

REGIONAL DEVELOPMENT STRATEGY AND THE
HOUSING DEVELOPMENT IN TAIWAN

by

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The intention of this thesis is to investigate from a critical point of view, the capitalist theory of regional and housing development for developing countries, and the practice of this theory in Taiwan. Hopefully, this investigation will provide a basis for architects and planners to understand that the housing crisis in most worst developing countries like other social and environmental problems, originates in the social relation of the society. As such crisis cannot be resolved merely by implementation of partial policies and strategies unless the very foundation of social relations are changed.

Background information and analysis will be provided on following questions:

What is the theory of regional and housing development for developing countries within capitalist system?

What is Taiwan's experience in practising this theory of regional and housing development?

How did the regional development strategy influence housing development in theory and in practice?

What is the major contradiction within developing society which causes the failure of regional development and housing development?

In Section I, a critical history of urban and regional development in relation to the change of social structures and social relations for the pre-1949 period is presented, as the basis of Taiwan's development under the capitalist theory.

Section II introduces the capitalist theory of regional and housing development for a developing society. Taiwan's regional and housing development experience in relation to social mode of production under the influence of capitalist theory is then investigated as an example of the implementation of the capitalist

theory.

Section III focuses on the criticism of capitalist theory as well as Taiwan's regional development strategy and housing development. The criticism is established on the conventional theory of political economy.

Professor Tunney Lee, Thesis Supervisor
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SECTION I

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A. Introduction

There were very few studies concerning Taiwan's development before 1949. Prior to that time the studies were mostly undertaken by the royal scholars and bureaucrats of the Japanese ruling institute under the colonial government. The main purpose of the studies were, therefore, to praise the ruling success of Japanese imperialism, to defend the cruel exploitation and suppression of the colony and to advocate continued invasion of imperialism. In 1945 Taiwan was recovered from Japan, but the same time civil war broke out on the Chinese mainland. Taiwan was therefore ignored to a large extent by the Chinese government until the latter retreated from the mainland to Taiwan in 1949. As a result, most of the social, economic and infrastructural bases for Taiwan's development were constructed primarily under the aegis of the colonial government.

The whole history of Taiwan's development since the seventeenth century can be viewed as a history of exploitation and suppression under the yokes of colonialism and imperialism. Although Taiwan was discovered by the Chinese in the twelfth century, there was no development on the island until the end of sixteenth century. From 1624, Holland occupied Taiwan for forty-eight years. During the same period, serious contradiction existed in the society of mainland China. Dictatorial bureaucrats of the Ming's dynasty, the landlords and usury combined in forcing the peasant majority into famine, poverty, exile and death. Peasant rebellions were occurring everywhere, and

Manchurian troops were invading the country. Because of the war, famine, oppression and death, about one hundred thousand Chinese migrated from the mainland to Taiwan. In 1662, a general of the Ming dynasty expelled Holland's colonial rule and took over power in Taiwan. However, in 1683, his son surrendered to the Ching dynasty. Taiwan then became the territory of the Ching dynasty.

Before 1842 (the year of the Opium War), Taiwan was, like the rest of China, a feudalistic society. Social relations and social forces of production kept apace with the level of development on the Chinese mainland. Great progress in development of agriculture and manual trade was accomplished within this two hundred years. The development of commercial capital indicated the progress of primary capital accumulation. The major sugar production factories took on the initial forms of capitalistic operation. Many small local urban areas began to appear in both the countryside and harbors along the west coast. The major functions of these small urban areas were as local centers of commerce, economy, politics, culture and transportation.

However, before capitalism had time to take hold in Chinese society, foreign aggression invaded both Taiwan and the Chinese mainland. The existing feudal system, established on the bases of a combination of agriculture and manual trades, began to undergo a process of disintegration. This unnatural collapse of the old system did not give way to a new set of social relations of production. Thus the characteristics of the Chinese society within the past hundred years can be characterized as: (1) THE POWERFUL DOMINATION OF FOREIGN CAPITALISM (2) THE GREAT

TRADITIONAL INFLUENCES OF FEUDALISTIC RELATION OF PRODUCTION.

This is generally the so-called nature of semi-colonial and semi-feudalistic society.

B. Development Within the Semi-Colonial And Semi-Feudalistic Period

a. The Decline of New-Growing National Capitalism

During the nineteenth century, there was an increasing need for the capitalistic countries to expand world trade. As a result, the Chinese market, with its four million potential consumers became very tempting to British. However, the resistance to foreign intrusion was very strong within the social and economic fabric of Chinese feudalism. This situation remained unchanged until the late nineteenth hundreds. Finally, the British found the dynamite for destroying the Chinese feudalistic economic system -- Opium. The import of opium changed the nature of foreign trade in China. China fell accumulated into an unrepayable debt with the increasing consumption of opium and the consequent unfavorable balance of trade. The Ching government tried to prohibit the import of opium, but this became the British excuse for starting war and imposing unfair treaties on China.

After the opium war, because of the intrusion of modern foreign capitalism and the accumulation of foreign capital in China, the economic system of Chinese feudalism began to fall apart, and the beginning of national capital accumulation declined. All of these factors killed the initial buds of natural capitalistic development in China. The opium war marked the beginning of Chinese modern history. The Chinese social system was changed from a feudalistic to a semi-colonial and semi-feudalistic one. As a component of China, the same transformation took place on

Taiwan.

During the mid-nineteenth century, most of the imported opium was consumed in Taiwan. The opium-poisoned population in Taiwan had reached half a million. The opium profit of the British merchants reached ten million dollars, most of which came from Taiwan. For example, in 1885, Taiwan imported one million and nine hundred thousand ounces of opium which composed sixty percent of total imported opium (three million and two hundred thousand ounces) in China. Within this period, Taiwan's major import was opium, while its major export were tea, sugar, rice, and camphor etc.

b. The Transformation of Social Relation of Production and Agricultural Development

Like China, Taiwan underwent the collapse of a feudalistic economic system and the decline of national capital accumulation. With the intrusion of foreign capital, local commercial capital became concentrated in the hands of a few. A new comprador class thus emerged in the society. It is necessary to emphasize the importance of the comprador class in the social relations of production, as a medium between the Taiwanese peasants and the foreign capitalists under the new economic system of exploitation established by the foreign capitalism.

The compradors, together with feudalistic bureaucrats, landlords and usury made tremendous profits by selling foreign productions to poor peasants through the monopolized market. For paying such extravagant levies, miscellaneous taxes and their

ever increasing rent, the peasants had to sell their products to the market at a cheap price. These products in the market were transformed into exported merchandise. Foreign monopolized markets absorbed the peasants raw materials and agricultural products into the capitalistic economy through the compradors bureaucrats, landlords and the usury.

The new business of the so-called "Ma Chan Kuan" -- a comprador enterprise -- in Taiwan's tea market is an example of how compradors operated in that period. Ma Chan Kuan was the organization of compradors acting as media between the foreign business firms and the local tea factories in the market system of Taiwan. According to the investigation in 1895, there were twenty Ma Chan Kuan in Taiwan. They received loans from foreign business firms and lent it to tea factories. The tea factories then transferred these loans to the peasants. Usually, peasants needed cash between the tea seasons or seasons of other agricultural products. This is the only source from which they could borrow money. Once they were bound by these usury loans, they had to sell their products to the tea factories, when the tea was ready for sale, at a price set by those foreign business firms. During that period, several foreign business firms controlled the market for tea and other major products in Taiwan. The compradors, landlords and usury exploited and robbed the peasants by taking advantage of the peasants' poor knowledge of marketing. However, the invasion of foreign capitalism did not completely destroy the feudalistic power in both Chinese and Taiwanese society. Instead, elements of local feudalistic power were strengthened in order to

serve foreign interests. Most of the comprador class arose under these circumstances.

During that period, agricultural development in Taiwan was completely dependent on the market. All the markets for major agricultural products and productions such as tea, camphor, sugar, and rice etc. were controlled by capitalists, feudalistic bureaucrats, compradors, landlords and the usury. All the surplus profit went into the pocket of these exploitators. The situation of Taiwanese peasants was extremely tragic. Davidson describes the tragic life of the peasants in his book The Island of Formosa.

"....if the payment is to be held up, his debts will immediately increase rapidly..... if he is an honest man and does not wish to improve his situation by finding other ways of life, he will work like a slave for debts until he dies."

At the end of the nineteenth century, foreign capitalism had developed to the stage of monopoly capitalism. The basic characteristics of imperialism had already been outlined. Constructions among the various foreign powers in the scramble for colonies had become sharper. Corruption in the bureaucratic government of Ching dynasty had also become rampant. Under this situation, it was obviously very difficult for Taiwan to maintain its position as a semi-colony.

