Comparison of Hong Kong And Taiwan Economic Development in the Context of the Oil Crisis

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Abstract. Hong Kong and Taiwan are part of China and are similar in politics, economy, culture, etc. But in response to the two oil shocks in the 1970s, the two places showed different patterns of economic decline. Taiwan's economy reacted quickly to the oil shock, but the decline was more moderate, while Hong Kong's recession tended to lag global crises, but the reduction was more significant. From the perspective of industrial structure, this paper analyzes the differences in development strategies and industrial structure before the first oil strike and between them through case comparison. This paper finds that Taiwan's economic decline pattern was closely related to its vigorous development of the import substitution industry. In contrast, Hong Kong's industry and trade were less affected, but the rapid growth of finance and real estate at that time created economic instability. The author believes retaining a specific high-end manufacturing industry can stabilize the local economy. The conclusions of this paper can be used for reference in the economic transformation of developing regions.

Keywords: Recession, Industrial structure, Economic resilience, Manufacturing industry.

1. Introduction

Hong Kong and Taiwan, two of the Asian Tigers, achieved remarkable economic success in the decades leading up to the first oil shock through similar development strategies. However, in the 1970s, their economic development suffered setbacks to varying degrees. The outbreak of two worldwide oil crises in 1974 and 1978 and the resulting global financial crisis were undoubtedly essential reasons for their economic recession. Under the influence of this crisis, the two economies showed different recession patterns. In general, Taiwan's economy responded quickly to the oil shock, but the downturn was mild; Hong Kong's economic downturns tend to lag global crises, but they were sharper.

The two regions with similar development patterns had utterly different responses when facing the same oil crisis. This phenomenon is enough to arouse researchers' curiosity and in-depth thinking. Based on this problem, this paper focuses on industrial structure and concludes by comparing the cases of Hong Kong and Taiwan. This paper starts by comparing the similarities and differences in industrial design between the two places before the first oil crisis and the impact of the first oil crisis on their economies. Then, this paper emphasizes comparing the changes in development policies and the transformation of industrial structure during the two oil crises. The author believes that the substantial economic structural changes during this period made the two places show completely different economic recession patterns after the arrival of the second oil crisis. Finally, by comparing the rise and fall of the major industries in the two places, this paper finds the reasons for the difference in the pattern of economic decline between the two places. It puts forward suggestions for the development strategy of regional economic transformation.

In previous works, some scholars have studied the path of industrial structure transformation in Hong Kong and Taiwan, respectively. For example, Professor Bangyan Feng's book Research on the Industrial Structure of Hong Kong starts with the three industrial transformations of Hong Kong, describing the changes in Hong Kong's major industries since 1940, and it also includes a comparative study between Hong Kong and Singapore. Another example is Professor En Chen's book Analysis of Economic Structure in Taiwan. It combines theory with the facts of Taiwan, describing the changes and characteristics of Taiwan's industrial structure since 1950. However, these books or papers

primarily focus on only one of Hong Kong or Taiwan. And because they are macro narratives over about half a century, they rarely mention the impact of the oil shock.

Because Hong Kong and Taiwan were similar in various aspects, a large part of the previous literature concerning comparing the two focuses on comparing their similarities. When comparing the differences, they also tend to be separate statements of the economic history of the two. Through the oil crisis, which significantly impacted both places, this paper organically combines the development process of both locations to make up for this deficiency. The comparison of the different effects of the oil crisis on the two places effectively reveals the gains and losses in the development process.

2. Overview of the economic development of Hong Kong and Taiwan

Hong Kong and Taiwan are very similar in language, culture, etc. As two economies that increased in the second half of the 20th century, their conditions and development patterns are identical. First, although Taiwan is much larger than Hong Kong, both places are relatively small and, therefore, small in population, which is not enough to form a domestic market that can meet the needs of a highly developed industry. Secondly, both places have quality ports suitable for developing export industries. Taking advantage of their superior geographical location and outstanding development strategies, both places made proud achievements in the decades after World War II, achieving economic take-off and joining South Korea and Singapore as the "Four Asian Tigers." However, this export-oriented economic model also results in the two economies being very dependent on the international environment, with a high degree of vulnerability. Historically, when the international climate was prosperous, Hong Kong and Taiwan's economic growth rates tended to be much higher than the global level. Still, both will suffer more when the global economy falters.

