

**THE MAJOR FACTORS WHICH CONTRIBUTED TO THE
TRANSFORMATION OF TAIWAN
FROM A PRIMITIVE AGRICULTURAL SOCIETY TO ONE OF
THE NEWLY INDUSTRIALIZING COUNTRIES (NICS) IN ASIA**

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INTRODUCTION

Taiwan is well known as one of Asia's miracles in line with impressive achievement in economic development. Some economists, such as Clark and Roy (1997), Fei et. all, (1979), Kuo (1994), and Li (1988) contend the main key of Taiwan's performance was that Taiwan transformed its economy successfully from agricultural to industrial base, that is from labor intensive light manufacturing to more capital and skill-intensive manufacturing.

When Japan pulled out of Taiwan it left physical and human infrastructure which formed a firm basis for agriculture development. Taiwan, then, introduced land reform in 1949. After that, Taiwan launched import substitution strategy and subsequently applied export promotion strategy. These four major factors resulted in an exciting of Taiwan economic development.

TAIWAN UNDER JAPAN'S COLONIAL

The Japanese left behind an excellent physical and human infrastructure and thereby Taiwan could later build growth both in agriculture and industry. In an attempt to encourage agricultural production the Japanese conducted many projects. Therefore, according to Chiou (1994), Fei et.al (1979), Klintworth (1995), and Li (1988), the Japanese build an efficient and inexpensive system of railroads and rural roads, brought in massive quantities of fertilizer to Taiwan's agricultural sector, introduced new farming techniques, and constructed an irrigation system.

Besides, the Japanese also created farmer associations to give farmers advice on modern agricultural practices and rural credit cooperatives to provide agricultural finance (Clark, 1989; Gold, 1986; Fei, 1979) . As a result, agricultural productivity increased, transportation of rural agricultural products was better, and obviously farmers' income rose significantly.

On the other side, the Japanese started to develop industry in Taiwan focused on industries which either used the output of the agricultural sector or provided inputs to agricultural sector (Fei et.al, 1979; Klintworth, 1995).

LAND REFORM

Taiwan's leaders were convinced that it was very hard to promote industry without having a strong agricultural base. This was plausible because the livelihood of over 60% of the population depended on agricultural. A growing agricultural sector was a prerequisite to improve people's income and therefore to enhance their

AGRO EKONOMI

purchasing power. Li (1988) named this balanced development strategy between agriculture and industry as 'fostering industry with agriculture and promoting agriculture with industry'.

In 1949 the government applied a land reform program to promote agricultural development. The program consisted of three major stages (Chan and Clark, 1990; Clark and Roy, 1997; Fei, et. al, 1979; Klintworth, 1995; Kuo, 1994): first, rent reduction for tenant farmers; second, sales of public farmland between, and third, the land distribution program (land-to-the-tiller).

According to Fei et. al, (1979), the objective of the first step of the land reform was to promote agricultural incentives and output, to reduce farm rents and to increase the share of tenant farmers in crop yields. Moreover, they stated that this program had five basic provisions. First, farm rents could be fixed at no more than 37.5 percent of the anticipated annual yield of the main crops. Second, if crops failed because of natural forces, tenant farmers could apply to local farm-tenancy committees for a further reduction. Third, tenant farmers no longer had to pay their rent in advance. Fourth, written contracts and fixed leases of three to six years had to be registered. Fifth, tenants had the first option to purchase land from its owners.

As a result, Chan and Clark (1990), Clark (1989), Clark and Roy (1997), and Li (1988) report that farmer's income actually increased 67%, almost double the increase in agricultural production, therefore contributing to stability in food supplies and prices. In addition, increased exports of processed agricultural products helped to finance the imports of equipment and raw materials needed by industry, improved prosperity in the rural areas, expanded the market for industrial products and stimulated industrial growth. The saving from the agricultural sector helped to further industrial development. Beside that, Chan and Clark (1990) also note that the achievement of the agricultural sector was enough to keep the trade deficit tolerable and increase income equality.

Concomitantly, Li (1988) adds that the industrial sector also provided valuable assistance to the agricultural sector by offering a reliable domestic market for agricultural product; supplying fertilizer, pesticide, and farm machinery, thereby accelerating the modernization of agriculture and increasing farm productivity; and creating a large number of new jobs in industry, therefore absorbing surplus labor from the farms.