C. Development Within The Colonial Period (I)

In 1868, reformation in Japanese feudalistic society began because of the pressure of international capitalism. This is the so-called "Meiji Restoration" in history. After the restoration the ruling class of Japanese superstructure was reorganized by the big landlords and capitalists. However, the contradictions within the Japanese society did not disappear; instead, they became sharper because of the feudalistic elements still existing in large Japanese rural areas. This was the major obstacle to the development of Japanese capitalism. Furthermore, the Japanese domestic market for capitalist development was also very limited. In order to overcome the weakness and limitations for capitalist development, the Japanese ruling class decided to plunder colonies and seize the foreign market by military force. The first invasions of Japanese imperialism took place in China, mainly due to geographic conveniences.

After the Sino-Japanese war, Taiwan became a Japanese colony. At that time, Japanese capitalism was still very weak, and capital accumulation poor. Most of the industries in Japan were still small-size enterprises, according to the investigation in 1893. The major characteristic of development of Japanese capitalism was, therefore, powerful assistance from feudalistic national military institutions to the expansion of monopoly capital. Although this also happened in the development of colonial Taiwan, capital did not emerge from Taiwan society, but from Japanese imperialism.

a. Development of Land and Agriculture

For the development of Japanese imperialism, Taiwan became the major source of supply of raw materials and food. Thus production in colonial Taiwan emphasized agriculture and agricultural processing industries. Table I-1 shows the figures of the productive population, price of production and exports. These figures illustrate the importance of agriculture in Taiwan development within that period.

According to Table I-1, the ratio of the price of agricultural production to that of total production decreased from 63% in 1912 to 53% in 1935, regardless of the absolute increase in the price of agricultural products. The major reason for this was the rapid increase of the agricultural processing industry. For example, in 1935, the gross income of industrial production was 256,000,000 Yuan, 32.3% of which came from agricultural processing industries. The total income of the agricultural and agricultural processing products occupied more than 85% of the total income of production in Taiwan.

(i) Land Ownership and Distribution of Land

In order to understand the essence of agricultural development in Taiwan at that period, it is necessary to review the relationship of land ownership and distribution. The distribution of cultivated land was very concentrated in Taiwan. Moreover, the land was controlled by only a very small percent of the population --- the landlords. With time this process of land acquisition by the landlords developed more and more rapidly.

Table I-2 indicates that the number of landowners with less than one cha's cultivated land decreased from 254,642 in 1921 to 201,913 in 1932, and the number of landowners with more than ten chas' land increased from 8,221 in 1921 to 9272 in 1932. This figure illustrates the fact that the peasants and middle peasants were losing their means of production during the process of concentration of land ownership and land distribution.

But the figures in Table I-2 do not show the extent of concentration of land ownership. According to investigations in 1921, 64.01% of the total landowners were peasants with less than one cha's land and they owned only 14.35% of the total cultivated land. The remaining 2.03% of landowners were the landlords and the rich peasants with more than ten chas' land, and they owned 35.8% of total cultivated land. Finally, 13.06% of the total cultivated land were owned by 0.05% of the landowners -- the big landlords and monopoly enterprises. (Table I-3)

These figures show that most of the cultivated land were concentrated in the hands of both the feudalistic landlords and the Japanese monopoly enterprises. With the assistance of the colonial ruling institutes, the land concentration in the hands of monopoly enterprises grew much faster than that of the local landlords. For example, the cultivated land owned by ten sugar production companies increased from 63,246 chas in 1925 to 78,601 chas in 1926. This annexation process developed very rapidly during that period. In 1939, the six big sugar production companies under the control of Japanese capitalist owned 119,000 chas' cultivated land which was 13.4% of the total cultivated land in Taiwan. The rest of the ten Japanese monopoly companies owned 145,200

chas land, which was 17.5% of the total cultivated land.

(ii) The Relation of Production

There were two kinds of agricultural operation under the colonial system of rural development. One was the large-scale cultivated operation under the control of Japanese monopoly capital, the other was the small-scale agricultural operation under the control of the feudalist landlords. The status of the middle peasants was very unstable under the colonial system of agricultural operation. Very few of them were free or independent productive operators. Through the market exchange, they lost their means of production because of the cruel exploitation of monopoly capitalism and the colonial law of forced land-collection and land-renting.

Most of the land of the landlords and monopoly enterprises were cultivated by the tenants. Table I-4 shows that the number of the tenant units occupied 40% of the total farmer units. If we include the number of semi-tenant units, the ratio between the units of tenants and that of total farmers increased to 70%.

The semi-feudalistic relation of land ownership created the landlords' exploitation of the tenants. This relationship was established on three bases: rent, security deposit and commercial usury. Rent was collected according to the lease between the landlord and tenant; but usually the lease was only verbal, and the period of lease was uncertain. As a result, the landlords could change the tenants or the term in the lease anytime. The lease was mostly decided only by landlords. Sometimes, the rent was

rigid, which meant the tenants had to pay a certain amount of rent for each season regardless of the harvest. Security deposits were also required. Sometimes when the rent of demanded land reached the highest limit, the landlords would rent it to the tenant that could afford the highest security deposit. Usury was always parasitic on the semi-feudalistic relation of Taiwan's agricultural system. Most of the time the landlords also operated commercial money-lending businesses. They used the usury as a means to strip every small and fragmented piece of land from the poor peasants in rural areas. The commercial usury also established the capital of the comprador class in rural areas. The appearance of food business of the so-called "Tu Lung Chan" was a good example. After World War I, because of the increasing demand for rice in the Japanese domestic market, Taiwan shifted to the production of the so-called "pon-lai rice". The function of "Tu Lung Chan" was to transfer the crops from the hand of peasants to Japanese monopoly enterprises such as Mitsui. They controlled the capital for the agricultural development in the rural areas which included that of most local landlords. Between the two paddy field crops, the peasants usually needed cash for paying the first period rent and buying fertilizer especially at the end of year. The business organization of "Tu Lung Chan" was the only available place for them to ask for help. The payment for this usury was by crops, the price of which was decided by the organization and was usually much lower than that after harvesting.

Let us review the relation of production under the large-scale cultivated operation of Japanese monopoly capital. Before

World War I, sugar cane was the major product in Taiwan's agriculture. In 1905, Japanese monopoly capital became established in what was termed "sugar cane cultivating regions", through the assistance of colonial government. According to the regulation of the agricultural department of the colonial government, the peasants' production of sugar cane in certain regions were assigned to be sold to certain modern sugar production factory, and was prohibited from any other usage but sugar production. Following the implementation of this policy, most local middle and small size sugar factories were forced into bankruptcy. Monopoly capital in sugar production began to exploit the peasants' surplus products by suppressing the sales price. At the same time, the sugar factories set up a usury under the name of "cultivation loan" for the poor peasants, as part of the prepayment for the crops. Actually, most peasants borrowed from this usury for their living expenses, and their debts increased rapidly, finally to become unrepayable. Usually, the peasants should have the right to change their cultivation if the selling price of sugar cane was too low. But the usury debts and natural soil condition gave the peasants little choice, no matter what kind of price the sugar factories offered. During that period, most sugar cane peasants became "slaves of debts".

After World War I, the commercialization of rice and potatoes made the management of the sugar production companies very difficult. The peasants' attitude towards cultivating sugar cane became more and more negative. Under these circumstances the sugar production companies began to increase their land ownership

through the assistance of colonial government. But large-scale capitalist cultivation of sugar cane on company owned land has not yet appeared. The companies usually rented the land to tenants to cultivate, in the manner of local feudalistic landlords. The major reason for this is that the profit of large-scale capitalist cultivation was much less than that under the feudalistic relations of production in Taiwan's rural society at that time. According to the lease between the companies and the tenants, the companies had priority to buy the tenants' products, the right to supervise the tenants' cultivation, to ask the tenants to offer their extra labor, and to limit the tenants' by-products etc. The tenants under this exploitative relationship were no longer free agricultural workers.

During this period, Taiwan's peasants existed in extreme poverty. According to the investigation of economic condition by the Department of Agriculture in the colonial government in 1928, the average annual income of the rice tenant was 570 yuan, while the average annual expenses was 695 yuan. The annual average income for the sugar cane tenant was 1,056 yuan, while expenses were 1,081 yuan. This fact shows that the landlords and monopoly companies absorbed not only the peasants' surplus products, but their wages as well.

b. Development of Capitalism and Industry

The development of capitalism and industry before 1931 can be divided basically into three periods, according to the nature of development and the implementation of development policies.