In the 1960s and early 1970s, driven by a new scientific and technological revolution, the international economy entered a "golden age" of sustained growth. During this period, free trade with reduced tariffs and free trade barriers became the mainstream. The international market expanded rapidly, the supply of raw materials was abundant, the price was stable, and the import cost of the two places was very reasonable. Coupled with relatively low labor costs, the import processing industries of Hong Kong and Taiwan had huge comparative advantages and developed rapidly [1]. By the eve of the first oil crisis, both industries in Hong Kong and Taiwan, especially export processing, had become the most essential pillars of the local economy [2].

Among them, Hong Kong's industry was dominated by textiles, metal products, plastics, and electrical appliances. In 1970, the sector proportion reached 37.3%. In Taiwan, fabric, leather, wood, and paper products dominated the industry, accounting for 42.9% in 1973 [3]. To sum up, the two East Asian economies had many characteristics in common. In the face of the first oil shock, both economies were severely affected similarly. Since then, due to the difference between the international environment and the domestic development logic, the industrial structure of the two places has undergone tremendous changes in a few years. This makes the pattern of economic decline very different when facing the second oil shock.

Taiwan and Hong Kong experienced severe economic recession due to the second oil strike. Taiwan's economic recession reacted quicker, with a smaller range; Hong Kong's downturn reacted slower but sharper. For instance, the decline of Taiwan's economic growth was evident in the same year the oil strike happened and continued from 1979 to 1982. But even at its lowest, in 1982, it grew by 3.5%; while Hong Kong's economy maintained a growth rate of about 10% until 1981, it plummeted to 2.95% in 1982 and reached 0.76% in 1985.

Why was there not much difference in the magnitude and reaction speed of the economic downturn in the two places after the first oil shock? But did they show such a different pattern of decline after the second oil shock? This was mainly due to the drastic industrial structure adjustment between the two oil crises.

3. Adjustment of economic development in Hong Kong and Taiwan between the two oil crises

In October 1973, the Fourth Middle East War broke out. To discourage Western countries from supporting Israel and make them change their attitude toward protecting Israel, the Arab members of the OPEC decided to raise oil prices, reduce oil supplies, and impose an oil embargo on some Western developed countries. By the end of 1973, the cost of oil had risen from $3.01 to $11.65 a barrel. Since the significant capitalist nations of the West were highly dependent on oil from the Middle East at the time, this price increase and embargo immediately caused a sharp decline in industrial production in Western countries, and the world ushered in the most significant economic crisis since World War II.

After the first oil shock, both Hong Kong and Taiwan dramatically adjusted their development strategies. These changes made the industrial structure of the two places undergo significant changes in the next few years. This also made the difference between the degree and characteristics of the impact of the two places more evident in the face of the second oil crisis. It is worth mentioning that this substantial adjustment of the industrial structure was only partially a response to the oil crisis. Still, the more critical motivation was rooted in the internal logic of the economic development of the two places.

In Taiwan, the most critical policy published by the authority was The Ten Major Construction Projects. It was mainly implemented between 1974 and 1979, costing about $6 billion during the five years, more than 40% of Taiwan's GNP in 1974. Among those ten projects, three focused on developing heavy industries, six concentrated on building new infrastructure, and one was building nuclear power plants. Despite the relatively small number, developing heavy industries was the dominant task in this policy, whose investment accounted for more than 70% of the acquisition of the whole plan.

The Ten Major Construction Projects were implemented only a few months after The First Oil Strike. This oil strike destroyed many countries' heavy industries and made them stagnate. Given the rapidly increased oil price, it is evident that heavy industries would go through a hard time in future years.