THE IMPORT SUBSTITUTION STRATEGY

Government policy was not limited to revive and stimulate the agricultural sector, but also promoted through import substitution strategy the production of light industrial goods that were being imported. In other words, the government applied on integrated development strategy between agricultural and industrial sectors. Li (1988) emphasizes, the government had an important role in assisting to enlarge private enterprises through many measures such as low-interest loans, providing raw material to reduce financial burden and business risk.

Moreover, Chan and Clark (1990), Klintworth (1995), and Kuo (1994) add that in an attempt to support the import substitution strategy, the government implemented a multiple exchange rate system, an overvaluation of the New Taiwan dollar, high tariffs, and a special allocation of raw material (through US-aid) and financial funds. The magnitude of the role of the US-aid was depicted clearly by Kuo (1994) as 'a necessary factor of Taiwan's development', specifically during

1951-1965. He, furthermore, explains that the amount of the US-aid was around US\$100 billion annually or more than 30 percent of domestic investment. On the other side, Li (1988) stresses that the US-aid was effectively used not only to increase the supply of daily necessities, but also to develop various investment projects to accelerate Taiwan's economy.

Meanwhile, Kuo (1994) reveals that between 1948-1955 the average of annual tariff rate for all imports more than doubled, from 20 to 45 percent. Here, the government applied tight control over the financial system, so the state dominated the banking sector and managed fully the money supply and credit availability.

To strengthen these strategies, according to Clark (1989), the government implemented the policy of sealing off the domestic market. Therefore, Klintworth (1995) observes, between 1950-1962 a lot of items such as bicycles, sewing machines, paper, rubber, cement, leather and leather products, woolen products, yarn, cotton yarn, human-made fibers and chemical fertilizer were subject to tighter import controls in order to promote import substitution. Besides that, import quotas for specific goods, especially luxury items were introduced in April 1951. In this period, Klintworth (1995) notes, imports of plant equipment received the most favored treatment from the government.

The application of these strategies had a huge effect on Taiwan's economy, particularly, the industrial structure. With regard to these strategies, Clark (1989) underlines four important impacts. First, they provided primary stimulus for industrial expansion. Second, Taiwan was able to expand its industrial base from primarily food processing to other light industries, for instance textiles, bicycles, rubber, leather goods, chemicals, and wood products. Third, most of the island's industry remained concentrated on labor-intensive production. Fourth, the state maintained a strong hand over economic activity through state corporation and strong influence over allocation of credit and foreign exchange.

To a certain extent, the achievement of the import substitution strategy could be discerned in some economic indicators. For example, from 1952 to 1959 the ratio of imports to GDP fell from 14.8 % to 12.6 %, the share of consumer goods in total imports dropped from 19.9 % to 7.4% in the same period, and during 1952 - 1961 total energy consumption was more than tripled (Clark, 1989). Another statistic shows that the contribution of the industrial sector to GNP during 1952 to 1960 increased significantly from 11% to 17% (Fei et. al, 1979).

Obviously, the impact of the impressive result of the import substitution policy benefited the developing industrial sector, that is from an industrial base to food processing and then continued to more advanced light industries. Beside that, the benefits from industry also helped finance infrastructure facilities, for instance educational facilities, electric power plants, and other public amenities (Chan and Clark, 1990).

By the end of the 1950s, unfortunately, the golden era of import substitution ended because of the limited domestic market and the urgent need for foreign exchange earnings. As a consequence, the development strategy was turned toward export promotion or outward-looking strategies (Kuo, 1994). Li (1988) called this strategy 'backward integration' development strategy.

EXPORT PROMOTION STRATEGY

According to Kuo (1994) since 1958 Taiwan's government has 'consistently and persistently held to outward-oriented trade policy'. In this context, the government intervention in domestic economy always aimed to improve Taiwan's international export competitiveness. Woronoff (1986) explains that export promotion became the official policy and was indicated by the slogan 'developing agriculture by virtue of industry and fostering industry by virtue of foreign trade'. As a follow up, in 1961 the government applied the Third Four-year Plan and the Nineteen-Point Economic Financial Reform Program (Kuo, 1994; Clark, 1989). Virtually, the essence of this reform was liberalization, that is the lifting of trade controls; the abandoning of the multiple exchange rate system; and the reforming of the tax system to enhance capital formation, and create trade associations to promote and subsidize export.

