Chen, "Sidalin yu Jiang Jingguo hui tan ji lu", in *Zhong Gong Dang Shi Zi Liao*, ed. by in Zhong gong zhong yang dang shi zi liao zheng ji wei yuan hui (Beijing: Zhong gong zhong yang dang xiao chu ban she, 1982), vol. 61, pp. 202-208.

⁵⁸ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 413-416.

“Sino-Soviet economic cooperation, for the time being, can only be reduced in scope.” As long as “sovereignty and legality are not adversely affected in such way as to give others a precedent”, Jiang was prepared to let the negotiation drag on.⁵⁹

Soviet advisor Sladkovsky felt that the gap between the Soviet demand and the Chinese offer was too big. According to Sladkovsky, if the economic cooperation were to last, “not only should it be built on a political foundation, but also on a commercial one.”⁶⁰ At the end of January, the Soviet Foreign Ministry sent a memo to the Nationalist Government to counter the Chinese proposal, saying that the Soviets would “bestow” 2.2 billion yuan worth of Japanese assets, now considered Soviet war trophies, in Manchuria on China. The rest, approximately 3.8 billion yuan, would be assets of the Sino-Soviet joint stock companies and half of those assets would also be “gifts” from Russia to China as Chinese capital contribution to the joint companies. To show a good will, in this second list, coalmines were reduced from 20 to 9, power plants from 54 to 16, machine manufacturing from 14 to 6, iron and steel industry limited to Anshan and Benxiuhu.⁶¹

The Soviets wanted to establish 11 joint Sino-Soviet corporations to manage these industrial assets. They asked to own 51% in the iron and steel company, the non-ferrous metal company, the hydroelectric power company, the civil aviation company, and the northern coalmine group. And in the rest six companies, the thermal power company, the machine manufacturing company, the chemicals company, the cement company, the Sungari River steamship company, and the southern coalmine group, the Soviets would settle for 49% ownership. According to the Soviet plan, major Soviet industrial organizations would become shareholders of the 11 joint enterprises.

⁵⁹ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 418, 421.

⁶⁰ Chang, Gillin, and Myers, *Last Chance in Manchuria: The Diary of Chang Kia-Ngau*, p. 226.

⁶¹ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 427-430.

They include but not limited to Khabarovugol, Uralmet, Uytavkolcd, Dalenergo, Dalbanh, Ylavparovoz, Yummach, Yuijt, Ylartsinkosuinets, Ylavitsement, Civil Aeronautical Administration, Lower Amur River Steamship Company, Daloneshtrons.⁶²

Zhang Jiaao immediately returned to Chongqing the next day to consult with Nationalist leaders. He suggested to Generalissimo Jiang that Anshan could be a joint enterprise if China had 51% stake and economic cooperation negotiations could go further if Soviet returned equipment belonged to future joint ventures. He prepared another list of enterprises for joint management and organized them into four companies the Zha(lainuoer)Hui(chun)He(gang) Colliery, the Anshan Ironworks, the Machine Building Company, and the Cement Company.⁶³ However, when the Nationalist Party was divided and wavering, the Zhang Shenfu incident and the eruption of U.S.-Soviet Cold War finally rendered the Sino-Soviet economic cooperation impossible.⁶⁴ As a result of a series of events in the spring of 1946, the economic negotiations had to be suspended and Zhang was never to resume talks with his Soviet counterparts again.

⁶² The Soviet organizations in English are the Khabarovsk Coal Mine Complex, the Urals Metallurgical Company, the General Control Bureau (GCB) for the Coke Industry, the Far Eastern Power Company, the Far Eastern Bank, the General Bureau of Locomotives, the GCB for Machinery Manufacturing Industry, the GCB for Railway Transportation, the GCB for Lead Mines, the GCB for the Cement Industry, and the Far Eastern International Transportation Company. (In Zhang's diary the GCB for Man-Made Liquid Fuel Industry replaced the GCB for Railway Transportation.) See Chang, Gillin, and Myers, *Last Chance in Manchuria : The Diary of Chang Kia-Ngau*, p. 215.

⁶³ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 434-435.

⁶⁴ Zhang Shenfu, a native of Jilin Province who studied economics at the University of Chicago and mining at the Michigan College of Mining and Technology, was on Weng Wenhao's list of top experts for Manchuria industrial takeover and designated to head the sector of coal industry. He and his colleagues were sent to takeover the Fushun Colliery in mid-January, which was still under Soviet occupation and surrounded by the Chinese Communist troops. They were unable to proceed with the takeover and eight members of his team, including Zhang himself, were murdered by a group of "armed irregulars" on their way back to Shenyang on January 16. The situation was murky until this day and no definitive evidence to prove whom these "bandits" were. But the image of an American educated Chinese patriotic intellectual brutally murdered in the Soviet occupied Manchuria, the homeland he finally returned after 14 years of Japanese occupation, was so powerful and provocative that it aroused immense popular anger and left little room for compromise with the Soviet Union. For details of the incident, see *ibid.*, vol. 1, pp. 313-316.

General George C. Marshall arrived in China on December 20, 1945, a time when the Soviet Army was originally scheduled for withdrawal. In the next two months he was busy brokering a deal between the Nationalists and the Communists to stop the Chinese civil strife. When asked for advice on the issue of Manchurian industry on January 30, Marshall told Jiang to delay the negotiations until the agreement with the Communists was concluded.⁶⁵ On February 8, 1946, Foreign Minister Wang called General Marshall and told him that the Soviet withdrawal was contingent on Russia's demand for economic concessions. Marshall sent a telegram to President Truman describing Soviet actions as "demanding tremendous economic concessions in Manchuria for the present and future" rather than anything that could reasonably be called "war booty".⁶⁶ However, both Marshall and Truman believed that regardless of Russian intent in Manchuria, it was of "paramount importance to the US that the unification of China be speeded to a successful conclusion." If China completed its unification, the Soviets would have no Chinese vulnerability to exploit.⁶⁷

On the one hand, President Truman denied Minister Wang's request to submit the Manchuria issue to the Allied Council for Japan, but on the other, the US State Department started putting pressure on the Soviets. On February 9, George Kennan, Deputy Chief of the U.S. Mission to Moscow, delivered a note to the Soviet Government, claiming that the ongoing economic negotiations between China and Russia was against the principle of the Open Door and American commercial interests. Moreover, unilateral disposition of the Manchurian industrial

⁶⁵ United States Dept. of State, *Foreign Relations of the United States Diplomatic Papers* (Washington: U.S. G.P.O., 1948), vol. 10, p. 1101.

⁶⁶ Ibid., vol. 9, p. 427.

⁶⁷ Ibid., vol. 9, p. 513.

assets, whether by removal as “war booty” or by Sino-Soviet exclusive ownership, would not be recognized by the United States.⁶⁸

Two days later, at the request of the US State Department, America, Britain and Russia published the Yalta Agreement on its one-year anniversary. Once the secret agreement between Stalin and Roosevelt, Soviet delayed withdrawal and its pressure on the Nationalist Government to accept economic concessions in Manchuria, and the Zhang Shenfu incident came out together in the Chinese media, the Chinese public was enraged and large public protests against the Soviets were staged in Changqing, Shanghai and other cities.⁶⁹ On March 5, 1946, getting no reply from the Soviets on the issue, the State Department sent another note to Russia, demanding American rights in the disposition of Japanese external assets and Open Door to future Manchurian industrial development, and supporting Chinese effort to resume administrative control over Manchuria.

Shrouded in the frustration of Nationalist progress in Manchuria and encouraged by American support of Chinese positions on Sino-Soviet economic negotiations, anti-Soviet and anti-Communist sentiment was overwhelming in the Second Plenary Session of the Sixth Central Committee of Nationalist Party Congress in early March. The meeting passed two resolutions that compelled the central government to negotiate a deadline for Soviet withdrawal, protect national sovereignty, and strengthen national defense in Manchuria. Song Ziwen, Wang Shijie and Xiong Shihui were all criticized by the hardliners for selling out China. The hope for Sino-

⁶⁸ United States Dept. of State, *Foreign Relations of the United States Diplomatic Papers* (Washington: For sale by the Supt. of Docs., U.S. G.P.O., 1948), vol. 10, p. 1105.

⁶⁹ Ibid., vol. 9, p. 440.

Soviet economic cooperation was even dimmer.⁷⁰

At first, General Trotsenko, Chief of Staff to Marshal Malinovsky, issued a statement in late February to refute reports of Soviet intentional delays in withdrawing troops from Manchuria and told the press that Soviet postponement was in response to the request of Chinese Government. In a show of defiance, Trosenko said that Soviet troops would complete its withdrawal before the US withdrew its Marines from China.⁷¹ But mounting pressure from China, damaging talk of “Iron Curtain” delivered by Winston Churchill, and confrontational situation in Iran with the US convinced Stalin to pull Soviet troops out of Manchuria rapidly through March and April.⁷²

Despite these negative developments, the Soviets kept the door open for a possible final compromise with the Nationalists. On March 27, Soviet Ambassador I. Petrov delivered the third proposal to the Chinese Foreign Ministry, accepting most parts of Chinese plan and asking 50% share in the joint enterprises. Other than 4 enterprises in Dalian and a dozen major airports in Manchuria, there were 6 coalmines and Anshan Ironworks on the Soviet list. But Foreign Minister Wang declined to discuss the issue before Nationalist takeover of Manchuria. Late in May, the Chinese Government reluctantly sent the last draft to the Soviet Government, listing only Mishan, Zhalainuoer and Hegang coalmines and Anshan Ironworks plus cement, power

⁷⁰ In Chapter 3 and 6, Wang described in detail the internal struggle of the Nationalist Party during the meeting and the formation of a hard stance against the Soviet Union. See Chaoguang Wang, 1945-1949: *Guo Gong Zheng Zheng Yu Zhongguo Ming Yun* (Beijing Shi: She hui ke xue wen xian chu ban she, 2010).

⁷¹ United States Dept. of State, *Foreign Relations of the United States Diplomatic Papers*, vol. 9, p. 448.

⁷² General Dong Yanping reported that the Soviet withdrawal from Manchuria was postponed three times: the original December 3 deadline was postponed until January 3, 1946, again to February 1, and then again to the end of April 1946. The Soviets actually left Manchuria completely on May 23. Soviet troops suddenly withdrew from Shenyang on March 15. They did not wait for the central government forces and transferred local administrations to “native forces”. *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 218-23. More details of Sino-Soviet military negotiations see Dong’s memoir, Yanping Dong, *Su E Ju Dong Bei* (Taipei: Wen hai chu ban she, 1982).

plant and oil refinery in Dalian as joint enterprises.⁷³ Though both drafts were very close and seemed like an agreement was within reach, once the Soviet Army disappeared from Manchuria and Chinese civil war intensified, Jiang and his party lost interest in any further negotiations.

Stalin's position on Sino-Soviet economic cooperation was again consistent with his overall global and regional policies. As was in the case of industrial removal, the issue of industrial cooperation was used as strategic bargaining chip to leverage against closer US-China relationship and US expanding influence in East Asia. Though official Cold War would not begin until spring of 1947, the US-Soviet tension was still the most important factor in determining the future of Manchurian industrial economy.

The Chinese Nationalist Government did not foresee rapid deterioration of the U.S.-Soviet relations in late 1945, therefore greatly underestimated the difficulty of recovering Manchuria and taking over its industries.⁷⁴ Manchurian heavy industries at this point were held as hostages by the Soviets against the Chinese Nationalists, but in the end Nationalist leaders refused to pay the ransom. The result was two failed Manchurian reconstruction plans: one championed by the United States, which intended to develop Manchurian industries using Japanese war reparations and American help, and another promoted by the Soviet Union, which aimed at industrial joint management and Soviet dominance. Both American goal of integrating Manchuria into a strong and unified China as a trusted ally and Soviet goal of cooperative, controllable China free from American interference were unobtainable.

⁷³ *Zhonghua Min Guo Zhong Yao Shi Liao Chu Bian--Dui Ri Kang Zhan Shi Qi. Di 7 Bian, Zhan Hou Zhongguo*, vol. 1, pp. 443-446.

⁷⁴ On November 26, 1945, Foreign Minister Wang Shijie, in his report to the Supreme National Defense Council, admitted that he did not expect such "rapid change of international situations and quick deterioration of Soviet-US relations." Ambassador Pauley also told Gu Weijun (Wellington Koo, Chinese Ambassador to Washington), "your difficulty is unavoidable, because the Soviets think that Japan is in American hands and they cannot participate in the management, so the Soviets refuse to let go of their control of Manchuria." *Ibid.*, vol. 1, p. 214.

3.3 Development of Nationalist Planning Agencies and Heavy Industries

The consequences of the Manchurian Incident in 1931 are twofold. On one side, the key force behind a rising military industrial state in Manchuria shifted from the Chinese regional military government to the Japanese military colonial regime. On the other, the incident and the subsequent attack on Shanghai in January 1932 shocked the Chinese nation into a mirroring pattern of state planned development and military industrial buildup. In the process of preparing and fighting the war against Japan, the Nationalist Government established central planning agencies, started large-scale state-directed heavy industrialization, and completely redefined the purpose and function of the state in the national economy.

Before the Manchurian Incident, a nominally unified China under the leadership of the Nationalist Party tried to follow the plan for industrialization illuminated in Sun Yat-sen's *The International Development of China* and drew up at least four major developmental plans. However, none of these enjoyed the political support, financial resources or technical expertise needed to meet their objectives.⁷⁵ Government ministries of agriculture, mining, commerce, and industry were expanded and generated their own plans for economic development. In addition to relevant ministries, the government created the National Reconstruction Commission in charge of electric power, mining, and railroad development in 1929, and the National Economic Council in charge of water conservancy, highway construction, and public health coverage in 1931.

⁷⁵ Including the Reconstruction Ministry's Ten-Year Plan of 1928, the Industry Ministry's Ten-Year Plan of 1930 and Four-Year Plan of 1932, the National Economic Council's Three-Year Plan of 1931, and so on. See William C. Kirby, "Continuity and Change in Modern China: Economic Planning on the Mainland and on Taiwan, 1943-1958," *The Australian Journal of Chinese Affairs*, no. 24 (1990): p. 125. However, between 1928 and 1930, military and debt repayment consumed 84.97% of government spending, leaving very little for industrial investment. See Changzhi Dong and Fan Li, *Zhongguo Xian Dai Jing Ji Shi : 1919-1949*, Di 1 ban. ed. (Changchun Shi: Dongbei shi fan da xue chu ban she : Jilin sheng xin hua shu dian fa xing, 1988), p. 51.

However, when Sino-Japanese War was on the horizon, the long-term nation-building plans and existing government ministries that emphasized basic infrastructure like transportations and water conservancy seemed elusive and beside the point of urgent national defense.

As early as December 1927, Max Hermann Bauer, one of General Erich Ludendorff's staff during WWI, met with Jiang Jieshi in Shanghai and suggested that China should “nationalize large corporations, develop heavy industries for armament, and plan economic development.”⁷⁶ A year later, Bauer formally started his career as the head of German military mission to China and displayed his total war ideas again by informing Jiang that modern state was built on strong military forces and such force must “depend upon a comprehensive industrial base, particularly heavy industry.” Therefore, “China must start with economic development with long-term plans and short-term initiatives.”⁷⁷ Not only foreign advisors, but also Chinese elites became more and more receptive to the ideas of economic planning and heavy industrialization after the economic crash in 1929.

During the winter of 1931, Qian Changzhao, a British-trained Fabian socialist and the Deputy Minister of Education, recommended a planning agency for national defense to Chairman Jiang Jieshi, who held the position of Minister of Education concurrently at the time. Qian broadly defined defense planning to include “military affairs, international relations, education and culture, finance and economy, raw materials and manufacturing, transportation and communication, land and food supply, and survey of population with professional expertise.”

⁷⁶ Jingping Wu, *Cong Jiao'ao Bei Zhan Dao Ke'er Fang Hua: Zhong De Guan Xi 1861-1992* (Fuzhou: Fujian ren min chu ban she, 1993), p. 130. Jiang replaced Soviet military advisors with German ones after he turned against the Chinese Communist Party and the Soviet Union.

⁷⁷ Xin Damo, *Deguo wai jiao dang an zhong de Zhong De guan xi*, in *Zhuan Ji Wen Xue*, (Taibei Shi: Zhuan ji wen xue za zhi she, 1962), vol. 41, issue 4, p. 121.

Jiang welcomed Qian's idea and asked him to sketch the central planning agency.⁷⁸ On November 1, 1932, the National Defense Planning Commission (NDPC) was established under the General Staff of the National Military Affairs Commission, which was reestablished shortly after the January 28 (Shanghai) Incident in 1932. The NDPC was chartered with the responsibility of "providing actionable plan in advance for potential problems that may be caused by foreign invasion; planning for recruiting and reorganizing national defense army, stimulating production and development to strengthen defense; offering proposals for current national defense plans."⁷⁹ Jiang Jieshi served as Chairman of both commissions. Dr. Weng Wenhao, a renewed geologist and the acting president of the Tsinghua University, and Qian Changzhao was appointed Secretary-General and Deputy Secretary-General of the NDPC. The NDPC recruited 39 educated elites and top scientists as commissioners.⁸⁰ From its birth, this planning agency was designed as an organization relatively free from political interference so that it could provide empirical-based plans and attract politically neutral professionals to serve the government.

There were one secretariat and seven sections under the NDPC: military affairs, international affairs, economics and finance, raw materials and manufacturing, transportation and communications, population and land-foodstuff, and cultural affairs. The real pivot of the NDPC was to plan heavy industrial development for national defense. When the regulations were revised in 1934, some sections turned from mere planning units into research labs and workshops,

⁷⁸ Changzhao Qian, *Qian Changzhao Hui Yi Lu* (Beijing: Zhongguo wen shi chu ban she: Jing xiao Xin hua shu dian Beijing fa xing suo, 1998), pp. 36-37.

⁷⁹ "Guo fang she ji wei yuan hui gong zuo gai kuang," in *Minguo Dang An*, (Nanjing Shi: "Minguo dang an" bian ji bu, 1985), 1990, issue 3.

⁸⁰ Many of them kept their distance from politics so far but later served as cabinet-level officials in the wartime government. For Qian Changzhao's recommended list of commissioners see Qian, *Qian Changzhao Hui Yi Lu*, p. 37. For the list of 39 commissioner see Yi Xue, *Guo Min Zheng Fu Zi Yuan Wei Yuan Hui Yan Jiu* (Beijing: Zhongguo she hui ke xue chu ban she, 2005), p. 58.

and a dedicated planning department was also added to the secretariat in addition to the investigation and statistics departments.⁸¹

Weng Wenhao communicated with Qian on the his understanding of planned development and state enterprise, “a complete plan must predetermine capital investment, development phases, and number of enterprises so that it could balance progress, supply and demand, and transportation...the commission needs to collect all kinds of materials and draft outline in one or two years.”⁸² Under his leadership, the NDPC carried out a large-scale industrial and resources investigation throughout China that covered most mining areas, 145 industrial locales, and 2435 factories in two years. Based on solid statistics, the commission drafted the Heavy Industrial Development Five-Year Plan, the Wartime Fuel and Petroleum Control Plan, the National Railway Military Transportation Capacity Report and Transportation Mobilization and Control Plan, the Foodstuff Storage and Control Plan, the Sichuan Hydroelectric Power Plan, and the Chinese Engineers Directory. These plans differ from previous plans in that they were all put into practice one way or another, greatly contributing and sustaining China through the prolonged war effort against the Japanese.⁸³

Meanwhile, General Hans von Seeckt, Commander of the Weimar Reichswehr, was invited to China as new head of the German military mission and top advisor to Jiang. On February 28,

⁸¹ Yufeng Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, 2 vols. (Taibei Xian Xindian Shi: Guo shi guan, 1984), vol. 1, pp. 18-20. The NDPC also set up 8 special committees on international trade, international affairs, electrical, agricultural economy, national defense and armament, defensive chemicals, metallurgy, and frontier studies, enlisting 140 top scholars, scientists, engineers, and industrialists. See list of committee members in Second Historical Archive of China (hereafter SHAC), 28(2)-3554.

⁸² *Weng Wenhao zhi Qiang Changzhao han*, December 14, 1932, SHAC, no. 28(2)-3727. Weng was a strong believer in Sun Yat-sen’s developmental plans and in early 1930s he wanted mix the Soviet planned economy and the controlled economy practiced by Germany and other countries to find a way fit for China. See Wenhao Weng and Zhongguo guo min dang ge ming wei yuan hui, *Weng Wenhao Lun Jing Ji Jian She* (Beijing: Tuan jie chu ban she: Xin hua shu dian Beijing fa xing suo fa xing, 1989).

⁸³ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, pp. 103-104.

1934, Seeckt delivered the Outline of the Plan for Chinese Military Industrial Development to Jiang, who was busy driving the Communists out of their base in Jiangxi province. Seeckt's industrial plan was based on the required supply of 10 thousand elite troops during peacetime and 30 thousand extended troops during wartime. The plan called for building 49 various military supply factories, some firebrick, machine tool and automobile plants, and an iron and steel combine that was capable of producing 40 thousand tons of steel, 30 thousand tons of pig iron and 50 thousand tons of coke a month. Total construction would take nine years in three stages.⁸⁴ Before his death in 1936, Seeckt revised his plan according to the Sino-German trade agreements and resubmitted it through General Walter von Reichenau, a trusted aide to the Minister of War Werner von Blomberg, to Jiang Jieshi.⁸⁵ In many ways, Seeckt's plan influenced the making of the subsequent Nationalist's plans.⁸⁶

In early 1935, Hans Klein, an arms dealer with German military industrial background and a close contact of Seeckt, submitted his Proposal on Establishing A Power Center Organization to Jiang and Kong, recommending a centralized, efficient provisional development administration to plan and manage all economic and military defense preparations in China. Klein also suggested that the military industries should cluster together in a national defense core region. For the Power Center to work, Klein promoted a German advisory mission consisted of German officers, economic and technological experts to provide professional support.⁸⁷ Jiang followed some of Klein's advices and in April 1935, he merged the NDPC with the Bureau of Ordnance and renamed the agency National Resources Commission (NRC). The NRC stayed under the

⁸⁴ "Zhongguo jun bei gong ye jian she ji hua," *Minguo Dang An*, 1995, issue 4, p. 6.

⁸⁵ SHAC, no. 28(2)-3652.

⁸⁶ Qian stated in 1939 that "during the making of the Three-Year Plan, we referred to German advisors and specialists." See SHAC, no. 28(2)-6238.

⁸⁷ SHAC, no. 28(2)-689.

jurisdiction of the Military Affairs Commission and Jiang, Weng and Qian remained in their posts, but its jurisdiction was greatly expanded.

In the office of the secretariat, the NRC created three new offices: the offices of electrical engineering, metallurgy, and mining. At the same time, the commission's mission was redefined as investigation, statistical survey, and study of human and material resources; planning and construction of resources enterprises; and planning of resource mobilization.⁸⁸ Qian Changzhao summarized three principles held by the newly emerged NRC, "Chinese economic development must center on industrialization; industrialization must center on heavy industrial development; heavy industrial development must center on state-owned enterprises."⁸⁹ Not only the function of central planning was reinforced in the NRC while the crisis in North China deepened, it mission was also more pointed and focused on the "resources", basic or heavy industries, and "enterprises", state-owned enterprises. Since July 1936, the NRC began its work on establishing heavy industries in the interior provinces of China.

In March of 1936, the NRC made the Heavy Industrial Development Five-Year Plan based on the NDPC Plan. After wide consultation with various ministries and the military, the NRC abridged and revised the Five-Year Plan into the Chinese Industrial Development Three-Year Plan, which called for a total investment of 230 million yuan (with 60 million yuan as liquid fund) in industries in the descending order of metallurgy, fuel, chemicals, machinery, electrical appliances, and hydroelectric generation.⁹⁰ The Three-Year Plan detailed locations of the

⁸⁸ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, pp. 26-27.

⁸⁹ Wu Zhaohong, "Wo suo zhi dao de zi yuan wei yuan hui," in *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, ed. by Zhongguo ren min zheng zhi xie shang hui yi quan guo wei yuan hui wen shi zi liao yan jiu wei yuan hui., (Beijing: Zhongguo wen shi chu ban she : Xin hua shu dian jing xiao, 1988), p. 106.

⁹⁰ Other than 72 million yuan from state appropriation, the government wanted to attract 15.3 million yuan form foreign investment. See Changzhao Qian, *Liang Nian Ban Chuang Ban Zhong Gong Ye Zhi Jing Guo Ji Gan Xiang* (China,: s.n., 1939), p. 3.

planned enterprises and delineated Jiangxi, Hunan and Sichuan provinces as heavy industrial regions for national defense. In addition, the plan featured a scheme to establish and control rare metals production and trade so that they could be used in alluring foreign assistance through barter and counter-trading mechanisms. German military industries would benefit from trading their products with Chinese strategic materials, but such method was repeatedly used in China's economic agreements and partially solved the problem of China's shortage of hard currencies.

Table 18. Overview of the Heavy Industrial Development Five-Year Plan, 1936

Product	Number of Unit	Investment / %	Planned Annual Output
Steel	2	80,000 / 29.5	300,000 tons
Iron	1	700 / 0.3	300,000 tons
Non-Ferrous	8	24,490 / 9.03	5000 tons of copper, lead and zinc, 3000 tons of aluminum, and 12,000 taels of gold
Coal	5	8,900 / 3.3	1,500,000 tons
Gasoline	3	86,300 / 31.8	50 million gallons
Ammonium Sulfate	2	20,000 / 7.4	50,000 tons
Ethanol	1	3,000 / 1.1	
Soda	2	5,000 / 1.8	7,000 tons
Engines (Air/Auto)	1/2	7,500/7,700/ 5.6	300/500
Machine Tool	1	3,500 / 1.3	
Shipyard	1	5,370 / 2.0	
Electrical	1	15,000 / 5.5	
Power Plant	1	3,740 / 1.4	
Total	31	271,200 / 100	

Source: "Shi ni zhu yao zhong gong ye jian she di zhi ji jing fei yi lan biao," "Zhong gong ye wu nian ji hua jing fei lai yuan" and "Zhong gong ye jian she ji hua shuo ming shu", 1936, SHAC, no. 28-5965. Annual import numbers were averages between 1933-1935.

The outbreak of Sino-Japanese War in 1937 and the relocation of the Nationalist government to Chongqing led to wartime adjustment of the Nationalist Government. By the end of the year, the Nationalist Government merged the Ministry of Industry, the National Economic Council, the National Reconstruction Commission, the Third (defense industry) and Fourth Department (national economy) of the Military Affairs Commission, and the NRC to the new Ministry of Economic Affairs, finally concentrating central economic management into one government institution and greatly increased state interference in the economy. The NRC became a public government agency in February 1938. Dr. Weng, now Minister of Economic Affairs, and Qian Changzhao continued to lead the organization, but their official titles were changed to Director and Deputy Director, respectively. By then, the function of the NRC was revised to include the creation and management of basic industries, the development and management of important mining industries, and the creation and management of power enterprises.⁹¹ The NRC completed its transformation from a military industrial consultancy and mobilization-planning agency into a full-fledged state economic bureaucracy leading the development of defense-centered heavy industrialization.

The NRC's organizational structure corresponded with the evolution of its functions. Under the director and deputy director there were five bureaus and four offices: the secretariat, bureaus of industry, mining, electric power, and finance, offices of technology, economic research, accounting, and material procurement.⁹² Four years later, the NRC further modified its organizational structure to reflect its expansion of activities. By now each bureau had four to five divisions to handle specific aspects of the workload. For instance, the Bureau of Industry consisted of five divisions: machinery, electrical engineering, metallurgy, chemicals, and

⁹¹ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, p. 28.

⁹² Ibid., vol. 1, p. 30.

accounting. And the Bureau of Mining covered non-ferrous, coal, iron ore, and oil. In the first four years of the war, the subsidiary organs of the NRC increased from 22 to 101 units and its total investment skyrocketed from 30 million yuan to 320 million yuan.⁹³

The war disrupted the original Three-Year Plan, but after relocating and constructing hundreds of factories in the interior between late 1938 and early 1939, the NRC came up with a new Three-Year Plan for National Defense in Southwestern Provinces (1939-1941). According to this plan, the NRC would establish new factories or expand existing ones in the steel, machinery, chemical, liquid fuel, electric, and metallurgical industries. The total cost was projected at 272.48 million yuan (1936 constant value) and US\$23.75 million.⁹⁴ In early 1941, the NRC drafted another Outline of Three-Year Plan for National Defense Industries and asked for additional capital investment of 816.69 million yuan and US\$25.56 million, in addition to 259.74 million yuan in liquid funds, but multiple causes led to the decline of funding after 1942.⁹⁵

In reality, the NRC received investment capital from four sources: annual budget appropriation from the state treasury; short-term loans and investment from state-run banks; surplus profit from mineral trades; and foreign loans guaranteed by rare metal export. Annual budget appropriations constituted the major source of investment capital. Between 1936 and 1945, the NRC received 119.21 billion yuan of investment capital (\$71.8 million yuan in 1936 constant price) from state appropriation, almost exactly the amount the state promised to invest. Meanwhile, the Bank of China and the Bank of Communications provided 9 billion yuan (12 million yuan in 1936 value) working capital between 1943 and 1945 to the NRC enterprises. The

⁹³ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, pp. 58-61, 50.

⁹⁴ "Xi nan ge sheng san nian ji hua gang yao," 1939, SHAC, no. 28(2)-37.

⁹⁵ "Zhongguo jin dai bing qi gong ye dang an shi liao" bian wei hui, *Zhongguo Jin Dai Bing Qi Gong Ye Dang an Shi Liao*, 4 vols. (Beijing Shi: Bing qi gong ye chu ban she, 1993), vol. 3, pp. 109-22.

NRC also kept 20% of profit, or 6,327,344 yuan (1936 value), from tungsten and antimony trades as internal accumulation of capital between 1937 and 1944.⁹⁶

Table 19. Annual Government Appropriations to NRC and NRC Payout to the Government

Year	Appropriations for NRC (thousand yuan)	NRC Funding/National Budget %	NRC Interests and Dividends Paid to the Government (thousand yuan)
1936	5,493	0.4	
1937	16,984	1.2	
1938	6,665	1.0	
1939	7,872	1.2	
1940	9,257	2.8	
1941	11,062	2.2	146
1942	7,095	1.6	200.9
1943	2,041	0.9	87.6
1944	1,739	0.9	64
1945	3,607	0.7	133.1
Total	71,835		631.6

Sources: Zi yuan wei yuan hui, *Fu Yuan Yi Lai Zi Yuan Wei Yuan Hui Gong Zuo Shu Yao* (Nanjing Shi: Zi yuan wei yuan hui, 1948), pp. 37-39; “Zi yuan wei yuan hui li nian ku bo ge shi ye zi jin zong biao,” SHAC, no. 28(2)-415. Due to runaway inflation in the last three years of the war, all numbers are calculated and shown in constant 1936 Chinese yuan value.

The NRC derived most foreign capital and technological assistance from the Nazi Germany.

On April 8, 1936, through the intermediary of Hans Klein, Chinese representative Gu Zhen, Commissioner of the NRC and General Manger of Kailuan Colliery, and German Minister of Economics Hjalmar Schacht signed the Sino-German Countertrade Agreement in which the German government granted the Chinese government 100 million Reichsmarks (RM) of credit to

⁹⁶ “Wu ti zhuan kuan chu li ban fa,” SHAC, no. 28(2)-4.

purchase German arms, military and heavy industrial equipment with 5% annual interest, and the Chinese could repay it with agricultural and mining products.⁹⁷ The two sides signed an additional Technological Cooperation Agreement, obligating the Germans to help China to establish artillery, machine gun, optical instrument, vitriol, iron and steel, tungsten, and oil refinery factories.⁹⁸ A German trading company, Handelsgesellsch Industrielle Produkte (HAPRO), established in 1934 and headed by Klein, was asked to execute the agreements and the NRC was responsible for delivering the mining products to the German side. Over 90% of the credit was used to buy weapons and munitions for the looming war, but the NRC still got 9,819,114 RM credit. The NRC spread the money into purchasing mining (3.57 million RM), electric power (1.33 million RM), and machinery (4.92 million RM) equipment.⁹⁹

From April 1936 to July 1941, when the two sides severed diplomatic relations, the NRC completed 3,572,418 RM worth of purchase contracts and sent a score of specialists to study at the Krupp steel mill in preparation for the planned Central Steel Mill at Xiangtan, Hunan Province. Most of these specialists were sent to take over the Manchuria Ironworks at Anshan in 1946 and stayed with the factory when the Communists took over. Among them, Shao Xianghua became the Chief Engineer of the Anshan Iron and Steel Factory and Yang Shutang became the

⁹⁷ Initial agreement was signed by Hans Klein and the Minister of Finance Kong Xiangxi on August 23, 1934, but the negotiations on the provisory clauses were delayed and the agreement was not approved by both governments. See Zhendu Ma and Rugao Qi, *Jiang Jieshi Yu Xitele: Min Guo Shi Qi Di Zhong De Guan Xi* (Taibei Shi: Dong da tu shu gong si, 1998), p. 167.