Therefore, the motive of Taiwan's government to implement this policy was to partially realize the import substitution of heavy industry, solving the problem of the extreme dependence on machinery equipment and raw materials, which was desperately needed by its prosperous labor-intensive sector [4]. This motive was deeply rooted in the inherent problems of Taiwan's development logic. Besides, with the rapid development in the last decade, the price of labor and land increased primarily. In addition, plenty of countries and regions opened their markets then, especially Southeast Asian countries, and the reform and opening up policy in China mainland. The comparative advantage of Taiwan decreased[5].

On the other hand, because all the heavy industries needed plenty of investment, Taiwan may have encountered a more terrible situation if the upgrading impact of the sector wasn't as expected. Therefore, by constructing infrastructure like ports and railways, Taiwan could at least ensure its competitiveness in the import processing industry.

Moreover, Taiwan has started upgrading its industrial structure since the late 1970s. Machinery, information, electronics, and transportation industries were chosen as the critical industries for development [6]. The authority strongly emphasized investing in research and development, promoting technological innovation to drive technological advancements, and supporting initiatives in upgrading their production capabilities. For instance, the government established institutions like the Industrial Technology Research Institute (ITRI), which facilitated the development of advanced technologies, such as creating the "Single Crystal Silicon Technology," which significantly improved semiconductor manufacturing. Another example is the Hsinchu Science and Industrial Park construction 1980, which provided advanced infrastructure for high-tech companies. This park, known as Taiwan's "Silicon Valley," housed many semiconductor and electronics firms.

Between the two Oil strikes, Taiwan drastically changed its industrial structure. The proportion of the light textile industry had dropped, while some capital-intensive sectors such as petrochemical engineering, steel, and mechanics enhanced significantly. Technology-intensive and knowledge-intensive industries had also begun to take off.

There were also some significant industry changes in Hong Kong during the two Oil Strike. Hong Kong's traditional import processing industry had also been impaired mainly at that time due to its increasing labor cost and the pressure of competition brought up by countries and regions such as Taiwan, Korea, and Singapore. Nevertheless, unlike Taiwan, Hong Kong hasn't ever strived to develop its heavy industry.

According to the theory of Walt Whitman Rostow, in the industrialization process in Western countries, the focus of manufacturing will shift from light textile to heavy industry. However, due to the scale of land, resource limitation, and other reasons, developing a heavy sector in Hong Kong could be more effective. According to Hofmann's theory, Hong Kong's lowest Hofmann ratio was 1.15 in 1984. This figure is mainly above 1, considered the standard of heavy industrialization [7].

Instead, in the 1970s, Hong Kong's service industry developed quickly. Its financial and real estate sectors grew even more rapidly. In 1970, finance, insurance, real estate, and business services accounted for 14.9% of Hong Kong's GDP. By 1980, however, this figure had risen to 25.9%, overtaking manufacturing as the largest sector in Hong Kong's economy.

Moreover, the opening of the Chinese market drove Hong Kong's re-export industry to take off. In 1978, the Chinese mainland implemented the Reform and Opening Up policy, which prompted a dramatic increase in foreign trade. Hong Kong was back in the spotlight as a Chinese foreign trade entrepot after several decades of decline in this industry, with continuous input of equipment, raw materials, and processed assembly products. Besides, Hong Kong's manufacturing industry had gradually transferred into the Chinese mainland, although it formed on a large scale only after the mid-1980s.

4. Impact of the oil crisis on the economic development of Hong Kong and Taiwan

On the eve of the first oil shock, statistically, there were some differences in industrial structure between Taiwan and Hong Kong. Taiwan's industry accounted for 42.9% [8], reaching the highest point in history. Among the industry the textile industry played a dominant role. It accounted for about 30% in 1973. Besides, as a leading industry in the past, the food industry still had a considerable proportion. In addition, in the late 1960s, with the establishment and development of export processing zones, plenty of foreign capital was inflowed into Taiwan, helping the mechanical and electrical industries develop quickly. It soon became a dominant industry in Taiwan before the Oil Strike [9].