The first period is from 1895 (the year of Japanese occupancy of Taiwan) to 1914 (the breaking out of World War I). The second period is the period of World War I (1914 - 1920) and the third is that between 1920 - 1930 (1930 is the year of Japanese invasion of China).

(i) The Development of The First Period (1895 - 1914)

The bases for the development of Taiwan's capitalization were the implementation of land investigation and the unification of the currency system. The surveying and mapping of land began in 1898. With the result of the survey the colonial government rearranged and simplified the relationship of land ownership to three basic classes -- the big landlord, the middle landlords and the tenants, in order to make it more convenient for the Japanese capitalists to acquire the development land. In 1910, the colonial government started the land survey of Taiwan. According to the regulations of this survey, all of Taiwan's land would belong to the government except those which had clear evidence of land ownership. As a result of the survey, there were 916,775 chas' land belonging to the colonial government. Privately owned land were only 6,961 chas. Most of the government-owned land was then transferred into the hands of Japanese monopoly capitalists. These policies helped the successful capital accumulation of Japanese capitalists. Accordingly, a lot of the local middle and small landlords and peasants also lost their means of production.

Within the currency market of the semi-feudalistic society of Taiwan, there were hundreds of different kinds of currencies.

Uniformity of the currency system between Japan and Taiwan was very important for the convenience of the product exchange and the capital transfer. In 1898, Japan began to implement the currency system of the gold standard. In 1903, Taiwan followed and eight years later (1911) Taiwan's currency system was completely united with that of Japan's.

Before the Japanese occupancy, trade in Taiwan was controlled by foreign capitalist. In 1895, after the expulsion both of foreign trade and foreign financial potential, complete Japanese control of capital became a necessity in colonial Taiwan. Through the assistance of the colonial government, Japanese capital succeeded in forcing other potential foreign capital to completely withdraw from Taiwan in 1907.

Within the initial period of Japanese occupancy, Taiwan's finance was dependent on subsidies from Japanese national coffers. For example, in 1896, the subsidy reached 6,940,000 yuan as compared to the total income of the colonial government of 9,650,000 yuan. In 1897, the subsidy was 5,690,000 yuan out of the total income of 11,280,000 yuan. In 1904 war between Japan and Russia broke out. The large amount of military expenses forced the Japanese government to stop the Taiwan subsidy. Thus, the colonial government was forced to become financially independent. The source for this independence came mainly from the incomes of the newly established monopoly enterprises of the colonial government. For example, out of the annual income of 21,700,000 yuan of the colonial government in 1905, 4,200,000 yuan came from the opium monopoly.

The capitalization of Taiwan's sugar production started with the establishment of the Taiwan Sugar Production Company in 1897. Total capital for the company was one million yuan, of which the largest share belonged to Mitsui financial tycoon. Within the period between 1904 and 1910, seven big sugar production enterprises were established. Two of them belonged to the national comprador capital. The development of capitalist enterprises usually entails the decline of family industries and manual trade factories; this decline in Taiwan was further enforced by the colonial government. After 1910, the old style and small sugar production factories disappeared and the market of sugar production was completely controlled by the modern enterprises.

(ii) Development of The Second Period (1914 - 1920)

The period of World War I was the "golden age" for the development of Japanese capitalism. All the other competitors withdrew from the Far Eastern and the whole Pacific area came under Japanese influence. Profits from trade monopolized by the Japanese capitalists were incredible. During this period, sugar production industry and other industries in colonial Taiwan also developed very rapidly. The capital for the development of Taiwan's industrial enterprises increased from 60,000,000 yuan to 200,000,000 yuan. The number of factories increased from 1,300 to 2,600 and the number of workers increased from 22,000 to 48,000. The total income of industrial production increased from 50,000,000 yuan to 190,000,000 yuan.

The newly emerging industries included that of textile, metal processing, mechanical equipment, chemical production, and

pottery. The increasing rate for the production income was 15 times for the textile industry, 4 times for the pottery industry, and 7 times for the chemical production industries. Within this period, the concentration of production and the accumulation of capital made new progress. The profit for Japanese monopoly capital was incredibly high.

Under this situation, the next step for large-scale development in Taiwan was to emphasize industrialization. The plan for the construction of hydroelectric power plant on Sun-Moon Lake was initiated. The colonial governor established the Taiwan Electric Power Company for the implementation of the electric power plant in Sun-Moon Lake. This was one of the most important monopoly enterprises of the colonial government.

(iii) Development of The Third Period (1920 - 1930)

The beginning of the economic crisis in 1920 shook the whole public economic system in Japan. The so-called "goden age" had ended. Since then, Japanese capitalism fell into long term economic recession. Within this period, Japan suffered from four serious crises. The first one was the after-war crisis between 1920 and 1921. The second crisis combined with the agricultural one which occurred in 1923. The third began with the financial crisis and finally influenced every department of the public economic system in 1927, and the last one was from the worldwide economic crisis in 1929.

Although the influence of the above economic crises was also very serious in colonial Taiwan, assistance from the colonial

government to the monopoly capitalists was increased in order to transfer the effect of the crisis to the people and protect Japanese monopoly profit. Within this period, the export of Japanese domestic capital to colonial Taiwan increased more rapidly than ever. Sugar production was the most important monopoly enterprise at that time. According to the statistics of the colonial government in 1926, the total amount of capital for the companies and enterprises in Taiwan was 560,000,000 yuan. Total Japanese investment reached 1,300,000,000 yuan at the end of 1926. Total cultivated land was 800,000 chas, within which 7,805,000 chas' land were controlled as the cultivation region of the sugar production companies. Taiwan's total income of export in 1926 was 250,000,000 yuan, within which the export income for sugar was 100,000,000 yuan, 98% of which belonged to the modern sugar production companies. After the crisis in 1927, Taiwan's sugar production business became entirely controlled by several monopoly financial tycoons. These included Mitsui, Mitsubishi and Fujiyama etc. At this time, the only two modern sugar production companies controlled by comprador capital (the Lin Yun Yuang, and the Sin Kaw sugar production company) had been annexed by them. Cartel agreements had been made among these several konzerns in order to maintain the monopoly prices and profits.

Trading relations between Taiwan and Japan were another important characteristic of Taiwan's colonial development. Before 1895, trade between Taiwan and Japan was very limited. Until 1897, Taiwan's income from trade with Japan only occupied 19% of the total trading income. But in 1931, it increased to 86% of Taiwan's

total trading income (Table I-5). The content of the colonial Taiwan's export to Japan emphasized rice and sugar (Table I-6). For example, in 1931, the income of rice and sugar for Taiwan's export to Japan was 80% of the total income. Other foods like bananas, tea, honey, salt, dry fish and canned fruit occupied 7.2%, and other materials like minerals, alcohol, timber of Juniper, and camphor etc occupied 8.5%. All the income of these eighteen kinds of merchandises occupied 94.9% of the total export income. The items of Taiwan's import from Japan had much more varieties than that of export (Table I-7). For example, in 1931, the cost of imported food from Japan occupied 25.2% of the total cost of import from Japan (this ratio decreased to 21.9% in 1935); the cost of imported items like automobile, bicycles. and mechanical equipment occupied 17.5% of the total cost of import from Japan; the cotton textile and fiber production 17.5%; the sulphuret and other fertilizers and timbers 15% (this ratio increased to 20.9% in 1935) and the chemical industrial production 9.6%.

The trading relation between Taiwan and Japan illustrated the typical characteristics of the colonial trade. (1) Taiwan's export merchandises to Japan was almost entirely agricultural products and processing products. For instance, the income of exporting rice and sugar occupied 80% of the total income of export; and the production of these two items was completely under the control of Japanese monopoly capital. (2) The import of Japanese industrial products occupied an absolutely high percentage of the total import products. Through the process of different price exchange of agricultural products and industrial

productions, Japanese capitalists exploited the people of the colonial Taiwan as much as they could.

c. The Social Change

During the process of Taiwan's capitalization for this period, class differentiation occurred in the society. Taiwan's capitalization did not develop from the forces inherent in its own society, but because of the intrusion of Japanese monopoly capital. Therefore, the social forces of production and relations of production which developed also indicated the typical characteristics of a colonized society.

