

How the Great Leap Forward Failed: Perspective on Embryonic Theory and International Politics under Comparative Methodology

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ABSTRACT

The existing research cannot fully explain the failure of the Great Leap Forward movement. Perspectives on Nomenklatura (Kung and Chen, 2011)^[8] and Decentralized Order Economy (Wu, 2016)^[10] partially answer the question but do not perceive that it is the peasants-heavy industry structure endogenously required the Leap to maintain the industry growth (Wen, 2012)^[11]. The great leap forward transferred excessive economic resources from rural areas to cities and the shrinking villages cannot support the enlarging cities. since China used embryonic theory to create demand for heavy, the economy has been quickly developing (Wen, 2015)^[12]. However, under the economic block between USSR and USA, China chose the inefficient but necessary way to push her industrialization.

Keywords: *China, Great leap forward, industrialization, embryonic theory*

1. INTRODUCTION

The Great Leap Forward was an unsuccessful economic movement attempting to rely on local governments replacing the central government to maintain the high growth rate of industry. It achieved the goal that the proportion of the secondary industry increased from 29.6% in 1957 to 44.5% in 1960 but contributed to the decreasing growth rate and famine (Wen, 2012)^[11]. The existing explanations have attempted to answer the failure of the Leap, attributing to the malpractice of the bureaucrats (Kung, and Chen, 2011)^[8] and the failure of the powerful local governments (Wu, 2016)^[10]. These explanations directly answer the question but do not perceive that it is the peasants-heavy industry structure endogenously required the Leap to maintain the industry growth (Wen, 2012)^[11]. But heavy industry defied Chinese comparative advantages of labor resources and left a heavy financial burden for the government (Lin, 2012)^[13]. The reform started in 1978, China gradually abolished people's commune and implemented a household contract responsibility system. Studwell (2003)^[7] said the complete land reform turning peasants into small farmers can maximize food production in the peasant economy. Then the rural areas that are free from people's commune and price scissors used their capital

and labor force to set up prosperous household manufacture (Wu, 2016)^[10]. With attracting FDI and relaxing regulations on private sections, China quickly developed the light industry and creates demand for the heavy industry (Wen, 2015)^[12]. The present research has not fully analyzed the failure of the great leap in economic aspect. By comparing the industrialization progress of China and Korea and reviewing literature, the paper attempts to prove that the embryonic approach is inevitable for industrialization and tries to reveal that the severe external environment blocked Chinese embryonic progress of industrialization. The paper could help guide developing countries to achieve their industrialization.

2. LITERATURE REVIEW

The present research explaining the failure of the great leap forward mainly focus on political reasons. Jung and Chen (2019)^[6] pointed that it was the highly centralized decision-making initialed and failed the leap. In addition, research suggests that the promotion is a strong incentive for Chinese provincial officials to enforce the policy from the central government (Li and Zhou, 2005)^[16]. Based on that, Kung and Chen (2011)^[8] pointed out that in a totalitarian country like China it was the provincial alternative officials who were strongly incentivized by promotion and followed what chairman

Mao preferred. They levied properties from peasants and invested them in the steel industry. Besides, they covered up or underestimated the number of people starving in the famine and overestimated the food production to ingratiate the central government. The wrong information misled the central government to levy and purchase more grain from peasants and worsened the famine. This explanation seems absolute and over-states the selfishness of Chinese provincial officials because Bramall and Chris (2011)^[1] pointed out that the performance of Chinese local government cadres varied across the regions. In Sichuan province, the most harmful policy from the superior government was resisted by some cadres and the famine of those regions was not as serious as others. Obviously, these cadres defied the orders from the superior government and their motivation was not to get promotion but to reduce the loss. Besides, assuming that Chinese local officials are selfish, it cannot explain the economy booms before 1958 because it ignores an important fact that before the first Zhengzhou meeting in 1958, China implemented a centralized plan-economy. Wu (2016)^[12] pointed out that the central government centralized the powers of making an economic plan, managing SOEs, materials allocation, finance and tax, labor management. Wu (2016)^[12] also indicated that the centralized plan-economy had a weakness: the cost of collecting information and supervising plan enforcement was enormous as local governments had no incentives. He regards it as the reason for decentralization reform in 1958 and stresses that it is the reform that led to the failure of Great Leap Forward as local governments used their power to derive the properties of peasants and invested in new projects beyond the agriculture capacity. Wu's explanation supplements the political background for the Nomenklatura problem. Both the explanations mention that local governments took excessive economic resources from villages, but they do not focus on the economic structure and ignore the effect of withdrawing Soviet assistance. The cost transfer theory of Wen (2012)^[11] is valuable. He indicated that the cost of industrialization is capital accumulation. During 1950-1957, the cost of Chinese industrialization was paid by Soviet 5.4 billion dollars assistance and the Chinese industry level reached the level when the Soviet Union completed its first five-year plan. However, the assistance stopped in 1959 and transferred to debt. The central government cannot lead further investment and authorized local governments to develop the economy. After the decentralization reform, the financial revenue of the central government dropped from 30 billion yuan in 1958 to 10 billion yuan in 1959 but local governments had more than 40 billion yuan. However, local governments did not have experience in developing modern industry and they followed the investment-driven model from the central government, which caused waste and low efficiency. 100 million labor force participated in the steel industry in 1958 and damaged