Industry, especially the manufacturing industry, was also the most significant industry in Hong Kong. It accounted for 37.3% and 31.0%, respectively, in 1970, also a historical high. The garment industry was the biggest, taking up 35.1% of the industry. The traditional textile and toy industry accounted for nearly 20%, and the electronics industry was developing rapidly at that time [7].

After the impact of the first Oil Strike, Taiwan's industry shrank from 42.9% to 38.2% in the following two years. In the meantime, Hong Kong's industry hadn't been damaged as much as Taiwan's. In contrast, between 1972 and 1974, the proportion of its sector increased slightly from 40.2% to 40.7% [7]. Although the percentage of its manufacturing industry in the total output value decreased by 1.1%, the construction industry increased from 5.3% to 6.1%, which was 15.1% percent in the industry itself. Besides, transportation, warehousing, and communications industries also proliferated.

However, Hong Kong's economy hasn't been through a more manageable situation than Taiwan in these several years. The main reason was the drastic shrink of finance, insurance, real estate, and

business services industries. Their percentage of gross domestic product went from 20.5% to 17.6% within two years.

From the above data, we can see that although the GDP of Hong Kong and Taiwan was affected similarly after the first oil shock, the industries affected were quite different. This depended on the other industrial structures of the two places and the particular circumstances at that time. However, during the second oil shock, the degree of impact on GDP and the speed of response between the two places showed apparent differences.

Taiwan's economic growth rate declined gradually in 1979, from a high of 13.6% in 1978 to the lowest of 3.5% in 1982. In contrast, Hong Kong's economic growth rate remained at a very high level until 1981 but suddenly fell to 2.95% in 1982 from 9.26% in the previous year, and after two years of recovery, it suddenly fell to 0.76% in 1985, the lowest rate in the 1980s. In short, Taiwan's economy reacted quickly to the oil crisis but suffered a mild recession. Hong Kong's economic response has been slower but more dramatic.

Around the time of the second oil strike, Hong Kong's re-export trade was booming, from HK $20.02 billion in 1979 to HK $83.504 billion in 1984, and the proportion of total exports also rose from 26.4% to 37.7%. On the other hand, Hong Kong's manufacturing sector had declined since the 1970s, but its share remained above 25% until 1980. After 1980, the manufacturing industry declined faster, falling to 20.8% in 1982 [7], with many Hong Kong manufacturers moving their labor-intensive industries to southern China.

In addition, Hong Kong's financial and real estate industries flourished in 1979-1981 but suffered a severe economic crisis in 1982-1983, and the real estate market also collapsed. The financial and property collapse contributed directly to the sharp decline in Hong Kong's economy.

As far as Taiwan is concerned, the Ten Major Construction Projects had a significant impact during the two oil strikes. According to statistics, from 1975 to 1977, the proportion of economic growth attributed to the Ten Major Construction Projects reached about 20% [10]. Taiwan's industrial share had risen, reaching nearly 45% in 1980, the highest level in history. The percentage of heavy industry had been growing within the industry, and in 1976, for the first time, it surpassed that of light industry. In addition, the scale of technology-intensive sectors such as electronics has also begun to climb.

5. Why Taiwan's economy was more resilient than Hong Kong's between the two oil crises

Around the time of the first oil shock, the industrial structure and challenges faced by Taiwan and Hong Kong were relatively similar. However, due to the different circumstances of the two places, they adopted different development strategies in the following years. Due to the lack of energy and heavy chemical industry and the severe dependence on upstream equipment and raw materials, Taiwan had focused on developing heavy industry in these years to achieve import substitution. At the same time, it also developed technology-intensive sectors to maintain the competitiveness of export products [11]. Because of its size and other reasons, Hong Kong hasn’t developed local import substitution industries but has vigorously developed trade, finance, real estate, etc. This difference in industrial structure led to different modes of economic response in the face of a second oil shock.