The upper class of Taiwan's society was mainly composed of Japanese capitalists. Most of them lived comfortably in domestic Japan and enjoyed the monopoly profit of colonial enterprises. For instance, 90% of the share of the Imperial Sugar Production Company belonged to the Japanese living in Japan; 3% belonged to the Japanese living in Taiwan, and the rest 7% belonged to the Taiwanese. The situation for other enterprises were almost the same. The minority of Japanese who lived in Taiwan included the employees of the monopoly financial tycoons, and the bureaucrats. Because of the imperialistic policies and Japanese monopoly capital, Taiwan's national capital had no way to develop independently. Most of the national capital invested in Japanese enterprises, depended completely on the development of Japanese capital. A small part of national capital was invested in the export and import trading business and served the Japanese monopoly capitalists. This was the comprador nature of Taiwan's

national capitalists. Most of the time, national capital was also invested on land cultivation and became the capital of feudalistic landlords. This indicated the feudalistic nature of national capitalists. These emerging comprador classes stood with the Japanese financial tycoon on the top of the pyramid of Taiwan's society, exploiting the majority of the Taiwanese.

The emerging working class in Taiwan was the other new social class arising from the development of industries. The exploited situation of the Japanese workers was "typically colonial". But the Taiwan's workers were under much worse condition. Not only were their wages lower than Japanese workers (Table I-8) but there were close to no welfare or any workers' protection. They were the emerging urban proletariat in the society within the development of industry and capitalism.

D. Development Within The Colonial Period II 1930-1945

The onset of the world-wide economic crisis in 1929 severely damaged the Japanese economy. The combination of agricultural and industrial crisis for the capitalist economy expressed itself much sharper in Japan because of the existing semi-feudalistic social relation in rural areas. At the end of 1929, many middle and small banks were bankrupt. Within the period of 1930-1931, around ten thousand middle and small enterprises folded, causing widespread unemployment (three million unemployed). But the real crisis was in agriculture. The price of rice dropped over 50%, and the price of silk dropped 70%. The plight of the Japanese peasant became harder than ever. The tenant was unable to pay the rent. The agricultural crisis caused landlords and rich peasants to realized that the adverse effects of the economic crisis was much greater for them than for the capitalists and this led to extreme dissatisfaction. This dissatisfaction was manifested in the fascist group in the Japanese imperialist government, as the so-called "stalwart" group. They demanded the elimination of liberalism in the government, declared the coercive foreign policies and promoted the invasion of China in order to release the contradictions within Japanese imperialism. Japan invaded the northeastern part of China in Sept. 18, 1931. Following this new military adventure, the Japanese economic system was transformed to a war-time economy. The economic system of colonial Taiwan followed likewise in the footstep of this change.

a. The Development of Agriculture

As mentioned earlier, after World War I, the increasing consumption of food encouraged Taiwan's production of the so-called "pon-lai rice". Since 1923, Taiwan's export of rice had increased each year. In 1930, the agricultural crisis in Japan depressed prices on agricultural products. The Japanese government established legislation for the control of rice and crops in 1933 in order to arrest the continuing drop of price of rice and to protect the profits of the landlord and the rich peasant. This legislation failed to reverse the decline of the price of rice. Therefore, new legislation for import control and restriction of rice and crops was announced in 1934 in order to transfer the damage of crisis to the colonial peasants. After the Japanese restriction of imported rice and crops, Taiwan's agricultural production shifted to emphasize cotton, hemp, flax, ramien, sweet potato, wheat and peanuts. All of these were significant products for establishing a self-sufficient export trading economy to support the Japanese military invasion of China.

During the development of the economic crisis, the accumulation of capital and the concentration of production in Taiwan continued to take place. In 1932, the central control union for sugar production was established. This was the cartel cooperation of the sugar production enterprises. Following this, the Shin-Chu and the So-Lu sugar production companies combined with the Sau-Hou sugar production company in October 1933; The Sin-Gau sugar production company merged with the Great-Japan Sugar Production

Company in December 1934.

In July 7, 1937, Japanese imperialists started large scale military invasion of China, and China declared war against Japan. The Sino-Japanese War was formally declared and lasted 8 years. World War II also broke out in 1939, and as a consequence, the public sector of Japanese economic structure was mobilized for the war. In Taiwan, the "Five Year Plan For The Expansion of Productive Forces" was implemented in 1938. This plan focused on the promotion of capital accumulation, the concentration of production and the enforcement of economic control. The agricultural development aspect of this plan emphasized both the encouragement of production of rice and crops and the control of the price of agricultural products. The legislation for the production control of rice and crops and the price control of agricultural products was established in 1939. Therefore, the income of Taiwan's peasants decreased significantly. The peasant livelihood became harder and harder, and poverty in the rural area became deeper than ever. For the continuing capital accumulation and the centralization of sugar production, the Great Japan Sugar Production Company combined within the Imperial Sugar Production Company in 1940 through the assistance of the colonial governor. Moreover, the colonial government began to mobilize Taiwan's manpower to participated in the war of invasion. Large numbers of young Taiwanese were drafted from the rural areas to Shunhai and Nanking for Japanese military service.

On December 8th, 1941, Japanese imperialists attacked Pearl Harbor and declared war against the United States and Britain.

Taiwan became Japan's base in the South Pacific. More and more young Taiwanese were drafted by force for military service or into the labor force in the war.

The new agricultural development plan of the so-called "Ten Year Plan for Increasing Production of Rice and Crops" was set up in 1943. But the food shortage problem became more and more acute. This was mainly due to the enforcement of economic control. Enforced buying and the price control of agricultural products in the new plan were equivalent to outright plunder. Moreover, the shortage of labor and fertilizer became increasingly serious in the large-scale rural areas. The last years of the colonial period witnessed the agricultural sector facing imminent bankruptcy with the majority of the peasants poorer than ever, struggling for survival on the edge of starvation.

b. Development of Industry

The industrial development for this period started with the construction of the hydroelectric power plant in Sun-Moon Lake in 1931, which was finished in 1934. This was very important for Taiwan's industrialization process. A sufficient supply of cheap power was the most important factor for the establishment of heavy industry and chemical industry. The emerging industries in the initial development process included that of light metal, manufacturing, metal production, machinery manufacturing, petroleum and natural gas, sulphates production, alcohol and oil production etc. All of these industries were mainly for establishing the basis for military supply industries and vital self-sufficient

materials.

Within this period, with the assistances from the colonial institute, a new monopoly enterprise -- the Taiwan Development Company was established in 1936. The total capital for this company was thirty million yuan. Half of this sum belonged to the colonial government and it was paid for by the supply of public land in Taiwan. The other half share belonged to the financial tycoons of the Japanese Sugar Production Company, Mitsui and Mitsubishi etc. The range of Business of the development company was very broad including land developing, land cultivation, plantation, oil production, chemical industry, timber industry, mining, investment, usury and investigation etc. The company also owned a large amount of branches which was spread all over Taiwan, South China, and the South Pacific areas. Through the large-scale assistance of the colonial government, this company controlled Taiwan's economic development since 1938.

The major emphasis of the so-called "Five Year Plan for The Expansion of The Productive Force" established in 1938 was on industrial development. The major objects of the expansion of the productive force included the sulphates, the aluminum production, sisal hemp, ramie cloth, paper manufacturing, and machinery manufacturing. While some of these were new industries, the objective for existing industries was to expand the scale of production at least two or three times. Development of mining was also included in this plan. Mining included gold, copper, coal, petroleum, sulfur, metal and manganese. Generally speaking, the emphasis of industrialization in this plan focused on the

establishment of military supply industries in order to prepare for the larger scale war of invasion.

After 1943-the last year of the five year plan, the development of industry still emphasized the military supply industries, such as metal production, chemical and machinery manufacturing. Some of the so-called "self-sufficient" light industries declined, such as that of textile and paper production. The major reasons for the decline were the continuing inflation, rapid increase of the market price, the shortage of capital and labor force, and the antiquity of the equipment. Moreover, the naval blockade by the Allied nations became tighter and tighter and the bombing of the Allies' air force became increasingly fierce. Within the last several years, most of the productive activities in the industrial sector were forced to a stop. But inflation, the shortage of materials and the rise in market price did not stop. The unemployment rate rose to an incredible height. Taiwan's economic structure was on the brink of total bankruptcy

Foot Notes:

1. All the development history and reference material for the above contents are extracted from the following articles:

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E. The Urbanization and The Distribution of The Towns and The Cities

a. The Essence of The Town

Most of the small urban areas -- the so-called "local towns" were formed before the colonial period, and all of these local towns maintained very strong Chinese characteristics. According to the origin and development of these towns, they can be divided into two styles: the rural towns and the port towns.