⁹⁸ Zhaohong Wu, "Wo suo zhi dao de zi yuan wei yuan hui," in *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, ed. by Zhongguo ren min zheng zhi xie shang hui yi quan guo wei yuan hui wen shi zi liao yan jiu wei yuan hui, p. 82.

⁹⁹ SHAC, no. 28-2232.

Director of the Production Technology Department at the factory. Many others served as educators and tech experts in the People's Republic.¹⁰⁰

With the Japanese cutting off all coastal links of China with the outside world and the United States joining the war in 1942, the Chinese government was less able and less willing to rapidly building a heavy industrial system on its own.¹⁰¹ Consequently, after experiencing a steady rise of from 1936 to 1941, the value of annual state appropriations suffered a steep decline from 1942 to 1945. Between 1936 and July 1945, the NRC established or took over more than 130 enterprises and organizations in heavy industries including metallurgy (9), machinery (7), electric equipment (7), chemicals (37), mining (38), hydro and thermal power (27), and service organizations (7). Among them, the commission wholly owned and managed 75 enterprises and organizations, partially owned and managed 37, and invested in 8. The majority of the enterprises (75) were erected between 1938 and 1942, with 20 more established in the next three years.¹⁰²

The result of NRC's planned heavy industrialization was impressive, yet unsatisfactory. From 1939 to 1945, NRC staff increased from 1,355 to 8,258 and the total workforce sextupled to 63,733. In 1945, NRC system produced 70,136 kWh of electricity (compare to 1533 kWh in 1937), 750,000 tons of coal (compare to 19,808 tons of coal in 1937), 22,556 metric tons of pig iron, 10,206 metric tons of steel ingots, and 4 million gallons of ethanol (none existent before the

¹⁰⁰ Total contract value in 1936 Chinese currency was 4,762,014.3 yuan. See Wu Zhaohong, "Zhi zi wei hui han," SHAC, no. 28(2)-547. And Zhaohong Wu, "Wo suo zhi dao de zi yuan wei yuan hui," in *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, p. 84.

¹⁰¹ China received \$500 million loan from the United States in February of 1941 and in May China joined the Lend-Lease Program. During the war, America sent \$840 million worth of goods and materials to China. In 1944 alone, the US transported 231,219 tons of goods over the Hump to China. Importation of American products depressed Chinese demand for NRC output and reduced the investment on heavy industries in the home front. See Zhenghua Wang, *Kang Zhan Shi Qi Wai Guo Dui Hua Jun Shi Yuan Zhu*, Chu ban. ed. (Taibei Shi: Huan qiu shu ju, 1987), pp. 293-294.

¹⁰² Manshu Nichinichi Shinbunsha and Nihon Maikuro Shashin Kabushiki Kaisha, Manshu Nichinichi Shinbun, (Dairen: Manshu Nichinichi Shinbunsha), issue 9, no. 2, August 16, 1945, pp. 43-51.

war).¹⁰³ However, the scale of the NRC system and its production capacity was still very small comparing to the Manchurian military industrial complex during the same time period, let alone the Japanese industrial system. Moreover, the bulk of NRC mining products—rare metals like tungsten, antimony, tin, lead, bismuth, and molybdenum—were exported to the Soviet Union and the United States as repayment for loans, not for domestic consumptions.¹⁰⁴ Therefore, on the one hand, by the end of the war the Nationalist Government had a ripening state planning institution and a rapidly growing heavy industrial system, but on the other hand, they were eager to return to coastal and northeast China so that they could explore and integrate the huge industrial capacity built by the Japanese and develop China into a real industrial power in the postwar world.

3.4 Nationalist Plans for Postwar Reconstruction and the NRC Heavy Industrial System

Looking forward to the end of the war, the Nationalist Government began to plan for the postwar recovery and economic development, with a broad consensus among Chinese planners on a larger role of state industrial management and state-directed enterprises.¹⁰⁵ After the NRC moved down to the Ministry of Economic Affairs and became industrial management agency, Jiang created another institution under the Military Affairs Commission, the Central Planning

¹⁰³ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, pp. 123-127.

¹⁰⁴ Three batches of loans from the Soviet Union, a total US\$250 million, and three batches of loans from the United States, a total US\$95 million, were paid off in part by raw metals. Altogether, 96,960 tons of raw metals were exported to maintain Chinese credit. See *ibid.*, vol. 1, pp. 122-23; *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, pp. 5-6.

¹⁰⁵ See more details in Kirby, "Continuity and Change in Modern China: Economic Planning on the Mainland and on Taiwan, 1943-1958," pp. 129-30. Also in Xihong Tan, *Shi Nian Lai Zhi Zhongguo Jing Ji* (Shanghai: Zhonghua shu ju, 1948), vol. 1, p. A12.

Bureau (CPB), in October 1940 to plan postwar national defense and economic recovery and development. Jiang headed the bureau himself and asked Wang Shijie, former Minister of Education and member of the NRC, to be the secretary-general of the bureau.

In his speech at the first bureau meeting, Jiang positioned the bureau as “a central hub for national planning” that utilized planners in government departments who made individual plans for specific aspects and integrated these subject plans into a general master plan.¹⁰⁶ Jiang stipulated that the CPB had to be different from ordinary administrative agencies, because it would assemble experts and talents into “a specialized state organ that works under the scientific principles,” just like the respected NRC. Refusing to duplicate “foreign five year or ten year plan”, Jiang wanted a plan that based mainly on Sun Yat-sen’s Ten Year National Defense Plan. Jiang also reiterated the logic in Sun’s International Development of China, hoping that Americans would come to help China developing her economy so that they could keep American surplus capital, human resource and machinery in use after the war.¹⁰⁷

After the United States entered the war, General Xiong Shihui, former Governor of Jiangxi Province for ten years, was sent to Washington, D.C. in January 1942 as head of the Chinese Military Mission to the US, but he simultaneously received Jiang’s secret instruction to prepare a ten-year reconstruction plan for China’s postwar economic development.¹⁰⁸ Before Xiong returned to China, Jiang sent a telegram to him on December 8, asking Xiong to visit American aircraft, automobile, locomotive, engine and gun factories as well as ship yards and steel mills.

¹⁰⁶ Kai-shek Chiang, Xiaoyi Qin, and Zhongguo guo min dang dang shi wei yuan hui, *Xian Zong Tong Jiang Gong Si Xiang Yan Lun Zong Ji* (Taibei Shi: Zhongguo guo min dang zhong yang wei yuan hui dang shi wei yuan hui : Jing xiao chu Zhong yang wen wu gong ying she, 1984), vol. 18, p. 50.

¹⁰⁷ *Xian Zong Tong Jiang Gong Si Xiang Yan Lun Zong Ji*, vol. 19, pp. 53-54.

¹⁰⁸ However, Jiang particularly requested a military industrial plan for the northwest and the southwest China, Manchuria was still far off the map of Chinese state planning. Shihui Xiong, Zhaohui Hong, and Yingshi Yu. *Hai Sang Ji : Xiong Shihui Hui Yi Lu, 1907-1949* (Carle Place, N.Y.: Ming jing chu ban she, 2008), p. 31.

Xiong followed the instruction and inspected a number of leading American companies, such as the Baldwin Locomotive Works, the Bethlehem Steel, the General Electric and the Tennessee Valley Authority.¹⁰⁹

Upon returning to China in April 1943, Xiong was appointed Secretary-General of the CPB, replacing Wang Shijie who assumed the Minister of Foreign Affairs. Xiong led the bureau to start general planning for postwar development in China. However, the bureau had limited budget (1,500 yuan prewar value) and only 26 fulltime members and 15 part-time members. By the end of the year, Jiang agreed to raise the budget and gave Xiong permission to focus on economic planning.¹¹⁰ Xiong had good working relations with Weng Wenhao and Qian Changzhao and they shared similar views on the role of state and foreign investment /technology in defense economic development. Therefore, CPB's Material Development Five-Year Plan in the First Phase General Plan for National Economic Development was drafted corresponding with the NRC's Heavy Industrial Development Five-Year Plan, which was drafted extensively in 1943. The Material Development Plan set three targets for the postwar development: meet national defense needs, establish a foundation for industrialization and improve people's livelihood. Six key industrial sections were designated economic priorities in the NRC's postwar development plan.¹¹¹ The NRC plan covered over 300 heavy industrial enterprises and 3,000

¹⁰⁹ Shihui Xiong, Zhaojun Hong, and Yingshi Yu. *Hai Sang Ji : Xiong Shihui Hui Yi Lu, 1907-1949* (Carle Place, N.Y.: Ming jing chu ban she, 2008), pp. 357-358.

¹¹⁰ Ibid., p. 425.

¹¹¹ They are the metallurgical industry (iron and steel, non-ferrous metals, and export metals), the fuel industry (coal and petroleum), power industry (thermal and hydroelectric power), machine industry (machinery, transportation equipment, and electrical implements), the chemical industry (inorganic and organic chemicals, fuels, ceramics, resinous products, explosives, and dyes), and communications (railways, highways, air service, postal service and telecommunications).

light industrial units. Total cost to complete the plan was estimated at US\$2 billion, with the workforce requirement of 27,000 staff and 2.8 million industrial workers.¹¹²

The CPB plan, published in December 1945, however, adjusted industrial sections into four categories and add agriculture and water conservation plans, making it a more comprehensive state economic plan.¹¹³ In addition, the CPB divided China into nine macroeconomic regions and allocated investment capital respectively. The Central Region (lower Yangzi provinces) and the North Region (Beiping-Tianjin area) were allocated 49% of the investment, but Manchuria was only scheduled to reap 6% of the 21.97 billion yuan estimated investment due to the faulty assumption of unhampered reception.¹¹⁴ The CPB and NRC's plans indicated that economic planning and public enterprises were no longer a wartime temporary act of the state, but a decisive shift toward state-directed economic model.

To realize planned industrial development, the most imperative factor was large capital investment. Qian went to the United States and Canada with Song Ziwen to negotiation postwar recovery loan. American government agreed to lend US\$2 billion and Canada promised US\$200 million to China. In the end, China received US\$60 million from each country. Qian also entered into technology cooperation agreements with 18 large American corporations, covering nearly every heavy industry in the First Five-Year Plan.¹¹⁵ The US industrial and engineering consulting firms were engaged in 1945-46 to inspect industries in Manchuria, East China, and Taiwan as

¹¹² “Zhan hou gong ye jian she chu bu shi shi ji hua,” 1943, SHAC, no. 28(2)-934.

¹¹³ The CPB plan merged the metallurgical and fuel industries and put the chemical industry plus textile industry under the machine industry.

¹¹⁴ Zhong yang she ji ju, *Wu Zi Jian She Wu Nian Ji Hua Cao An* (Taipei: Taiwan Hua wen shu ju, 1967), pp. 16-17.

¹¹⁵ Including J. G. White Engineering Corp., Pierce Management Co., Arthur G. McKee & Co., Noran da Mines Co. Ltd., United Engineering Corp., Westinghouse Electric Corp., General Electric Co., H. K. Ferguson Co., General American Transportation Corp., E. A. Rose Inc., Fitchburg Paper Co., Universal Oil-products &Co., Behre Dolbear Co., S. Morgan Smith Co., Philco Corp., Burgess Battery Co., R.C.A., and Reynolds Aluminum Co. Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, pp. 140-141.

soon as the war ended. The adoption of their reports and recommendations by the NRC not only enhanced its understanding of the postwar Chinese industrial landscape and potential, but also exhibited China's desires to connect with the proper foreign entities and solicit their technical support in future industrial reconstruction process. Unfortunately, little was executed according to the original plan and Manchuria's recovery and development mostly stayed on paper. Though American capital and technology failed to penetrate into Manchuria, many American trained specialists and technicians did come and stayed in Manchurian industrial enterprises.¹¹⁶

In April of 1945, recommended by Xiong, Jiang authorized the establishment of the Northeastern Investigative Committee under the CPB to prepare for Manchuria recovery. Shen Honglie, Minister of Agriculture and Forestry and former Commander of the Manchurian Navy under Zhang Xueliang, was appointed director of the committee. The Northeastern Investigative Committee was supposed to integrate exiled Manchurian provincial governments in Chongqing and form an interim administration for postwar takeover of Manchuria. However, due to intraparty struggle and Jiang's distrust of Zhang Xueliang's followers, the committee was not completed until July and the directorship of the future Manchurian administration finally fell on Xiong Shihui. Delayed by personnel changes, the Plan for Northeastern Regional Reconstruction was also postponed and eventually came out in late September.¹¹⁷ The plan proposed to repair and recover Manchurian industries first and refrained from expanding them beyond current capacity.

¹¹⁶ Between 1942 and 1947, the NRC sent seven batches of tech and management interns, a total of 758 individuals, to the United States. They were trained in 11 industrial sectors and most of them returned to China before 1949 and Stayed on the Mainland. See *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, pp. 104-106.

¹¹⁷ General Xiong accompanied Song Ziwen to the Soviet Union and participated in the treaty negotiations. He returned to China on August 20, 1945. See Xiong, Hong, and Yu, *Hai Sang Ji : Xiong Shihui Hui Yi Lu, 1907-1949*, pp. 486-488.

Compare to the CPB, the NRC warmed up early to the task of industrial takeover. The commission collected much information on the Manchurian industries and made detailed plans on what enterprises should be retained. When Sun Yueqi was named Special Commissioner of the Ministry of Economic Affairs to Manchuria, he set up an office in Chongqing and started running advertisement on newspapers to recruit takeover personnel. More than a thousand native Manchurians who left home after 1931 signed up. Sun asked Zhang Shenfu, who was killed in January 1946 during the attempt to takeover the Fushun Colliery, to head the takeover team and wait for NRC's turn to move in.¹¹⁸

Due to the similar nature of controlled economy, three takeover regions out of seven, Manchuria, North China and Taiwan, were singled out for the NRC to lead the takeover process and to receive the majority of the industries there. The Executive Yuan instructed the NRC to “takeover basic industries and large industries that the government deemed fit for state management”, “aggregate small scale enterprises into large integrated enterprises to concentrate human and financial resources”, and “adopt the form of corporation wherever possible and restore production as soon as possible”.¹¹⁹ The NRC accordingly drafted a new State Industrial Development Three-Year Plan in 1946 based on the information about projected takeover capacity. The plan was very ambitious and called for a total investment of over 900 million yuan and US\$576 million so that at the end of 1949, the NRC system could produce 1.05 million tons of steel, 30 million tons of coal, 1.25 million tons of cement, 136,400 tons of fertilizer, and 500 megawatts of electric generators annually, with installed capacity of 1800 megawatts.¹²⁰

¹¹⁸ Xue, *Guo Min Zheng Fu Zi Yuan Wei Yuan Hui Yan Jiu*, p. 358.

¹¹⁹ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, p. 131.

¹²⁰ *Fu Yuan Yi Lai Zi Yuan Wei Yuan Hui Gong Zuo Shu Yao*, pp. 3-11.

Table 20. Reorganization of Japanese-Manchukuo Enterprises into 19 NRC Enterprises

Industries	Japanese-Manchukuo Enterprises (units)	NRC Enterprises
Electricity	Manshu Electric Power Co. (13)	Northeast Electric Power Bureau
Coal Mining	Fushun and Yantai Colliery (15)	Fushun Mining Bureau
	Fuxin Colliery and Factories (3)	Fuxin Colliery
	Beipiao, Nanpiao Colliery (2)	Beipiao Colliery
	Xi'an Colliery (1)	Xi'an Colliery
Iron and Steel	Manshu Ironworks and Manshu Sumitomo Metal Industries (22)	Anshan Iron and Steel Corporation
	Manshu Ironworks Benxi Branch and Benxihu Special Steel Co. (10)	Benxi Coal and Iron Corporation
	Manshu Mining Development Co. Fengtian Smelting Works (30)	Northeast Metal Mining Corporation
Cement	Manshu Onoda Cement Co. (9)	Liaoning Cement Company
	Manshu Asano Cement Co. and Honen Oil Manufacturing Co. (2)	North China Cement Company Jinxi Plant
Fuel	Manshu Synthetic Fuel Co. (7)	Chinese Petroleum Northeastern Refinery
Machinery	Manshu Mitsubishi Machinery Co. and Zhongshan Steelworks (12)	Shenyang Machine Works
	Japan-Manchu Steel Industry Co. (4)	Central Machine Works Shenyang Factory
	Daiwa Machinery Co. (8)	Central Electric Works Shenyang Plant
Chemicals	Toyo Tire Co. (6)	Shenyang Rubber Plant
	SMR Chemical Co. and Manshu Liquefied Gas Laboratory (4)	Shenyang Chemical Plant
	Manshu Mining Co. Huludao Smelting Plant (2)	Huludao Vitriol Plant

Source: *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, pp. 242-244. The NRC Jilin Office and Material Supply Office Northeastern Branch absorbed 58 other smaller enterprises.

Starting from March 1946, following the Soviet and Communist withdrawal, the Nationalist Government gradually took over 293 Japanese-Manchukuo enterprises and organizations, including 206 mining facilities and industrial plants. Though nine different government agencies participated in the process, the NRC received the majority, 216 enterprises, of these industries and formed 19 industrial conglomerates in southern Manchuria.¹²¹ Meanwhile, the NRC was elevated to a ministry level agency directly under the Executive Yuan. Qian Changzhao was promoted to Director and Sun Yueqi, Special Commissioner of the Ministry of Economic Affairs to Manchuria, was named Deputy Director.

Qian returned light industries back to the local governments or private management and consolidated NRC heavy industries to form larger scale state enterprises, which reinforced government control of the commanding heights in the postwar economy. In order to restore and develop the newly recovered industries, Qian, supported by Song Ziwen, tried to get foreign capital from the U.S. and industrial equipment from Japan. On October 1, 1946, Song established the Japanese Reparation Commission in the Executive Yuan and the NRC also established the Japanese Reparation and Removal Commission in April 1947 to handle the reparation process. The two commissions shared key members in industrial sectors from the NRC and the NRC bureau chiefs and senior engineers visited Japan to survey the Japanese industries for removal. Invited by the US government during the autumn of 1946, the Executive Yuan sent five NRC American Technology Committee members, Yun Zhen, Wu Bannong, Zhou Maobai, Xue Jiming and Shao Yizhou, as reparation representatives to Japan.¹²²

¹²¹ With the support of Song Ziwen, Qian Changzhao's NRC was able to take over the majority of industrial enterprises in Manchuria, North China and Taiwan where Japanese had the most significant presence. Qian visited Manchuria in September 1946 to oversee the NRC reorganization of Manchurian industries. *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, p. 116.

¹²² Xue, *Guo Min Zheng Fu Zi Yuan Wei Yuan Hui Yan Jiu*, p. 422.

Table 21. NRC Requests of Japanese Industrial Reparations

Production Equipment	Capacity
Thermal Generator	1200 megawatt
Smelting	2.4 million ton/year
Boiler	250 thousand horsepower/year
Diesel Engine	100 thousand horsepower/year
Ball Bearing	3 million piece/year
Shipbuilding	0.5 million ton/ year
Locomotive, passenger car, freight car	600, 800, 6000/ year
Truck, Automobile	25000, 5000/year
Ammonia, Nitric Acid, Soda, Caustic Soda, Liquid Chlorine	600, 200, 600, 210, 180 ton/year

Source: Changzhao Qian, "Guo min dang zheng fu zi yuan wei yuan hui shi mo," in *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, p. 7.

In December 1946, impatient on the issue of reparation distribution ratio, the American government invoked the Far Eastern Commission regulation and decided that initial Japanese reparations should begin. For the first phase of the reparation, 1.35 million tons of shipment would cover 30% of the total reparations and the NRC was planned to receive a total of 309,150 tons of industrial material and equipment, which was 62.5% of the total Chinese share.¹²³ Unfortunately, China only obtained 12,524 cases (35,912.73 tons) of equipment and the NRC just received 1559 cases (4500 tons) from Japanese industries such as Mitsubishi Heavy Industries, Kobe Ship Yard, Japan Iron and Steel, and Furukawa Electric. The Supreme Commander for Allied Powers in Tokyo first delayed and then completely stopped removing

¹²³ The NRC planned to remove 201,000 tons of steel, 24,250 tons of machinery, 48,000 tons of shipyard equipment, 26,100 tons of electricity, 5,550 tons of chemical equipment, 4,250 tons of metallurgical equipment from Japan. Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, p. 142.

Japanese industries to China in May of 1949 due to Soviet removal in Manchuria, American shift of policy towards Japan and the deteriorating conditions of the Chinese civil war.

According to NRC estimate, despite Soviet removal of industrial equipment, total assets remained in government-controlled Manchuria amounted to 4,168,582,806 yuan and the NRC took over 3,545,675,999 yuan worth of industrial property, or 85% of overall recovered assets. By late 1946, the NRC managed 100% of Manchuria's electric power, coalmining, iron and steel, electric machinery, petroleum, metallurgical, and paper industries.¹²⁴ However, most of the factories were in minimal to non-performing status due to lack of power and chaotic military situation in Manchuria, with a large Chinese workforce and Japanese staff strapped for work and fund. For example, in Anshan Ironworks, there were over 90,000 staff and workers and about one third of them remained at the time of NRC takeover. The new company laid off 93% of the staff, 72% of Chinese workers and 87% of the Japanese workers for consolidation. In May 1947, the workforce recovered to 15,000 men due to partial production restoration. But when the Communists came back to Anshan, only 8100 workers and 1065 staff members were left.¹²⁵

Between 1946 and 1947, the government appropriated a total of 25.7 million yuan (in 1936 value) to the NRC, 7 times more than its budget in 1945.¹²⁶ The NRC tried hard to revive production in Manchuria and it spent a total of 23.99 billion Northeast Currency Notes (around 8.24 million yuan in 1936 value) to maintain operations and rebuild these enterprises.¹²⁷

¹²⁴ Chuanhong Zhang, "Kang zhan sheng li hou jie guan Dongbei gong kuang jing guo," in Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, pp. 244-246.

¹²⁵ Xueshi Xie and Keliang Zhang, *An Gang Shi, 1909-1948 Nian* (Beijing: Ye jin gong ye chu ban she : Xin hua shu dian Beijing fa xing suo fa xing, 1984), pp. 391-394.

¹²⁶ *Guo ying gong ye san nian ji hua jian biao*, SHAC, no. 28-5956. Also in *Fu Yuan Yi Lai Zi Yuan Wei Yuan Hui Gong Zuo Shu Yao*, p. 39.

¹²⁷ Zhen Chen and Luo Yao, *Zhongguo Jin Dai Gong Ye Shi Zi Liao*, 4 vols. (Beijing: Sheng huo, du shu, xin zhi sanlian shu dian, 1957), vol. 3, pp. 889-92. The Northeast Currency Note was issued by the Chinese Central Bank to replace the Manchukuo currency with 1:1 exchange rate. The Chinese national currency Fabi (legal tender) has an exchange rate of 10:1 with the note. Due to sever inflation, both Fabi and the Northeast Currency Note were

However, without vast capital injection to restore critical equipment, NRC's plan for postwar Manchurian industries could not be realized. By the end of 1947, the NRC system in Manchuria started to crumble. Electricity generation dropped from 1800 Megawatt to 220 Megawatt, or 12.2% of the peak capacity (but that was still 35% of China's total power capacity in 1947). Total output in 1947 and the first four months of 1948 was just 1,025,086 Megawatt-hour, half of which was generated by the Fengman Hydropower Station alone. Besides power system restoration, two 2MW engine generators were installed in Fuxin Colliery to supply electricity to Fuxin and Beipiao coalmines.¹²⁸ Coal production in 21 NRC managed coalmines recovered from 0.29 million ton to 0.44 million ton per month in 1947, but that was still less than 20% of the peak output before 1945. Cement production plummeted from annual production of 231 million tons during the Manchukuo period to a meager 31,432 tons in 1947. And rubber tire output in 1947 only recorded 369 car tires and 83,368 bicycle tires.¹²⁹

Shao Yizhou, General Manager of the Anshan Corporation, organized a Rehabilitation Committee and drafted a Two Phase Rehabilitation Plan in October 1946. The first phase aimed at annual production of 200 thousand tons of pig iron, but missing critical equipment, reduced supply of NRC appropriation and bank loans, and tightening coal quota strangled the recovery and forced Shao to adjust the target to 140 thousand tons of pig iron and 100 thousand tons of steel in June 1947. The company first repaired the power plant and the machine factory, which provided critical support to other factories' rehabilitation. By January of 1947, 14 factories started operation. In the 22 months under the NRC's management, Anshan produced 9500 tons

terminated in August 1948, replaced by the new Jinyuan Quan (gold yuan) with Fabi to Jinyuan Quan exchange rate of 3 million to 1. See more details about Manchurian currency circulation during that time in Zhongguo ren min yin hang can shi shi, *Zhonghua Min Guo Huo Bi Shi Zi Liao*, (Shanghai: Shanghai ren min chu ban she: Xin hua shu dian Shanghai fa xing suo fa xing, 1986), vol. 2, pp. 689-698.

¹²⁸ The soviets removed four 50 MW generators from Fuxin. *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, p. 190.

¹²⁹ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, pp. 319-20, 25.

of steel ingots, 12500 tons of steel products and 20,000 tons of coke, far below the planned target.¹³⁰ Since the Nationalist Army gradually lost control of the mining areas and railway branches, iron production was all but stopped. Phase Two had a target of combined output of 500 thousand tons and required either purchased American equipment or received Japanese reparation equipment. None of those equipment arrived as planned and the steel production stagnated then dwindling down after May of 1947 when the Communist troops cut the electricity from the Fengman Hydropower Station.¹³¹

Some progress was made in transportation, chemicals, electric equipment, and machinery industries. The Shenyang Locomotive and Rolling Stock Corporation started production once taken over by the NRC in 1946. Between October 1946 and April 1947, total yield from the factory reached 42 locomotives and 600 freight cars. The Vehicle Factory produced 3,600 bicycles. The Chemical Plant had soda, solvent, oil, and welding rod factories and produced 434 tons of soda, 21,796 gallons of ethanol, 74 tons of welding rods, and 758 tons of hydrochloric acid.¹³² The Central Electric Works Shenyang Plant, with the support of the Central Electric Works, also recovered quicker than other industries. By April 1947, the plant could make 83 tons of electric wire, 50 thousand light bulbs, 125 horsepower electric motors and 1150KVA distribution transformers per month, with 70 staff members and 400 workers.

The NRC spent 8 months to reorganize and optimize the Shenyang Machine Works. During Manchukuo period, the machinery industry was divided into 4 factories and 5 workshops. The factories produced springs, steel castings, boilers and radiators, fuel tanks, and other tools and instruments. The workshops on the other hand manufactured mining machines and machine parts.

¹³⁰ Xie and Zhang, *An Gang Shi, 1909-1948 Nian*, pp. 400-06.

¹³¹ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, p. 335.

¹³² Ibid., vol. 1, p. 313.

Since these factories and works lost over 70% of production capacity, the NRC decided to converge them into one machine plant to restore partial production. However, other than limited production of car springs and grinding wheels, the Shenyang plant was diverted in large part to military supplies such as grenades and launchers.¹³³

Even though the NRC industrial system in Manchuria was in such an ill form, its remaining capacity still generated a large portion of the total output in the NRC system and significantly increased NRC's weight in the national economy in 1947. Major products from the Manchurian enterprises in that year were valued at 26.4 million yuan (1936 value), more than three times the investment dropped by the NRC in Manchuria.¹³⁴ Once holding the badly damaged Manchurian industrial system, the NRC reached its peak in China's economy dominating the production of coal, electric power, cement, iron and steel, and basically monopolizing petroleum, tin, copper, rare metals, and sugar production nationally.

In the 96 enterprises (total 291 units) controlled by the NRC, there were 32,917 staff members, including 13,343 technicians and 19,574 managerial staff, and 228,159 workers, of which 94,089 were skilled labors.¹³⁵ The sustained systemic crisis had led to the creation and reorganization of a central planning bureaucracy and the tremendous expansion of heavy industry, a process that to a large extent reformatted Chinese developmental trajectory, much like what happened in Manchuria during the Manchukuo era, to a state planned and dominated heavy industrialization.

¹³³ Chuanhong Zhang, "Kang zhan sheng li hou jie guan Dongbei gong kuang jing guo," in *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, pp. 250-51.

¹³⁴ Chen and Yao, *Zhongguo Jin Dai Gong Ye Shi Zi Liao*, vol. 3, p. 878.

¹³⁵ Cheng et al., *Zi Yuan Wei Yuan Hui Dang an Shi Liao Chu Bian*, vol. 1, p. 142.

Table 22. Heavy Industrial Products from Manchuria and the NRC System in Comparison to the National Total

Industrial Products	Manchuria/NRC % 1947	NRC/National % 1947	Manchuria/National % 1943 (Manchuria included)	NRC/National % 1944 (Occupied area excluded)
Electricity	36	83.3	72	33.5
Coal	68	38.8	49.5	20.6
Steel	65	90	93	56.9
Machine Tools	63			7.8-12.8
Electrical	30			26.9-100
Cement	53	51	66	6.9
Petroleum	13	95		100
Non-Ferrous Metal	7	95		

Sources: Chen and Yao, *Zhongguo Jin Dai Gong Ye Shi Zi Liao*, p. 878; *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, p. 8; Tan, *Shi Nian Lai Zhi Zhongguo Jing Ji*, vol. 3, pp. 49-50, 55; "Zi yuan wei yuan hui yan ge," SHAC, no. 28-1224; *Kyu Manshu Keizai Tokei Shiryo: 1931-1945-Nen*.

In 1947 and 1948, along with the development of the Chinese civil war, the NRC experienced great turbulence. Early 1947, Song Ziwen was forced to resign from the Executive Yuan and Qian Changzhao also left his post in the NRC. Jiang put Weng Wen-hao back to head the NRC and Sun Yueqi remained as his deputy. Only a year later, Weng was promoted to the Premier of the Executive Yuan and Sun assumed his position at the NRC. By March 1949, the NRC and the Ministries of Industry and Commerce, Water Conservancy, Agriculture and Forestry were all squeezed into the Ministry of Economic Affairs with Sun heading the new ministry. The NRC enterprises in Manchuria were completely lost to the Communists in November of 1948 and the rest of NRC's enterprises gradually fell into the Communist hands in

1949. Most NRC personnel remained in Mainland China to continue their works in the industrial sectors and leaders of the NRC, such as Weng Wenhai, Qian Changzhao, Sun Yueqi and Wu Zhaohong, either joined the new Communist Government in Beijing or returned to China after 1949.