Undoubtedly, the industry's rapid growth was the main engine that drove the two regions’ economies to take off. However, during the first Oil Strike, those industries went into recession at different levels. Historically, Hong Kong hadn’t gone through an import substitution period, a typical development strategy of underdeveloped regions. Therefore, the export rate of the manufacturing industry reached 64.95% in 1971. In comparison, the export rate of Taiwan is relatively low, though it was also much higher than the world average level. Moreover, during the 1970s, Taiwan achieved its second import substitution by developing heavy industry. Although Taiwan still primarily relied on imported energy and had a severe recession after the Second Oil Strike, the gap of dependence on foreign countries between the two regions was further widened. Hong Kong would undergo a stricter

situation because every significant Western country took trade protectionism policies during the Oil Strike. At this point, Taiwan's economy is more elastic than Hong Kong's.

On the other hand, however, the dominant industry in Hong Kong didn't have a high energy consumption intensity in general, while Taiwan's industry consumed much more energy. In addition, the supply of oil products from mainland China to Hong Kong increased ten times in 1973, then eight times in 1974. In the Second Oil Strike, this number reached more than 60 million tons in five years. Those factors help Hong Kong's industry to overcome a severe recession. Besides, the Reform And Opening Up policy gave Hong Kong a precious opportunity to expand its carrying trade.

So, in general, the first Oil Strike dealt a more significant blow to Taiwan's industry on the contrary, which was mentioned above. This phenomenon can explain why Taiwan's economy decreased immediately after the first Oil Strike, while the negative impact on Hong Kong's economy came later than that.

The recession in finance and real estate was one of the main reasons for Hong Kong's economic slump. Due to the lack of a supervision system, Hong Kong's stock market has a dramatic ups and downs history. Because of people's blind optimistic sentiment, the stock market sometimes surged and divorced from the actual economic situation. Sometimes, a small thing also would result in a severe financial crisis. For instance 1982, British Prime Minister Margaret Thatcher visited Beijing, which led to the collapse of Hong Kong's real estate and stock market. In this period, Hong Kong had seen a sharp decline in its real industry, resulting in industry hollowing [12]. Those problems should be responsible for the instability of Hong Kong's economy, and that's also the reason why Hong Kong's economic slump wasn't consistent with the time of the Oil Strike. Overall, the overgrowth of the service sector and the rapid contraction of industry made Hong Kong's economy fragile, and it was important for Hong Kong to retain some of its competitive and high-end manufacturing industries as a steady and substantial source of growth.

6. Conclusion

The oil crisis has dramatically impacted Taiwan and Hong Kong as export-oriented economies. However, their patterns of economic decline were different, especially during the second oil shock. This paper first analyzes the similar industrial structure of the two places before the first oil crisis from the angle of industrial design. This similarity makes the pattern of decline during the first oil shock more common than different, despite showing their characteristics. However, before the second oil crisis, both places made various policy adjustments and industrial structure transformations according to their conditions. This created a stark difference in the pattern of economic downturns. In general, the economic recession in Taiwan was quicker and more flexible, while it reacted slower but more drastic in Hong Kong. This paper thoroughly analyzes various industries in the two places and believes that the mode of economic decline in Taiwan stems from its industrial structure dominated by heavy industry and the relatively developed import substitution industry at that time. In contrast, the decline mode in Hong Kong can be attributed to its gradually developed trade, finance, and real estate industries, as well as the problems of industrial hollowing caused by the gradual transfer of sectors. Therefore, this paper believes that although upgrading industrial structure is essential, the continuous reduction of industrial proportion also means increased economic instability. As long as it's appropriate to local conditions, it is necessary to retain some competitive high-end manufacturing as a stabilizer for economic development.

Hong Kong and Taiwan are very similar in various aspects, and the previous comparative analysis of the two regions mainly focuses on their similarity. However, the two countries faced the oil crisis and showed very different crisis response capabilities and economic downturn patterns. This article takes this as the starting point, combines the development path of the two places into comparison, and obtains the reason. It can be used for reference in the economic transformation of developing regions.

However, the conclusion of this paper is only an answer to this significant question and cannot be taken as a conclusion suitable for all countries or regions. For example, although this paper points out the need to retain some import-substitution industries, the efficiency of developing heavy industry could be higher due to the particular circumstances of Hong Kong. How do we balance the general conclusions with the objective constraints of local economic development? This remains a critical issue.

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