Usually, appearance of the rural town is associated with land cultivation. Following the opening up of agricultural land, villages began to form around the farms. Among the villages, the small rural town, composed of a few streets and several small stores and shops, developed at the appropriate locality. The initial development of these towns was parallel to that of the surrounding villages and completely depended on the development of the villages. Small handicraft industries and retail businesses also developed according to the conditions of surrounding villages. If the harvest of the surrounding villages was very plentiful for a certain season, the development of the town became vital. Most of the original residents of these towns were small merchants and landlords; sometimes the landlords of the surrounding villages also ran the businesses and local industries in these towns. Following the expansion of the surrounding villages, the rural towns developed their own administrative, cultural, financial systems; control of the administrative and financial system fell into the hands of several big landlords and rich merchants. After the minority group of landlords and merchants gained control of

the town, they began to develop and expand the local industries and business in order to meet the demand of the market outside of the surrounding villages. At the same time, they also controlled the trading business around the surrounding villages in order to monopolize the materials and the means of production. This minority group transferred into the original comprador class after the foreign power seized Taiwan. At this stage, the development of the rural towns became the dominant force over the surrounding villages. But production relations in large rural areas still remained the same -- the feudalistic relation of production. Therefore, most of the industries in the rural towns still remained at the stage of handicraft production, and most of the business companies were family style. The early stages of local industries and the sugar production were very good examples of these.

The earliest development of towns in Taiwan took the form of port towns. During the early stage of Taiwan's development, numerous harbors arose along the west coast of Taiwan. These harbors formed the first stops and initial bases for the mainland immigrants. Most of the harbors were spread over the mouth of the rivers along the coast. At that time, land development had just started and land transport was very inconvenient. River transport became the easiest way for further settlement of inland areas. A series of port towns began to appear along each bank from downstream to upstream for inland cultivation. Rural villages then appeared in the surrounding areas of these port towns. All the supplies for land cultivation were transported from mainland China through these port towns to the villages, while the products of the villages were transported to the mainland and other

towns through the port towns. Following the development of the surrounding villages, trading businesses, handicraft industries and agricultural processing industries in the port town also expanded. Of course, the harbors at the mouth of the rivers also grew very fast, some of which developed into the scale of cities. Generally speaking, the last fifty year of the nineteenth century formed a booming period for the development of port towns. The businesses and local industries of port towns were usually monopolized by the bureaucrats of the Ching dynasty and the comprador class in the early stages of development. Member of the ruling class plundered the agricultural land of the surrounding villages through the assistance of the Ching government and became the big landlords. The basic feudalistic relation of production in Taiwan became established at this time. The development of port towns along the Tansui river was a very good example. (Tansui river is an important river in northern Taiwan, passing directly through the Taipei metropolitan area -- the capital and the largest urban area in Taiwan)

Tashie was the harbor at the mouth of the Tansui river. Through the transportation of river boats, the port towns of Sanshai, Shinchuan, Panchao, Moncha, Tataochun and Tansui arose along the Tansui river. Through these port towns, the local villages could trade with mainland China. During the latter 1700's large boats could arrive directly at Shinchuan. All the goods and supplies were then transported to other port towns from Shinchuan by small river boats. Therefore, Shinchuan became the fastest growing town along the river. The period of 1862-1894 was the

"golden age" for the development of Shinchuan. At least 200-300 boats stopped by the port each day. The whole port town of Shinchuan was completely under the control of the business company of Lin Yung-Yuan family. The ancestor of Lin's family was the imperial inspector general of the Ching dynasty in Taiwan. He built a large and luxurious mansion for his family in the center of town, and then constructed the whole commercial district and the streets of the town and rented the stores to other merchants. At the same time, he also owned the land in the town and in the surrounding villages. During the late nineteenth century, Lin's family moved to Panchao and built a new residence there. There were more than a hundred people living in their new dwelling, including dozens of servants and slaves. This huge mansion has been kept as a historical and tourist site in Panchao city today.

During the late nineteenth century, there were only two rural towns and port towns which developed into the scale of a city - Taipei and Tainan, because of their suitable locality for administrative, commercial and cultural functions.

b. The Change of The Local Town

After the Japanese occupancy, the opening up of land took place much faster than before due to the encouragement of the colonial government. Some new towns arose in this period of rapid development. At the same time, some of the old towns declined, especially the port town. The most influential elements in the growth or decline of the local towns were the constructions of the transportation system and the influence of industrialization.

For example, after the construction of the North-South railroad system in 1902, new towns emerging as transportation centers included Chunan, Foonyuang, Yuanglin, and Pintung etc. The rapid expansion of the sugar production industry around 1910 was also a major reason for the emerging of new towns. The new local centers emerging from the sugar production industry during this period were Huwei, Pulee, Nantou, Yunglin, Sheelou, Chalee, Pintung, Tantzé, and Shaukung etc. All the towns along the eastern coast of Taiwan emerged after the Japanese occupation. The rapid opening up of land and development destroyed a lot of woodland and forests on the mountain sides along the upstream of the rivers. This resulted in constant flooding. Often times the flood changed the course of the river and carried large amounts of sediment from the mountain. The sediment usually precipitated in the river bed at the downstream of the river. This made the river lose its transportation function. The port towns along the river thus declined naturally, since there was no other land transportation system to act as substitute for that of the river. At the same time, the new development of steamship transportation required deep water harbors. Most of the old harbors built for marine transportation were unable to anchor the new ships. Also, soil conditions around the harbor were usually too poor for agricultural cultivation and settlement. Therefore, a lot of the old harbors lost their functions and declined during the early twentieth century, while new harbors emerged. Today's two largest deep sea harbors -- Kaoshung and Keelung, were constructed during that period.

Reconstruction of existing towns took place during the beginning of the colonial period according to a town-renewal plan. The major intention of this plan was to eliminate the original Chinese characteristics of the town in order to recreate the town in Japanese style. The reconstruction of town also had different styles according to the different periods of reconstruction. For example, the towns reconstructed during the initial period of Japanese occupancy belonged to the so-called "Meiji style". The "Taisho style" was for the middle period (around 1920-30). For the late period (1935-1940) the reconstruction of town emphasized the style of Showa. After the publication of the Legislation of Urban Planning in Taiwan in August 1936, islandwide town reconstruction began. The emphasis of this reconstruction project was on the widening of the streets and roads, the constructing of the sewer system and new business district, and replanning of urban blocks etc. Following these, the reconstruction of urban housing was promoted. By the end of 1930, the original Chinese characteristics of most towns were almost completely wiped out, and the new urban Japanese Style was established. Today the basic urban planning system was inherited from this original system and retains heavy Japanese influence.

c. The Distribution of The Towns and The Cities

As mentioned before, during the early stage, local towns arose among large rural areas and developed according to the evolution of the feudalistic society. The local towns retained very close relationships with the surrounding villages even

within the semi-colonial and semi-feudalistic period. Therefore, the distribution of the towns was quite even and the growth of towns was slow. The situation changed after the Japanese occupation. First of all, land ownership was reformed by the colonial government. Most of the land in Taiwan fell into the hands of Japanese capitalists and the colonial government. The all-important sugar production industry was taken over by the Japanese capitalists. A new and rapid transportation system -- the North-South railroad was constructed by the colonial government. At the beginning of the twentieth century, the means of production and transportation were under Japanese control. Large amounts of Japanese capital went into local sugar production. At the same time, most of the Taiwanese peasants lost their means and materials of production because of the land accumulation and the primitive capital accumulation policies of Japanese imperialism. Some of the peasants migrated to the local towns and became part of the urban proletariat and the colonial industrial development process. Within this process, some local sugar production towns grew very fast, and new industrial towns and transportation centers also arose. The form of productive force and production relations in the urban areas began to be separated from the surrounding countryside and developed from one of feudalism to that of colonial capitalism. The development policies of the colonial government emphasized localized development of the urban area without linkages to the surrounding villages in order to increase capital accumulation for the Japanese capitalist. The transformation of urban production relations and localization development policies promoted uneven growth and distribution of

the urban areas. Large cities grew faster than small cities, and industrial towns developed faster than the rural towns. Several large cities developed their own localized social modes of production and trading system, completely separated from the surrounding countryside, such as Taipei, Taichung, Tainan and Kauchung etc.

After the establishment of the "Five-Year Plan for The Expansion of The Productive Force" in 1938, the so-called "industrialization of Taiwan" became the major emphasis of development. Most of the emerging "self-sufficient" and military supply industries were concentrated around several large cities for convenient transportation of supplies and products. At the same time, the exploitative nature of Japanese imperialists in rural area became increasingly pronounced, and the livelihood of the majority of Taiwanese peasants became worse than ever. The flow of the labor force from countryside to large cities then increased rapidly. All of these caused the uneven distribution of the cities and abnormal growth of large cities.