Sun Yueqi heard from various sources that after the Communist occupation of the NRC enterprises at Anshan, Fushun and Fengman in Manchuria, staff and workers were well treated and production restored. He regretted pulling out some of the personnel from Manchuria and decided not to move the NRC headquarters to southern China or Taiwan. Sun called a secret NRC meeting in Nanjing in October 1948 and suggested to the top echelon of the NRC, some 40 leaders of various industries, to stay and wait for the Communist takeover. The majority of the NRC managers and senior engineers believed that their work lied with the enterprises they established and operated, so they agreed to protect the factories and transfer the properties to the new authorities.¹³⁶

When Shanghai was taken, the Communist Municipal Government led by Chen Yi retained NRC headquarter staff and put them into work in the newly established East China Ministry of Industry under the leadership of the East China Financial and Economic Commission. The old NRC staff practically dominated the heavy industrial sector in the Ministry and some of them were sent to the Northeast Ministry of Industry in late 1949. Wu Zhaohong, last Deputy Director of the NRC, became Deputy Minister of the East China Ministry of Industry. He not only organized the compilation of the East China Regional Economic Development Plan and the

¹³⁶ Shunong Ji, "Zi yuan wei yuan hui yi Hu ying jie jie fang qin li ji," in *Hui Yi Guo Min Dang Zheng Fu Zi Yuan Wei Yuan Hui*, pp. 252-253.

National Non-Ferrous Initial Development Plan under the leadership of Minister Wang Daohan, but also submitted the Northeast Fengman Power Station Repair Plan for Manchuria.¹³⁷

The NRC was unique among Nationalist offices of cabinet level in that its entire senior leadership remained on the mainland, and personally assisted the transfer of power, often in direct contravention of Nationalist orders. Qian Changzhao and Sun Yueqi became members of the Financial and Economic Commission of the State Council, which was established in September 1949 and headed by Vice-Premier Chen Yun. They were also appointed Deputy Directors of the Central Financial and Economic Planning Bureau under this commission. The planning bureau effectively led China through the post-civil war recovery period, but was marginalized at the end of 1952 when the State Planning Commission, headed by Gao Gang, which took over the industrial ministries from the State Council. In any case, economic planning and state enterprise system stayed in Manchuria and the NRC management of Japanese-Manchukuo industries became a bridge linking Manchuria's warlord and colonial legacy with its Communist future.

Summary

When the Soviet Union declared war on Japan and invaded Manchuria at the end of the WWII, it opened a Pandora's box again in northeast Asia. Just like 40 years ago or 14 years ago, Manchuria, once slated for competition, war is hardly avoidable. The difference was that this time, the trophy was even more lucrative and critical. The military industrial juggernaut created

¹³⁷ Xue, *Guo Min Zheng Fu Zi Yuan Wei Yuan Hui Yan Jiu*, pp. 470-471.

by more than US\$2 billion of Japanese and Manchurian investment stood a clear target for the Soviets, the Americans, the Chinese Nationalists, and the Chinese Communists. Each had a different vision for the future of Manchurian industrial system, but all wanted to have it at their disposal.

The Soviet Union first saw a defeated enemy in Manchuria and then a potential return of an unfriendly regime allied with its arch-competitor. For its own interest and security, Stalin ordered a premeditated destruction of the Manchurian industries by removing most of the advanced and critical equipment in the factories, and then he brazenly instructed Soviet representatives to nudge the Chinese Nationalists into exclusive bilateral economic agreements that trumpeted large Sino-Soviet joint enterprises for the remaining industries left by the Japanese. The United States saw through Soviet intentions and wrestled Soviet policies with the Marshall Mission that tried to put out the civil war in China and the Marines mission, which provided the Nationalists means to ship American armed troops into Manchuria. War finally broke out the victor was the Chinese Communists.

Though the Communists quickly occupied large part of the rural and northern Manchuria, industrial centers in southern Manchuria remained in the Nationalist hands for 2 years. At the time of the takeover from the Soviets to the Nationalists, the incoming managers and engineers were neither new to the Japanese form of integrated enterprises nor the model of controlled economy with central planning. The leadership of the NRC was war-hardened start-from-scratch elites trained in the west and prepared for the postwar industrial development of China. They used their knowledge and resources accumulated during the war and started ambitious recovery plans in Manchuria. Unfortunately, the NRC plan had the predicated on a peaceful environment in Manchuria, the American financial and technological assistance and the Japanese reparation of

industrial equipment. The advent of the cold war and the decisive victory of the Communists in 1948 crushed any hope for the Nationalists to cling on to the industrial assets in Manchuria.

When the Chinese Communists entered major industrial centers in southern Manchuria, what they took over was an industrial system that was left by the Japanese, plundered by the Soviets, and reorganized and partially restored by the Nationalists. It was managed by NRC technocrats, supported by a large body of Japanese technical experts and Chinese specialists trained in Germany and America, and operated day in and day out by hundreds of thousands of workers from rural Manchuria and North China. The complexity of the system and the scale of the industries would soon test the new regime of its capacity to further plan and execute industrial development in Manchuria. And the result of which had a deep impact on institutional formation, industrial organization, and prevailing economic thought in the early years of the People's Republic. Despite life and death struggle on the battlefield, the will on either side to grow the state-dominated heavy industries was never weakened and the continuous investment of state capital, human resource, and foreign technology in turn kept Manchuria at the center of geopolitical competition in Northeast Asia.

CHAPTER FOUR

RESURGENCE OF HEAVY INDUSTRIAL STATE IN COMMUNIST MANCHURIA, 1946-1954

Compared to the Nationalist Government, the Communist Party of China (CPC) was even more determined to seize Manchuria and acted earlier than its opponent to send personnel into the region. It was clear for the CPC how important Manchuria was strategically, both for the region's geopolitical advantages and its industrial power. However, the Communists were not prepared to receive a land largely stripped of her critical machinery and their initial optimism of monopolizing Manchuria was certainly cooled by the Soviet concessions to the Americans and the Nationalists. Hence, after the first three months of chaotic competition of control in Manchuria and the following war and truce along the old South Manchuria Railway, the Communists finally gave up their hope of possessing the Japanese industrial and urban legacy and retreated into the rural and northern Manchuria.¹

Despite the fact that most industrialized centers were in southern Manchuria under the Nationalist control, the CPC still took the advantage from their close proximity to the Soviet Union and North Korea. As a result, Communist military industrial bases in Manchuria built upon the industrial remains of Manchukuo began to root and grow on the manpower from Yan'an and the trade relations between Communist allies. The success of the land reform, local

¹ Zhong gong zhong yang wen xian bian ji wei yuan hui ed., *Peng Zhen Wen Xuan: 1941-1990 Nian* (Beijing: Ren min chu ban she, 1991), pp. 106-07.

state-building, and military industry dramatically shifted the dynamics in Manchuria and gradually shrank the Nationalist zones into limited and disconnected urban areas, stifling their industries. The final blow came in October 1948, when Commander Lin Biao's Northeast Field Army, now almost a million strong, crashed the Nationalist forces and achieved complete domination in Manchuria.

Rather than celebrating their newly obtained prize, the Communist leadership knew what they were getting was a “junk yard”. Japanese wreck, Soviet plunder, civil war destruction, and local pillage have all but destroyed the once rumbling industrial juggernaut in Manchuria.² The Japanese captives and American experts had foreseen years if not decades to restore production capacity. They did not see the Cold War and then the Korean War coming. These major geopolitical events catalyzed a bond between Soviet Union and the CPC and greatly accelerated the process of industrial reconstruction and expansion in Manchuria. Manchuria regained and surpassed its peak capacity in almost all heavy industrial categories by mid-1950s.

During the geopolitical realignment, the Soviet Union played a role that the Japanese Empire once did in the late 1930s by providing Manchuria with the knowledge of economic planning, industrial technology and machinery, and capital. The Soviet First Five-Year Plan was once again a model for Manchuria to follow and a lesson to learn. Soviet experts helped the Chinese to fill the blanks or replace Japanese managers and technicians in the industrial enterprises. The fact that one third of the Soviet-assisted projects in the 1950s located in Manchuria speaks volume of the Soviet influence and the reality of China's industrial growth distribution. However, this Manchuria-centered heavy industrial development was gradually coming to an end when Manchuria, as a semi-independent political-economic entity, was reintegrated into China to serve

² Wang, *Wang Shoudao Hui Yi Lu*, p. 479.

a larger national configuration, and when Mao decided to go separate ways as he saw that the Soviet revisionism no longer fit China.

4.1 Reformation of Economic Leadership and State Financial System

During the Seventh Communist Party Congress between April and June 1945 in Yan'an, one of the most important meetings in the history of the CPC, the party discussed in depth about its strategy after the Japanese defeat. One of the central issues for Mao Zedong was how to link the Communist bases together to form an integrated region in which the Communists could have cities with major industries that were capable of sustaining the Chinese revolution. Mao and the leadership agreed that Manchuria, with its natural resources, modern cities and communication systems, particularly heavy and military industries, should be the number one priority for the future of the party.

On September 18, 1945, the CPC established the Northeast Bureau and assigned five members, Peng Zhen (Secretary), Chen Yun, Gao Gang, Zhang Wentian, and Wu Xiuquan. The new bureau was headquartered in Shenyang and it adopted the strategy of “marching on the north and defending the south” in Manchuria that aimed at taking control of the whole region.³ From the Communist bases in northern and northwestern China, more than 100 thousand troops and 20 thousand cadres marched into Manchuria. Among them, 21 (out of 77 in total) were CPC Central Committee members. Mao did not just sent his most trusted generals to fight, he also sent

³ Zhongguo gong chan dang zhong yang zu zhi bu, Zhong gong zhong yang dang shi yan jiu shi, and Zhong yang dang an guaned., *Zhongguo Gong Chan Dang Zu Zhi Shi Zi Liao*, 19 vols. (Beijing: Zhong gong dang shi chu ban she, 2000), vol.4, p. 231.

his most abled financiers and industrial managers into Manchuria, expecting a complete takeover of industrial assets and urban centers.

However, with the help of the United States, the Nationalist elite army quickly and forcefully moved into Manchuria. Communist forces were too weak and demoralized to execute the original order of “guarding the gate of the Northeast” and preventing the invasion of the Nationalist forces. Moreover, the Soviet Army, restrained by the treaty obligations to the Chinese government and reluctant to antagonize the US, pushed the Communist organizations out of the major cities as per the Nationalist’s request. By December 1945, the Central Committee had to accept Chen Yun, Gao Gang and Zhang Wentian’s recommendation of retreating to the rural area and establishing bases for long-term struggle. Following the new strategy of “leaving the high road and seizing the land on both sides”, Communist forces gave up major cities like Shenyang and Fushun along the South Manchuria Railway, rolling back to eastern, western and northern Manchuria. The civil war engulfed Manchuria for the next three years.⁴

Failure to maintain control of southern Manchuria and the urban areas and the lack of consolidated base areas forced the CPC to rely on confiscating and spending “enemy and puppet assets”, including cash, weapons and ammunitions, foodstuff and clothing, means of transportation. After the “liquid assets”, the Northeast Bureau eyed the farmland owned by the Japanese, Manchukuo and the Nationalists, starting to seize and redistribute these lands since March 1946. However, financial and economic situation in the Communist controlled areas continue to deteriorate and printing money became the last straw for the CPC in crisis. In 1946,

⁴ Peisen Zhang and Zhang Wentian xuan ji zhuan ji zu ed., *Zhang Wentian Nian Pu*, 2 vols. (Beijing: Zhong gong dang shi chu ban she: Jing xiao Xin hua shu dian, 2000), vol.2, pp. 499-500.

taxes (excluding grain tax) only accounted for 0.99% of the state revenue in the Communist controlled area.⁵

After several retreats and internal debates on policies, the Northeast Bureau finally settled down in Harbin and recomposed its membership in June 1946. Lin Biao, Commander and Commissar of the Northeast Democratic Allied Army (NDAA), was named as the new secretary and Peng Zhen, Luo Ronghuan, Gao Gang, and Chen Yun became deputy secretaries. A month later, the Northeast Bureau passed Chen Yun's draft of the "Situation in the Northeast and Our Mission (a.k.a. 7.7 Resolution)", formally calling for the land reform in rural areas to mobilize the peasantry. The redirection of the CPC from the cities to the rural areas brought majority of the Communist cadres to the villages and towns in Manchuria.

Meanwhile, the Communist-led civil authority, initially blocked by the Soviets in Shenyang, reopened its congress in Harbin and established the Northeast Provincial and Municipal Joint Administrative Office, later renamed the Northeast Administrative Committee (NAC), as the regional government in Manchuria on August 7, 1946. The NAC had 27 committee members chaired by Lin Feng, Director of Organization Department of the Northeast Bureau and a native of Heilongjiang Province, with two Vice-Chaimen, Zhang Xuesi and Gao Chongmin, General Zhang Xueliang's younger brother and former secretary respectively. By June 1947, NAC ruled over 243 counties and 27,018 villages and its central task was state building in the rural area and tax collection to support the war.⁶ Ye Jizhuang, a law school graduate from Guangdong Province and long-term Red Army leader of logistics, was appointed Director of the Committee of Finance of the NAC and the committee had the Bureau of Trade, Bureau of Food, Bureau of Tax,

⁵ Jianhua Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao: 1945.8--1949.9* (Ha'erbin: Heilongjiang ren min chu ban she: Heilongjiang sheng xin hua shu dian fa xing, 1987), p. 427.

⁶ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, pp. 32-33.

the Northeast Bank, the Department of Materials, and the Department of Military Supplies. Wang Shoudao, Chen Yu and Shao Shiping were appointed Director and Deputy Directors of the Economic Committee. The Economic Committee included the bureaus of Administration, Planning, Agriculture and Forestry, Industry and Mining, and Textile. Director Wang and Deputy Director Shao concurrently headed the Bureau of Industry and Mining and the Bureau of Planning respectively.

In the darkest hours of the Communist struggle in 1946, the Northeast Bureau first established the Financial and Economic Office and then the Northeast Financial and Economic Commission (NFEC) in April and November to unify and oversaw party, government, and military financial and economic affairs. But the effort was largely discounted by the fragmentation of the base areas. Though Xiao Jingguang (Deputy Commander of NDAA), Chen Yun (Deputy Secretary of the Northeast Bureau and Deputy Commissar of NDAA), and Li Fuchun (Secretary of the Financial and Economic Commission) were all temporarily in charge of the agency, they were sent down to develop southern and western Manchurian bases and most of the daily works was done by Wang Shoudao (Director of NFEC since November 1946), Lu Zhengcao (First Deputy Director of NFEC and Director of the Northeast Railway Administration), and Ye Jizhuang (Second Deputy Director of NFEC and NAC Director of Finance). For the Northeast Bureau, the most urgent task was to avoid financial bankruptcy and survive the Nationalist onslaught.

From the feedbacks of the rural areas, the NFEC realized that rural Manchuria had long been integrated into the world trade system and was very different from the self-sustaining areas in northwestern China. It had to export agricultural products, particularly soybean, in exchange for industrial goods, but now it was not only cut off from the Japanese market, but also southern

Manchuria and the rest of China. The only option was to trade with the Soviet Union, which had declined such request twice in 1946. But in November, Soviet position suddenly changed, mostly due to its bad harvest in the summer and fall seasons, and asked for 1 million tons of food annually, even 3.6 million tons if possible. Ye Jizhuang, acted as the trade representative, settled with the Soviet side on 1 million tons foodstuff from Manchuria for Soviet cotton products, medicine, petro, and machine parts. The trade solved a number of problems for the Communists: industrial products demanded by the rural areas, industrial parts to repair factory equipment, provisions needed by the military, and trade surplus to balance the budget.⁷ Similar trade agreements were reached both in 1948 and 1949 between the Soviet Union and Manchuria, greatly enhanced Manchuria's financial and economic standing.

To fulfill the trade obligation and support the front, the Northeast Bureau declared on the new year's day of 1947 that its mission was to "develop production, secure supply, and improve people's livelihood." In the its first joint conference in Harbin, the NFEC detailed the policy as "planning for the long run, developing production, enhancing trade, enforcing thrift, securing supply, and supporting the war". The conference believed that agricultural production was the main part of total production and number one priority for ensuring war effort and foreign trade. The conference also made the decision to consolidate finance by eliminating local currencies, unifying grain tax revenue and expenditure, standardizing tax categories and rates, and centralizing foreign trade so that overall budget of Manchuria could be measured and balanced and the state could have more resources at its disposal to develop the economy.⁸

⁷ Wang, *Wang Shoudao Hui Yi Lu*, pp. 492-498.

⁸ "Dongbei jie fang qu 1947 nian cai zheng gong zuo bao gao," January 31, 1948, in Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p.430.

Industrial development was limited to imperative military and civilian needs, but control and management of sizeable industries began to be centralized from local governments and military units to state management. NFEC Director Wang emphasized in the meeting, “agriculture can be done by local cadres, but industry must be handled by the NFEC,” and he suggested that “industrial restoration initially came from the demand of military supply, from restoring rail transportation, organizing truck fleet, to producing clothing and arms, but coal and electricity are required, so industrial development must follow certain rhythm.”⁹ However, the financial and industrial consolidation and centralization was delayed until after the summer offensive operations in 1947.

One year into the land reform, 6.29 million peasants received 5.03 million hectares of land, which gave the CPC firm political and economic stand in rural Manchuria. The Communists secured the supply of manpower and military provisions through established local authorities as well as trade with the Soviet Union.¹⁰ By the summer of 1947, the NDAA had reversed the situation and gained initiative in Manchuria by linking northern, eastern and western Manchuria bases together. The Northeast Bureau claimed that “power balance in the Northeast has shifted towards us and the task of the party is to prepare for the general counteroffensive, annihilate enemy in large numbers, reclaim the lost lands, and consolidate and expand the liberated area.”¹¹

In August 1947, the second Financial and Economic Conference was held in Harbin, and this time more emphasis was put on the economic development of the liberated areas. The revised fiscal policy called for “increasing state revenue through economic development” and “dividing large and small public finances with individual responsibility.” State and local revenue sources

⁹ Wang, *Wang Shoudao Hui Yi Lu*, pp. 502-504.

¹⁰ Between 1947 and 1948 new army recruits increased 20 folds and farmland increased 0.8 million hectares. Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 340.

¹¹ Zhang Wentian *Nian Pu*, vol.2, p. 546.

were clarified. The state received all grain tax, most of regular taxes, profit of state enterprises, 40% of profit from provincial enterprises, surplus of foreign trade, and excise tax on liquors, and the local revenue included surplus from provincial and municipal enterprises as well as state tax transfers. All levels of government were required to establish budget and final account system and no appropriation would be granted without proper budgeting.¹² After the second conference, it took more than a year to accomplish the fiscal consolidation with institutional development throughout Manchuria.

Table 23. Sources of Communist State Revenue in Manchuria, 1948-1949

Sources of Revenue	1948 (in million tons of grain)	Percentage	1949 (in million tons of grain)	Percentage
Grain Tax	1.34	37.04%	2.48	23.32%
Taxes	0.62	17.15%	2.27	21.33%
Profit of Enterprises	1.28	35.47%	3.23	30.41%
Total Income	3.61	100%	10.63	100%

Sources: “Dongbei ju guan yu dongbei cai zheng zhuang kuang xiang zhong yang de bao gao,” October 2, 1948 and “Dongbei cai zheng bu 1949 nian du cai zheng sui ru sui chu shi suan biao,” February 6, 1950 in *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, pp. 439-40. One ton of grain approximately equals to 1.614 million yuan (Northeast Note) in 1948 and 4 million yuan (NN) in 1949. Profit of enterprises includes state enterprises in industry, commerce, forestry, textile, foreign trade, and banking.

On the state level, grain tax was the most important income source. From 1946 to 1949, the state levied 6.86 million tons of grain and average tax rate in the post land reform years was around 18-19%. For state taxes, new tax code were issued at the end of 1947 and implemented in January 1948. The unified tax system included commodity tax, business income tax, sales tax, salt tax, tariff, amusement tax, slaughter tax, and domestic animal trade tax. The commodity tax and business income tax contributed 70% of the total tax revenue. In 1949, total state revenue

¹² “Dongbei jie fang qu cai jing hui yi que ding jin hou cai jing fang zhen,” in *Dongbei Ri Bao*, (Shenyang: Dongbei ri bao she), September 26, 1947.

equaled 10.63 million tons, almost 80% of the total agricultural output in Manchuria (13.26 million tons), up from 30% in 1948.¹³ Large government deficit was eliminated and government balance even turned black. It not only signified the effectiveness of the fiscal consolidation, but also the dramatic advancement of the state financial penetration.

To prepare for the final battle in Manchuria and the coming takeover of the major industrial centers in southern Manchuria, the Northeast Bureau and NAC decided to adjust its agencies and strengthen the economic leadership in June 1948. The NFEC was converted from a party organ to a government branch directly under NAC. Chen Yun, Li Fuchun and Zhang Wentian returned from the base areas and became the director and deputy directors of the new NFEC. Ye Jizhuang remained as the second deputy and the NFEC had a total of 16 commissioners, including former director Wang Shoudao, deputy Lu Zhengcao and Gao Gang.¹⁴ The previous subsidiaries (except the Northeast Bank which was under direct supervision of the NAC) of the Committee of Finance were moved into the newly established Northeast Ministry of Finance. The reorganized ministry included the bureaus of Food, Tax, Monopoly and Salt, and it had a special Department for Enterprise Planning to be put in charge of the investment and profit collection services of the state enterprises. Ye Jizhang remained as the minister and a year later he was succeeded by Gu Zhuoxin, a native from Liaoning Province, and a student of economics from Peking University.¹⁵

By the end of 1948, a unified state finance system was reestablished in Manchuria and the top source of income for the state was shifted from the agricultural tax to the profits from state enterprises. The Northeast Bureau decided to focus on the swift reconstruction and development of the heavy industries in Manchuria so that it could shoulder the dual task of supporting national

¹³ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 446.

¹⁴ *Zhongguo Gong Chan Dang Zu Zhi Shi Zi Liao*, vol.4, p. 239.

¹⁵ During the Korean War, Gu was also the Director of the Northeast Government Planning Commission and later Deputy Director of the Central State Planning Commission.

revolutionary war and becoming the base for China's future industrialization.¹⁶ The Finance Ministry stated its principal policy as "transforming state finance from wartime supply-consume system to peacetime economic development system, strengthening fiscal planning, supervising production, and accelerating turnover so that state capital could be accumulated" in the Joint Conference of Financial Directors in Shenyang.¹⁷

Correspondingly, public expenditure was pointedly turned towards state industrial investment: in 1948, only 0.32 million tons of grain or 10.26% of total state expenditure was used on economic development, but that number rose to 3.26 million tons or 30.64% in 1949, 10 times bigger than the previous year. On the local level, to develop provincial and local public industry, local governments retained 60% of the industrial profits for reinvestment. Combined industrial investment by provincial and local governments also amounted to 2.05 million tons of grain or 8.22 trillion yuan (in Northeast Note), 63% of the total state industrial investment.¹⁸ Since most state revenue was coming from grain tax, consumer goods and trade surplus, and most industrial investments were going into heavy industries, the commitment to heavy industrial development in Manchuria was amply reflected by the state inclination. Without a more consolidated and effective state monetary and finance system, such mode of investment could not have happened. By the same token, without a vibrant and prosperous economy, strong currency and sound state finance were not possible either.

Zhang Wentian and Li Fuchun, Deputy Directors of NFEC, began to work on reorganizing political and economic governance in Manchuria to accommodate the state-led industrialization.

¹⁶ Northeast Bureau, "Resolution on the Situation and Mission After the Liberation of the Northeast" was promulgated on November 23, 1948. Dong bei jie fang qu cai zheng jing ji shi bian xie zu et al., *Dong Bei Jie Fang Qu Cai Zheng Jing Ji Shi Zi Liao Xuan Bian*, 4 vols. (Ha'erbin Shi: Heilongjiang ren min chu ban she, 1988), vol.1, p. 104-105.

¹⁷ Gu Zhuoxin, "Jing ji jianshe shi qi Dongbei cai zheng xin ren wu," September 31, 1949, Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 438.

¹⁸ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 440.

Zhang Wentian was CPC's top theorist and Politburo member. With first hand experience and extensive research, Zhang finished the "Outline on the Northeast Economic Structure and the Basic Policies for Economic Development" in September 1948. He believed that "due to special historical conditions, the state-owned economy in Manchuria is more advanced than any other part of China. Almost all large enterprises are controlled by the state, such as railways, electricity, coalmines, iron mines, shipping, postal services, gold mines, machinery, chemicals, textile, paper, salt, banking, foreign trade, and large farms. Though it is not yet absolutely dominant in the overall Manchurian economy, state-owned economy has occupied a rather large portion, controls the socioeconomic lifeline, and plays a leading role in the national economy." For Zhang, "the New Democratic State operated economy has already become a socialist economy in nature and it is a critical material force to support and win the People's Revolutionary War," therefore, "[we] must posit it at the most important place in the national economic development, particularly the heavy and the military industries; and we must save in every possible way to accumulate capital for the recovery and development of the state-owned economy."¹⁹

On February 1949, Zhang and Li submitted the "View On Northeast Organizational Forms and Redistricting Administrative Areas" to Lin Biao and the CPC Central Committee. The View noted that "from now on economic development dominates all tasks in the Northeast and the execution of such development requires a strong government." Therefore, they suggested that the leaders of the Northeast Bureau should work concurrently in the Northeast Government, particularly economic departments, so that when developmental policies were planned, governmental agencies could carry them out quickly. Secondly, the Northeast Military District should be reorganized and simplified, and it should transfer military industries, military supply

¹⁹ Wentian Zhang, *Zhang Wentian Xuan Ji* (Beijing: Ren min chu ban she: Xin hua shu dian fa xing, 1985), p. 397.

department, and medical department to civilian government. Thirdly, return Changchun and Harbin from the NAC directly governed city to provincial administration, but take Shenyang, Anshan, Fushun, and Benxi four heavy industrial cities as the directly governed cities. Zhang and Li emphasized that “the formation of these cities are coming from the heavy industries like iron, steel and coal and these heavy industries are state enterprises, which are not dividable.”²⁰ The summit meeting of the Northeast Bureau adopted all of their recommendations in April and Zhang’s Outline even became party leaders’ must read.

Following the redistricting, the Northeast People’s Congress was convened between August 21 and 26, 1949. Reviewing the works of the past three years and electing the leaders of the new Northeast People’s Government (NPG), the Congress finally restored Manchuria to a unified political entity and under a centralized government after 4 year of division and war. Gao Gang, who succeeded Lin Biao as the First Secretary of the Northeast Bureau, became Chairman of the NPG, and Li Fuchun, Lin Feng, and Gao Chongmin, were elected to be Vice-Chairmen. Gao Gang also took the directorship of the NFEC after Chen Yun was called back to Beijing. Li Fuchun, Lin Feng, and Ye Jizhuang served as Deputy Directors.²¹ Clearly, the ideological and institutional foundation for industrial revival in Manchuria was reshaped for another run of the commanding heights.

Prior to August 1946, multiple currencies were in circulation in the Communist controlled areas. Other than the Manchukuo Yuan, the Japanese Yen, and the Soviet Military Note issued in Manchuria, there were currencies issued by the CPC’s Northeast Bank and the local authorities. Total Manchukuo Yuan issued in 14 years was over 16.4 billion, with 8 billion issued in the last

²⁰ Dalian was still under Soviet control so it was not included. *Zhang Wentian Nian Pu*, vol.2, p. 592.

²¹ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, pp. 55-56.

8 months and 5 billion of those was still stored as reserve in the Central Bank of Manchuria. However, these reserves were put into circulation by the end of 1945 and incurred runaway inflation by the summer of 1946.²² The Soviet Military Notes, issued as much as 9.725 billion yuan between October 1945 and April 1946, adopted the exchange of 1:1 with the Manchukuo Yuan.²³

To compete with the Manchukuo currency in the market, the Northeast Bank, established on November 12, 1945 in Shenyang, issued the Northeast Liberalized Zone Local Currency (a.k.a. the Northeast Note) and set the exchange rate of the Northeast Note at 1:1 with the Manchukuo Yuan so that the latter could be gradually withdrawn from circulation and replaced by the new currency. However, fragmented Communist bases in Manchuria prevented the Northeast Note from wider circulation, while Communist local authorities issued some 20 different currencies of more than 3 billion yuan to satisfy their temporary needs. In reality, 70% of the currency in circulation was either the Manchukuo Yuan or the Soviet Military Note, and the Communist currencies only had 25% of the money market.²⁴

When the Communist forces stabilized their bases and started strategic offensive in the latter half of 1946 and early 1947, local monetary authorities were successively converted to branches of the Northeast Bank and local currencies exchanged into the Northeast Note. To unify currencies in Manchuria, the Northeast Bureau first retired the Soviet Military Note in August 1946 and then retired the Manchukuo Yuan from circulation in January 1947. All the rest Manchukuo currency in circulation was mandatorily converted to the Northeast Note at a discounted exchange rate of 0.8:1. On the other side of the front, the Nationalist Government was

²² Jilin sheng jin rong yan jiu suo, *Wei Manzhou Zhong Yang Yin Hang Shi Liao*, p. 505.

²³ Dong bei xing yuan jing ji wei yuan hui, “Dongbei jin rong zheng ce shi shi gai yao,” in *Dongbei Jing Jian*, vol.1, issue 1, August 1947.

²⁴ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, pp. 507-508.

eager to assert their monetary authority in Manchuria too. Initially, the Central Bank of China, after establishing its Changchun Branch, issued the Northeast Nine Provinces Currency (the Nine Provinces Note or NPN, to be circulated exclusively in Manchuria) in December 1945. After the Soviet withdrawal, the Nationalist authority started to call back the Soviet Military Notes with the Nine Provinces Notes and cleared the market by September 1946. When the Nationalist military presence was strong, the Nine Provinces Note maintained parity with the Northeast Note, but the monetary situation turned south in tandem with the worsening battlefield performance and the former depreciated 90% against the latter in early 1948, even though the Northeast Note also depreciated a great deal due to the Communist fiscal constraints.

To prevent total collapse of its currency, the Nationalist Government decided to terminate the special monetary position of Manchuria in March and allow the national currency (Fabi or Legal Currency) to be circulated in the region at the exchange rate of 1:10 with the Nine Provinces Note. However, Fabi itself had to be replaced by the Gold Yuan Note (GY) in August 1948 due to the hyperinflation caused by its licentious issuance. The Gold Yuan exchange rate with the Fabi reached an unfathomable 1:3 million. After the fall of Shenyang, an ordinance was issued that all Nine Provinces Notes and Gold Yuan were to be retired from circulation in one week and the remaining bank notes must be exchanged into the Northeast Notes at the rate of 1:3000 (NN:NPN) and 100:1 (NN:GY).²⁵ By year-end, all the Nationalist currencies were driven out of Manchuria and the monetary system was unified and centralized under the Northeast Note and the Northeast Bank. The Northeast Bank opened 140 branches with a total of 7,400 employees.

After 3 years, Manchuria once again has a powerful central bank, headed by Cao Juru, former Governor of the Border Area Bank and Minister of Finance of the Border Area

²⁵ Kong, *Dongbei Jing Ji Shi*, p. 607.

Government, that was capable of providing competent financial services to the industrial development within its purview. One of the most important things for the bank was to stabilize prices and control inflation so that rational planning for industrial production could proceed. Before 1949, the Northeast Bank issued 16.4 billion yuan in 1946, 130.9 billion in 1947, and 3.8 trillion in 1948, causing an inflation of 55 times between mid-1946 and mid-1948 in the Communist areas. However, government financial advances reduced from over 70% to 20% and trade funds outstanding remained at 30%, which helped to end the shortage of consumer products and harness the inflation.

The end of civil war in Manchuria boosted confidence in the Northeast Note and the issuance of government bonds also withdrew a large chunk of liquidity from circulation. Though issuance reached 12 trillion, price index only rose to 175.8 by the end of 1949, comparing to 100 of December 1948.²⁶ Following the Soviet banking system, the Northeast Bank in June 1948 promulgated the “Accounting Rules for Issuance and the Accounting Rules for Business Operations and in August the Establishment of Management of Reserve Funds for Issuance.” These institutionalization and centralization measures consolidated the position and value of the Northeast Bank and its banknotes, creating a favorable monetary environment for intra-regional exchange and economic development in Manchuria.²⁷

There were 9 private banks exist in Shenyang, Harbin and Jinzhou by June 1949, and their total deposit, compared to 5 trillion yuan in the Northeast Bank, was only 44.8 billion. Because state-own enterprises and government agencies were required to use the Northeast Bank, their deposit took up 92.24% of the Bank’s deposit. In contrast, private banks dealt mostly with the private businesses and the money market, which gave them very limited space to develop.