agricultural productivity. Wen called it path dependence and cautiously pointed out that the loss of the Great Leap Forward might be the "learning cost" that local governments paid. All these views imply that the peasant economy cannot support rapid industrialization as it absorbs excessive economic resources from rural areas. As Lin (2012)^[13] said heavy industry defied comparative advantages and cannot survive without the government support. In China, the support is extracting the resources of rural areas by scissor price and tax to subsidize heavy industry. In addition, before 1978, Chinese government also centralized rural household to generate demand for heavy equipment and chemical products.

3.GAPS BETWEEN PEASANT-ECONOMY AND MODERN ECONOMY

The great leap forward is an inevitable movement that happened during the period of the Chinese plan economy (1953-1978). The fact of Chinese economy at that time was a small-scale peasant economy with 600 million peasants and 100 million citizens in 1957 (Chen, 1985)^[2]. However, China attempted to maintain the heavy industry from Soviet assistance. The combination of Peasants economy and heavy industry exists an intrinsic problem. Small-scale peasant economy and heavy industry cannot achieve economic exchange (trade), because it is unnecessary for peasants to utilize advanced agricultural machines, which are the products of heavy industry, to cultivate their scattered and small-scale land (Wen, 2012; Xue, 1983)^{[11][14]}. In addition, most of the peasant households are self-sufficient. Peasants hardly utilize modern tools and thus, it is difficult to increase productivity. Under the condition of low productivity, peasants do not produce and reserve enough staples to trade because of self-consumption. consequently, peasants hardly have high cash income and even hardly use cash, meaning that the peasant economy cannot automatically create demand for heavy industry products (Wen, 2012)^[11]. In that case, to create demand and accumulate capital for industry, the Chinese government set up a city-village system. Chinese government replaced scattered peasant households with concentrated and administrative institutions, "people's commune", to decrease transaction costs between industrial departments and rural areas, transferring 400 million peasant households to 4 million people's commune (Wen, 2012)^[11]. Single household cannot afford a tractor, but 100 households may. In addition, by implementing scissors price, selling agriculture at a low price and purchasing heavy industrial products at an excessive price, taxing and savings, Chinese rural areas contributed on average 13.7 billion yuan per year (80% of the number was achieved by scissor price in 1960) to support industrial departments and the years before 1958 the number was just 9.4 billion yuan (Feng, 1993)^[5]. Besides, Chinese government approximately levied and purchased 42 million tons of grain (30% of the annual

production) from peasants per year (Chen, 1985)^[2] to support 100 million citizens and industrial constructions in the 1950s. Under the city-village structure, the failure of the Great Leap Forward can be attributed to transferring economic resources from rural areas to cities which consumed more than food production. The Chinese development approach before 1978 was transferring economic resources from rural areas to city industrial departments and the great leap forward strengthened the approach and reached the economic limit of Chinese villages. From 1958 to 1961, Chinese local governments employed 30 million workers from rural areas. Once the rural labor is recruited, they stop working on agriculture and the labor left must feed the “new citizens”. Chen (1961)^[2] pointed out that the food production regions responsible for national food supply stood heavy tax burden and peasants there gradually lost incentive to increase production, leading to the food shortage in the following years. Deng and Xu (2018)^[4] also indicated that the excessive heavy industry current capital can generate adverse effect on social production. From 1958 to 1961, Chinese food production dropped from 197 million tons to 137 million tons, with food per capita dropping from 299.5 kilograms to 207 kilograms (Source: China Statistical Yearbook)^[3]. As the shrinking food production cannot support the enlarging cities, the great leap forward finally failed. Except food short constraint, Chairman Mao also indicates that China lack of knowledge. Many cadres were illiterate which meant they could not manage modern factories. Thus, there was also an existing knowledge gap between peasants and modern industries. But China did not have conditions to start from easier light industries until 1979 China and America finally recover diplomatic relations. Consequently, China has opportunities to introduce western capital and Japanese capital to update her industry structure and knowledge gap. Above all, there exists capital gap and knowledge gap under peasant-heavy industry structure. And the failure of the Great Leap Forward, which is a campaign that without foreign support, Chinese central government empowered local government mobilizing economic resources to maintain industry growth, proved that the gaps cannot be overcome by national mobilization.