After that, the government launched the policy 'The Statue for Encouragement of Investment' to facilitate the acquisition of plant sites and provide tax exemptions and deductions (Clark, 1989). Then, the government promulgated the Statue for the Establishment and development of Export Processing Zone (EZP) to encourage investment and intensify export, as well as to raise employment (Li, 1988).

These policies had an important impact on economic growth, for instance the nominal rate of protection for manufactured goods fell dramatically from 53.5 % in 1961 to 30.0 % in 1971, and during 1963-1971 industrial production rose by 18 % a year as well as the real GNP by 11 % annually (Clark, 1989). Besides, as Chan and Clark (1990) point out, the share of export in gross domestic product (GDP) almost quadrupled from 11 % in 1962 to 42 % in 1973. This means that the economy had become extremely export-oriented.

The initial success of the export substitution strategy had a strong impact on further industrial development. Li (1988) contends there was a shift on industrial sectors, from labor intensive to capital intensive, and then to the heavy and chemical industries.

Domestic saving as well as successful government measures to stimulate and manage foreign investment were other key factors to support export promotion, particularly after the end of US-aid in 1965 (Chan and Clark, 1990; Kuo, 1990).

Unfortunately, the excellent economic growth was disrupted by the oil crisis in 1973. To remedy the crisis, as Chan and Clark (1990) and Kuo (1994) point out, the government adopted 'Stabilization Measures' characterized by a high interest rate policy, a one shot adjustment of oil prices, as well as tax reduction. By implementing the policy, the government hoped the price of oil would be more rational, foreign exchange rate became determined more by market forces, and a more liberalized interest rate would follow.

This policy, finally, resulted in remarkable improvement. As stated by Chan and Clark (1990), real export shot up by 46 % in 1976. Further, they mention that during 1976-1978 the real GNP growth averaged 13 %, and was followed by real industrial production, real saving, and real manufacturing wages which rose by 20 %, 25 %, 11%, respectively.

On the other hand, Chan and Clark (1990) observe that politically significant change in the authoritarian style of rule began to evolve when Chiang Ching-ku became premier in the 1972. He subsequently launched a more liberal program that

promoted younger and educated officials into top leadership positions, cracked down on regime corruption, gradually increased the power of Islanders in the government and the party, reformed the politic to push the country toward democratization, and force the government to be more open.

Furthermore, Clark and Chan (1992) argue that beside flexibility, a nation's political culture, especially 'confucian culture' has an important role in raising both economic dynamism and political stability. In accordance with confucian capitalism, Chan and Clark (1990) point out that its culture permits businessman to respond very quickly to market demand and reduce problems of excess capacity through a complex subcontracting relationship among small and medium size enterprises (SMEs). In addition, this business relationship is unique because its is implemented on the basis of the principles of competition among friends, not competition among enemies. In other words, confucian culture enhances both internal competitiveness and external flexibility.

Other economist, Clark and Roy (1997) believe that the success story of Taiwan's economic development is a clear description of a very successful case of market conforming export promotion.

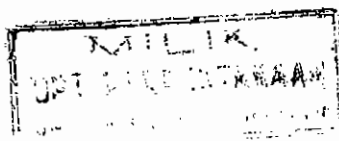
CONCLUSION

In summary, many factors caused the impressive achievement of Taiwan's economy to become one of Asia's miracles such as the infrastructure left behind by the Japanese, land reform, the promotion of industrial development from a solid base of agriculture, the government's role in assisting private enterprise, US-aid, high domestic savings, foreign investment, effective control of inflation, aggressive import substitution, export oriented, flexibility, political reform, clean government, confusion culture, and last but not least the free-market economic system. In short, the Taiwan's policy emphasized an integrated approach on all economic aspects, as well as political and cultural ones.

All the above factors, I believe, not only contributed to the success of Taiwan's transformation, but also have remarkable benefits as strong barriers to protect its economy from the negative impact of the recent Asian financial crisis.

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AGRO EKONOMI

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