²⁶ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, pp. 520-522.

²⁷ Ibid., p. 517.

Moreover, the Northeast Bank expanded its domination through high deposit reserve ratio and deposit interest rate. Private banks were asked to put 50% of their deposit in the Northeast Bank. While their highest interest rates were regulated by the state, the Northeast Bank raised its demand deposit interest to annualized 7-10% and term deposit interest to annualized 20%.²⁸ By the end of 1949, most private banks were in the red and soon either closed doors or accepted state takeover.

Corresponding to the Northeast Bank becoming Manchuria's central bank as well as the dominant commercial bank, its credits were overwhelmingly extended to the state enterprises. In 1948's total loan of 142 billion yuan, 80% were used in industrial and commercial development, but in 1949, industrial loan in June alone was 126.8 billion yuan and the public industries accounted for 78%. The bank loans were differentiated among different types of industries, ownerships, and management. The basic policy for loans was not to prioritize returns and risks, but benefit to the development of the national economy, and the state-owned enterprises that were critical to the completion of the state economic plan were given the most favor. In three brackets of lending rates proposed in April 1949, the lowest was aimed for public industry, co-ops, government agencies, agricultural, forestry and farm products, while the second for the public trading entities and private industry, and the third for the private commerce.²⁹ Favorite and continuous support from the central bank sustained active foreign and domestic trade and released factories from the shortage of working capital, which in turn provided badly needed raw materials, industrial equipment and parts, and human resources for the reconstruction and development of state industries in Manchuria.

Three years into the Northeast People's Government, the state revenue and expenditure were

²⁸ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 551, 554-555.

²⁹ Dongbei yin hang zong hang, "1949 nian shang ban qi cun fang hui dui ji si ying hang zhuang guan li zong jie bao gao," August 23, 1949.

transformed and centered on state industries. More than half of the state revenue was coming from the state enterprises (27.1% was industrial profit and 16.9% was trade surplus) and more than 70% of the state expenditure was invested in economic development. Within the category of economic development, the Northeast Government put down 58.2%, 67.6%, 52.6%, and 69.5% on industrial development from 1949 to 1952 and on average.³⁰

Table 24. State Revenue and Expenditure of the Northeast People's Government, 1949-1952
(Revenue, in billion Northeast Note)

Items	1949		1950			1951			1952		
	Amount	%	Amount	%	YO Y %	Amount	%	YO Y %	Amount	%	YO Y %
Total Revenue	6,451		14,732			28,221			36,943		
Balance of Prev. Year	514		1,843			2,251			5,272		
Revenue of Curr. Year	5,937	100	12,889	100	217	25,970	100	201	31,672	100	122
Grain Tax	2,333	39	1,763	14	75	1,986	8	113	3,569	11	180
Other Taxes	1,150	20	3,826	30	333	7,502	29	196	8,932	28	120
State Enter.	960	16	6,393	50	666	14,811	57	232	17,654	56	120
Public Debt	586	10	423	3	72	19	0.01				
Other	908	15	484	3	53	1,669	6	345	1,517	5	90

³⁰ If local public enterprises' revenue was included, income from all public enterprises reached 81.3% of the total government revenue in 1952. Dongbei cai zheng bu, "Si nian lai Dongbei cai zheng fa zhan zhi gai mao (Summary of Northeast State Financial Development in the Last Four Years)," January 20, 1953. In Liaoning Provincial Archives, *Dongbei Da Qu Zi Liao* (Northeast Macro District Documents, DDZL), no. 1035, p. 6-7, 9.

Table 24, continued: (Expenditure, in billion Northeast Note).

Items	1949		1950			1951			1952		
	Amo unt	%	Amo unt	%	YOY %	Amou nt	%	YO Y%	Amou nt	%	YOY %
Total Revenue	6,452	100	14,732	100	228	28,221	100	192	36,943	100	131
To Central State	279	4	2,706	18	969	6,466	23	239	8,669	23	134
To Next Year	1,843	29	2,186	15	119	5272	19	241	6631	18	126
Total Expend.	4,329	100	9,840	100	227	16,484	100	168	21,644	100	131
Local Military	1678	39	518	5	31	331	3	64	12	0.5	4
Economic Develop.	1,455	34	6,547	66	450	12,114	74	185	15,592	72	129
Culture and Education	533	12	903	10	169	1,378	8	153	2,707	12	197
Admin.	584	13	882	9	151	1,368	8	155	1,536	7	112
Public Debt			32	0.3		85	0.5	269	136	0.5	160
Other	79	2	959	10	122	1,207	7	126	1,660	8	104

Source: DDZL, no.1035, p. 1-2.

In another words, by the end of the industrial recovery period, approximately one fourth of the total state revenue came from state industrial profit and 40% of state expenditure went into the state heavy industrial enterprises. Moreover, industrial and state heavy industrial appropriation in 1952 was 3.5 times that of 1950.³¹ Apparently, the state considered industrial

³¹ “Guo min jing ji hui fu shi qi Dongbei qu guo min jing ji tong ji zi liao (National Economic Statistics of the Northeast during National Economic Recovery Period), 1949-1952,” July 1954, DDZL, no.963, p. 274-275.

development a direct state budget issue and should be financed within the state fiscal system. As a result, gross industrial output more than tripled from 20.3 trillion yuan NN in 1949 to 70 trillion yuan NN in 1952 and the weight of heavy industrial output in the economy increased from 37.6% to 54.4%. The state-owned industrial output and the output of capital goods in the state industries also reached 79.9% and 72.2% of the total industrial output in 1952.³² In addition, around 80% of the state industrial enterprises were modern, large enterprises. State industrial employees grew from 508,160 to 864,853 people with technicians doubled from 14,042 to 29,547. Employees of the state heavy industry held 54% of the total, but heavy industrial technicians accounted for 72% of all technicians. Average labor productivity and worker's salary all doubled in four years thanks to the rapid industrialization.³³

Table 25. Historical Comparison of Major Industrial Products

Product	Unit	Past Peak/Year	1949	1949/ Peak %	1952	1952/ Peak %	1952/ 1949 %
Electricity	Million kWh	3,348/1941	1,234	36.9	2,932	87.6	237.7
Coal	Kiloton	26,527/1944	12,676	47.8	22,497	84.8	177.5
Pig Iron	Kiloton	1,702/1943	150	8.8	1,124	66	750.9
Steel	Kiloton	869/1943	114	13.1	939	108.1	823.7
Steel Products	Kiloton	529/1943	88	16.6	644	121.7	731.8
Sulfuric Acid	Ton	54,287/1942	13,992	25.8	126,457	233	903.8
Nitric Acid	Ton	3,122/1944	657	21	9,269	296.9	1410.8
Machine Tools		676/1944	575	85.1	3,502	518	609
Freight Train		4,685/1944	1,383	29.5	3,816	81.5	275.9
Cement	Kiloton	1,532/1942	336	21.9	1,324	86.4	394.5

³² DDZL, no. 963, p.4-6, 17.

³³ Ibid., no. 1035, p. 297, 306.

Source: DDZL, no.963, p. 7.

All in all, from the end of the Chinese civil war through the end of the Korean War, Manchuria experienced an expedited process of re-heavy industrialization. The state finance focused on the capital construction and in 4 years Manchuria added 12.13 trillion yuan RMB of fixed assets to the state and local public industries, making the total fixed industrial assets 52.98 trillion RMB in 1952 (1.766 billion US Dollars according to 1952 official exchange rate). 88.4% of the state investment was given to the heavy industry and 92.7% of the total investment went into the recovery and reconstruction of the Manchukuo industrial system. Top four industries, iron and steel, metallurgy, mining, and electric power occupied 55.8% of the added fixed assets and 64.9% of the total industrial assets.³⁴ The industrial capacity in the region recovered to the equivalent of the best years in Manchukuo by the end of 1952, and the total industrial output was 29.4% higher in 1952 than in 1943.³⁵ Under the leadership of a growing professional bureaucracy that motivated by both Chinese nationalism and Stalinist ideology, a heavy industrial state reemerged, self-sustained, and rapidly developed in Manchuria.

4.2. Evolution of the Communist Heavy Industrial State: From DMI and BIM to NMI

During the civil war in Manchuria, industrial assets controlled by the CPC could be roughly divided into three categories: the military industry, the state-owned industry, and the local public

³⁴ DDZL, no. 963, p. 66-69.

³⁵ Ibid., p. 14.

industry. The military industry, run by the Department of Military Industry (DMI) under the Logistics Department of the Northeast Military District, was tasked to repair weapons and ammunitions left by the Japanese Kwantung Army and to manufacture more arms. The Japanese and Manchukuo state industries taken over by the Communists, mostly mines in northern Manchuria, were recovered and operated by the Bureau of Industry and Mining (BIM) under the leadership of the NFEC. Provincial and municipal governments were left with local public industries, mostly consumer/light industry, to satisfy local financial and commercial needs. When the Nationalists were expelled from Manchuria, all state-owned heavy industries were transferred to the newly created Northeast Ministry of Industry (NMI) in NAC and the management was converged to this cradle of heavy industry in China.

The Communist heavy industrial regime originated from the military industry acquired right after the cadres from Yan'an and northern China arrived in Shenyang on October 11, 1945. The Northeast Bureau authorized the Northeast Military District to establish the Department of Military Industry. The DMI, together with the Liaoning Provincial and Shenyang Municipal Government, organized the Shenyang District Administrative Committees to verify and confiscate Manchukuo and Japanese industrial assets. The first Director of DMI was Li Chuli, Director of Foreign Affairs of the Liaoning Provincial Government. Upon entering into Manchuria, Li was appointed as the Minister of Ethnic Affairs of the Northeast Bureau to deal mostly with the Japanese expatriates, which gave him the convenience of taking over the Japanese assets and human resources. Wang Fengyuan, a chemist by education who was born in Changchun, Jilin Province and joined the CPC after the failed Northeast Students Southern

Petition in late 1931, acted as Li's deputy.³⁶

The DMI quickly took over the Mukden Arsenal, the Tank Repair Shop, and the Gunpowder Factory near Shenyang and restarted productions with factory inventory and limited material supply. However, on the Christmas day, they were forced out of the city due to Nationalist protests and Soviet compliance. The DMI's manufacturing force moved 4 times in the next 10 months before finally settling down in Hunchun, Jixi, Jiamusi and Tonghua in the summer of 1946 with the machines brought from southern Manchuria. During this period, Han Zhenji was the director of DMI.³⁷ Facing the Nationalist offensive, Han moved the machines, materials, workers, and technicians recruited along the way into North Korea. They emerged in Hunchun, a small town populated by ethnic Koreans on the Hunchun River in Northeast Manchuria. The DMI built six workshops including machinery, bullet, grenade, ironwork, powder, and timber mill in Hunchun.³⁸

In Xingshan, Andong and Harbin, the DMI also had factories with more than 3,000 workers. From the summer of 1946 to the spring of 1947, the DMI established several bases with 14 arsenals scattered in northern Manchuria, ranging from gun, grenade, and ammunition factories, to foundry, wood processing plant and drug factory. Meanwhile, because of the division of the

³⁶ Li graduated from the College of Letters, Kyoto Imperial University and was a key figure in the New China News Agency. In 1943, he became Vice-Principal of the Yan'an School of Japanese Workers and Peasants, which was headed by the founder of the Japanese Communist Party, Nosaka Sanzo, and designed to indoctrinate Japanese POWs to support the Communist cause. Wang was a former director of the Department of Military Industry of the Shanxi-Suiyuan Military District. Later he became the head of Material Supply Division in the Bureau of Planning at the Central Financial and Economic Commission.

³⁷ Han was a graduate of the Baoding Industrial School and the Army Military Academy. A veteran of the Long March, Han led the Department of Military Industry in the New Fourth Army during the Anti-Japanese War. See Han's biography in "Zhongguo ren min jie fang jun gao ji jiang ling zhuan" bian shen wei yuan hui and Zhongguo zhong gong dang shi ren wu yan jiu hui "Zhongguo ren min jie fang jun gao ji jiang ling zhuan" bian zhuan wei yuan hui ed., *Zhongguo Ren Min Jie Fang Jun Gao Ji Jiang Ling Zhuan* (Beijing: Jie fang jun chu ban she, 2007), vol. 37.

³⁸ The town was strategically positioned 30 kilometers from the Soviet border and 10 km from the Korean border, making it an ideal place for secret military production. Changgong He, *He Changgong Hui Yi Lu* (Beijing: Jie fang jun chu ban she: Xin hua shu dian Beijing fa xing suo fa xing, 1987), pp. 409-410.

Communist bases, West Manchuria, East and North Liaoning, and Jilin Military Districts all had their own arsenals.³⁹ However, by the time the NDAA launched its counteroffensive in the summer of 1947, military production no longer met its demand and the loose system no longer fit large-scale campaigns. Mao Zedong also cabled the Northeast Bureau, asking Manchuria to “spare no effort on strengthening the development of military industry” and to “set the goal of supporting national operations”.⁴⁰

September 14, 1947, the first Northeast Conference for Military Industry was held in Harbin. The meeting made it clear that Manchuria must be developed into an extensive base for military industry to support national liberation. All military production was centralized under the administration of the DMI and institutional organization and production tasks were standardized and centrally planned. The DMI also adopted professional management methods, including cost accounting, statistical requirements, technical grading system, and wartime payroll system. General He Changgong, then Headmaster of the Northeast Military Academy, who was radicalized while work-studying in the Renault Assembly Plant as a machine operator in France after WWI, was asked by Li Fuchun, who worked with He in France, to head the new DMI. Han Zhenji and Wang Fengyuan remained as the deputy directors. The DMI composed of the Executive Office, Department of Materials, Department of Engineering, Department of Supply, Office of Advisers, Department of Politics, and Office of Labor Unions.⁴¹

It took the DMI leaders 6 months to reorganize and assimilate regional military industrial units. By the summer of 1948, the DMI had established 9 field offices in Hunchun, Xingshan,

³⁹ Xiuquan Wu, *Wo Di Li Cheng* (Beijing: Jie fang jun chu ban she: Xin hua shu dian Beijing fa xing suo fa xing, 1984), pp. 187-89.

⁴⁰ Mao Zedong, “Summary of Operations in the Past Year and Future Plans, July 1949”. Mao telegraphed the Northeast Bureau again in November, asking Manchuria to “vigorously build a massive military industry.” Zedong Mao, *Mao Zedong Jun Shi Wen Ji*, 6 vols. (Beijing: Jun shi ke xue chu ban she : Zhong yang wen xian chu ban she, 1993), p. 135, 327.

⁴¹ He, *He Changgong Hui Yi Lu*, pp. 417-18.

Jixi, Andong, Qiqihar, Mudanjiang, Jilin, Harbin and Dalian, with 55 factories and 11,000 workers. It unified the management system and initiated coordination on capital, fuel, transportation and technical activities. Many factories in the system were located near large coalmines, industrial enterprises, or factory plants so that they might have adequate energy, financial and technical support nearby. After the last campaign in October 1948, the DMI moved its headquarters from Harbin to Shenyang and repossessed the Mukden Arsenal along with another 8 military enterprises. To secure a smooth transition, General He adopted a policy of “unite, reform, and retain” to the Nationalist and Japanese staff, technicians and skilled workers.⁴²

Among the nine offices of the DMI, the biggest and most sophisticated industrial complex was in Dalian and to conceal its Communist background, the Dalian Office had a corporate form and a commercial name: Jianxin, literally meant building the new. According to the Sino-Soviet Friendship Treaty, Dalian, Lushun and Jin County were under Soviet military administration and the Nationalist forces were forbidden to enter the area. The relative stable condition of the former Kwantung Lease Territory created an ideal place for the Communists to thrive.

In August 1946, the Northeast Bureau sent Xiao Jinguang, Chief of Staff of the Communist Army in Manchuria, to Dalian to investigate its industrial conditions. Xiao's reported to the CPC Central Military Committee that “Dalian confiscated more than 200 factories, including some most advanced military industrial machinery and a large number of Japanese skilled personnel,” and that “a few artillery, machine gun, rifle, and ammunition factories could open for business in as short as three days once capable managers were sent down here.” The telegram encouraged

⁴² For instance, Mukden Arsenal (it was renamed Arsenal No.90 by the Nationalist Government) Manager Chen Xiuhe, a student of ordinance production in France in the 1930s and former Director of the US-China Joint Logistics Command Ordinance Office during WWII, was persuaded to stay on the job and kept the production going. He, *He Changgong Hui Yi Lu*, p. 421, 431.

various regions to sent cadres into Dalian to carry out weapons and medical supply production.⁴³

In July 1947, after several rounds of negotiations, the Soviets delivered Manchu Chemicals, Daike Steel, Shinwa Metal Works, and other factories to the CPC. With another half a dozen factories delivered from the Communist LuDa District Committee, the Jianxin Company (JC) formally opened doors on July 1, 1947. Zhu Yi, who studied political economy at the Meiji University in Japan and was Deputy Director of the East China Financial and Economic Commission, was appointed General Manager and Jiang Zemin, former head of the Bureau of Industry and Mining in the Shanxi-Chahar-Hebei base area, the deputy manager. Meanwhile, Zhang Zhen was sent in through Pyongyang to Dalian to lead the technological aspect of the military production. When Li Funchun persuaded Zhang Zhen to stay in Manchuria, he agreed that “only the Northeast has heavy industry, which is best for making heavy weapons like heavy artillery and shells, especially breechloaders.” Entrusted by both Chen Yu and Wu Xiuquan, Zhang Zhen was transferred from the BIM to the JC in September of 1947 and assumed Jiang Zemin’s position while Jiang was promoted to the Deputy Director of DMI.⁴⁴ With Soviet acquiescence and Northeast Bureau’s investment, the JC started to prosper in 1948.

Jianxin Company had 11 factories when it opened for business. Among them the most important ones were Yuhua Ironworks (shell factory), Hongchang Ironworks (fuse factory), Dalian Chemical Plant, Dalian Steel, Dalian Machine Works, and Dalian Cannery. To ensure rapid industrial restoration and development, the CPC called in more than 400 cadres from North and East China to Dalian. Then the company reached a deal with the Soviet Command to

⁴³ Dalian Shi Wei dang shi gong zuo wei yuan hui, *Dalian Jian Xin Gong Si Bing Gong Sheng Chan Shi Liao*, (Dalian: Zhong gong Dalian Shi wei dang shi gong zuo wei yuan hui, 1988), p. 3.

⁴⁴ Zhang Zhen later became General Manager in July 1949 when Zhu was named Minister of Heavy Industry in the Central South Bureau. In 1952, he went on to become the director of the Bureau of Chemical Industry in the NMI, the director of the Bureau of Chemical Industry of the Central Ministry of Heavy Industry, and the vice minister of Chemical Industry. Zhen Zhang, *Zhang Zhen Hui Yi Lu* (Beijing: Bing qi gong ye chu ban she, 2005), p. 156.

exchange vegetables and sausages with coal from Russia and import ammonium sulfate from North Korea to make ammonia and nitric acid. For the plants to work, Communist managers had to persuade Japanese engineers to cooperate and help with the production. In the steelworks, Manager Li Zhennan who had worked on arms production in Shandong convinced Doctor Fukushima Masaji to teach basic metallurgy to the Chinese and reprinted his lecture notes as textbooks. Engineer Ito Torami also organized a tech team to make the medium carbon steel for shells and nickel copper alloy for the fuses.⁴⁵ To make the tip of artillery shells required metal cutting tools equipped with advanced hard alloy, but Japanese metal labs were destroyed after the surrender. Ogiwara Sanhei was provided with lab tools and assistants and achieved the breakthrough and in May 1948, the hard alloy was mass-produced to make molds and cutting tools, greatly improved production efficiency and quality.⁴⁶

Collaboration also happened in the chemical plants in which smokeless powder was made for shells and explosives. Communist managers Lu Suping and Qin Zhongda led the effort to repair equipment while a research institute with 40 Japanese explored the formula. The head of the institute Akiya and his assistant Kubota developed production methods for single and double-base powder as well as nitroglycerine and met the military demand by making 110 tons of propellant by the end of 1948.⁴⁷

By the end of 1948, JC became Manchuria's largest military industrial combine with the best industrial machinery, strongest technological force, and more than 8,000 employees (including 200 Japanese technicians). It played critical role in the Communist battles against the

⁴⁵ Fukushima and Ito coauthored a book in 1956 titled "Soviet Union's Steelmaking Method" after they return to Japan. Masaji Fukushima and Torami Ito, *Soren No Seikoho* (Tokyo: Nikkan Kogyo Shinbunsha, 1956).

⁴⁶ Xuting Zhou, *Dalian Gang Chang Ye Jin Jun Gong Shi: 1946-1985* (Dalian: Dalian chu ban she, 1989), Chapter 3, Section 2.

⁴⁷ For their critical contributions, JC awarded Ogiwara and Ito from the steelworks the Special Outstanding Service and the Great Service Medal, and Oshima, Fujio and Otomo from the chemical plant with the Great Service Medals, and Ichikawa, Kubota, Funakoshi and Tamura the Collective Special Service Medal. "Da hua zhi" bian zuan wei yuan hui, *Da Hua Zhi* (Dalian: "Da hua zhi" bian zuan wei yuan hui, 1988), vol.1, pp. 4-9.

Nationalists in East China, dealing the lethal blow to their forces north of the Yangtze River and leaving the Nanjing Government devastated in the civil war. During the entire civil war, JC produced 541,700 artillery shells, 30 million bullets, 260,000 cartridge cases, 818,000 shell fuses, 609,000 shell primers, 460,000 detonators, 1,430 mortars, 3,000 tons of medium-carbon steel, and 450 tons of smokeless explosives. It also made large machines such as 200-ton water hydraulic presses and 1,000-ton oil hydraulic presses.⁴⁸ JC ended its military production mission in 1950 and was transferred from the DMI to the NMI. The combine was divided according to industries into the chemical, machinery and metallurgical bureaus and General Manager Zhang Zhen became the head of NMI's Bureau of Chemical Industry.⁴⁹

The DMI controlled a total of 74 factories, 11,033 machines and 43,687 workers in February 1949. Since the war in Manchuria drew to an end, the DMI was reorganized to reflect the new industrial policy and to solve the inter-departmental rivalry between itself and the NMI. Following the "Resolution on the Military Production" approved by the Northeast Bureau on July 11, the DMI began to transfer civilian industries to the NMI and consolidated the remaining military factories from 74 to 12. A total of 13,000 workers, engineers, technicians and managers were transferred to the NMI and became a critical mass for the recovery of Manchurian heavy industry.⁵⁰

The Civil War in Manchuria spurred the resurgence of military industry and in a short period Manchurian military industry took a leap from a primitive guerrilla style production to a full-blown regularized industrial production, capable of making a variety of munitions, rifles, guns,

⁴⁸ Zhong gong Jilin Sheng wei dang shi yan jiu shi and Jilin Sheng dong bei kang Ri lian jun yan jiu ji jin hui ed., *Han Guang Dang Shi Gong Zuo Wen Ji* (Beijing: Zhong yang wen xian chu ban she, 1997), pp.133-139.

⁴⁹ Zhang, *Zhang Zhen Hui Yi Lu*, pp. 176-177.

⁵⁰ Director He of the DMI was promoted to China's vice minister of Heavy Industry and his deputy Han Zhenji was transferred to the NMI as Chief of the Bureau of Machinery. Han later headed the same bureau in the Central Ministry of Heavy Industry. He, *He Changgong Hui Yi Lu*, pp. 432-433.

shells and fixing cars, tanks and trains. The military industry spread out from northern to southern Manchurian cities and covered chemical, iron and steel, machinery, and electrical industries. In three years, total military production in Manchuria yield 16 million grenades, 82 million bullets, 230 thousand grenade launchers, 3 million artillery shells, 3,135 artillery pieces, 40 thousand guns, and many other military supplies.⁵¹ The tremendous success of the DMI diminished the Nationalist military advantage in the battlefield and sped up the Communist victory in China. The military industry was based on Manchuria's industrial infrastructure and ultimately it was converted back to serve the industrial development after the war.

In August 1946, the Bureau of Industry and Mining (BIM) was installed under the Economic Committee of NAC in Harbin to mange some factories taken in northern Manchuria. At first, the BIM only had a flourmill, an alcohol factory, a beer brewery, a fat factory, and a cement plant, a total of 753 workers. The Nationalists took control of the Fengman Hydropower Station and cut the power to northern Manchuria in the winter, which prompted the Communists to scramble for thermal power and coalmines. After merging and adjustment, the BIM enterprises increased to 15 units, adding 5 coalmines, 2 power stations, a machine works, a match factory, a detonator factory, and a gas plant. Total workforce jumped to 13,000.⁵²

Wang Shoudao and Chen Yu led the BIM and under their leadership, Liu Xiangsan, Sun Ran, Hao Xiying, and Zhang Zhen teamed up to provide management and technological assistants.⁵³

⁵¹ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, pp. 222-223.

⁵² Liaoning Provincial Archives, Zong he dang an (General Archives, from now on ZA) 94-1-1.

⁵³ Chen Yu was a labor union leader who led the Seamen's Trade Union of China in 1930. He was sent to the Soviet Union in 1931 and got purged in 1934 to do labor work in the Stalin (Chelyabinsk) Tractor Plant, where he learned Russian and became a skilled machine operator, until his return in 1939. Due to their works to recover Manchurian coal industry, Chen Yu was named PRC's first Minister of Fuel Industry (later Minister of Coal Industry). Sun Ran and Liu Xiangsan later all served as Chief of the Coalmine Administration at the Chinese Ministry of Fuel Industry in the 1950s. Hao Xiying served as Deputy Manager of the Anshan Steel Company between December 1948 and April 1954. See "Hui yi Chen Yu tong zhi" bian xie zu ed., *Hui Yi Chen Yu Tong Zhi* (Beijing: Gong ren chu ban she : Xin hua shu dian Beijing fa xing suo fa xing, 1982).

Chen Yu ranked coal, electricity, railway, industry and trade in a sequence of revival and started his work from promoting coal production. Chen and his assistants focused on repairing water pumps, electro motors and restoring electric power, bringing a quick recovery of the mines in Hegang, Jixi, Jiaohe, Xi'an, Tonghua, and Saima. Towards the end of 1947, more than 3 million tons of coal was extracted, which great helped the CPC to weather the most difficult year in Manchuria.⁵⁴ Industries in Jiamusi, jixi, Tumen, Mudanjiang, Harbin also started to grow in the late 1946. Coal and gold mining, electricity, machinery, textile, chemicals, food processing, and paper industry resumed production under very difficult situations. The state enterprise workforce more than quadrupled from 13,000 to over 50,000 people. To move materials and information around, 4,694 kilometers of railroads (49.4% of Manchuria's total) were repaired and all county seats under the Communist control were reconnected with post and telecommunications.⁵⁵

Table 26. State-owned Enterprises Industrial Output, 1946-1948

Products	1946	1947	1948
Gold		1.25 ton	1.72 ton
Coal	738,186 tons	2,427,271 tons	5,406,194 tons
Electricity		175.23 million kWh	414.08 million kWh
Paper	1,459 tons	2,101 tons	6,598 tons
Timber		500,000 cubic meters	1,485,641 cubic meters
Rubber Shoes	80,000 pairs	452,000 pairs	2,020,000 pairs
Cotton Yarn	9,314 pieces	1,818 pieces	36,797 pieces

Source: Dongbei gong ye bu, "Dongbei guo you gong ye gai kuang, 1946-1948 (Overview of the Northeast State-owned Industries)," April 20, 1949, DDZL, no. 539, p. 5-7.

During the second NFEC Conference in August 1947, the agency drafted the "Northeast

⁵⁴ "Wang Shoudao wen ji" bian ji wei yuan hui ed., *Wang Shoudao Wen Ji* (Beijing: Zhongguo da bai ke quan shu chu ban she: Xin hua shu dian zong dian Beijing fa xing suo jing xiao, 1995), p. 230.

⁵⁵ Lin Feng, "Dongbei san nian lai de zheng fu gong zuo bao gao," August 21, 1949, in *Dong Bei Jie Fang Qu Cai Zheng Jing Ji Shi Zi Liao Xuan Bian*, vol.1, pp. 123-147.

Liberated Area Economic Reconstruction Plan of 1948” and planned to invest 356 billion yuan (equivalent to 160,000 tons of sorghum rice) to industrial enterprises (256 billion for state and 100 billion for private industrial enterprises). The plan called for higher production, better quality, and lower cost through implementing cost accounting, workers’ training, and industrial reconstruction. “Restore and develop necessary industry, mining, electric power, and railroads,” the plan stated, “and the focus in industry should be military, textile, coalmining, gold mining, iron and steel, and power generation.”⁵⁶ By April 1948, the BIM were equipped with 2500 machines, 138,980 workers, and 510 MW of electric power supply. Industrial areas, other than those in northern Manchuria, added Andong (light industry), Tonghua (heavy industry), and Jilin (chemical industry). After surveying these cities in May, Wang Shoudao reported to Chen Yun and Li Fuchun that the BIM planned to utilize Japanese legacies in Jilin and Tonghua to restore the chemical and steel industry.⁵⁷ But the plan was halted due to the takeover of Anshan and Shenyang, where these industries were more advanced and in better conditions.

For the BIM, more and more problems were exposed in the process of industrial expansion. First of all, the division of labor in the previous system was ruptured, and many raw materials in Manchuria were cut off from their old industrial centers in southern Manchuria or Japan. Secondly, the industrial system in Manchukuo was an integrated system and once it was shattered, economic planning was hard to restart, particularly coordination between the state and local productive units. Moreover, there were shortage on capital, technology and management, which used to be provided by the Japanese imperialist state. Finally, the repressed private business during Manchukuo was surging ahead, growing from 9.78% to 30% in the Communist area. But the Communist policy was that the state enterprises and machine industry first, so how

⁵⁶ “Dongbei jie fang qu 1948 nian jing ji jian she ji hua da gang,” in *Dongbei Ri Bao*, October 27, 1947.

⁵⁷ Wang Shoudao *Wen Ji*, p .95.

to deal with co-op and private businesses and focus limited resources on the state industrial enterprises became a perplexing problem.⁵⁸ The CPC rank and file caused problems too. There were widespread actions of breaking up machines and equipment for scraps. “The Nationalist occupation did not bring much destruction [to the factories], but the most destruction occurred in places where we recovered but did not take care good of,” Wang Shoudao noted, “because our comrades are peasants from the rural areas who lack knowledge about modern production.”⁵⁹

The NDAA winter offensive of 1947 was a great success and the NDAA was renamed the Northeast People’s Liberation Army in January 1948. Mao Zedong and Lin Biao started planning for the final battle and the post-war policies in Manchuria. After initial chaotic takeovers, Li Fuchun made the recommendation on “city takeover policies” to the Northeast Bureau and the bureau on June 10 order the Communist troops to preserve and protect industry and business in the cities while waiting for the coordinated takeover by the civilian administration.⁶⁰ Increasing number of newly received industrial assets made the BIM more and more inadequate to exert effective management. In July 1948, the Northeast Ministry of Industry (NMI) of NAC was established in Harbin to oversee all state industries and it was moved to Shenyang after the Nationalists were expelled from Manchuria in November.

Wang Shoudao and Chen Yu, BIM’s leaders were appointed Minister and Vice-Minister of the NMI. The government recruited cadres that had industrial or utility management experiences and young educated party members to help staff the ministry. The BIM was merged into the First (mining) and Second (machinery) Bureau of the NMI, and the ministry, in addition to the bureaus of Planning, Procurement, Materials, and Personnel, also incorporated the

⁵⁸ Wang Shoudao *Wen Ji*, pp. 99-100.

⁵⁹ Ibid., pp. 517-518.

⁶⁰ *Dong Bei Jie Fang Qu Cai Zheng Jing Ji Shi Zi Liao Xuan Bian*, vol.1, pp. 82-86.