According to the statistics of the colonial government there were only 17 local towns and cities in 1900 (the early period of Japanese occupation), and total urban population was 235,000, which was about 8.32% of the total population. In 1940 (the latter period of Japanese occupation), the number of the towns and cities increased to 61, and the urban population increased to 1,271,000, which was 20.6% of the total population of Taiwan. During this period, the population of Keelung city increased ten times, the population of Taipei, Chayee, and Tainan

cities increased five times, and the population of six cities including Shenchu, Chaunhau, Peikaung, Putze, Foonsan, and Tunkaung doubled. The city of Kaushung presented the most dramatic growth during the period of Japanese occupation. During the early 1900's, Kaushung was still a small port town with population around 5,000. But during the latter period of Japanese occupancy - 1940, it grew 50 times and became the second largest city in Taiwan, with a population of arround 250,000.

d. The Function of The Town and The Cities

The function of the towns and cities before the colonial period was to be the commercial, cultural and trading centers for the rural areas. Some small-scale handicraft industries also developed. Most of the towns and cities maintained strong rural characteristics due to their close relationship with the surrounding villages. These circumstances began to change after the Japanese occupation. The encroachment of Japanese capital took over control of important industries. The major commercial and trading businesses became concentrated in the hands of the emerging comprador class and served the imperialist interest. Existing Chinese schools were forced to close down and all Chinese cultural activities were prohibited in order to eliminate any nationalistic sentiments. New Japanese-style schools were built for Japanese children and the children of the privileged comprador class. 98% of the population was illiterate. There were few bookstores in the towns and the cities. The public library only existed in large cities, and usually was under the control of the city government.

Most of the emerging industrial and mining towns were cultural deserts. All the cultural policies of the colonial government were meant to keep the Taiwanese in ignorance. Entertainment facilities were also poor. Except for the largest cities, there were very few parks or public recreational spaces in urban areas for the residents. The only urban activity encouraged by the colonial government was that of religion. Therefore, temples usually appeared in the center of the town. The district around the temples was always the most lively area of the town, and all the urban activities took place there, especially during the period of temple festivities. This situation still remains the same today in some declining small towns. The major function of the towns and cities within the colonial period was to serve as imperialist centers for accumulating and exploiting the resources, products and labor force of agriculture, mining and industries in Taiwan. All the physical construction of urban development was then set up to serve this function.

F. The Housing Development

Before the colonial period, the pattern of Taiwan's housing developed basically from the village settlement of the traditional Chinese atrium house. Even the town house followed the same style. Most of the residents of the village were peasants. Their houses were constructed with unburnt bricks and only had one courtyard, except for the large family. As mentioned before, the residents of the local towns or cities consisted mostly of landlords, merchants, government vureaucrats and officials, and owners of local handicraft factories. Because they were richer than the peasants, townhouses were usually larger than the village houses and built with bricks and tiles. Some large atrium houses consisted of three or four courtyards. Some western-style houses with two or three floors also appeared in the cities. Shops, stores and factories always occupied the front row or the first flooe of the houses and faced the street, and the owner's families lived in the back courtyards or the second floors within the business district of towns and cities. This combination of dwellings and stores presented the typical urban life style of the merchants or the business owners in the feudalistic Chinese society.

By 1895, after the Japanese occupation, a large number of luxurious Japanese style residences were constructed in the cities and industrial towns for the new upper strata -- Japanese bureau-crats, military personnel and capitalists. The widening and reconstructing the street and blocks in cities and towns began after the publication of Taiwan's "Housing and Building Construc-

tion Code" in 1899. Most of the traditional town houses were destroyed under this code. New business districts following the so-called "Meiji Style" were erected in cities and local towns.. Following the stages of colonial development, local family-style industries and factories gradually underwent bankruptcy, while the industries and factories of Japanese capitalists were being established rapidly in cities and towns. At the same time, a new proletariat class was arising in the urban areas and increasing very rapidly. They built their own houses with unburnt bricks, bamboo strips and straws around the area near the factories. With the erection of living quarters for workers, there could no longer be any uniform housing style. Usually these houses consisted of only one room for the whole family. According to the statistics of the colonial government in 1939, 98% of the urban population lived in this kind of housing. During the latter period of Japanese occupation, most of these houses were destroyed by the continued bombing of the Allied air force.

Foot Notes:

1. All the urban development history and reference materials for the above section are extracted from the articles:

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SECTION II

URBAN AND REGIONAL DEVELOPMENT AND HOUSING DEVELOPMENT IN TAIWAN SINCE 1949

- A. Introduction: A theory of urban and regional development and housing development
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A. Introduction: A Theory of Urban and Regional Development
and Housing Development

After 1949, the Nationalist government retreated from mainland China to Taiwan. The government realized that the result of major failure of development policies during the last period of anti-communist struggle (1947-1949). Therefore, the emphasis of Taiwan's development should be on the economic recovery. Taiwan's social, financial, economic and political crises also came to a head during the late 40's because of the destruction of World War II, and the influence of long-term civil war in mainland China after the recovery. U.S. aid in every aspect became the most important support for the government's plan of recovery. Under U.S. aid, numerous American experts were sent to every department of the central government and provincial government to assist in the future development plan. Moreover, the first period development plan after Taiwan's recovery (1945-1952) was entirely initiated by the American Watt Consultant Company with the support of U.S. foundation funding. Therefore, Taiwan's development model was established upon a theory of regional development based upon the western capitalist system from the very beginning. Before discussing Taiwan's development after 1949, it is necessary to review the basic development theory of western capitalist economics within recent years.

a. Basic Assumptions

The mainstream of the western capitalist development theory was developed according to what may be termed "equilibrium theory." This theory has certain basic assumptions behind it, which are:

- (1) The existing relations between the different social groups and classes were established on the basis of harmony and mutual benefit. If there exists any contradictions, they should be compromised.
- (2) The existing relations between the social groups or classes were developed under common ideals. Therefore, social, economic and political structures and institutions should reflect these ideals.
- (3) The problem of uneven distribution in society always exists it is an unavoidable phenomenon. Government's efforts reduced the gap of uneven distribution, but do not eliminate it forever.
- (4) Individualism should be advocated and developed to the fullest extent.
- (5) The government should be unbiased arbitrator among the conflicts of interests of different social classes.
- (6) Capitalism is the product of humanity.
- (7) Human nature is defective, societal institutions exist to restrict the manifestation of human defects.¹

Following the development of "Equilibrium Theory", a series of detailed theories on each aspects of the capitalist system developed. Within this series, two major theories

directly influenced the modern development of most developing countries. One is the "Theory of Development Stages" represented by W.W. Rostow. It emphasized market, capital, resources and growth. The other is the "Development Dualism" developed by A.O. Hirschman, H.G. Barnett, E.M. Rogers, B. Hoselitz, and M. Levy. It emphasized the development relationships of different economic sectors and technological development. The following discussion concerns mainly these two major theories.²

b. Capital, Market, Resources, Techniques and Labor Force

There are several important factors concerned directly with the development of western Capitalism in the so-called Equilibrium Theory. These factors have been categorized into a series of basic preconditions of development theory by western economists. These preconditions became the fundamental guidelines on which most of the developing countries had followed since early 50's. These are the concepts of market, capital, resources, techniques and labor force.

Market:

According to the theory, markets have existed since the beginning of barter trade. The completion of market systems and functions should be within the period of capitalism. The market should be a perfect and natural medium for adjusting the forces of demand and supply within any society. Any restrictions on market operation coming from external sources will confine the natural functions of the market. Therefore, capitalist economists

declared that the market should be separated from any other social or political institutions and develop its own completely free-trading system and self-adjusting nature. A totally functional market system should be internationalized, although each country could have her own complete submarket system. Capital is the key initial moving force behind the operation of market. The Capital market operates in each sub-market system according to the unequal fluctuating forces of demand and supply; i.e., capital flows into that sector of the market where demand exceeds supply and profits are high. In this manner, the capital market is the major controlling force of the total system.³

Capital:

Intensive capital is the most important factor for development for developing countries, capital accumulation of natural resources and development of processing and manufacturing industries. The growth of manufacturing business can increase the social accumulation of capital in order to stimulate the operating of domestic market and economic system. Operation of the market and economic system will bring the developing society step-by-step through the stages of tradition, take-off, maturity and finally the stage of high-level consumption which is the ultimate goal for development.

Resources:

The development of resources in developing countries is completely dependent on the operation of sufficient capital. But for most developing countries, the capital market system is

so poor that it cannot support highly productive development of resources. Western economists then suggested that the industrialized nations should extend their powerful capital markets into the developing countries to support the development of sources. And the developing countries should widen the scope of their resources market to an international scale in order to exchange the capital and advanced technology of industrialized nations for their own nature resources.