4.COMPARISON

After the reform of 1978, Chinese economy started quick development. With the abolishment of people’s commune and implementing household responsibility system, rural areas were free from the exploration of scissors price and accumulated their capital for industry. Wen (2015)^[12] indicates that the economic success originated from primary rural industry which has the features of simple specialization and remote trade. The original industrialization quickly enlarged the domestic market and improved purchasing power, supply chain and selling network. The prosperous rural manufacture

rapidly developed to the level of mass production which required large-scale materials supply, machines and energy, which are the products of heavy industry. The large demand naturally stimulated the boom of heavy industry. In addition, the light industry can provide more capital than peasants to finance heavy industry. And the accumulated knowledge on organization, commerce naturally turned labor-intensive industry into capital-intensive industry. The same success happens in South Korea. South Korea adopted the embryonic approach, successfully pushing industrialization starting from light industry. In 1991, Korean GDP per capita increased from 87 dollars to 6498 dollars. GNP average increasing rate was 8%. Steel annual production was 26 million tons, ranking NO.6. Car annual production was 200 million, ranking NO.9. Annual shipbuilding was 5.43 million tons, ranking NO. 2. All these signals showed that Korea has transferred from a DC (developing country) to an industrial nation. According to Zheng (1993)^[15], the first stage of Korean industrialization was developing labor-intensive industries from 1962 to 1972. The government targeted producing and exporting light industry products like textile, furniture, shoes, food and tobacco. Compared with heavy industry, the light industry consumed less capital and materials, and it is easier for developing countries to absorb the technology. The success of the first stage created a huge number of foreign exchanges (mainly US dollars) for Korea which helped Korea to overcome capital accumulation and contributed to the second stage: developing the heavy industry since 1973. Korea spent 50% of its foreign exchanges to import the machines it cannot produce and technology and 35% for importing energy and minerals. In addition, Korea also borrowed foreign capital to support its construction. Since 1985, Korea has borrowed 46.8 billion dollars which are 56% of its GDP 1985. By utilizing the foreign capital to improve its infrastructure and update its industrial structure, Korea quickly set up heavy industries like car, steel and shipbuilding, enlarging its export capacity and finally paying the debt in the late 1980s. Korean government did not only overcome capital gap by exporting and borrowing foreign capital, but also solve knowledge gap by investing in education. From 1962 to 1980, the knowledge contribution to GDP was 7.3%.

5.SEVERE EXTERNAL ENVIRONMENT

The failure of the great leap forward reflects the intrinsic problem caused by the deficiency of the light industry. Wen (2012)^[11] provides an explanation for why China maintained the unfeasible system: China faces severe external threats from Russia on the land broader and the economic block from USA. In this situation, setting up military industry is necessary. Before soviet assistance, chairman Mao planned to develop capitalism, but the assistance gave Chinese a chance to quickly set up her own industry force. As Chinese leaders observed

that western countries spent 200 years finally developing advanced heavy industry and at that time China can learn the experience of quick industrialization from the USSR. After 1959, the external environment cannot provide China with further capital and technology support, China had to maintain peasant-industry system until China and western countries rebuilt diplomatic communication in the 1970s. The other reason could be that the USA did not set strict restrictions on exporting machines, technology even basic industrial materials to successful developing countries like South Korea. Consequently, export orientation strategy is practical because South Korea exports and received US dollars and uses the foreign exchanges to introduce technology and raw materials to support further industry updating. However, the incentive for China to export and earn US dollars was suppressed by American trade restrictions. Until 1972, China and America recovered diplomatic communication, China finally had opportunities to directly introduce heavy machines from USA, Japan and other developed western countries. In fact, in the 1970s, China still maintained plan economy. Chinese government did not dismiss People's Commune and still used economic plan rather than market and currency to manage resources allocation. Until 1980s, the boom of rural industry naturally generated demand for heavy industry, China gradually abolished plan economy and rebuilt the market economy.

6. POLICY IMPLICATION

The experience of China and South Korea suggested that if developing countries overcome capital accumulation and knowledge accumulation, their industrialization may succeed. Introducing FDI could be a quick approach to achieve industrialization. Lin (2012)^[13] advised that developing countries can concentrate limited economic resources to construct industrial parks, whose infrastructure and business environment are attractive for foreign capital. Then, developing countries must carefully choose the industries meeting their comparative advantages to ensure the enterprises are self-dependent. By doing and learning in the foreign companies, local workers touch the modern factories and have opportunities to learn the advanced management, technology details and gradually overcome ignorance problem. Sequentially, the self-dependent companies can accumulate profit and automatically step into capital-intensive industries because the dynamic comparative advantages would have changed to capital and knowledge. The advice of Lin Yifu has been proved effective by Ethiopia.

7. CONCLUSION

The great leap forward is a campaign that without foreign support, Chinese central government empowered local government mobilizing economic

resources to maintain industry growth. But its failure showed that skipping the stage of developing light industry leaves capital and knowledge gap which cannot be easily overcome by national economic mobilization. Compared with the economic success after 1978, it proved that the economic growth is progressive. Jumping strategy like what USSR and China did before 1978 leaves capital and knowledge gap. Following the steps from rural industry to light industry and finally heavy industry, the embryonic theory is a better approach to industrialization proved by Chinese experience. Thus, embryonic theory can be successful in leading developing countries to achieve high-level industrialization. However, the severe political environment of China before 1972 blocked the approach to adapt export-oriented strategy. China could not directly import industrial equipment from developed countries, suppressing Chinese incentive to merge into globalization. In that case, China had to maintain her inefficient plan economy system, exploiting peasants to accumulate capital and inevitably led to the over-exploitation phenomenon like the Great Leap Forward.

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