Administrations of Forestry, Gold Mining, Textile, and Electricity. The new agencies were planned to have 900 staff members. To standardize industrial management, the NMI issued a series of industrial and economic regulations, including the “Provisional Draft on Industrial and Mining Enterprises Management Regulation” in October.⁶¹

Since August 1947, the BIM had been collecting industrial assets from the military as well as local governments. The final takeover in Manchuria constituted the biggest expansion of the NMI system. As the economic branch of the Shenyang Military Administrative Committee, the NMI was sent into Shenyang on November 3, 1948 to receive all industrial entities controlled by the Nationalist state agencies. The Northeast Bureau learned from the Soviet and Xiong Shihui’s (Director of the Nationalist Northeast Administrative Headquarters) playbooks and made the policy of “from top to bottom, according to system, keep intact, take over the complete set” for an ordered and comprehensive takeover. With the help of workers and activists, the NMI successfully took over 406 factories and mines, 12,516 machines, 1,728 pieces of power equipment, and 229 pieces of transportation equipment. There were 7,807 workers and staff reported to the new authority, including 286 technical personnel. Moreover, the CPC also received 3 vocational schools with 1,777 students.⁶²

The NMI took over four Nationalist industrial management systems in Manchuria: the NRC industries, the NRC Northeast Power Administration, the Northeast Production Administration, and the China Textile Industries, Inc. The NRC system had a total of 28 units, 15 of them in Shenyang and 8 were factories. 13 units outside Shenyang included large industries like Anshan

⁶¹ ZA94-1-1, p. 58.

⁶² The NMI only maintained around one third of the industrial assets, and provincial and municipal agencies took control of the small to medium factories. “Guan yu jie shou Shenyang guo ying qi ye de gong zuo zong jie (Summary of the Takeover of Shenyang State Enterprises),” February 10, 1949, ZA94-1-2, p. 5, 42.

Steel, Fushun Colliery, Yantai Coalmine, Benxi Coal and Iron Co., Liaoning Bearing Co., and Jinzhou Oil Refinery. The Northeast Production Administration system took over 1307 small companies from the Japanese and their collaborators in Manchuria and 435 of them were located in Shenyang. The administration dismembered and sold more than a third of the works in Shenyang and the NMI was able to take 283 units, with only 1832 workers and 49 technicians left. Most of these consumer industries were later transferred to the local authorities. The China Textile Industries Inc. had 2 spinning mills, a canvas works, a dyeing mill, and an artificial fiber plant, all taken by the Textile Administration.⁶³

Table 27. Major Heavy Industrial Assets Taken Over by the NMI, November 1948

Name in Manchukuo	Est. Year	Name in NRC System	Subsidiaries
Manchu Locomotive Works	1939	Shenyang Locomotive Works	1
Manchu Mining Development Co. Hoten Metallurgical Plant	1936	Northeast Metal Mining Co. Shenyang Metallurgic Plant	4
Manchu Machine Works/ Hitachi Works/ Mitsubishi Machine Co.	1934/1938 /1938	Central Machine Works Shenyang Machine Plant	12
Manchu Automobile Manufacturing Co.	1939	Central Machine Works Shenyang Automobile Manufacturing Plant	2
Manchu Electric Machine Co. / Manchu Ishikawajima Heavy Industry Co.	1937/1944	Central Electric Machine Works Shenyang Plant	4
SMR Lubricant Plant	1938	Shenyang Chemical Plant	4
Toyo Tire Industry Co.	1938	Shenyang Rubber Plant	4

Source: ZA94-1-2.

After assimilating these industries in Shenyang, Changchun, and Jinzhou, the NMI system

⁶³ “1949 guo ying gong ye xian kuang diao cha (Survey of State-owned Industries in 1949),” DDZL, no. 540, p. 1

consolidated to 323 productive units: 234 in operation, 58 in reconstruction, and 31 under preservation in early 1949. The NMI on the one hand kept almost all administrative structures and personnel of the Nationalist systems, on the other hand, it sent in thousands of Communist cadres to supervise their works.⁶⁴ In the 85,000 people who worked for the Nationalist Government and reported to the Communist authorities, 6,700 were fired. 50% of the fired were police officers, 39% government officials, but only 20 persons from the state enterprise and public schools were let go. Though political checkup and reform were required for the technical and managerial personnel, nearly all of them stayed and continued to work for the NMI.⁶⁵

By the end of 1948, the NMI had expanded to eight administrations: Coal Mining, Machinery, Electric Power, Nonferrous, Textile, Forestry, Gold Mining, and Enterprise, with two corporations—Anshan and Benxi. The bureaucracy of NMI also grew to 1,500 staff members. In designing the agency, the NMI leaders particularly concerned with planning, iron and steel, and machinery. They asked that the Bureau of Planning be substantiated and strengthened, and that steel and machinery industry be carved out as independent administrations so that their development could be more rapid. Since most of the heavy industries were taken over toward the end of 1948, the mission of NMI was to integrate these new factories into the system and plan for their recovery in 1949.⁶⁶

The key mission of the NMI was to restore and develop three major industrial complexes inherited from Manchukuo, namely the steel industry in Anshan, the coal industry in Fushun, and the coal and steel industry in Benxi. In January 1949, the NMI started to draft its annual plan aimed at restoring Manchuria's industrial capacity back to 40% of the peak Manchukuo level by

⁶⁴ ZA94-1-2, p. 6-9.

⁶⁵ *Wang Shoudao Wen Ji*, p. 540.

⁶⁶ “1948 nian dongbei guo ying gong ye sheng chan gong zuo zhuang kuang (Northeast State Industries Production Conditions in 1948),” in ZA94-1-4-1, p. 1; ZA94-1-1, p. 100.

1950. Total investment was 2 million tons of grain, an equivalent of 86.9% of the total grain tax in 1948 or 71.4% in 1949. But output was set at 6.5 million tons of grain, predicated on the complete restoration of Anshan and Benxi. 14 additional nonferrous metal mines, more than 9 million tons of coal, 300 megawatts of electricity capacity, and basic machine-making capacity were also in the 1949 plan.

In March 1948, Chen Yu sent Chai Shufan to Anshan to lead the restoration works. Upon arrival in Manchuria, Chai became Deputy Commissioner of the Andong Customs, the most important foreign trade window of the Communist controlled area, and then Deputy Chief of the Bureau of Economic Development in Eastern Liaoning Province. Chai came to Anshan with Hao Xiying and Wang Xun. Chai, Hao and Wang could only organize employees to protect the mills and established a job board to recruit more workers. The civil war raged on around the area until October.⁶⁷ The NMI reintegrated industrial assets (mostly former Japanese Showa Steel) in Anshan into the Anshan Iron and Steel Company (AISC) on December 26, 1948 and the AISC was under NMI's direct control. Wang Shoudao sent NMI's Bureau Chief of Planning, Li Dazhang, to head the new AISC, while Chai Shufan took over Li's position. Li graduated from the Chemistry Department, Shanghai Hujiang University and worked at the Bureau of Military Industry of the Central Military Commission in Yan'an. Hao Xiying and Wang Xun stayed as the deputy managers of the company. Thus the team of Li, Hao, and Wang started the mission of rebuilding Anshan.

⁶⁷ Chai was a taxation academy graduate and a customs officer in Tianjin. He went to Yan'an and joined the CPC during the Anti-Japanese War and worked for the research department of the Northwest Bureau. Chai later became Bureau Chief of Heavy Industry at the State Planning Commission and Deputy Director of the SPC in 1952. Hao served as the head of the Jixi Arsenal and the Chief of the Jixi Power Administration. He was sent by the BIM to receive factories in Liaoyang City early 1948. Wang Xun was a college graduate from the Department of Chemistry, Jiangsu Nantong University. He went to Yan'an and taught at the Yan'an Academy of Natural Sciences. Wang joined the NFEC in 1946 and became the head of the Planning Office that help to plan and coordinate northern Manchuria's industrial recovery. In 1956, Hao became the Commercial Counselor at the Chinese Embassy in the Soviet Union and Wang joined the Central Ministry of Metallurgy as bureau chief of Designing.

When Anshan was taken over by the Communist troops, about 200 Nationalist and 100 Japanese technical experts remained with the factories and most of the key equipment was removed by the Soviets. Only 3 out of 9 blast furnaces, 6 out of 12 open-hearth furnaces were left, and 5 out of 7 rolling mills were gone. Remaining iron and steel production capacity were merely 25.6% and 43.6%.⁶⁸ Though only a limited number of experts were left, they were among the best iron and steel makers in China and Japan. A technical experts team was set up to draft a restoration program for Anshan. Leading experts were four former NRC top engineers and Anshan Steel deputy managers: Wang Zhixi (Director of the Office of Technology), Yang Shutang (Manager of the Foundry Factory), Shao Xianghua (Manager of the Steel Mill), and Li Songtang (Manager of the Steel Rolling Mill). All of them studied metallurgy in England or Germany in the 1930s and were sent by the NRC to takeover and rebuild Anshan in 1947. Wang and his team propose a plan to restore production capacity to 510,000 tons of iron ore, 200,000 tons of pig iron, 500,000 tons of steel ingot and 300,000 tons of steel products.⁶⁹

In parallel, Communist managers also asked the Japanese experts, Umene Tsunesaburou, former Board Director of the Showa Steel Works, and Seo Kiyozo, former Board Director of the Manchu Iron Works, to come up with their plan of restoration. Ultimately Manager Li Dazhang adopted the NRC plan since it was more ambitious than the Japanese plan, which was more cautious and pessimistic in the case of not being able to bring back the parts removed by the Soviet Union.⁷⁰ But the AISC kept Seo Kiyozo as General Counsel and Japanese experts as

⁶⁸ An gang shi zhi bian zuan wei yuan hui ed., *An Gang Zhi, 1916-1985* (Beijing: Ren min chu ban she, 1991), p. 14.

⁶⁹ An gang shi zhi bian zuan wei yuan hui ed., *An Gang 60 Nian Hui Yi Lu* (Beijing: Ye jin gong ye chu ban she, 2009), pp. 68-69.

⁷⁰ Chen Kangbai, DMI's chief engineer, in his introduction to Umene's reconstruction plan praised his iron ore processing technology and its application at the Showa Steel as "a powerful contribution" and "the most splendid section" of the development of Anshan. Umene believed that "without retrieving the equipment removed by the Soviets or getting new ones from the Soviet Union, the restoration of Anshan and Benxi was impossible, because ordering from the United States and Japan was not viable." So he "warmly looks forward to the authorities to

engineers to teach young Chinese technicians and help with the project.

Table 28. Anshan and Benxi Company Production and Reconstruction Summary, 1949

Products	Company	1949 Planned (tons)	Percentage Realized	Restored Annual Capacity (tons)
Iron Ore	Anshan	74,000	220%	
	Benxi	100,000	98%	
Pig Iron	Anshan	69,000	162%	450,000
	Benxi	25,200	192%	
Steel Ingots	Anshan	69,970	163%	490,000
	Benxi	2,600	81%	
Rolled Steel	Anshan	61,890	118%	360,000
Coke	Anshan			450,000
	Benxi	100,000	110%	
Coal	Benxi	636,000	135%	

Source: Ben gang shi zhi ban gong shi, *Ben Gang Zhi. Di Yi Juan, Xia* (Shenyang: Liao ning ren min chu ban she, 1992), p. 43. The Benxi Coal and Iron Company was in a similar situation as the Anshan Company in October 1948: only 2 smaller of the 4 blast furnaces remained and 2 out of 8 special steel furnaces were reparable. The company also lost two 20,000 kilowatts generators, or 52% of electric power. Through the same popular movement and recruitment, Benxi formally started its production on July 15, 1949.

The city of Anshan launched a large scale “Donating Equipment Movement” by issuing the “Materials Inventory Ordinance” and the “Equipment Contribution Ordinance”. The movement lasted 2 months and ended with 4,255 workers submitting 62,400 pieces of equipment.⁷¹ 4 open hearth furnaces and 2 preliminary refining furnaces in the steel works, 3 blast furnaces in the iron works, 5 coke ovens in the chemical plant, 4 iron ore mines with 2 processing plants, six rolling

negotiate with the Soviets to fetch back the machinery.” In Umene’s Plan, the AISC could reach annual capacity of 120,000 tons of pig iron and 150,000 tons of steel products without the return of equipment from the Soviets, and 150,000/521,000 tons with those returned. Umene wanted the CPC to make use of the Japanese experts, not merely as advisors to the Chinese but as persons in charge of productive tasks, so that they could “feel the joy of work”. See Umene, “Anshan and Benxihu Ironworks Restoration Memorandum (November 20, 1948)” and Seo, “AISC Restoration Plan (December 18, 1948),” in ZA94-1-4-2, p. 50-67.

⁷¹ *An Gang Zhi, 1916-1985*, p. 15.

mills, 2 metal works and the refractory factory were restored and restarted production by the end of 1949. The restoration plan was complete ahead of time with the total workforce in the AISC soared from 10,512 to 43,907.⁷²

Power generation was also a top priority and urgent task for the NMI. Towards the end of the Nationalist rule in Manchuria, power generation capacity was reduced from the peak Manchukuo record of 1770 megawatts to 500 megawatts and the electric power industry lost two thirds of its employees.⁷³ Before taking the Fengman Hydropower Station on the Second Songhua River in March 1948, the Communists organized 5 separate power administrations: one run by the BIM and the rest covered Mudanjiang, Hejiang, Qiqihar, and Bei'an area. They operated 13 power stations and covered 60 urban and rural areas. Most electric power was transmitted to the coalmines and military factories to ensure weapons production and rail transportation.

The Northeast Electric Power Administration was established after the takeover of Fengman to centralize state control of all the power generations. Director Cheng Mingsheng was a student movement leader at the Peiyang University in Tianjin during late 1920s and got his bachelor's degree in electric engineering from Waseda University in 1936. He was appointed Deputy Director of the DMI as well as General Manager of the Andong Electric Works when arrived in Manchuria. Transferred to the BIM in the spring of 1947 as Deputy Director, Chen oversaw power stations and power plants in northern Manchuria and supervised their reconstruction.⁷⁴ The administration integrated power production, transmission, and sales by centralizing

⁷² Zhong gong Liaoning Sheng wei dang shi yan jiu shi ed., *Zhongguo Gong Chan Dang Liaoning Shi* (Shenyang shi: Liao hai chu ban she: Liaoning Sheng xin hua shu dian fa xing, 2001), pp. 604-05.

⁷³ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 231.

⁷⁴ Chen was Director of the First Arsenal in the Communist Eighth Army Headquarters, then Director of Yan'an Electric Works, and the Principal of the School of Communications. Cheng went on to be Director of the Electric Power Administration at the Central Ministry of Fuel Industry in 1952, Assistant Minister of the Electric Industry, and Vice Minister of Water Conservancy and Electric Power in 1959. "Huachuan Kang Ri Ying Xiong Pu Cheng Mingsheng," *Jiaozuo ri bao*, July 27 2015.

management and redistricting power supply areas. The new power grid system consisted of the East, North, West, Center, South Manchuria and Jinzhou-Rehe 6 districts and 66 power stations. Total installed capacity reached 512.3 megawatts in 1948 and 59.7% of the electricity was consumed by industries, particularly the mining industry. By the time southern Manchuria fell to the Communists, the administration held 31 power plants and restored its workforce to over 10,000 workers and electricians.

The power administration took over 5 electric works in Shenyang and established the Bureau of Electrical Industry in June 1949, headed by Zhou Jiannan to manage the electric works. Zhou was first sent to the DMI and acted as Chief Engineer of the Dong'an Electrical Works in 1947.⁷⁵ The factory produced military communication equipment such as radio transmitters, hand generators, batteries, and telephones with the assistance of around 200 Japanese technicians. It was moved to Shenyang in November 1948 and merged with other factories. Zhou Jiannan combined and reorganized these factories into 10 enterprises, producing telecommunication equipment, electric meters, DC generators, bulbs, electric motors, transformers, switches, wire insulation material, batteries, accumulators, and assembled appliances. The Bureau of Electrical Industry system made 1,183 electric motors, 386 transformers, 764,734 bulbs, and 636,589 kg of wires in 1949.

Hydropower accounted for 35% of the total power generation in Manchukuo and almost half of the hydropower generation came from the Fengman Hydropower Plant. The Soviets removed 5 generator sets from the station, leaving only two impaired ones. The BIM sent Cheng Mingsheng and a working group into Fengman and they cooperated with the engineers,

⁷⁵ Zhou was a graduate from the Shanghai Jiao Tong University majoring in electrical engineering. He went on to be the first Director of the Bureau of Electrical Industry at the First Ministry of Machine Industry in 1953 and ultimately the Minister of Machine Industry in 1982. Zhi Cheng, *Li Shi Feng Yun Zhong De Yi Dai Ying Jie: Wu Xuquan* (Beijing: Dang dai Zhongguo chu ban she, 1998), p. 192.

technicians and workers there to restore power generation. Power transmission to Jilin, Harbin, Changchun, and Fuchun was reestablished from March to December 1948. In 1949, Fengman alone occupied 35% of Manchuria's installed power generation capacity and supplied 50-60% of the electricity on the main grid due to the shortage of coal in the thermal power plants. Between 1949 and 1952, average annual power generation was 820 million kWh and after the installation of the Soviet generator sets in 1960, total installed capacity reached 553.75 megawatts. In the decade of 1950s, the Fengman Plant generated 16.6 billion kWh, meeting the high demand of electric power by the heavy industrial production and development.⁷⁶

Table 29. Fengman Generator Set Installation Chart

		Set 1	Set 2	Set 3	Set 4	Set 5	Set 6	Set 7	Set 8
Pre-1945	Generator	Westinghouse	Westinghouse	AEG	AEG	AEG	Westinghouse	Hitachi	Hitachi
	Turbine	Hitachi	Escher Wyss	Voith	Voith	Voith	Escher Wyss	Hitachi	Hitachi
	Installation	Generating March , 1943	Generating Jun., 1944	Installing 1945	Generating May, 1945	Arrived in 1945	Arrived in 1945	Generating Dec., 1944	Installing in 1945
Soviet Removal	Generator	No	Yes	Yes	No	Partial	Yes	Yes	Yes
	Turbine	No	Yes	Yes	No	Yes	No	Yes	Yes
Post-1949	Generator		Kirov	Mixed		Kirov	Kirov	Kirov	Kirov
	Turbine		Escher Wyss	Stalin		Stalin	Escher Wyss	Stalin	Stalin
	Installation		Mar., 1955	May, 1960		Aug., 1956	Sept., 1954	Apr., 1953	Jul., 1953

Source: Fengman fa dian chang zhi bian ji shi, *Fengman Fa Dian Chang Zhi, 1937-1985* (Jilin: Dongbei dian ye guan li ju Dongbei dian ye zhi bian wei hui, 1989), vol.1, pp. 83-84. Manufacturing company full names: U.S. Westinghouse Electric Corporation; German General

⁷⁶ Fengman fa dian chang zhi bian ji shi, *Fengman Fa Dian Chang Zhi, 1937-1985* (Jilin: Dongbei dian ye guan li ju Dongbei dian ye zhi bian wei hui, 1989), vol.1, pp. 101-04.

Electrical Company (Allgemeine Elektricitäts-Gesellschaft, AEG); Japanese Hitachi, Ltd.; Swiss Escher Wyss & Cie (Escher Wyss AG); German Voith Group; Soviet Kirov Works; Soviet Stalin Metal Works; mixture of German, Soviet and Chinese parts.

The restoration of steel and power industry directly stimulated the recovery of machine and nonferrous industry. Since most machines were allocated to the DMI and the railway administrations, the Machine Industry Administration only possessed some 500 machines after taking over the NRC system in Shenyang. Other than the Wafangdian Ball Bearing Factory and the Andong Machine Works that the NMI had been running, Shenyang's machine industry was reorganized into 6 machine works (No.1 to No.6): an instrument factory, an emery wheel factory, an auto assembly plant, and a pilot plant. The administration spent most of its time in the first half of 1949 to recruit workers and repair broken machines. Employees of the machine works increased from 1,448 to 11,020 and the working machines tripled from 837 to 2,418, including lathes, planers, slotters, milling, drilling, grinding, and boring machines.⁷⁷ In addition, the state machine works produced 570 machine tools, 1,257 mining machines (mostly rock drills), 222,800 kg of emery wheels, and 135,599 bearings in 1949.⁷⁸

The Nonferrous Metal Administration was established under the NMI in December 1948. Li Hua, who studied at the Sun Yat-sen University, was put in charge, and Sun Hongru, a mathematics graduate from the Nankai University and taught at the Yan'an Academy of Natural Sciences, was named Deputy Director. The new agency administered 18 gold and copper mines, 5 lead-zinc mines, 3 rare metals mines, which were collected from the former BIM. With the processing capacity acquired from the factories in southern Manchuria like the Shenyang Smelting Plant, the Fushun Aluminum Plant, the Yingkou Magnesium Plant, the Huludao Zinc Plant, the Nu'erhe Schreyerite Plant, the NMI was finally able to produce nonferrous metals.

⁷⁷ "Gong kuang she bei diao cha zi liao (Survey Data on Industry and Mining Equipment)", June 1949, DDZL, no.525, p. 5.

⁷⁸ "Hui fu yu jian she zhong de Dongbei ji xie gong ye," in *Dongbei Ri Bao*, August, 8, 1949.

However, over 80% of the plants were in nonproductive status when taken over by the Communists and only the Shenyang Smelting Plant was in working conditions. Deputy Director Sun sent his wife Han Bin, also his student from the Yan'an Academy of Natural Sciences, to manage the Smelting Plant, which was renamed the First Nonferrous Metal Processing Plant in May. From May to August, lead, copper and silver productions were restored in the plant and their products were later used to produce bullet cartridges during the Korean War.⁷⁹ The nonferrous industry was the most rapid recovery among Manchurian industries. It mined and processed 207,247 tons of nonferrous ore and produced 1,875 tons of copper, 2,062 tons of lead, 566 kg of gold, and 3,324 kg of silver in 1949. Workers employed by the state enterprises in the industry more than doubled from 5,655 to 13,642.⁸⁰

On June 22, 1949, NMI Director Chen Yu told his audience from the Science Symposium at the Beijing Hotel “even though the Northeast has only been liberated for 7 months, the industry is flourishing!” “The policy of the Northeast industry in 1949 and 50 is to restore and strengthen the base for industrial development,” Chen said, “and the future of the Northeast Industry is to outstrip the records of the puppet Manchukuo in the next 2-3 years.” He continued to claim that some industries had reached one third to one half of the Manchukuo level and the accomplishment was due to the awakening of the technical experts and workers alike.⁸¹ The colonial nature of Manchukuo and the destructiveness of the Nationalist Northeast Government were on full display in Chen’s remarks, but the rapid revival of the heavy industry could also be attributed to the reintegration of the Manchurian system, which rediscovered its developmental

⁷⁹ Shenyang you se jin shu jia gong chang zhi bian zuan gong zuo ling dao xiao zu ban gong shi ed., *Shenyang You Se Jin Shu Jia Gong Chang Zhi, 1938-2003* (Shenyang Shi: Shenyang you se jin shu jia gong chang, 2003), pp. 5-6.

⁸⁰ Li Hua, “You se jin shu guan li ju 1949 gong zuo zong jie,” April 25, 1950, in *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 228.

⁸¹ Zhongguo ke xue ji shu xie hui. and Zhonghua quan guo ke xue ji shu pu ji xie hui., "Ke Xue Da Zhong," vol.6, issue 2, p. 60.

trajectory and resumed its pattern of industrial growth. Chen stayed in Beijing after the symposium and assumed the post of Minister of North China Ministry of Heavy Industry, which morphed to the Central Government's Ministry of Fuel Industry by the end of September.

Table 30. Equipment and Capacity of the Nonferrous Industry, 1949 (Ton/Year)

Product	Equipment	Manchukuo	Current	% Manchukuo	Yearend Plan	% Manchukuo
Copper	Ore Furnace	118,500	54,000	46	114,000	96
	Vacuum Furnace	9,600	11,505	120	11,520	120
	Converter	9,000	None	0	9,000	100
	Electrolysis Tank	3,240	3,168	98	4,000	123
Lead	Ore Furnace	33,000	33,000	100	33,000	100
	Electrolysis Tank	8,820	8,820	100	8,820	100
Zinc	Electrolysis Tank	400	None	0	None	0
Silver	Electrolysis Tank	8	8	100	8	100

Source: DDZL, no. 525, p 2.

Wang Heshou replaced Chen as the new minister of the NMI. Lu Dong and An Zhiwen were appointed as two Vice-Ministers. A month later, the Northeast People's Government (NPG) was established and the NAC's NMI became NPG's Ministry of Industry.⁸² The new NMI was still under the supervision of the NFEC, but Chen Yun had left for Beijing and Gao Gang replaced him as the Director in April, although Li Funchun stayed as Deputy Director and remained in

⁸² Huachun Ling, *Wang Heshou Zhuan* (Beijing: Ye jin gong ye chu ban she, 2002), p. 51.

charge of all the industrial affairs.⁸³ Wang was a labor movement leader in Manchuria during General Zhang Xueliang's period and organized the Communist Youth League in the Mukden Arsenal and the Fushun Colliery. He became Chen Yun's political secretary during WWII and was sent back to Manchuria with Chen. His First Deputy, Lu Dong, was born in southern Manchuria and studied history at the Northeast University and Peking University. Lu was Party Secretary of Shenyang and Chief of Staff of the Liaoning Provincial Government before joining the NMI. An Zhiwen came from the Northwest China and he was Gao Gang's secretary since 1944.⁸⁴ Apparently the critical importance of the Manchurian industry led both Chen Yun and Gao Gang to slot their most trusted protégés to the top jobs in the ministry.

The NMI also adjusted its organization to accommodate the growing industrial sectors within its system. It expanded into 10 bureaus: cutting the administrations of Gold Mining, Forestry, and Enterprise, and adding Military Industry, Chemicals, Electric Manufacturing, Construction Materials, and Light Industry. Moreover, the Fushun Colliery, the Dalian Jianxin Company and the Research Institute of the Northeast Science Academy were added to the NMI as directly controlled units. By the end of 1949, the NMI controlled 372 industrial units and successfully brought 307 of them back to production.

Growing sophistication from the DMI/BIM to the NMI system reflected the scale and the range of industrial development in Manchuria under the Communist control. It also signaled the Communist determination to protect, revive and develop this industrial inheritance. The NMI was a peculiar fusion of the charismatic Communist leaders, the college or foreign educated

⁸³ The initial plan was to set up both heavy and light ministries, but given the overwhelming weight of the heavy industry in the composition of the NMI system, only the Ministry of Heavy Industry was established and thereafter changed it name back to the Ministry of Industry. *Zhongguo Gong Chan Dang Zu Zhi Shi Zi Liao*, vol.4, pp. 260-261.

⁸⁴ Hua Hu ed., *Zhong Gong Dang Shi Ren Wu Zhuan* (Xi'an: Shanxi ren min chu ban she: Shanxi sheng xin hua shu dian fa xing, 1980), vol.74, pp. 190-196.

Chinese nationalists, the Japanese technological experts, and the mobilized workers, but they shared one dream of reconstructing the Manchurian industry. And indeed the dream was carefully planned and diligently achieved in three years, fueled by the war in Korea and assisted by a generous ally more powerful and advanced than imperial Japan.

4.3 Industrial Reconstruction and Reinstalation of Economic Planning

The initial revival of Manchuria industry provided the foundation for state economic planning on the one hand and created the demand for such planning on the other. For the industrial system that largely owned or controlled by the state and intimately tied to the national security strategies to function, the state had to build a planning bureaucracy to make rational and accurate production and distribution arrangement across industries and among enterprises.

As early as June 1948, NFEC Director Chen Yun suggested that each economic department should have a planning bureau to plan and inspect its works and two months later, Chen reported to the CPC Central Committee that the Northeast Bureau had decided to make the industrial plan for 1949 and, if possible, a two year plan for 1949-1950 so that the Northeast industry could learn and move toward the planned production.⁸⁵ Chen believed that industrial recovery and development, particularly the heavy industry, must be planned comprehensively based on thorough investigation and research to avoid chaotic and wasteful activities. Following Chen

⁸⁵ Yun Chen, *Chen Yun Wen Xuan, 1926-1949* (Beijing: Ren min chu ban she: Xin hua shu dian fa xing, 1984), pp. 372-373.

Yun's proposal, the Northeast Bureau decided to establish the Northeast National Economic Planning Commission (NEPC) under the NFEC and Chen's deputy Li Fuchun was appointed Director of the NEPC.

Li Fuchun had been working on the unification and centralization of state finance. He was also the head of logistics of the CPC forces in Manchuria. During the Third Financial and Economic Convention, Li pointed out that the Communist troops had gradually grown from a guerrilla style force to a strong regular army, fighting regular warfare and needing comprehensive logistic supply. "The feature of the war determined the characteristics of wartime financial and economic works, which are unified planning, focused production growth, and accumulation of manpower, materials, and capital for the victory in the front."⁸⁶ Under his supervision, the NFEC made the 1948 Communist area fiscal plan to coordinate production and logistic supply and the plan became a precursor for the economic plan in 1949. To move forward on the planning work, Li laid out the two-step urban policy during the Second Plenary Session of the Seventh CPC Central Committee in March 1949, "managing the cities is mainly about organizing production and distribution. Organizing production takes two steps, restoration and planned development, from local planning to comprehensive planning."⁸⁷

The first and foremost mission for the NEPC was to compile the "1949 Plan for Northeast National Economic Development". All ministries in the NAC, from industry, agriculture, military supplies, railways, communications, commerce, treasury, to banking were required to form planning bureaus or divisions to be responsible for the planning works. Corresponding to the NFEC and the NAC's institutionalization of planning, the provincial and municipal

⁸⁶ Fuchun Li, *Li Fuchun Xuan Ji* (Beijing: Zhongguo ji hua chu ban she: Xin hua shu dian Beijing fa xing suo fa xing, 1992), p. 49.

⁸⁷ Weizhong Fang and Chongji Jin, *Li Fuchun Zhuan* (Beijing: Zhong yang wen xian chu ban she, 2001), p. 345.

governments also established agencies to work on local economic planning. Institutional settings and working procedures of the planning agencies were stipulated and standardized. In order to fully understand the economic landscape of Manchuria so that the NEPC could optimize the plan for economic recovery and development, Li Fuchun also established the Statistic Bureau to gather institutional and statistical information on Manchukuo.⁸⁸

Wang Hua, a professor from the Yan'an Institute of Marxism-Leninism, and Lin Lifu, a Japan-trained Chinese scholar, were assigned to lead the investigation. Wang and Li, following the Communist take-over of Shenyang, summoned a number of former SMR staff and Japanese military personnel to help with the project. Yokokawa Jiro, former head of the Northern Manchuria Economic Research Bureau of the SMR New Capital (Changchun) Branch, played a key role in the NFEC Statistic Bureau.⁸⁹ After joining the Statistic Bureau, Yokokawa became the team leader of the Japanese experts, which included seven others: Kadoi, Okumura (both former SMR staff), Hasegawa (former Kwantung Army), Tajiri (former Army Budget and Accounting Bureau), Narasaki (former Military Aerial Map Division), Ito and Teramura.⁹⁰ Together with other Japanese staff who participated in the statistical and translational works required by the Statistical Bureau, the Japanese and Chinese experts produced a high-quality, accurate and thorough collection of economic intelligence on Manchukuo, all completed in a short period of less than one year. The NEPC used the information as references for economic

⁸⁸ Weizhong Fang and Chongji Jin, *Li Fuchun Zhuan* (Beijing: Zhong yang wen xian chu ban she, 2001), p. 358.

⁸⁹ Yokokawa graduated from the Tokyo Imperial University law school and translated Karl Marx, Karl Wittfogel and Franz Borkenau's works into Japanese. He became a self-trained China specialist and followed events in China closely. Yokokawa came to China and found a job at the Research Department of the SMR in 1936. His Marxist-leaning view ultimately got him arrested in the SMR Research Department Incident in 1942, when dozens of SMR staff were persecuted for subversive activities. Yokokawa was locked up for three years by the military police of the Kwantung Army. He stayed in Manchuria after 1945 and joined the Japanese Democratic Alliance to persuade those Japanese left in Manchuria to help with the Chinese revolution. Yokokawa worked at the Hegang coal mine to organize Japanese miners and technicians to restore production. See Yokokawa Jiro, *Wo Zou Guo De Qi Qu Xiao Lu* (Beijing: Xin shi jie chu ban she, 1991).