Technology:

According to western development theory, advanced technology also forms an independent market within the industrialized nations. In international trade, technology is associated with the capital market for the exchange of the resources in developing countries. Through the exchange, the developing countries could gain the advanced technology for further industrialization and development. An unequal exchange relationship exists between the industrialized nations and the developing countries during the initial period. But this situation of inequality can be gradually reduced according to the stages of industrialization in the developing countries. However, this exchange is beneficial to the world progress.⁴

Labor Force:

Most developing countries, primarily in the agricultural sector, there is an abundant labor force. However, the agricultural labor force remains at a level of handicraft. According to the theory of Dualism, this is a waste of natural resources

for the developing countries. Through the import of foreign capital and advanced technology, the forces of production can be changed. During the process of change, large amounts of surplus labor can be channeled into the industrial and industrial and manufacturing sectors in order to promote industrialization. The low price of labor is the most advantageous factor for industrialization. Great inequality in income distribution will exist during the initial period. Following the stages of development, the market system will become more fully operative, consumption will become greater and the labor price will increase naturally. The gap in uneven income distribution then can be reduced.

c. Agriculture and Industry

Western development theory treats agriculture and industry mainly from a "dualistic" viewpoint. This theory advocated new technology as the driving force of development, no matter whether technology comes from domestic or foreign sources. The appearance of new technology affects the equilibrium of society, leading to dualistic development within different sectors. But this temporary disequilibrium is reduced by the transferring of the technology from the advanced to the underdeveloped part of the economy over time, until finally the whole society reaches another, more advanced level of equilibrium. Therefore, this theory divides society, regions and even nations into two parts, such as the modern and the traditional, the developed and the under-developed, the industrial and the agricultural,

and the capital and non-capital, etc. From a dualistic viewpoint, the the development of traditional society must depend on the modern society; the development of under-developed region must depend on the developed region, and the booming of the agricultural sector must depend on the advanced development of industrial sector.⁵

Most societies in the developing countries are traditional; their productive forces are under-developed and their population belonged in the agricultural sector. Dualism theorists argue that the modernization of the developing countries must necessarily start with the import of foreign capital and advanced technology in the development of industry. The agricultural sectors which contain most of the population must therefore support industrial development by supplying the industrial sector continuously with a sufficient amount of cheap agricultural products and labor force in order to accumulate capital for further development. The prosperity of agricultural production, therefore, is completely dependent on the rapid development of industry. The "take-off" of industry can in turn lead the agricultural sector into the stage of mechanization. At the same time, the society of the developing countries supposedly comes into the period of "modernization" of "industrialization."

d. Social Forces of Production

According to the "Theory of Dualism", developing countries did not progress for the last several centuries. The social forces of production remained at the stage of traditional agricultural production and the production of family handicrafts,

mainly because of the restrictions imposed by feudalistic concepts of traditional society. The situation will remain the same in the future, if there is no other stimulating force from outside the society. The best way for developing countries to release the social restrictions and promote the progress of social forces of production is to import new technology and capital from the industrialized world for developing domestic natural resources and modern industries. The development of intensive labor production of natural resources and industries will attract the surplus labor force from the traditional rural sectors into the urban and industrial sector. This transformation will also help the mechanization of agricultural production. During this process of transformation, the national economy will begin to grow, accumulation of social property will increase rapidly, social consumption will be stimulated and the market operation also will become more and more vital. At the same time, the export of the primitive agricultural and industrial processing products can help the accumulation of capital; the opening of international trade can stimulate further development. This process of transformation will change the structure of the social forces of production in the developing countries. Following this process, growth and industrialization of the urban sectors will appear first, and through the transference of the new technology and concepts from the urban area to rural areas, techniques of agricultural production will be improved and finally reach the stage of complete mechanization. At this stage, the whole society can

release itself from the traditional social force of production and step into the new period of modernization.

e. Urbanization And The Change of Social Structure

Western theorists believe that during the process of industrialization or modernization, the uneven development between the urban and the rural sector or the industrial and agricultural sectors is the driving force of development. It can be viewed as progress of the society. The new technology and large amounts of capital coming into the urban and industrial sectors stimulate changes in the productive force. This change upsets the equilibrium of the traditional society; it can cause large-scale migration of population from rural countryside to urban sectors. This is so-called urbanization. Therefore, "urbanization" is an unavoidable phenomena during the process of industrialization. Some theorists would even consider urbanization to represent the progress of development.⁶ Urbanization and industrialization will also change the structure of traditional society. The urbanization process and inter-migration causes the break-down of the feudalistic relations of traditional society. A new social structure will then be established on the basis of progressive development. Hence, urbanization is also the process of transforming the social structure. It is predictable that many social, political, economic and environmental problems will appear in the society during the process of transformation. Western theorists view most of these problems as rising from the conflicts of interests among different social groups. These conflicts can be compromised

through the assistance of the unbiased arbitrators - governments and institutions at various levels, and with various functions within the existing system, because of the basic assumptions that the existing system is established on the basis of common understanding and mutual benefit of major social groups and classes. The basis assumption views governments and institutions as being organized beyond the system by the social majority in order to compromise the conflicts of different interest groups in the society.

During the first period of urbanization, the most evident change in social structure is the rapid increase of the blue-collar population and emerging minority groups of the bourgeois and the so-called "middle income" classes in the urban area. Most of the blue-collar population come from rural sectors and earn their living by selling their manual labor to the factories around the urban area. The blue-collar population usually has a subsistence standard of living. Most of the bourgeois in developing countries come from the traditional landlord and beaureaucratic families of the feudalistic society; they belong to a similar category with the foreign investors who control most of the capital and means of production for the development. The middle-income classes mainly come from an educated background; they aid the bourgeois in operation of businesses, managing the industries and developing the new technology. According to the theory of "dualism", the inequality in income distribution among the three classes within the developing society would appear during the

beginning of the development. But the gap can be reduced following the stages of development, as long as the three classes associate together and struggle for the progress in the social forces of production. Improvement of productive forces can promote capital accumulation which also means the increasing of social property. Some of these would be collected by the government and public institutions for implementing wide-range social welfare policies. These policies would benefit the majority of the society and improve the general social living standard. The improvement can stimulate the operating vitality of market forces and promote the development of productive forces. At the same time, the general raising of educational level for the majority by improving government's compulsory education system is also one of the most important welfare policies during the period of development. The association between improvement of educational policies and growth of consumption market can promote the developing of advanced technology and improvement of productive force. Finally, the transformation of the industrial system from the stage of labor-intensive production to that of capital and technique-intensive production can be achieved. During this period, the demand for primitive unskilled labor will decrease and the demand for technical, skilled labor increase. In terms of the social structure, the majority of the blue-collar population will gradually be transformed into the middle-income class. After the completion of the industrialization of social production, the majority of the developing society will be composed of the middle-

income class. And the gap in income distribution among different classes will be reduced to a minimum.

f. Housing Development

(i) The Basic Concept of Housing Development

Under the "Equilibrium Theory" system, it is believed that within a developed society, housing development should be subsidiary to an over all market system. In the manner of all the other consumption markets, the housing market should operate entirely according to the relations of supply and demand. For a society within the process of industrialization, the process for the housing development can be described as follow: The residents' demand for housing can be divided into four stages according to the development of living standard.

(1) The stage of the demand for shelter. Within this stage, most of population in the society demand only a minimum living space with shelters to keep warm and survive.

(2) The stage of the demand for function. The people's demand for a living space within this stage is not only a shelter but also a dwelling with rooms for different functions and facilities to fulfill requirements of regular life.

(3) The stage of demand for comfort and privacy. The residents demand within this stage are houses with comfortable environment and private rooms.

(4) The stage of demand for luxury. The people's demand at this stage is to raise the comfortable standard of houses, facilities and living environment in order to enjoy a luxurious life.⁷

The evolution of these four stages of housing demands

parallel the process of five stage of industrialization for developing countries within the "Theory of Development Stages". For the first two stages in housing demand, the involvement of government and public institutes is important and necessary. The purpose of involvement is to help establish a housing market system.

(ii) Housing Development And Regional Development

According to the "Theory of Development Stages", after the import of capital and new technology, the social conditions of equilibrium in the traditional society of the developing country break down. Following the process of industrialization, society enters the stage of transition. Within this stage, urbanization and the change of social structure dominate the process of development. The issue of housing shortage within the urban area becomes increasingly serious during the process of urbanization. The major problem of housing shortage in most developing countries at this stage that of great demand for basic shelters for the social majority - the numerous new urban immigrants and blue-collar workers. At the same time, large amounts of slums and squatter areas are spreading all over the urban site and are growing rapidly. The over-crowded living conditions and poor quality of these urban areas may create serious crises of public sanitation and social security. These crises have directly negative impact on the growth of industrialization. Resolution of the problem cannot depend on operation of "free" market forces in the existing housing market, because of four major constraints in the operation

of the housing market within most developing countries:

(1) Unlike other industrial production, the process of housing production is much more complex. The materials of production usually are very expensive, large amounts of skilled labor is needed. These three conditions render general housing production much more expensive than most of the other processes of industrial production.