⁹⁰ *Kyu Manshu Keizai Tokei Shiryo*, p. 5.

planning and industrial development. Aiming for the peak economic output of Manchukuo, the Communist economic planners quickly acquired the coordinates needed to rebuild and reform the Manchurian economy.

The NMI organized its Planning Bureau as requested on January 10, 1949 to make economic plans for the state-owned industries. The Northeast Bureau transferred two educated official, Chai Shufan and Yuan Baohua, to help setting up the Office. Chai helped to take over the industries in Anshan and Shenyang and Yuan Baohua, who studied mathematics and geology at the Peking University before joining the Party and went to Yan'an, worked in county and provincial governments after arrived in Manchuria.⁹¹

The Planning Bureau had six tasks: understanding the overall conditions of the Northeast public industries; reviewing plans of the NMI bureaus; checking the implementation of the plans through the reporting system and regular inspections; researching and regulating economic quotas; publishing journals to summing up and exchange work experiences; and providing general technological guidance. Under the Planning Bureau, five planning offices—comprehensive, metallurgy, coal-forestry, machine-electric-construction, chemical-light industry—and the office of reference, the office of engineering, and the administrative office were established. In each bureau, company, factory, and mine a corresponding planning agency was also set up to make plan and to report statistics on the progress.⁹²

During early 1948, the NMI made an industrial plan, but the fluidity of the battlefield and the inaccuracy of the information discounted the completion of the plan. It was modified twice following the Communist occupation of Jilin and Shenyang. Conceived as a wartime plan, the

⁹¹ Baohua Yuan, "Dongbei Gong Ye Bu Yu Xin Zhongguo Gong Ye De Qi Bu," *Zhongguo jingji dao bao*, October 11, 2012.

⁹² "Gong ye bu guan yu jian li ge ji ji hua ji guan de zhi shi (NMI Instructions on Establishing Planning Agencies At All Levels)," January 12, 1949, ZA94-1-494, p. 4.

scope of the 1948 plan was limited to production targets. The interconnection between different industrial sectors and between production, capital investment and labor was therefore largely ignored. In the year-end summary, the NMI claimed that it would “strike for the relatively comprehensive, accurate, and complete planned economy based on the needs of supporting war and long-term development in a peaceful environment,” and that “the priority of development in the future should be basic industries like iron and steel, machinery and chemicals.”⁹³

The 1949 planning work learned a number of lessons from the previous plan and it started with the “Outline for the 1949 Industrial Plan” as a general guidance. Each mine or factory was asked to submit their plan, including a summary description, a reconstruction plan and a production plan, to their managing bureau and each bureau was required to submit its plan to the NMI Planning Bureau on February 20. The entries of the summary description contained the name, history, scale, equipment, production capacity, current conditions, type and variety of products, peak yield, raw material, current stockpile, gross investment, total assets, peak workforce, current workforce, and factory leaders and technicians. The production plan was also expanded to include the monthly plan, the technological improvement plan, the management plan (materials, transportation, power, cost and revenue, product distribution) and the human resource plan.⁹⁴

The Planning Bureau finished compiling the production, reconstruction, and management plan for the state industries in March and submitted to the NEPC. The NEPC then combined it with the state finance, agricultural, and trade plan to form the final National Economic Plan for 1949, which was approved by The NFEC and the Northeast Bureau in May. The key of the comprehensive plan was to rapidly reconstruct heavy industry in Manchuria and restore its

⁹³ “Yi nian lai de gong zuo fang zhen (NMI Working Policy of the Past Year),” ZA94-1-5.

⁹⁴ “Guan yu zhi ding 1949 nian gong ye ji hua de zhi shi (Instructions on the Making of the 1949 Industrial Plan),” January 10, 1949, ZA-94-1-494, p. 1-3.

economic capacity to 40% of the Manchukuo peak level. Total investment on the development of economy in the 1949 plan was 4.28 million tons of grain, 42% of the state expenditure, and the investment on industrial development was 3.45 million tons of grain, or 34% of the total.

Table 31. Northeast Ministry of Industry Plan for Investment and Construction, 1949

Company or Bureau	Product	Unit	Manchukuo Peak	1949	1950	1950/ Manchukuo	Invest. Billion NN
Anshan	Iron Ore	Kiloton	3,400	74	480	14%	1,100
	Pig Iron	Kiloton	1,308	35	200	15.4%	
	Steel Ingots	Kiloton	843	40	250	29.8%	
	Steel Product	Kiloton	821	40	200	24.4%	
	Coke	Kiloton	1,644	65	250	15.2%	
Benxi	Asphalt	Kiloton	951	504	750	79%	600
	Iron Ore	Kiloton	1,154	101	300	25%	
	Special Steel	Ton	6,000	2,576	5,000	74%	
	Coke	Kiloton	427	60	170	40%	
Nonferrous	Copper	Ton	2,115	1,500	1,500	72%	500
	Lead	Ton	5,511	2,000	6,000	110%	
Coal Mining	Coal	Million Ton	32.31	7.85	16	49%	1,100
Electric Power	Electricity	MWh	3,152,927	825,032	907,535	28.8%	400
	Electric Wire	Ton	9,270	900	1,774	19%	
	Electric Motor	Horse Power	30,000	5,998.5	9,150	30.5%	
	Light Bulb	Million	2.7	0.57	1.08	40%	

Table31, continued.

Company or Bureau	Product	Unit	Manchukuo Peak	1949	1950	1950/ Manchukuo	Invest. Billion NN
Chemicals	Caustic Soda	Ton	8,161	1,080	1,800	22%	120
	Sulfuric Acid	Ton	5,530	3,000	4,000	72%	
	Calcium Carbide	Ton	10,153	1,320	2,400	23.6%	
Enterprises	Paper	Ton	76,386	18,714	35,000	45%	570
	Cement	Kiloton	1,382	177	320	25%	
	Auto Tire	Set	65,000	12,200	18,000	27.8%	
	Shoes	Million Pairs	30	4.48	4.9	16.5%	
	Glass	Case	600,000	105,000	600,000	100%	

Source: DDZL, no. 907, p. 21-23. Additional investments: 560 billion yuan NN to the Bureau of Machine Industry, 400 billion to the Bureau of Textile Industry, and 300 billion to the Bureau of Forestry. The plan does not include the Lushun-Dalian area.

The industrial investment could be divided into three categories: the first tier was the direct investment on industrial reconstruction, which would take about half of the industrial investment; the second tier would pay for the importation of foreign machines and the plan committed 0.6-0.7 million tons of grain, 3-4 times more than the previous year for it; and the third tier was the spending on the military industry, including armament, artillery, and communication equipment. The planned state industrial output was 6.47 million tons grain or 22.64 trillion yuan NN (1 ton of grain equals 3.5 million yuan NN), in which industrial profits were estimated at 687,873 tons of grain. Meanwhile, the exports to other parts of China was set at 2,254,250 tons of grain, 72% of the intra-China trade and 37% of the gross trade value.⁹⁵

⁹⁵ “Dongbei jie fang qu 1949 nian yusuan yu zhu yao guo ying qi ye jingji jihua cao an(Notheast Liberated Area Budget of 1949 and Draft Economic Plan for Major State Enterprises),” April 4, 1949, DQZL, no. 907.

Table 32. Major State Industry Output and Plan Completion Rate, 1949

Product	Total Output (Ton)	Plan Completion	Product	Total Output	Plan Completion
Pig Iron	172,500	183.5%	Electricity	1,348.68 million kWh	103%
Open-hearth Steel Ingots	100,933	128.4%	Machine Tools	570 Set	114%
Electric Furnace Steel Ingots	6,684	157%	Cement	218,791 Ton	109.4%
Copper	1,875	125%	Glass	115,631 Case	110.1%
Lead	2,062	103%	Paper	23,384 Ton	90%
Coal	11,242,805	124%	Cotton Yarn Cotton Cloth	65,133 Piece 1,248,278 Pi	88% 86%

Source: Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 213.

The general pattern of prioritizing heavy industry, the system of state-dominated industrial enterprises, and the centralized planning based on production capacity and national security rather than market prices were coming back in full force right after the war ended in Manchuria. In the total industrial output of 1949, public and private industrial output were equivalent of 8.96 and 1.28 million tons of grain respectively, or 87.5% vs. 12.5%. Within the public industry, local public industry only recorded 2.6 trillion yuan NN, or 6.7%, leaving the state-owned industry a dominant 93.3%. Furthermore, the gross output of state heavy and light industry in 1949 amounted to 26.11 and 10.36 trillion yuan NN respectively, or 71.59% vs. 28.41%. State-owned heavy industry, therefore, took the lion's share of the Manchurian economy. Though targeted revitalization went a long way to speed up industrial recovery, the 1949 gross industrial output was only 29% of 1943 and 35% of the total economic output.⁹⁶

⁹⁶ “Dongbei di qu gong nong ye sheng chan zong zhi bi jiao cai liao (Northeast Industry Agriculture Output Comparison),” 1949, in Kong, *Dongbei Jing Ji Shi*, p. 610.

During the making of the 1949 plan, the CPC Central Committee held its second plenary session in which the basic policy to develop China from an agricultural to an industrial state was made and the Northeast Bureau was instructed to restore the industrial capacity of Manchuria back to its peak level in 3-5 years. The NMI decided to strive for full recovery in three years from 1950 to 1952. Vice Minister Lu Dong, who was leading the planning work, told the heads of the NMI bureaus that the NMI policy was not rebuilding the colonial Manchukuo system brick by brick, rather the new industrialization must properly reform the old system and make it more balanced.⁹⁷ The Communist industrialists found that the machinery and electromechanical industry lagged behind the mining and metallurgical industry, which made the entire system dependent on the Japanese manufacturing center. Hence, the short-term recovery plan might focus on restoring the capacity of the old system, but the long-term plan was deliberately designed to reflect the goal of rebalancing and independence.

In the process of making the 1949 plan, the NMI felt the discrepancies between the rapidly expanding industrial system and the lack of information on the structural and technological characters of such system. Lu Dong criticized the planning work for not knowing the details of “resources, equipment, raw materials, power, transportation, capital, cost, efficiency, and manpower.” And because of the statistical and institutional deficiency, there were limited efforts on improving product varieties, manufacturing quality, technology, labor productivity, and cost and capital management. The new investigation requested the knowledge of more Manchukuo production, capital and labor records, and the prediction of equipment repair progress by the end of the year.

One of the most crucial information gathering works was the clearing of assets. Without an

⁹⁷ “Wan cheng zhi ding xia du ji hua de zhun bei gong zuo (Complete the Preparation Work for Drafting the Next Plan)”, ZA94-1-494, p. 8.

accurate valuation of the fixed and liquid assets, there would be no grounds for calculating cost/price, depreciation, and profit, which would then render the calculation of the rate of capital accumulation and the needed state investment impossible. In the initial foundation of the state enterprise accounting and capital management system, setting the right depreciation rate was a top priority. The NMI Planning Bureau used the Manchukuo rates calculated by the NEPC Statistic Bureau and consulted with the Soviet practice to come up with its own formula.

Table 33. Comparative Rates of Depreciation in Manchukuo and the Communist Northeast

Industry	Fixed Capital/ Total Asset 1940	1937 Manchukuo Rate	1940 Manchukuo Rate	1949 NMI Rate
Mining	61.3%	4.1%	2.7%	7.5%
Metallurgy	78.7%	0.5%	4.8%	6%
Machinery	30.2%	0.5%	3.4%	10%
Chemicals	68.1%	5.8%	3.2%	7%
Cement	80%	N/A	2.1%	7.85%
Ceramics	42.8%	5.1%	2.4%	5.75%
Textile	40.3%	8.1%	7.4%	5.87%
New Equipment			5-6.6%	5-6%

Sources: “Wei Man shi dai dong bei ge qi ye gu ding zi chan de zhe jiu fei yong yu zhe jiu lu (Fixed Assets Depreciation Fees and Rates in Manchukuo),” March 1949, DDZL, no. 986, p. 7, p.19; and “Guan yu zuo ji hua ju ti wen ti de bao gao (Report on Details of Planning),” December 17, 1949, ZA94-1-494, p. 27. The NMI adopted a recovery period of 15-20 years in average for their equipment. Correspondingly, the Manchukuo depreciation rates, implemented in September 1942, in the same range (the plan actually covered rates from 2 to 103 years) showed very similarly result.

Adjusting the depreciation rates was a convenient tool for the Planning Bureau to prioritize the heavy industrial sector by accelerating capital accumulation and raise the cost of industrial products, which would correct the “error of downbeat prices” of these products and turn the state enterprises profitable, thus ending the dependency upon state finance and government deficits.

With gradual restoration of production, the bureau wanted to find the right quota for major industrial products according to the Manchukuo records, the other regions or countries' records, and the current year quota. The NEPC also requested a product catalog with unit prices and a material catalog with prices to solicit orders and suppliers from other government agencies and the market. These tasks required tremendous works and expertise, but from the Planning Bureau to the planning offices in the NMI bureaus and enterprises, talented industrial planners were hard to find. "Our reporting and statistic systems have not been fully established in the past," complained the Bureau, "we need to strengthen and complete the statistic team in the planning offices and release instructions on the establishment of the reporting and statistic systems in other bureaus."⁹⁸ In many cases, there was no one in charge of the planning work in the factories and the managers of factories had to do planning themselves. Hence, the NMI recruited thousands of college graduates from North and East China to fill the void and ordered the bureaus to train and promote planners from within.

While the Communist planners were busy trying to figure out how to utilize and rebuild the Manchukuo industrial infrastructure, many technicians and workers were skeptical and pessimistic about reaching or overcoming the Manchukuo records with the present technological and working conditions. The NMI launched a series of programs to improve the industrial management and labor productivity. It started in July 1949 with the enforcement of economic accounting system accompanied by a popular movement to eradicate waste. The economic accounting system composed of capital management, cost accounting and ordering system and the key was cost control. Communist managers also adopted a more active method to counter the problem of low efficiency: a Manchurian version of the Soviet Stakhanovite movement called

⁹⁸ "Gong ye bu ji hua chu xia ban nian gong zuo ji hua (NMI Planning Bureau Work Plan for the Second Half of the Year)," ZA94-1-265.

the “Creating New Production Records Movement”. Encouraging employees to break their own production records and aim for the Manchukuo records, the managers infused them with patriotism, trained them at the night schools, led them with role models, and rewarded them with honor and cash bonuses (2-3% of salary). Within half a year, 35,000 workers and engineers in the NMI system created 17,222 new production records, and the AISC broke the Japanese records of furnace utilization coefficient, coke oven carbonization time, and open-hearth steelmaking velocity. In the year of 1949, average labor productivity increased 32.83%.⁹⁹

In November 1949, the NMI reviewed individual plans submitted by the bureaus and enterprises after three months of preparatory work. Learning from the Soviet experts, the NMI emphasized the connectedness of the material, financial and labor plans through the making of the balance sheets. The balance sheet was a double entry system in which if one side logged various demand of materials (products, investments, and labor) then the other side must write down the sources of supply of these materials. With three sets of balance sheets, the planners could break down the vague idea of “state supply” and “turn over to the state” used in the previous plans so that each transaction would have clear contractual parties and the overall supply and demand could be calculated and balanced on the state level.

Moreover, the Planning Bureau particularly asked for separate plans to improve productivity and lower costs. The productivity numbers were used to regulate wages (the added value of productivity must be higher than the additional gains in wages) and the cost control was the main factor in calculating the industrial profits from the state wholesale prices. Both were accelerators

⁹⁹ “Guan yu jia qiang jing ji he suan zhi kai zhan fan lang fei dou zheng de jue ding (Resolution on Enforcing Economic Accounting and Fighting Against Waste),” July 25, 1949, and “Dui xin ji lu yun dong de zong jie (Summary on the New Record Movement),” March 10, 1950, in *Dongbei Ren Min Zheng Fu Gong Ye Bu Wen Jian Hui Bian, 1949.1-1952.10* (Gong ye bu yin shua chang, 1952), ZA94-1-69, p. 1, 34.

of state capital accumulation and production expansion in reconstructing the industries in Manchuria.¹⁰⁰ In fact, profits of the state enterprises were called the “internal accumulations” and the NMI stipulated that 90% of the accumulations must be turned over to the state for new industrial development projects. Only 10% was kept within the factories for the labor welfare, protection and incentives. The extra industrial surplus accounted as much as 20.5% of the total capital investment in 1950. Vice Minister Lu Dong, in his call to further lower the cost of industrial production, demanded another 5-10% reduction in the 1951 plan.¹⁰¹

The 1950 economic plan was not completed on time. Besides the difficulties of mastering the massive materials on industrial assets and production conditions, institutional change and international relations also delayed the process. After the founding of the NPG in August 1949, the NFEC and the NEPC were reorganized and absorbed by the People’s Economic Planning Commission. Chairman Gao Gang took the helm and Li Funchun, Lin Feng (Vice Chairman of the NPG), and Zhu Lizhi were appointed Deputy Directors.¹⁰²

Another factor was Mao’s visit to the Soviet Union for financial and technological aids. Mao’s trip to Moscow was extended and the negotiation with the Soviet on the new industrial projects was not initiated until late February of 1950. The delay directly postponed the making of the capital construction plan since no equipment order was issued to foreign manufactures and the plan was pigeonholed to wait for revision on design and scale. To cope with the problem, the

¹⁰⁰ “Guan yu shen he 1950 nian sheng chan xiu jian ji hua hui yi shang de bao gao (Report on Reviewing the 1950 Production and Construction Plan Meeting),” November 10, 1949, ZA94-1-69, p. 12-16.

¹⁰¹ “Guan yu nei bu ji lei chu zhi zhi jie ding (Instruction on Internal Accumulation),” April 25, 1950, and “Wei jiang di cheng ben er fen dou (Fight for Lowering Cost),” May 21, 1951. In ZA94-1-69, pp.12-16.

¹⁰² Zhu studied economics at the Tsinghua University and served as President of the Border Area Bank in Yan'an. He went to North Korea in August 1946 and established the Representative Office of the Northeast Bureau in Korea (a.k.a. the Pyongyang Limin Company). As Chief Representative of the Northeast Bureau and the NDAA, Zhu led the office in Pyongyang to support the war effort in Manchuria for more than two years until its closure in September 1948. Zhu made friends with the Korean leaders like Kim Il-sung, Choe Yong-gon, and Kim Moon Jung, Kang Kon, and Lee Kwon Mu. In December 1948, Zhu became Governor of the Northeast Bank, and in May 1949, he took on the job of Director of the General Accounting Office. After Li Fuchun left for Beijing, Zhu was in charge of the daily operations of the NEPC. Dianyao Wu and Lin Song, *Zhu Lizhi Zhuan* (Beijing: Zhong gong dang shi chu ban she, 2007), pp. 470, 491.

NMI told its bureaus that in the case of waiting for foreign assistance, the project could be left out of the plan or put into the supplemental plan for the latter half of the year.

Faced with uncertainty and delay, NMI Minister Wang Heshou motivated his team by calling the planning “not only an economic mission, but an extremely important political mission.” He explained the basic principle of the Communist planning in Manchuria, “war has pauperized the people, but the country is tightening its belt to support the development of the Northeast. We need to be cautious about how to spend every penny and reduce wastes and expenses. Using our existing resources to maintain production and solve problems is a responsible way to plan. And focusing on the key projects to ensure their completion is a better course.” To encourage the planners, Wang quoted the Soviet expert who admitted that making a plan for three times was not excessive and that even in the Soviet Union, with tens of thousands of experts, a general plan also needed three times or more because for every aspects of the plan to fall in place was very challenging.¹⁰³

Due to the higher standard and new planning items, the sub-plans submitted from the bureaus and enterprises to the NMI Planning Bureau dragged on for months. The planners, with the help of the Soviet experts, made important revisions on the basic numbers and confirmed capital investment for each bureau. After the trial version and the review, the NMI started to remake the plan using the updated balance sheets in mid-December. The entire NMI system mobilized close to 5,000 staff to work “day and night” until early February and the final version was submitted to the government on February 15, 1950 for approval. In the summary of industrial planning for 1950, the Planning Bureau noted, “even though the statistical organs were established from the ministry to each factory in July 1949, the 1950 plan still ran into the embarrassment of lacking reliable statistical records, but we have done a lot to fill the gap and

¹⁰³ Huachun Ling, *Wang Heshou Zhuan*, p. 18.

the planning work for the next period would be easier.”¹⁰⁴

Table 34. Added Production Capacity in 1950 Compare a Year Before

Product	Added Capacity	Product	Added Capacity	Product	Added Capacity
Electricity	8.2%	Concentrated Sulfuric Acid	9.3%	Auto Tire	23.9%
Iron Ore	284.8%	Dilute Sulfuric Acid	31.4%	Conveyer Belt	16.9
Pig Iron	61.8%	Zinc	502.5%	Transmission Belt	8.9%
Steel Ingots	54.9%	Auricupride	89.8%	Triangular Belt	27.1%
Steel Products	9.8%	Lead-Zinc Ore	154.8%	Cotton Yarn	66.4%
Coke	6.8%	Electrum	882.4%	Cotton Cloth	32.9%
Crude Oil	39.5%	Electric Machines	61.8	Sandbag	52%
Petroleum	70.8%	Machine Tools	27.8%	Rubber Shoes	5.8%
Caustic Soda	78.4%	Cement	31.8%	Paper Pulp	48.8%
Ammonium Sulfate	3.9%	Glass	10.1%	Papers	66.6%

Source: Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 224.

The 1950 Northeast Economic Plan appropriated 40% of the government revenue, or 77% of the total economic investment, on the industrial reconstruction in Manchuria. 40.3% of the industrial investment was used to purchase equipment, 54% for repairing and constructing factory buildings, warehouses and living quarters for staff and workers, and 5.7% for geological survey, research and education. The newly constructed area was 2.5 million square meters, 64% of which was dormitories for workers. More than 8,000 additional students enrolled in the industrial university, the institute of technology and higher vocational schools by the end of 1950.

¹⁰⁴ “Gong ye bu zhi ding 1950 nian ji hua de jing guo (NMI Process of Making the 1950 Plan),” ZA94-1-494, p. 31-32.

When the planning for 1951 began in July 1950, the war in Korea had broken out. But initially, the war had little impact on the rapid reindustrialization in Manchuria.¹⁰⁵ NEPC Director Zhu LiZhi held the Northeast Economic Planning Convention in July 1950. He told the attendees that the Party Central had decided to make the Northeast the base for national industrialization and “the base for industrialization basically means heavy industry which is also the base for light industry.” “Without heavy industry—steel, iron, copper, aluminum, machinery, chemicals and transportation—in the Northeast,” Zhu emphasized, “industrialization of the Northeast and China is impossible.” Zhu confirmed that the 1951 plan would continue to focus on the development of heavy industry, but also pay attention to the ratio of light industry and agriculture since they provide “industrial raw materials, trade products with the Soviet for their machines, and consumer goods to improve people’s livelihood.”¹⁰⁶

In his report, Zhu acknowledged that the NEPC plan could not cover everything in a complex system that included intra-provincial, provincial, regional, national and international markets. Consequently, the NEPC would only plan for about 100 major commodities to ensure the balance of supply and demand. Between two types of economies existed in Manchuria, the state socialism and the private capitalism, the former should not follow the market and the latter should use the market to determine prices, not the state. The limited scope of the economic planning and the focus on state-dominated heavy industry were striking features of the 1951 plan. They reflected the contradiction between the aspirations of the Communist leaders and the true ability of the state agencies to collect, analyze, and rationally process pertinent information to make economic plans.

¹⁰⁵ The NMI was beset by quality and safety problems. Not only were defective products pervasive, but also accidents averaged 14 times in factories and 46 times in mining areas (including 6 times of roof-fall accidents) per day in the first half of 1950. ZA94-1-69, p. 168.

¹⁰⁶ “Dongbei jing ji hui fu yu jian she ji hua de fang zhenhe fang fa,” in Wu and Song, *Zhu Lizhi Zhuan*, pp. 492-95.

Chairman Gao Gang recognized the achievements of the 1950 plan in the midst of the “War to Resist US Aggression and Aid Korea”. He intended the 1951 plan to “strengthen the national defense and develop the economy.” After fulfilling its national defense obligations, Gao expected the total gross output in Manchuria to grow 13.8% and industrial output to grow 16.43%, with an extra saving worth 5 million tons of grain to be achieved through faster capital turnover, 10% lower product costs, lower defect rate, and higher equipment utilization.¹⁰⁷ The NPG maintained its focus on the Manchurian industry despite the war in Korean. Meanwhile, Stalin accelerated the Soviet aids to China which prompted the 1952 plan to emphasize more on the capital constructions. Two professional works—statistical analysis and industrial design—were paid special attention to coordinate the Soviet projects. The Planning Bureau and the Statistic Bureau “supervised the implementation of the plan through statistical records and discovering industrial potentials based on the state’s industrial policy.”¹⁰⁸

By the autumn of 1952, the three-year planned reconstruction period was coming to an end. Most key figures that had been working on reviving the heavy industry in Manchuria were promoted to Beijing and started to lead the planned economic development of the whole country. Their “international” experiences in Manchuria shaped their view on how to plan, finance, develop, and manage industries and they were eager to push industrialization forward in China through the First Five Year Plan (FFYP). The phenomenal growth gave the central state confidence and resolve to further develop the heavy industry base in Manchuria.

¹⁰⁷ Gao Gang, “Gong gu guo fang, fa zhan jing ji” Feb. 27, 1951, in *Ren min ri bao*, March 9, 1951; “Dongbei gong ren jie ji zai gong gu guo fang fa zhan jing ji zhong de wei da gong xian” in *Ren min ri bao*, July 25, 1951.

¹⁰⁸ “Guan yu 1952 nian tong ji gong zuo de zhi shi (Instructions on Statistical Works in 1952),” February 10, 1952, and “Guan yu jia qiang she ji gong zuo de zhi shi (Instructions on Strengthening Design Works),” May 19, 1952, ZA94-1-69, pp. 470, 262.

4.4 Soviet-Manchurian Trades and Soviet Assistance to Heavy Industrialization

During the Communist retreat in 1946, the Northeast Bureau asked for the Soviet and North Korean help to establish the cross-border transportation routes so that industrial equipment and materials, arms and medical supplies from southern Manchuria and food and coal from northern Manchuria could be exchanged between Communist bases. Four routes were thus created: one linking Andong, a border town on the west bank of the Yalu River, through Sinuiju on the east bank and Namyang in North Korea, to Tumen, a Communist stronghold west of Namyang in Manchuria with ethnic Korean majority; and the other linking Tonghua, a strategic city in eastern Manchuria, through Ji'an and Manpo, border towns in Manchuria and North Korea respectively, to Tumen. The other two were sea routes starting from Dalian, through North Korean ports of Nampho and Chongjin, to reach Communist bases in northern Manchuria. These routes functioned as Manchuria's Ho Chi Minh trail and sustained CPC resistance against the Nationalist offensives during the early stage of the civil war. Not only hundreds of thousand tons of equipment and materials were transported through the "Korean trail", but thousand of Communist cadres were also traveling these routes, including key economic and industrial leaders like Chen Yun, Li Fuchun, He Changgong and Lu Dong.¹⁰⁹

The Nationalist advancement and the ravaging civil war along the Chinese Changchun Railway led to the pullout of Soviet railway staff from Changchun to Harbin. With the Soviet technical support and the Communist labor mobilization, the Chinese Changchun Railway between Manzhouli and Sufenhe was repaired from the war damages and changed to the Soviet

¹⁰⁹ Zhong gong zhong yang dang shi zi liao zheng ji wei yuan hui, Zhongguo ren min jie fang jun Liao Shen zhan yi ji nian guan jian guan wei yuan hui, and "Liao Shen jue zhan" bian shen xiao zu ed., *Liao Shen Jue Zhan*, 2 vols. (Beijing: Ren min chu ban she, 1988), vol.1, pp. 627-629.

rail standard (1524mm) from the Japanese standard (1435mm) so that connecting services from the Soviet Union to Manchuria were established in the spring of 1947. Waterway connecting Soviet cities Blagoveshchensk, Khabarovsk, and Komsomolsk on Amur with Manchurian cities Jiamusi, Fujin and Harbin was also established. This “Soviet trail” was critical to the CPC war effort since trade between the Soviet Union and northern Manchuria provided badly needed fuel, medicine, cloths and other industrial products while feeding the Soviets agricultural products.¹¹⁰

The “Soviet trail” and the “Korean trail” greatly improved the strategic standing of the CPC in Manchuria and opened up the artery for international trade. After 4 months of secret negotiations, the Northeast General Trading Company, an exclusive trading agency under the NAC, signed a trade agreement on December 21, 1946 with the Soviet trading partner, the Exportkhleb, a Soviet grain trading company in Voroshilovsk. The agreement, like the Nationalist’s trade agreements with the Germans and the Americans, adopted a barter and countertrade method. Additional contracts were signed in 1947 for Manchuria to export 60,000 tons of coking coal and 1.5 million railroad ties in exchange of the Soviet cotton products and fuel. Total trade value in 1947 was 940 million NN.¹¹¹

According to these trade deals, Manchuria was to export soybean, wheat, corn, rice, sorghum, pork, beef and lamb, and the Soviet Union was to export cloth, cotton yarn, spool thread, paper, paint, salt, sugar, match, automobiles, benzene, kerosene, and industrial lubricant. Soviet exports to Manchuria totaled more than 600 types of industrial products that covered military hardware, medicine, printing, and general merchandise.¹¹² In February 27, 1948 and

¹¹⁰ Oleg Borisovich Borisov and B. T. Koloskov, *Sino-Soviet Relations, 1945-1973: A Brief History* (Moscow: Progress Publishers, 1975), pp. 19-20, 24.

¹¹¹ Details of the agreements see *Dong Bei Jie Fang Qu Cai Zheng Jing Ji Shi Zi Liao Xuan Bian*, vol.3, pp. 358-67.

¹¹² In addition, Stalin authorize the Soviet Council of Minister in July 1947 to provide the NDAA with 400 trucks, 60 electric motors, 2,000 rectifiers, 3,200 telephones, 50,000 meters of electric cables, 10,000 meters of cotton cloth, and military radios, medicines, and medical equipment. “Council of Minister of the Soviet Union Resolution and

March 29, 1949, the two sides signed another two annual trade agreements. Imports were ordered in accordance with the industrial recovery plans made by the NFEC and the NMI. Manchurian export added more coal and Soviet export was supplemented with more producer goods like heavy trucks, lathes (371), tractors (447), and electric rollers (1,233). The value of producer goods in the 1949 agreement account for 61% of the total, but in 1947 and 1948, that proportion was merely 7% and 14%.¹¹³

Total export of Manchuria quickly expanded from US\$23 million in 1947 to US\$53.44 million in 1948 and US\$83.45 million in 1949.¹¹⁴ The foreign trade orientation was fundamentally changed from the eastward Japanese trade to the northward Soviet trade because of the postwar restructuring of the Northeast Asian geopolitics. Manchuria's trade with the Soviet Union between 1947-1949 was 97.3%, 93.9% and 90.8% of its total foreign trade.¹¹⁵ Despite the directional shift, the composition of the trade after the war soon returned to the former pattern, with Manchuria exporting foodstuff and raw materials and importing from the foreign parties industrial goods needed for domestic industrial development.

On April 19, 1950, the Chinese Trade Minister Ye Jizhuang and the Soviet Minister of Foreign Trade Mikhail A. Menshikov signed the Sino-Soviet Trade Agreement. This agreement was the first that the People's Republic reached with a foreign country and Manchuria continued as the most important trading partner with the Soviet Union. Zhang Huadong and Lu Dong, Minister of Trade and Deputy Minister of Industry of NPG, signed 54 specific contracts (including 19 design contracts) with the Soviet Union.

Attachments," July 14, 1947, Archive of the President of the Russian Federation (hereafter APRF), f.45, op.1, d330, pp. 1-4.

¹¹³ Liaoning Provincial Archives, Dongbei da qu dang an (Northeast Macro District Archives, hereafter DA) 51, no. 726 and no. 58.

¹¹⁴ Zhu, *Dongbei Jie Fang Qu Cai Zheng Jing Ji Shi Gao*, p. 416.

¹¹⁵ "Mao yi bu dui wai mao yi ju 1949 nian zong zuo zong jie," in *Dong Bei Jie Fang Qu Cai Zheng Jing Ji Shi Zi Liao Xuan Bian*, vol.3, pp. 346-47.

Table 35. Summary of the Manchurian-Soviet Trades, 1947-1949

Main Products	1947	1948	1949		1947	1948	1949
Manchuria Exports*	201.7	346.5	470.7	Soviet Exports*	212.1	327.5	445.2
Soy	298.2	366.2	568	Transportation*	10.4	26.3	34.5
Sorghum	33.5	—	0.6	Industrial Equipment*	1.0	15.6	24.6
Millet	21.7	25.9	6.1	Black Metal	0.07	3.9	17.1
Corn	95.6	140.2	84.1	Oil Products	8.4	46.6	52.4
Wheat	82.1	44.4	4.2	Chemicals*	0.5	1.8	25.9
Meat	7.4	3.5	3.4	Rubber*	—	7.0	9.8
Rice	15.4	44.3	28.7	Medicine*	1.8	3.2	5.7
Vegetable Oil	6.3	5.3	18.5	Sugar	1.4	3.2	5.9
Mane	32	27	110	Paper	1.5	3.0	10.4
Coal	60	430	1,060	Cotton Products^	21.1	30.5	19.8
				Cotton Yarn	0.6	1.9	287
Total Trade Value*	1947: 413.8			1948: 674.0		1949: 915.9	

Source: Sladkovskii, M. I. *Istoria Torgovo-Ekonomiceskikh Otnoshenii SSSR s Kitayem, 1917-1974* (Moskva: Nauka, 1977), p. 174. * In million rubles; ^ in million meters; All the other items are in thousand tons, except mane and cotton yarn, which are in tons.

In these contracts, Sino-Soviet trade was set to reach \$238 million (China export \$143.23 million and import \$94.77 million), in which Manchuria alone would cover 57.7% of Chinese export and 76% of total import. Manchurian soybean occupied 37.2% of China's export and in return among Chinese imports, industrial and railway equipment took 73.6%.¹¹⁶ After 1949, Manchuria's foreign trade continued to grow. The trade policy during this period was essentially mercantilist. It was deliberately balanced with barter or favoring surplus to accumulate foreign reserves. Agricultural exports were largely restored by 1952 to the level of Manchukuo's in 1943: exported soybean, sorghum and corn in terms of tonnage were 119.5%, 113.9% and

¹¹⁶ Zhikai Dong and Jiang Wu, *Xin Zhongguo Gong Ye De Dian Ji Shi : 156 Xiang Jian She Yan Jiu, 1950-2000* (Guangzhou Shi: Guangdong jing ji chu ban she, 2004), pp. 42-43.

110.3% that of 1943. But due to the damage of the mining industry, coal and other metal ore exports remained depressed.

Table 36. Northeast State Foreign Trade Value and Structure (in thousand rubles)

	1949		1950		1951		1952	
Total Import	441,245	100	670,554	100	768,914	100	303,929	100
Soviet Union	400,819	90.8	341,539	50.9	540,705	70.3	248,391	81.7
Eastern Europe	—	—	—	—	20,987	2.7	44,874	14.7
North Korea	13,594	3.1	10,012	1.5	—	—	193	0.1
West and H.K.	26,832	6.1	319,005	47.6	207,222	27	10,664	3.5
Total Export	433,211	100	780,115	100	784,149	100	616,329	100
Soviet Union	391,539	90.4	423,971	54.3	409,350	52.2	479,902	77.9
Eastern Europe	—	—	34,829	4.5	172,332	22	89,388	14.5
North Korea	19,623	4.5	19,674	2.5	11,751	1.5	9,589	1.5
West and H.K.	22,049	5.1	301,641	38.7	190,716	24.3	9,589	6.1
Total Trade	874,456		1,450,669		1,553,063		920,258	
Trade Balance	-8,034		109,561		15,235		312,400	

Source: DDZL, no. 963, p. 220. Note: US Dollar: Ruble: RMB= 1: 5.3: 22,905 (1949) 1: 5.3: 24,210 (1950) 1: 4: 27,368 (1951) 1: 4: 30,000 (1952). Manchuria's total foreign trade through state channels from 1949 to 1952 would be US\$165 million, US\$274 million, US\$388 million, and US\$230 million.

The breaking of the Nationalist blockade in 1949 very briefly dented the domination of the Soviet Union in Manchuria's foreign trade. Trade with western countries through Hong Kong jumped, but was quickly suppressed by the U.S.-led Coordinating Committee for Multilateral Export Controls (CoCom) headquartered in Paris. The Korean War further tightened the trade relations and reduced the western weight from 40% in 1950 to less than 5% in 1952. Meanwhile, industrialized Eastern European countries like East Germany and Czechoslovakia filled the gap

and provided the industrial products to Manchuria.

The most significant change in Manchuria's imports was the reduction of general merchandise, or consumer products like printing and textile products, from 39.6% to 6.1% in four years. Meanwhile, in order to satisfy the military and industrial demands during the war and reconstruction period, importation of transportation equipment, metals, and chemicals increased from 29.3% to 54.5%. The big drop of imports in 1952 reflected both the decreased intensity of the Korean War, the growing capacity of Manchuria's industrial production, and China's general growth of intra-trade.

From 1947 to 1952, across two massive wars, the sum of the Manchuria-Soviet trade was well over 6 billion rubles. The Soviet exports jump-started Manchuria's industry and kept the Communist military machine running. While the rest of China was swiftly taken over by the American manufactured goods, which replaced the Japanese goods right after the end of WWII, Manchuria had the Soviet Union as its source of industrial equipment and its market for her agricultural products. The state executed its industrial policy and economic plans by utilizing the Soviet trade to repair and replace the Japanese-Manchukuo industrial system.

However, trade alone was not enough to rescue the desolated industries, more direct Soviet help was vital to fill the technological vacuum left by the retreat of the Japanese staff. The Northeast Bureau, beset by the scarcity of trained technicians and skilled workers, began to directly request technical experts from the Soviet Union on top of recruiting engineers and workers from other parts of China.

During the Soviet occupation, the old Chinese Eastern Railway linking the Russian Far East through Manchuria was repaired. The Soviet Administration of the Chinese Changchun Railway sent in more than 100 engineers and technicians, and they managed to restore most rail lines in

northern Manchuria by the end of 1947. At the request of Lin Biao, Secretary of the Northeast Bureau and Commander of the NDAA in Manchuria, Stalin sent Ian Kovalev, Soviet Minister of Transportation during WWII, to Manchuria in June 1948 to head a Soviet railway team of 50 engineers, 52 technicians, and 220 skilled workers.¹¹⁷ On the Chinese side, the Northeast Railway Administration was also established in Harbin in the summer of 1946. Vice Commander of the NDAA, General Lu Zhengcao, became the first director and he was tasked with rebuilding the railway system in Manchuria. Marching along the advancing troops, the Northeast Railway Administration, banded with the Soviet assistance, obtained and repaired 5,700 km of railroads, 62 bridges, and 885 locomotives. Communist controlled railroads totaled 9,818 km or 98% of Manchuria's rail system before the decisive engagement in late 1948.¹¹⁸

Kovalev and his men helped to organize four brigades of Chinese railway corps and trained 4,600 Chinese rail technicians. They not only made rail lines between the Soviet Far East and the Soviet base in Lushun fully operational, but also submitted plans to further repair highways, roads, and waterways in Manchuria.¹¹⁹ At the request of the Northeast Bureau, Moscow also decided to transfer 1,500 freight cars, 130 coaches, and 50 locomotives from the Dalian depot; build additional 1,000 freight cars in the Dalian Locomotive Shop with the spare parts left by the Japanese; return 1,000 railroad cars and 86 locomotives seized in Manchuria in 1946; and send additional 170 Soviet rail specialists for a year to ensure the operations on the Chinese Changchun Railroad.¹²⁰

¹¹⁷ Oleg Borisovich Borisov, *The Soviet Union and the Manchurian Revolutionary Base, 1945-1949* (Moscow: Progress Publishers, 1977), p. 196.

¹¹⁸ *Liao Shen Jue Zhan*, vol.1, p. 590.

¹¹⁹ "Kovalev's Report to Stalin," December 16, 1948, Archive of Foreign Policy of the Russian Federation (hereafter AVPRF), f.06, o.10, p.52. d.734, pp. 84-94.

¹²⁰ "Draft Order of the Council of Ministers of the Soviet Union," December 16, 1948, AVPRF, f.06, o.10, p.53, d.738, pp. 19-20.

On September 8, 1948, General Lin Biao again wrote to Stalin and asked the Soviet Union for help in planning and rebuilding Manchurian transportation and industrial system. In his telegram to Moscow, Lin described the low level of production in critical industrial sectors such as metal, steel, chemicals and machinery due to the shortage of industrial equipment, materials, and trained managers. He pointed out that the metallurgical and steel industry in Tonghua and Anshan, chemical industry in Andong and Jilin, hydroelectric power station on the Sungari River, and the locomotive shop in Harbin were in urgent need of recovery. “To complete these tasks, we need at least two years and a national economy recovery plan for the Northeast region,” Lin continued, “but we don’t have the professional cadres who can shoulder such a huge work. We implore you to send expert teams to thoroughly study our economic situation and make coordinated industrial recovery plan with us.” General Lin requested 100 Soviet experts in his letter, but Molotov declined that request with Stalin’s consent.¹²¹

Kovalev returned to Moscow in January 1949 and was debriefed on his mission to Manchuria. Kovalev told Stalin that China urgently needed Soviet experts and economic assistance. He submitted a report containing a new list in which Gao Gang not only requested help in planning, raw materials and industrial equipment, but also quintupled Lin’s previous request on the number of Soviet experts based on the NEPC’s plan for industrial reconstruction. Other than the rail transportation, Gao’s request focused on heavy industries, which was in great need of repair. But the Soviet leadership held back from fully embracing and supporting the CPC due to their concern of the international impact of such move. Kovalev only returned to Manchuria in early 1949 with 10 Soviet economic experts to assist the NEPC on making the economic plans.

¹²¹ “Lin Biao’s Letter to Stalin,” September 8, 1948, in “Telegram from the Soviet Consulate General in Harbin to Molotov,” September 12 and “Molotov’s Report to Stalin,” October 6, AVPRF, f.06, o.10, p.53, d.738, pp. 6-11.

Table 37. Soviet Experts Requested by the Northeast Administrative Committee, January 1949

Area	Number	Specialized Area	Number
Rail Transportation and Communication	116	Military Industry	35
Metallurgical and Chemical Industry	30	Fuel and Power	40
Machinery and Metal Processing	35	Food Processing	20
Construction Material	20	Education	65
Paper and Timber Industry	20	Medical	55
Textile and Light Industry	20	Agriculture	15
Finance and Credit	20	Statistics and Accounting	10
Domestic and International Trade	20		
Local and Handicraft Industry	8	Planning	6
Total	535		

Source: "Kovalev's Report to Stalin," January 5, 1949, AVPRF, f.06, o.11, p.15 d.231, pp. 3-10. Chen Yun shortly after reduced the number to 338 but the Soviet side did not respond to the request until August of 1949. See Jiamu Zhu, Shukai Liu, and Zhong gong zhong yang wen xian yan jiu shi ed., *Chen Yun Nian Pu: 1905 - 1995*, 3 vols. (Beijing: Zhong yang wen xian chu ban she, 2000), vol.1, p.546.

Meanwhile, Anastas Mikoyan, member of the CPSU Politburo, was instructed to visit Xibaipo, a village in Heibei Province where the CPC Central Committee located, and investigate the policies and future course of Mao and the Party. Mikoyan engaged the CPC leadership secretly in late January and early February of 1949 and he kept Stalin in close contact with the CPC Central Committee. Mao Zedong emphasized the critical importance for the Soviets to provide aid and assistance to China's recovery and development. He told the delegation that the CPC needed comprehensive assistance, but other than financial and material support, Soviet experts---economic and financial advisers in particular---was on the top of his wish list. Zhou Enlai reassure the Soviets that the CPC would drive foreign powers out of Manchuria and "build an iron wall between Manchuria and other foreign countries." Ren Bishi, Secretary General of the CPC Central Committee, specifically talked about the Sino-Soviet economic relations with

Mikoyan. He pointed out that in the overall national economic plan, “Manchuria has a prominent role and [the CPC] wants to develop it into a base for national defense.” Soviet assistance in industrial development of Manchuria could “take the form of Sino-Soviet joint ventures, Soviet-loaned companies or Soviet-leased companies,” Ren suggested. He used the case of Anshan Steel, which still employed many Japanese experts, to reiterate the need for senior Soviet engineers and technicians.¹²² Mikoyan’s Xibaipo visit and the inter-party communications in early 1949 confirmed the convergence of ideology, geopolitical interest, and economic benefits between the CPC and the Soviet Union, which presaged Mao’s declaration of “Leaning to One Side” foreign policy on July 1 and laid the foundation for formal Sino-Soviet alliance.

Liu Shaoqi, Vice-Chairman of the CPC, Gao Gang, First Secretary of the Northeast Bureau and Chairman of the NPG, and Wang Jiaxiang, Minister of Propaganda and Urban Works of the Northeast Bureau (later China’s Vice-Minister of Foreign Affairs and first Ambassador to the Soviet Union), were sent on a secret mission to Moscow in June, 1949. Before Liu’s departure, Mao run up the number of needed experts to 600 and urged Moscow to send the first batch of 258 experts between June and August of 1949.¹²³ During the visit of the Chinese mission, Stalin actively committed to aid China and generously agreed to most of CPC’s requests. On July 30, Liu Shaoqi and Malenkov signed a 5-year \$300 million credit agreement with 1% interest on a 10-year amortization for purchasing Soviet equipment, machinery, goods and materials.¹²⁴

At the time, China had no detailed plan of how to use credits from the Soviet Union, so Stalin proposed a joint commission to make lists for the future loans. Mao wanted to set up the

¹²² “Memorandum of Conversations Between Mikoyan and CPC Leaders,” January 30–February 7, 1949, APRF, f.39, o.1, d.39, pp.1-95. See also in Zhe Shi and Haiwen Li, *Zai Li Shi Ju Ren Shen Bian: Shi Zhe Hui Yi Lu* (Beijing: Zhong yang wen xian chu ban she : Xin hua shu dian jing xiao, 1991), pp. 375-386.

¹²³ “Mao’s Telegram to Stalin,” June 9, 1949, in Archives of the Ministry of Foreign Affairs of China, 109-00192-01, p. 30-38.

¹²⁴ “Minutes of talks between Stalin and the CPC Delegation,” June 27, 1949, APRF, f. 45, o. 1, d. 329, pp. 1-7.

commission in China and invite Soviet experts to come and help compiling the lists. The CPC made it clear that 50% of the credits would be used in Manchuria and the rest would be invested in the economic recovery of North and Northwest China.¹²⁵ Before the end of Liu's visit, Stalin finally agreed to dispatch Soviet experts to China and signed the *Agreement on Soviet Experts' Working Conditions in China* in which the Soviet Union consented to send 600 experts as advisers to China. These Soviet experts would be compensated, with the Chinese currency, on the same level of their Chinese peers, but the Chinese side had to provide free, furnished and heated accommodation.¹²⁶

Upon Mao and Liu's request, the Soviet Council of Ministers expedited the preparation of the requested experts and on August 14, when Liu Shaoqi left Moscow for Shenyang, 220 Soviet senior economic officials and engineers joined him back to Manchuria. 38 senior advisors continued on to Beijing with Liu and 182 stayed in Manchuria.¹²⁷ After their arrival, the Soviet experts visited the mines, power plants, and factories of the NMI and attended a series of meetings with the Chinese and Japanese managers and engineers of the state industrial enterprises in September 1949. They stated that their mission was to solve the problem of machines and prepare for future Soviet dispatches.

The Soviet experts surveyed Manchurian industrial landscape and helped the NMI to develop their industrial recovery plans for the factories damaged during the war. Upon their recommendations, the Chinese and the Soviets reached the first agreement on the 50 Soviet-

¹²⁵ In reality, the majority of the loan was used for arms purchase due to the Korean War. Zhihua Shen, "Dui 50 nian dai Sulian yuan hua dai kuan de kao cha," in *Zhongguo Jing Ji Shi Yan Jiu* (Beijing: Jing ji yan jiu za zhi she), 2002, issue 3, pp. 83-93.

¹²⁶ Archives of the Ministry of Foreign Affairs of China, 109-00192-01, pp. 9-10. A similar agreement, "Sino-Soviet Agreement on the Working Conditions of the Soviet Experts in China", was signed between the two countries on March 27, 1950 to update the inter-party agreement. But the two agreements had significant differences on terms. The Soviets added 1,500 to 3,000 rubles per month per person compensation and other family travel and living expenses to the package.

¹²⁷ Zhong gong zhong yang wen xian yan jiu shi, and Zhong yang dang an guan ed., *Jian Guo Yi Lai Liu Shaoqi Wen Gao* (Beijing: Zhong yang wen xian chu ban she, 2005), vol.1, pp. 45-47.

assisted projects in China in which more than two thirds were located in Manchuria. To conduct design, equipment installation, and technical training, the Soviet Union maintained 92 and 109 industrial experts in Manchuria in 1950 and 1951. Between 1949 and 1953, 551 Soviet experts worked in Manchuria, providing critical services in the NMI industrial system.¹²⁸ Meanwhile, in 1952 the planning agencies of the Central and Northeast Governments sent 273 cadres and 287 college students to study in the Soviet Union. Compared to the 174 technical cadres sent as interns from the Central industrial ministries, the NMI alone sent 560 interns into the Soviet industries, particularly the metallurgical, power, chemical, and machinery industries.¹²⁹

In Anshan, the Soviets encouraged the Chinese to make their own machines if possible to save time and order urgently needed machines from the Soviet Union. When they were informed that many critical parts were taken by the Soviets, they promised to send them back. The head of the Soviet team Sidlov told the leaders of Anshan Steel that even with current equipment, the company could still increase output by 20% and cut employment by 30-40% in some factories.¹³⁰ The arrival of over 20 Soviet experts inspired different responses from the Chinese and the Japanese technicians. The Chinese interpreter noticed that the Japanese technicians in the steel works tried to avoid speaking with the Soviets. The Soviets returned with polite but icy face and asked if any Japanese was in charge.¹³¹ Different from the Japanese, Chinese technicians were eager to get help from the Soviets.

Leading a team of three experts, M. A. Ruslanov visited power stations in Fushun, Changchun, Xi'an, Jiamusi, Mudanjiang and Harbin. Japanese engineer Mizoguchi, Migita,

¹²⁸ "NMI Plans for the Invitation of Soviet Experts, (year 1951, 1952, 1953)," ZA31-2-406.

¹²⁹ Zhongguo she hui ke xue yuan and Zhong yang dang an guan, *Zhonghua Renmin Gongheguo Jing Ji Dang an Zi Liao Xuan Bian, 1949-1952, Gong Ye Juan* (Beijing: Zhongguo wu zi chu ban she, 1996), pp. 787-791.

¹³⁰ ZA94-1-20, p. 16.

¹³¹ The Soviet distrust of the Japanese and their technology also appeared in the nonferrous bureau where the Soviet experts questioned the Manchukuo report on metal mines. *Ibid.*, pp. 18-20, 167.

Sakai Ken, and Sato provided the information on Manchuria power grid to the Soviets.¹³² Four Soviets who specialized in hydroelectric power generation, power transformation, and transmission were sent to the Fengman Hydropower Station. They inspected the station and wrote to Kovalev in Shenyang that Fengman had serious problems that required another two specific Soviet experts to join the consultation.

In his comments on the Manchurian chemical industry, chemist Zudolovzev said that the first priority should be the founding of a chemical machinery base like the one in Jinxi Oil Refinery so that Manchuria could produce its own chemical production machines. The synthetic oil industry should be rebuilt on top of the Japanese man-made oil plant and the synthetic rubber industry could be based on the massive alcohol production in Manchuria. The expert also suggested that Anshan should restore its coking chemical plant to produce raw materials (benzene, phenol, naphthalene, ammonia) for the chemical industry. In addition, he proposed that a sodium phosphate factory that utilized phosphoric acid and coal with sulfur should be established in Huludao.¹³³

The Soviet experts gave a series of lectures at the NMI in early 1950 after months of survey and research in Manchuria. They put state economic planning on the top of their teaching agenda and dismissed the Japanese planning as isolated and incomplete. The Soviet planners covered the “the Soviet Practices of National Economic Planning”, “National Economic Planning Agencies and Indicators”, “Procedures of Making and Approving Plans”, “Examining the Execution of Economic Plans”, and “Production Planning and Adjustment (Cost, Productivity,

¹³² Zhongguo she hui ke xue yuan and Zhong yang dang an guan, *Zhonghua Renmin Gongheguo Jing Ji Dang an Zi Liao Xuan Bian, 1949-1952, Gong Ye Juan*, pp. 258-259.

¹³³ “Sulian zhun jia bao gao (Reports of the Soviet Experts),” January 31, 1950, ZA94-2-42, pp. 11-12.

Compensation).¹³⁴ At the center of the economic planning, the Soviet experts stressed, was “quota plans for material, labor, equipment, and electric or steam power consumptions.” They asked the Chinese to adopt an “accumulative technological quota system” that weighted between the average production quota and the most efficient record quota to set higher standards for the whole workforce.¹³⁵ Soviet focus on the cost control of each enterprise and the productivity of the workforce rather than the rough total output altered the Chinese planners’ view of industrial planning. The 1950 plan was much more sophisticated as a result of the teachings of the Soviet experts. To learn more from the Soviet advisors, the planning agencies started to train their rookies in a massive scale. By 1952, over 30,000 planners, most of them did not even know how to properly fill out a form in the beginning, were produced in Manchuria and the Soviets personally trained the top echelon of the planning staff.¹³⁶

From 1950 to 1951, under the new leadership of I. V. Alshibov (he replaced Kovalev as the Chief Soviet Consultant to China in 1950), the Soviet Union dispatched 30 consulting groups as requested by China to assist the 37 Soviet-assisted projects in Manchuria.¹³⁷ The Soviet experts not only helped to prospect and design the factories, but also supervised the installation and testing of the imported Soviet machinery and trained the Chinese technicians to how to run the machines. Most Soviet experts stayed for one to two years to help with the projects. With the Soviet technological assistance and operational instructions, the quality and capacity of the Manchurian industries improved in a short period of less than one year.

¹³⁴ “Sulian zhuan jia zai tie dao bu ji hua ju jiang jie ji hua de ren wu he gong zuo (Soviet Experts Teach Planning at the Ministry of Railways Planning Bureau),” February 22-27, 1950, ZA94-2-42, p. 20.

¹³⁵ “Sheng chan ji hua de ji chu shi lei jin de ding e (Accumulative Quota as the Base of Production Planning),” ZA94-2-42, p. 32.

¹³⁶ *Zhonghua Renmin Gongheguo Jing Ji Dang an Zi Liao Xuan Bian, 1949-1952. Gong Ye Juan*, p. 755.

¹³⁷ The Soviet sent a total of 42 groups to assist 47 projects in China. "Dang dai Zhongguo" cong shu bian ji bu., *Dang Dai Zhongguo Di Ji Ben Jian She*, Di 1 ban. ed., 2 vols., Dang Dai Zhongguo Cong Shu (Beijing: Zhongguo she hui ke xue chu ban she : Xin hua shu dian jing xiao, 1989), vol.1, p. 16.

The arrival of large numbers of Soviet experts not only provided technical support for industrial development in Manchuria, but also ushered in and infused a Soviet economic model which rooted in planning and skewed towards heavy industries with the existing Manchurian economic base. Such transplanting did not cause much conflict in the society, for most of the heavy industries were already in the hands of the state and run by its rather inexperienced Communist bureaucrats.

Chairman Mao told the First Chinese People's Political Consultative Conference in September 21, 1949 that “the work of national economic development has been laid before us.” He promised that the Central People’s Government would “lead the people to overcome all difficulties and undertake a large-scale economic and cultural development.” Mao also predicted that “in three to five years, the economy will fully recover and in eight to ten years, our economy will achieve great development.”¹³⁸ Mao’s confidence largely came from his belief that the Soviet Union would provide the economic assistance for China’s pressing needs. Since Liu Shaoqi’s trip earlier had resulted in a blueprint for such assistance and the Soviet experts had been serving in China, Mao expected a rather smooth talk on economic issues during the trip to Moscow in December.

Stalin however wanted to keep the rights and privileges in Manchuria he secured through the Yalta Agreement and squeezed out of the Chinese Nationalist Government. After the CPC took power, Stalin was most concerned about Russia’s strategic pivot in the Far East, namely the ice-free port to the pacific and the railroad linking the Soviet Far East with that port. In the initial

¹³⁸ Longsheng Gu ed., *Mao Zedong Jing Ji Nian Pu* (Beijing: Zhong gong zhong yang tang xiao chu ban she, 1993), pp. 270-72.

exchanges, the Soviets insisted on keeping most of their rights in Manchuria.¹³⁹ However, Zhou Enlai proposed a counter draft that asked the Soviet to quit the naval base in Port Arthur and give up all rights and equities in Dalian and the China Changchun Railway after signing the treaty of peace with Japan or three years into the new Sino-Soviet treaty.¹⁴⁰ Stalin and his colleagues ultimately agreed on most of the Chinese draft in order to reach the goal of finalizing the new alliance treaty, and the Chinese also stepped back on the assets of the southern line of CCR (Harbin-Dalian) under the Sino-Soviet management, integrating some of the assets developed by the SMR after 1905 that had been retrieved by the Nationalist Government into the CCR's fixed assets.¹⁴¹

Though losing the privilege in Port Arthur again in just 7 years was hard to swallow for Stalin, the Soviets balanced the loss of the strategic interest by getting the Chinese recognition of Mongolia and the Sino-Soviet economic cooperation in Manchuria and Xinjiang. Zhou also signed a “Supplemental Agreement” with the Soviet Union on February 14 that forbade the foreigners to have the concession rights in Manchuria, Xinjiang, and the Soviet Far East and Central Asia. The agreement stipulate that no third country capital or person would be allow to directly or indirectly participate in industrial, financial, or commercial activities in these areas, which was clearly aimed at keeping the United States and other western powers out of the Soviet sphere of influence.¹⁴²

The problem of exchange rate also dampened the Sino-Soviet economic cooperation, but gave an economic advantage to Manchuria. When the Sino-Soviet negotiation started, the

¹³⁹ More details see Shen, Zhihua, “Zhong Su tiao yue tan pan zhong de li yi chong tu ji qi jie jue (Interest Conflicts During the Negotiations on the Sino-Soviet Treaty and Their Solution),” in “Li Shi Yan Jiu,” (Beijing,: Ren min chu ban she), 2001, issue 2, pp. 39-55.

¹⁴⁰ “Chinese Draft of the Agreements on Lushunkou, Dalian and CCR,” January24, 1950. AVPRF, f.07, o.23a, p.20, d.248, p. 38-55.

¹⁴¹ Zhong gong zhong yang wen xian yan jiu shi., and Zhong yang dang an guan ed., *Jian Guo Yi Lai Zhou Enlai Wen Gao*, 3 vols. (Beijing: Zhong yang wen xian chu ban she, 2008), vol.2, pp. 110-11.

¹⁴² Ibid., vol.2, pp. 78-79.

Renminbi (RMB) had been created less than a year and the new national currency had very limited reserve. Moreover, Manchuria, Inner Mongolia, Xinjiang, and Tibet were all using local currencies that were not pegged with the RMB. Right after the treaty was penned, the Soviet Union switched to the gold standard and adjusted the ruble-dollar (US) exchange rate from 5.3:1 to 4:1 on March 1, 1950. The move cause a stalemate in the following credit negotiations since the Soviet loan to China was credited in US dollars (\$300 million) and the ruble appreciation devalued the total from 1.59 billion rubles to 1.2 billion rubles.¹⁴³

By April 19, China not only agreed to the Soviet terms of exchange rate, but also accepted a dual track exchange rate framework that put Manchuria and Xinjiang at ruble-yuan exchange rate of 1:7500 and the rest of China at 1:9500. A year later, China tried to nudge the Soviets into lowering the exchange rate by quickly appreciating against US dollar. But the result was that Manchuria and Xinjiang's rate improved to 1:6842 and the rest of China remained the same.¹⁴⁴ The exchange rate only unified on October 1, 1952 at 1:6754, close to the Manchuria/Xinjiang-Soviet rate. It began to favor China at the rate of 1:5000 adjusted on September 22, 1953, which was 10 days after Nikita Khrushchev took power.¹⁴⁵ Since the Northeast Note was appreciating against the RMB during the same period, Manchuria was clearly positioned to benefit from the dual track exchange regime and for the sake of Soviet economic assistance, Chinese leaders decided to make concessions on the issue of exchange rate.

¹⁴³ “Zhong Su guan yu dai kuan xie ding de xie yi shu (Protocol of the Sino-Soviet Loan Agreement),” April 15, 1950, Archives of the Ministry of Foreign Affairs of China, 109-00019-01.

¹⁴⁴ US\$:RMB=1:30410 changed to 1:11890 from December 1950 to February 1951. “Maoyubu wei tuo Zhongguo ren min yin hang zong dai li guo ying dui wai mao yi gong si dui Sulian ji xin min zhu zhu yi guo jia ge guo zhi mao yi Renminbi jie hui he tong (Ministry of Trade Entrust the People’s Bank of China as General Agent of RMB Foreign Exchange Contracts Between State Foreign Trade Firms and Soviet and New Democratic States),” April 3, 1951, in *Zhong Gong Dang Shi Zi Liao*, 2006, issue 4, pp. 10-14.

¹⁴⁵ “Zhongcaimei guan yu tong yi dui Sulian ji xin min zhu zhu yi guo jia lu bu pai jia de jue ding (CFEC Resolution on Unifying Soviet and New Democratic States Ruble Exchange Rate),” October 1, 1952, ibid., 2006, issue 4, pp. 17-19. “Guan yu Renminbi dui Lubu hang shi de yi ding shu (Protocol of RMB to Ruble Exchange),” September 22, 1953, Archives of the Ministry of Foreign Affairs of China, 109-00270-01.

Soviet's emphasis on Manchuria did not stop at the financial leverage. On January 10, 1950, the Chinese delegation led by Premier Zhou Enlai left Beijing for Moscow to negotiate the details of the Sino-Soviet treaty. Zhou specifically asked top economic leaders of Manchuria and specialists from mining, steel, and power industry to join the team.¹⁴⁶ After Mao and Zhou returned to Beijing on February 17, Li Fuchun, who stayed to lead the Chinese delegation, continued the negotiations on the establishment of the Sino-Soviet joint companies in Xinjiang and the 50 Soviet-assisted projects to China, covering coal mining, electric power, steel, nonferrous metal, chemicals, machinery, automobile, and military industry. Among the 50 projects, 36 projects, or 74% of the total, were located in Manchuria. All the projects in iron and steel, machinery, and automobile industry were exclusively given to Manchuria and over two thirds of the projects in chemical, nonferrous metal, coal, and aviation industry also remained in the region.¹⁴⁷

Moreover, Li Fuchun completed the negotiations with the Soviets in March, 1950 and the two sides signed the "Agreement on Technological Aids to the Recovery and Reconstruction of Anshan Steel" which planned to boost production in Anshan to 3.5 million ton steel and listed the construction of the No.7 furnace, the seamless steel pipe plant, and the heavy steel rolling mill as the top three projects. Once the negotiations completed, 120 Soviet specialists were sent to China to conduct the preliminary work for the projects and 92 of them worked in

¹⁴⁶ It included Li Fuchun, Vice-Chairman of the Northeast People's Government (NPG), Ye Jizhuang, Minister of Trade (former Minister of Finance and Commerce of the NPG), Lu Dong, Vice-Minister of NMI, Zhang Huadong, Vice-Minister of Trade of the NPG, Ouyang Qin, Party Commissar of Dalian, Chai Shufan, Director of NMI's Bureau of Planning, Cheng Mingbi, Director of NMI's Bureau of Electric Power, Chang Yanqing, Director of Foreign Trade Division at the Ministry of Trade of the NPG, Shen Hong, Director of Heavy Industry Division at the Bureau of Planning of the CFEC, Wang Xun, Assistant Manager of Anshan Steel, Nie Chunrong, Deputy Director of NMI's Bureau of Machinery, and Luo Wei, Director of the Planning Division at NMI's Bureau of Coal Mining. Shi and Li, *Zai Li Shi Ju Ren Shen Bian*, p. 382.

¹⁴⁷ "Dang dai Zhongguo" cong shu bian ji bu ed., *Dang Dai Zhongguo Di Ji Ben Jian She*, pp. 14-15.

Manchuria.¹⁴⁸ In the following three years, China contracted to import industrial equipment valued at 6843.94 million rubles from the Soviet Union and realized 469.74 million rubles of import (68.7%). Consequently, power plants in Fushun, Fuxin, Xi'an, Fengman and Hulan Ergi were retrofitted or constructed. Anshan Steel Company, Shenyang Pneumatic Tool Factory, Shenyang First Machinery, Fushun Aluminum Plant, Harbin Measuring and Cutting Tools Factory, and Dalian Chemical Plant were also completed or more than 80% developed.¹⁴⁹

The establishment of the Sino-Soviet alliance and the Soviet financial, economic and military aids to the CPC excited and emboldened Kim Il-sung, the North Korean leader who had been trying to get Stalin's support for unifying the Korean peninsular and ending the persisting civil conflict since the 38th parallel was put in place. On January 11, 1950, the CPC Central Military Commission authorized the repatriation of all the ethnic Korean soldiers and officers, a total of over 16,000, back to North Korea in April.¹⁵⁰ Stalin, once certain about the principles of the new treaty with China, also became receptive to Kim's unification plan. After all, the Soviets' original plan in 1945 was that "Korea must become a trust territory of the four powers, with apportionment of three strategic regions: Pusan, Cheju, and Inchon, which must be controlled by the Soviet military command," because these regions were "of essential importance for securing dependable sea communications and approaches to the Soviet military-naval base at Port Arthur."¹⁵¹

After the arrival of troops from China and weapons from the Soviet Union in North Korea, the war broke out in June 1950. The eruption of the Korean War suddenly altered the

¹⁴⁸ Fang and Jin, *Li Fuchun Zhuan*, p. 385.

¹⁴⁹ Zhongguo she hui ke xue yuan and Zhong yang dang an guan ed., *Zhonghua Renmin Gongheguo Jing Ji Dang an Zi Liao Xuan Bian*, 1953-1957, *Gu Ding Zi Chan Tou Zi Yu Jian Zhu Ye Juan* (Beijing: Zhongguo wu jia chu ban she, 1998), pp. 386-387.

¹⁵⁰ *Jian Guo Yi Lai Liu Shaoqi Wen Gao*, vol.1, p. 319.

¹⁵¹ "Notes on the Question of Former Japanese Colonies and Mandated Territories," September 1945, AVPRF, f. 0431/1, o.1, p.8, d.52, pp. 40-43. "Proposal on Korea," September 1945, ibid., pp. 44-45.

geopolitical position of Manchuria, turning it from a stable backyard of the Communist state to a threatened front porch. The Central Military Commission immediately established the Northeast Border Defense Force to safeguard the Chinese-Korean border and prevent potential destruction to the industrial and transportation system in southern Manchuria. Mao asked Stalin for air cover for Manchuria. In July, China received fighter jets and equipment for two air force divisions and two Soviet air force regiments were deployed in Anshan and Liaoyang to defend the industrial area in southern Manchuria.¹⁵² By the end of August, American bombing had reached northern Korea peninsular and sporadically eastern Manchuria. The Central Committee instructed the Northeast Bureau to prepare for defense and relocation of industries. After the Inchon landing in September, the UN forces were quickly approaching the Yalu River.

The Chinese leaders felt grieve danger of being overwhelmed by the American imperialism. The Northeast would not be safe or be able to maintain production, Zhou Enlai argued, “since most of our country’s heavy industry is in the Northeast and more than half of it is in the southern area, all within the enemy’s bombing range.”¹⁵³ The best option for industrial relocation was northwestern Manchuria where industrial infrastructure, resources and Soviet protection could be found. Gao Gang suggested that all moveable factories, particularly the machine industry, should be moved north and new factories should be built in northern Manchuria, but Mao cautioned the feasibility of such move and suggested a partial relocation plan.¹⁵⁴ The CPC Central Committee believed that a wholesale relocation (Anshan, Fushun, Benxi) was impossible and even a small-scale relocation should be sorted into three groups: moving now, moving after

¹⁵² Zhihua Shen and Kuisong Yang ed., *Zhong Su guan xi shi gang: 1917-1991 nian Zhong Su guan xi ruo gan wen ti zai tan tao* (Beijing: She hui ke xue wen xian chu ban she, 2011), p. 166.

¹⁵³ Zhong gong zhong yang wen xian yan jiu shi and Zhongguo ren min jie fang jun jun shi ke xue yuan ed., *Zhou Enlai Jun Shi Wen Xuan*, 4 vols. (Beijing: Ren min chu ban she chu ban fa xing: Xin hua shu dian jing xiao, 1997), vol.4, pp. 74-75.

¹⁵⁴ Shen and Yang, *Zhong Su guan xi shi gang*, p. 184.

preparation, and not moving until have to. Zhou also reminded Gao Gang that the relocation destination could be northern Manchuria or inland China.¹⁵⁵

The successful landing of American troops in Inchon and the ensuing UN push across the 38th parallel posed an increasing threat to China and the Soviet Union's security and strategic interests. In considering whether or not to join the war in Korea, Mao believed that "if the enemy pressed on to the Yalu River, domestic and international reactionary forces would be swollen with arrogance, which would be harmful to all parties, particularly the Northeast where the entire Northeast Border Defense Army could be tied down and the electric power of southern Manchuria could be controlled by the enemy."¹⁵⁶ Ultimately Chinese troops marched across the Yalu River and Manchuria became the rear base that shouldered the logistic supply burdens.¹⁵⁷

The Northeast Bureau planned to build an industrial base in one or two years up in northern Manchuria to secure military supplies. Relocation started in the winter of 1950. Equipment ordered from abroad and factories to be newly expanded or constructed in southern Manchuria were relocated close to resources in Jilin and Heilongjiang Provinces. The evacuated industries were dispersed into Harbin, Qiqihar (machinery), Jilin (chemicals), Jiamusi, and Mudanjiang (textile), the northern industrial cities managed by the DMI and the BIM during the civil war. Within a year, 26 enterprises, including 10 military industry factories, were moved from southern Manchuria into the Heilongjiang Province. Most of the factories moved were in the machine building and electric manufacturing business.¹⁵⁸ At the same time, cannery, glass, enamel, and daily chemicals factories were moved from Shanghai to Jilin Province in order to make military

¹⁵⁵ *Jian Guo Yi Lai Zhou Enlai Wen Gao*, vol.3, p. 250.

¹⁵⁶ Mao Zedong's telegram to Zhou Enlai in Moscow, October 13, 1950, in Gu, *Mao Zedong Jing Ji Nian Pu*, p. 212.

¹⁵⁷ Mao's telegram to the Northeast Bureau, October 8, 1950. Five logistic lines from Manchuria into Korea were established and the railways were under military administration. Xiushan Zhang, *Wo De Ba Shi Wu Nian: Cong Xi Bei Dao Dongbei* (Beijing Shi: Zhong xing dang shi chu ban she, 2007), p. 374.

¹⁵⁸ Heilongjiang Sheng tong ji ju ed., *Heilongjiang Si Shi Nian Ju Bian: 1949-1989* (Beijing: Zhongguo tong ji chu ban she, 1989), pp. 16-17.

supplies for the front.¹⁵⁹

The relocation did not weaken or shaken the role of heavy industry in southern Manchuria. In fact, as heavy industry in southern Manchuria rapidly recovered, Jilin and Heilongjiang's heavy industrial output was reduced from 99% to 54% of Liaoning's.¹⁶⁰ However, the Korean War greatly stimulated the industrial development in the north and altered the industrial distribution in Manchuria. Japanese planners saw northern Manchuria as a buffer zone between the Soviets and the Kwangtung Army. They built fortifications, stationed colonial regiments (militarized Japanese peasants) in the area, and mined coal and metals, but refrained from developing the north industrially. The war created a geopolitical setting that reversed the previous calculation and the CPC actively pushed the heavy industrialization in North and Central Manchuria. In Jilin Province between 1950 and 1952, 156.7 million yuan RMB (73.9% of total provincial industrial investment) was invested in heavy industry like electric power, coal, oil and construction materials. As a result, the gross industrial output in Jilin and Heilongjiang almost tripled from 1.13 billion yuan (1952 RMB) to 3 billion yuan during the war and the heavy industrial output in 1952 reached 1.4 billion yuan, 46.8% of the industrial output and 22.8% of the total economic output in the two provinces.¹⁶¹ Heilongjiang and Jilin began to transform from agricultural dominated regions to military-machine industry and chemical industry bases respectively while Liaoning continued to grow as a steel-machinery center.

China's Korean War expenditures skyrocketed. The first 5 months (four campaigns) cost the Central Government US\$400-500 million and the total military spending in 1951 was as high as

¹⁵⁹ Fengjun Mi ed., *Jilin Gong Ye Si Shi Nian*, 3 vols. (Changchun: Jilin wen shi chu ban she, 1989), vol.1, p. 16.

¹⁶⁰ Tianhua Qi, *Liaoning Si Shi Nian* (Shenyang Shi: Liaoning jiao yu chu ban she, 1990), pp. 27-29.

¹⁶¹ Mi, *Jilin Gong Ye Si Shi Nian*, pp. 22, 25.

45.64% of the state revenue.¹⁶² Since most of the state resources were concentrated on the war front, the CPC Politburo foresaw a three-year war in Korea (1950-1952) and postponed the initiation of the planned economy to 1953. The policy of “three-year preparation and ten-year planned economic development” was determined in February 1951.¹⁶³ In clear contrast, Manchuria’s industrial recovery was accelerated to serve the war demand and to get ready to receive the advent of the Soviet heavy industrial projects.

When the peace talk was ongoing in Korea, the Central Government of China initiated the process of making the First National Economic Five-Year Plan (FFYP) in mid-1952. The key of the plan was to establish an industrial foundation for the new nation and more Soviet assistance was critical for its success. The Sino-Soviet negotiations on the second batch of Soviet-assisted projects in China took 8 months to complete even after the Soviet leaders carefully studied the Chinese FFYP and agreed to help design and provide loan and equipment for China. On May 15, 1953, Li Funchun and Mikoyan signed the Soviet assistance agreement in which the Soviet Union promised to help China build 91 industrial enterprises between 1953 and 1959.

The agreement included 2 one-million-ton capacity steel enterprises, 8 nonferrous refineries, 8 mining shafts, 1 coal dressing plant, 1 one million ton oil refinery, 32 machine-building factories, 16 power and electric machine works, 7 chemical plants, 10 thermal power plants, 2 pharmaceutical plants and a food processing factory. In return, China would provide 160,000 tons of tungsten ore, 110,000 tons of tin ore, 35,000 tons of molybdenum ore, 30,000 tons of antimony, 90,000 tons of rubber, and wool, jute, rice, pork and tea. In October 1954, a third agreement of 15 projects in energy and material industries was signed and the total number of

¹⁶² Zhongguo she hui ke xue yuan and Zhong yang dang an guan ed., *Zhonghua Renmin Gongheguo Jing Ji Dang an Zi Liao Xuan Bian, 1949-1952, Zong He Juan* (Beijing: Zhongguo cheng shi jing ji she hui chu ban she: Xin hua shu dian jing xiao, 1990), p. 885.

¹⁶³ CPC Central Committee Resolution, in *Mao Zedong Jing Ji Nian Pu*, pp. 302-303.

Soviet-assisted projects reached 156 during the FFYP.¹⁶⁴

According to these agreements, China by 1959 would acquire the heavy industrial capacity equal to the level of the Soviet Union in 1932 or the level of Japan in 1937, namely 5 million tons of steel, 100 million tons of coal, 20 billion kWh of electric power, and 2.5 million tons of oil. Also machine tools, power machine manufacturing, and chemical production would double, and China would have automobile, tractor, and advanced military industry established. Altogether, the completion of the agreement meant that China was going to possess an independent and comprehensive industrial system capable of sustaining itself in peace and war.

In the 150 materialized Soviet-assisted projects, Manchuria raked in 56 (50 civilian and 6 military) and none was located in the coastal area where they might be threatened by the US and Nationalists air and naval powers. During the FFYP period, the state invested a total of 6.28 billion yuan RMB (8.69 billion when all projects completed) on these projects in Manchuria, which was 58.6% (44.3% completed) of the total project investments during the same period.¹⁶⁵

As predetermined by the FFYP, heavy industry was the leading sector to be developed and no candidate was better than Manchuria for the task, “the central mission was to complete the construction of the Northeast industrial base, with the Anshan iron and steel conglomerate at the center, including the coal industry in Fushun and Fuxin, the iron and steel industry in Benxi, and the machine making in Shenyang.” The CPC planners decided to rationalize the sequence of the Soviet-assisted projects and put the more basic and urgent projects first to facilitate future projects. To save time and money, as instructed by Zhou Enlai and Chen Yun, Li Fuchun

¹⁶⁴ China and the Soviet Union reached another deal in March 1955 for 16 more projects that covered defense, shipbuilding, and raw material processing industries. There were two more projects from verbal agreement later, but due to subtraction and merging, the ultimate number of Soviet-assisted projects was totaled at 166. In the end, 150 projects were constructed before China and the Soviet Union split. Guoguang Liu et al., *Zhongguo Shi Ge Wu Nian Ji Hua Yan Jiu Bao Gao* (Beijing: Ren min chu ban she, 2006), pp. 75-76.

¹⁶⁵ Dong and Wu, *Xin Zhongguo Gong Ye De Dian Ji Shi: 156 Xiang Jian She Yan Jiu, 1950-2000*, pp. 414-415.

believed that the optimal way to quickly accumulate investment capital was to fully explore the potential industrial capacity of Manchuria.

For instance, the FFYP committed 52% of the total iron and steel industry investment nationally to the expansion of the Anshan Steel, ramping up its iron production by 1.27 million tons, steel production by 1.84 million tons, and rolling capacity by 1.31 million tons in five years. That was 37.5%, 65.3%, and 82.5% of the respective national new production capacity. In 1955, Anshan Steel supplied iron and steel for over 2000 capital construction units throughout China and due to the tremendous growth of Manchurian steel industry, China's total steel production more than tripled from 1.35 million tons in 1952 to 4.47 million tons in 1956 (almost half of the Japanese total steel production in 1955).¹⁶⁶

Among the 56 projects developed in Manchuria, 27 (48%) were reconstruction or expansion of former MHID→NRC→NMI factories. Especially in the Liaoning Province where core industries of the NMI system lay, only 5 out of 24 projects were completely new. In fact, during the FFYP, Liaoning's heavy industrial investment (4.36 billion yuan RMB) alone accounted for 20.5% of the country's total heavy industrial investments. The top five cities (Shenyang, Anshan, Fushun, Benxi, and Fuxin), also designated industrializing cities in the Manchukuo economic development program, absorbed 75.8% of the total provincial investment (6.51 billion yuan RMB). Almost all of the Soviet-assisted projects were heavy industries and the top investments were in iron and steel (38.2%), machinery (21.2%, defense included), and mining (14.1%). The Korean War only added to the urgency of national security concerns and need of an industrial base close to the front. The convenience and availability of the Manchuria railway/electric system and the air cover provided by the Soviet and Soviet-trained Chinese air forces offered

¹⁶⁶ Dong and Wu, *Xin Zhongguo Gong Ye De Dian Ji Shi: 156 Xiang Jian She Yan Jiu, 1950-2000*, pp. 416-417.

further ensured the initial concentration of capital constructions in the area.¹⁶⁷

Table 38. Realized 56 Soviet-assisted Projects in Northeast China

Name of Project	Investment Million Yuan	Annual Production Capacity	
		% of Prov.	
Liaoning Province	5,075.21	100	(24 projects, 25.9% of 150 total investment)
Anshan Iron and Steel Corporation*	2,685	52.9	2.5 million tons of pig iron, 3.2 million tons of steel ingot, 2.5 million tons of rolled steel
Benxi Iron and Steel Corporation*	321.37	6.3	1.1 million tons of pig iron
Liaoning 112 Factory* (Defense, Shenyang Fighter Maker)	202.68	4.0	
Liaoning 410 Factory* (Defense, Shenyang Aero Engine)	195.02	3.8	
Fuxin Haizhou Opencast Coalmine*	194.72	3.8	3 million tons of coal
Fushun West Opencast Mine*	190.91	3.8	3 million tons of coal
Fushun Second Refinery*	175	3.4	0.7 million tons of oil
Fushun Aluminum Factory*	156.19	3.1	39,000 tons of aluminum pig, 1,200 tons of aluminum products
Fushun East Opencast Mine	128.07	2.5	0.7 million cubic meters of oil shale
Yangjiazhangzi Molybdenum Mine	113.87	2.2	4,700 tons of molybdenum
Shenyang Cable Works* [^]	90.31	1.8	30,000 tons of cable

¹⁶⁷ In comparison, in the 100 realized Soviet-assisted projects signed after the Korean War, only 19 were in Manchuria. All the new steel mills, chemical factories, nonferrous mines, arsenals, and aviation plants found their destinations elsewhere.

Table 38, continued

	Investment	Annual Production Capacity	
		Million Yuan	% of Prov.
Fushun Power Plant*^	87.34	1.7	150,000 kw
Fuxin Ping'an Shaft Mine*^	83.34	1.6	1.5 million tons of coal
Fuxin Thermal Power Plant*^	74.5	1.5	150,000 kw
Shenyang First Machine Tools Works^	60.43	1.2	4,000 lathes
Liaoning 431 Factory (Defense, Huludao Shipyard)	56.1	1.1	
Fushun Victory Mine*	42	0.8	0.9 million tons of coal cleaned
Fuxin Xinqiu First Shaft Mine^	40.56	0.8	0.6 million tons of coal
Fushun Laohutai Mine*	38.62	0.8	0.8 million tons of coal cleaned
Liaoning 111 Factory* (Defense, Shenyang Airspace Engine)	34.39	0.7	
Shenyang Second Machine Tools Works*	31.88	0.6	4,497 sets/16,000 tons of machines tools
Fushun Longfeng Mine*	28.6	0.6	0.9 million tons of coal cleaned
Dalian Thermal Power Plant*^	25.38	0.5	25,000 kw
Shenyang Pneumatic Tools Factory*^	18.93	0.4	20,000 sets/554 tons of tools
Heilongjiang Province	2,164.83	100	(22 projects, 11% of 150 total investment)
Hulan Ergi Heavy Machinery Plant	458.49	21.2	60,000 tons of rolling mills, iron and steel-making equipment
Harbin Aluminum Processing Factory^	326.81	15.1	30,000 tons of aluminum products

Table 38, continued.

Name of Project	Investment Million Yuan	Annual Production Capacity	
		% of Prov.	
Hulan Ergi Special Steel Works [^]	316.84	14.6	166,000 tons of special steel
Harbin Boiler Works [^]	149.81	6.9	4080 tons of boilers
Harbin Steam Turbine Factory	120.42	5.6	600,000 kw steam turbines
Kiamusze Paper Mill [^]	101.99	4.7	50,000 tons of cement paper bags and 60,000 cubic meters of bronze gratings
Hegang Xing'antai Second Shaft Mine	71.78	3.3	1.5 million tons of coal
Hegang Xing'antai Tenth Shaft Mine* [^]	71.78	3.3	1.5 million tons of coal
Heilongjiang 122 Factory* [^] (Defense, Harbin Bomber Maker)	71.67	3.3	
Hulan Ergi Thermal Power Plant [^]	68.7	3.2	50,000 kw
Hegang Dongshan First Shaft Mine* [^]	65.12	3.0	0.9 million tons of coal
Harbin Measuring and Cutting Tools Factory [^]	55.65	2.6	512 sets/1030tons
Harbin Generator Factory Turbo-Generator Plant	43.56	2.0	600,000 kw turbo-generators
Heilongjiang 120 Factory* [^] (Defense, Harbin Airplane Engine)	42.4	2.0	
Harbin Ball Bearing Factory*	38.69	1.8	6.55 million sets of ball bearings
Chengzihe Ninth Shaft Mine	31.84	1.5	0.75 million tons of coal

Table 38, continued.

	Investment	Annual Production Capacity	
Name of Project	Million Yuan	% of Prov.	
Shuangyashan Cleaning Plant	31.13	1.4	1.5 million tons of coal cleaned
Kiamusze Thermal Power Plant	29.75	1.4	24,000 kw
Harbin Instrument and Meter Factory [^]	24.94	1.2	
Harbin Carbon Brush Factory	16.62	0.8	100 tons of brush and carbon products
Chengzihe Coal Cleaning Factory	14.8	0.7	1.5 million tons of coal cleaned
Xing'antai Coal Cleaning Factory	12.04	0.6	1.5 million tons of coal cleaned
Jilin Province	1,455.1	100	(10 projects, 7.4% of 150 total Investment)
Changchun First Automotive Works [^]	608.71	41.8	30,000 trucks
Jilin Nitrogen Fertilizer Plant [^]	257.22	17.7	50,000 tons of synthetic ammonia and 90,000 tons of ammonia nitride
Jilin Dyeing Factory [^]	114.61	7.9	7,385 tons of synthetic dyes
Jilin Thermal Power Plant* [^]	112	7.7	100,000 kw
Fengman Hydropower Station* [^]	96.34	6.6	422,500 kw
Jilin Electrodes Factory [^]	69.76	4.8	22,300 tons of graphite products
Jilin Ferroalloy Works [^]	63	4.3	43,500 tons of ferroalloy
Liaoyuan Central Shaft Mine* [^]	57.7	4.0	0.9 million tons of coal
Jilin Calcium Carbide Factory [^]	49.89	3.4	60,000 tons of calcium carbide
Tonghua Wangou Shaft Mine	25.87	1.8	0.6 million tons of coal
Grand Total	8,695.14 (44.3% of 150 projects investment)		

Source: Dong and Wu, *Xin Zhongguo Gong Ye De Dian Ji Shi: 156 Xiang Jian She Yan Jiu, 1950-2000*, pp. 419-20, 35-38, 49. * Reconstruction and ^ expansion projects.

The result of the Manchuria-leaning Soviet assistance was exemplified by the electric power industry. Between 1949 and 1956, power generation capacity more than doubled and its share of the whole country increased from 36.8% to 42.1%, whilst industrial consumption of electricity reached 81.9% of the total.

Table 39. Power Generation Capacities and Regional Distribution (in megawatts)

	1936	%	1949	%	1952	%	1956	%
Country	1043	100	1849	100	1964	100	3611	100
Northeast	412	39.5	680	36.8	705	35.8	1520	42.1
North	87	8.3	326	17.6	340	17.3	567	15.7
East	436	41.8	586	31.7	605	30.8	768	21.3
Rest	108	10.4	257	13.9	314	16.1	756	20.9

Source: Gong ye tong ji si ed., *Wo Guo Gang Tie, Dian Li, Mei Tan, Ji Xie, Fang Zhi, Zao Zhi Gong Ye De Jin Xi* (Beijing: Tong ji chu ban she, 1958), p. 71.

The scale and range of the Soviet technological and industrial transfer was unprecedented in either Manchuria or China. In the first ten years of the People's Republic, China imported 7.69 billion rubles of Soviet industrial equipment and an additional 3.08 rubles of Eastern European equipment.¹⁶⁸ Neither Japan nor other western countries had ever committed to such level of transfer and no previous Chinese state had the ability to amass all the resources to receive and sustain it. With decades of continuous heavy industrial development and as an early captured

¹⁶⁸ The total was worth \$3.91 billion in 1959 value. *Dang Dai Zhongguo Di Ji Ben Jian She*, vol.1, pp. 55-56.

region by the CPC, Manchuria was naturally the first in China to be further modernized. The completion of the Soviet-assisted projects updated Manchuria's industrial base to the level of mid-1940s and the Soviets sold China many of their latest industrial equipment and technologies, particularly in the aviation and aerospace industry.¹⁶⁹ Consequently, China also inherited the shortcomings of the Soviet industrialization in electronics and auto manufacturing, which lasted until today.

Summary

After China joined the Korean War, the Northeast Daily published an editorial "Strengthen National Defense and Develop The Economy" on the new year day of 1951, listing four tasks for Manchuria in 1951: strengthen national defense, continue to reinforce economic development on top of the achievement in the last two years, deepen the "Anti-America and Aid Korea" movement, and consolidate the people's democratic dictatorship. NPG Chairman Gao Gang delivered a report with the same title on February 27, 1951. "Only further constructing strong national defense could [we] protect the development of the entire national economy, at the same time, only developing production and constructing strong economic power could [we] further improve people's livelihood, consolidate people's democratic dictatorship, and provide dependable material foundation for the national defense," said Gao Gang, "all of our works must embrace this central goal: developing strong national defense and strong economic power."¹⁷⁰

¹⁶⁹ Guo jia ji hua wei yuan hui, Dui wai jing ji mao yi si et al. ed., *Zhonghua Renmin Gongheguo Ji Shu Yin Jin Si Shi Nian (1950-1990): Zi Liao Hui Bian* (Shanghai Shi: Wen hui chu ban she, 1992), p. 2.

¹⁷⁰ Zhang, *Wo De Ba Shi Wu Nian: Cong Xi Bei Dao Dongbei*, p. 371.

The NPG's policy statement was different from the Central Government's "everything for the front" policy in which economic development was put on hold. 18 months later just before Gao's departure for Beijing, the Northeast Daily reported that in three years, Manchuria's industry had returned to the level of 1943 and cast off its colonial nature through political and economic reform. Large-scale economic construction also started in 1952. Construction workload increased 125% and the NMI investment in new projects increased from 25% of the total investment in 1949 to 90% in 1952. In 1952, over 100,000 workers were promoted to the cadre status (84,000 were lower-medium level managers of public enterprises) and over 10,000 college graduates were recruited from Beijing, Tianjin, Shanghai and Wuhan to join the industrial workforce of 1.5 million strong in Manchuria.¹⁷¹

This Manchurian exceptionalism came from three sources. First, Manchuria gathered the best human resources for industrial development in the late 1940s and early 1950s from the Communist economic leaders, retained Japanese technicians and skilled workers, western-trained Nationalist specialists and managers, Soviet advisors and experts, fresh engineering graduates, and mobilized Chinese workers. They worked together, though not without frictions, to overcome the devastation of war and strived for the revival and development of the heavy industry in Manchuria. Second, early reestablishment of state economic and financial (NFEC), and industrial institutions (NMI) based on comprehensive asset and urban takeovers. With these strong central agencies, the state could adopt rationalized recovery and development plans to accelerate the growth of its industries. And thirdly, there was a gradual replacement of the Japanese equipment and technology by the Soviet's. The Japanese industrial system was very dependent on western, particularly American, advanced technology and machinery. After 1941, Manchuria was actually not able to acquire high-end machines to meet the targets of the MFYP

¹⁷¹ "San nian lai Dongbei gong ye jian she huo de wei da cheng jiu," *Dongbei Ri Bao*, September 20, 1952.

from Japan, let alone Germany or the US. The Soviet alliance with the CPC, tightened by the Korean War, reopened the door for the flow of large scale, state-of-the-art technology and equipment into Manchuria, pushing its heavy industrial power to a new height 10 years after the end of WWII.

Epilogue

The history of East Asia in the first half of the 20th century is like prolonged drama of modern warfare. Major wars, either international or civil, were breaking out in the frequency of roughly five years. Smaller or regional wars ultimately culminated in large and world wars that affect every aspect of human lives until this day. The last three wars, WWII, the Chinese Civil War, and the Korean War, were fought in a row for a dozen years. And there is something very peculiar about all three: they were in many ways asymmetric. The Japanese Empire, though a dominating power in East Asia, was not a real match economically and technologically to the United States and the Soviet Union; the Chinese Communists, though expanded and controlled a large part of rural northern China, were far more inferior militarily than their American-trained and equipped Nationalist adversaries; and North Korea and China, though materially assisted by the Soviets, were so devastated by the previous wars that their combined war capacity was negligible compared to the predominant powers of the United Nations forces. And yet, bullets flew, shells fell, and massive wars raged on from the West Pacific all the way to the doorsteps of India.

There are voluminous historical investigations into the origins and courses of these wars, but this study finds one commonality, Manchuria, that was not only one of the causes of these wars, but one of the most important factors as well. More specifically, the Manchurian economy, particularly heavy and military industry, played a non-conspicuous but critical role in the geopolitical competition among various powers. Without the prodigious natural resources and ever-growing industrial strength in Manchuria, preparing and sustaining these large-scale

modern campaigns in an age of total war would be much more difficult. Conversely, the rooting and thriving of modern industrial systems in Manchuria was very much the making of competitive geopolitics. It was precisely national security concerns and military demand—not business profits from open market—that led to tremendous and uninterrupted state investments into the military industrial complex throughout this period. The asymmetric settings bred an “abnormal” type of modern state in Manchuria that structured its institutions and finance around the development of heavy industry. Like the elite staff and sophisticated war plans to the total war, the techno-bureaucratic agency that carries the mission of comprehensive economic planning and industrial policymaking was indispensable in the heavy industrial state.

What this study suggests is that the Manchurian Atlas is also a Janus. It was standing in the gateway of modern East Asian history; with one face representing the disruptive power exerted outward and one face the inertial power inward. As a frontier economy, Manchuria had much less socioeconomic-cultural establishment to overcome by the modernizing state. Students returned from Western Europe after the First World War were eager to practice the new trend of social engineering and they invariably found Manchuria as the field of experimentation. The birth of the heavy industrial state in Manchuria was disruptive to the home country of those elites who came and built it and since then state-led heavy industrial development has became a central task for all the East Asian states. No wonder the region as a whole has one of the most advanced and efficient infrastructures and in many key categories—such as metallurgy, chemicals, electric power, heavy machinery—the largest heavy industrial output in the world.

The other face inward stands for the path dependence of economic development in Northeast China thereafter. Like the giant Atlas, Manchurian heavy industries were burdened with both economic and political ambitions of China. As the “elder son of the industry of the People’s

Republic”, the Northeast industrial base acquired ideological rigidity, turning itself from a path-breaker to a path-dependent. Like its products, the accumulated capital, technology and human resources in Manchuria were gradually spent on the industrial development of the rest of China. The deep deficits left by the continuous extractions from the region to sustain national goals were completely exposed by the reform of the state enterprise system in the last decade of the 20th century. Comparing to the swift reintegration of the coastal areas into the world system, especially the Yangtze and the Pearl River Deltas, Northeast China had a hard time finding its position in the global division of labor. And all of these historical legacies were disregarded by the dominant neoliberal discourse that blamed the lackluster Manchurian economic performance to the “outdated” command economic system.

Today, East Asia is at a new crossroads. Some believe that the Thucydides Trap is unavoidable and there will be a “return of history”, and others try to calm the crowd with the notion of a “peaceful rising” or an “active pacifism”. New geopolitical strategies like the Pivot to Asia or the One Belt One Road were floated and promoted. Along with the “Grand Chessboard” repositioning, the participants are leading the way by arranging capital investments, technology transfers, and market accesses to the periphery, opening up developmental opportunities in the localities that are under dual influences. However, the actualization hinges on not just the external conditions but also the internal factors like the state mobilization capacity, the state-society relations, and the cultural reception of developmentalism. On the other hand, the long peace among world major powers and the transferring of low-margin polluting industries due to globalization have contributed to a sustained deindustrialization in the developed countries. Rust belts, as the old heavy industrial zones with declining population are called, are a global phenomena and Manchuria is no exception. The question now is when the heavy industrial state

goes into history, what kind of political economy will emerge under the new pattern of regional geopolitics and international relations? What can be done to transform the parched industrial land to the sustainable, eco-friendly and prosperous future?

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