(2) The cost of housing construction also directly depends on the real estate market. The rapid growth of the urban population causes land prices also to increase rapidly. As a result, it becomes increasingly impossible for the majority of the population to purchase a piece of suitable land for a reasonable price.

(3) At the transition stage of development, the problem of uneven income distribution is still very serious. The majority of the population's income is too low to afford the expenses of middle-income population is too scarce to establish a housing market.

(4) During this period, domestic saving and capital accumulation remain at a very basic level, because the social forces of production are at the stage of transition. Therefore, the capital market system has not yet developed to a full extent. Most of the domestic capital and foreign capital are invested in short term and high profit labor-intensive industries. Very little capital would be invested in the housing industry, which is relatively long-term and low-profit production.⁸

Under these four major social constraints, it is impossible to develop a free market system of large-scale housing production in order to solve the emerging serious problems of housing shortage. The planners then initiate a series of policies which involve primarily the government and the capitalists to solve the housing crises and promote the continuous development of social forces of production. Within these strategies, the government should devote its effort and investment on constructing infrastructure for further large-scale housing and industrial development in urban areas. In order to meet the needs of a rapidly increasing urban population, emphasis should be placed on eliminating the slums and squatter areas in order to improve the living environment for the urban majority, and building public housing for those urban destitutes who are completely unable to solve their own problems of habitation. Through these efforts, the government can create a better and more stable urban environment as a basic condition to promote more progressive development. The return on the government's investment can be obtained from increasing income tax on private industrial and manufacturing businesses during a later period of development. Urban planners declare that the resolution of housing shortage problems for the workers remains the responsibility of the owners of those industrial factories and manufacturing businesses. The construction of workers' housing benefits not only the workers, but also the bosses. A stable and suitable living environment is the first precondition for the workers to increase their

productive force of labor. The increased labor of the workers will be the largest profit for the capitalists' housing investment. The planners believe that, within the developing society, if these three major groups - the government, the capitalists, and the working class can be persuaded to cooperate, then not only will the crisis of housing shortage be solved, but also the progress of the industrialization can be promoted rapidly.

Following the evolution of social production and industrial development, the social forces of production are improved, capital accumulation is increased, and the social welfare policy promoted. Consequently, the developing society will enter the development stage of take-off. At this stage, the income of majority has increased and their living standard improved. The population of the middle-income class has begun to increase, and the majority of society should be in the middle-income class by the end of this stage. During this period, people would begin to demand better dwellings. Housing development would then enter the stage of demand for function. According to the planners' theory, housing development at this time should emphasize the developing of a complete housing market. Most of the government's housing development policies should be proposed and implemented on the basis of assisting and encouraging the development of such a housing market. The policies may include, for example, the establishment of an "Institution of Public Saving Fund" to help part of the middle and low-income population save their income for purchasing

housing. Also, public loan institutions may be set up for long-term, low-interest loans to help the majority of people purchase their own dwellings, and encouraging private finance institutes to set up housing construction loans in order to accumulate capital for promoting the development of housing construction industries. Large-scale housing construction will not only stimulate related industries, increase the employment opportunities, and improve levels of consumption, but also create better conditions for further development of society. Theoretically speaking, a general system of housing market should be established by the end of this development period.

(iii) New Town Development

During the take-off period, the concept of "new town" should be brought into housing and regional development. At this stage, urbanization is still proceeding rapidly. Some large urban areas have expanded into the scale of metropolis. Physical expansion of the urban environment has certain limitations, such as density of population, transportation facilities, system of sewer management and water supply, and the system of public services. If urbanization occurs too fast and out of control, many physical and social urban crises will appear. For urban and regional planning within this stage, the overgrowth of certain urban areas will become one of the most important issues facing the planners. According to the general

theory of regional planning, planners would usually resort to the concept of "new town" development as the best solution to this issue. "New town" development can not only release the emerging physical pressures of rapid growth and create better physical conditions for further development, but also control the stable growth of both the physical and social environment.⁹ These are the most important factors for further development, which would lead the society into the next mature stage of development.

The success of "new town" development completely depends on the government's planning process. The emphasis of the planning process at this stage should be on the encouragement of private investment in developing industries, and large-scale housing construction for the social majority, composed of blue-collar workers and the middle-and-low income population. Therefore, to promote new town development in a certain selected site, the government should be responsible for the construction of development infrastructure and public facilities, and the establishment of legislation to encourage private investment. Large-scale, private investment in housing construction will become a major factor in establishing a comprehensive system of domestic market for housing.

After entering the mature stage of development, society will gradually progress into the "industrialized stage". During this period, the majority of the population's demand for housing will also turn to demands for comfort and privacy. During this

time, a comprehensive, dynamic housing market system should be established. Housing development under these conditions will operate according to the force of demand and supply.

B. The U.S. Aid Development Period (1949-1952, 1953-1964)

a. The Essence of U.S. Aid

During this period of development, U.S. Aid to Taiwan amounted to a total of U.S.\$1473.3 million (Table II-1). Aid was supplied under three different categories: loan (U.S.\$254 million), grant (U.S.\$1,209 million) and surplus agricultural commodities. Loan was on six-month terms with 4% annual interest rate. According to the nature of investment, U.S. Aid was invested in four major divisions: (a) the import of raw materials for processing industries; (b) the import of machinery and equipment; (c) the import of modern technology and knowledge, for example, "technical assistance" from U.S. experts and professionals and the setting up of "special training programs" for Chinese; (d) the import of consumer goods. Therefore, U.S. Aid played a very important role in Taiwan's development.

(1) From Table II-2, we see that capital assistance amounted to U.S. \$810 million, which represented 31% of Taiwan's net domestic investment. 74% of the total U.S. capital was invested in infra-structural construction.

(2) U.S. aid bridged the gap between Taiwan's domestic savings and investment. Figures show that domestic saving financed 72% of investment in 1951, 40% in 1956, and 96% in 1963.

(3) The government experienced a large budgetary deficit, over half of which was spending on military expenditures. U.S. Aid financed over 90% of the deficit.(Table II-3)

(4) Taiwan's economy was stabilized by U.S. Aid through the import of consumer goods to meet local demand. Aid financed 43% of imported goods and services in 1952 and 12% in 1965.

(5) Investment went into the development of infrastructure (power, transport and transportation facilities), agriculture, human resources and industries.

(6) During the aid period, about one-third of total development resources were supplied by the U.S.

According to a study of the U.S. Aid program, aid constituted about U.S.\$10 per capita income per year, and 6.4% of the GNP over the entire period. As a result, Taiwan's GNP rose from U.S.\$876 million in 1951 to U.S.\$2,357 million in 1965 (Table II-4). With an average growth rate of 7.6% in real GNP (deducting 3.3% of average growth rate in population), Taiwan had a higher economic growth rate than any of the other Asian countries except Japan. Taiwan also based the majority of its military defense upon the U.S. Aid program.

b. Development Institutions

Before 1952, Taiwan's development was formulated upon a temporary development plan initiated under the U.S. Aid program. The first central economic development institution -- "Council for Economic Stability, Executive Yuan" (CES) in charge of planning and implementation of a island-wide development was established in 1953. The president of the Executive Yuan served concurrently as the head of CES. The council was

composed of ministers from four ministries in the central government, the Joint Chief of Staff, the head of JCRR (Sino-U.S.A. Joint Commission On Rural Reconstruction), the Bureau of Central Trust and Division of Finance in the provincial government, and the secretary of U.S. Aid commission. Under this council, there were four committees in charge of initiating, planning, and implementing a series of four year economic development plans. In 1958, CES was cancelled and responsibilities were shifted to the Ministry of Economic Affairs and the Ministry of Communication.

After five years' implementation, it was very clear that the man-power, the techniques, and the experience of these two ministries were insufficient to manage such large-scale projects. Therefore, in 1963, the central government decided to establish a new organization -- Council For International Economic Cooperation And Development (CIECD) to be in charge of all the major affairs of planning and development.

CIECD was organized by the industry and mining committee, the agricultural committee, the transportation committee, and the industrial development and investment research committee and the economic research center of U.S. Aid commission etc. During this period, U.S. Aid commission had great influence on the decision-making process of these central government development institutions in planning and implementing the series of four-year economic development plans.

Foot Notes:

The references for this section is extracted from the article:

Lin T.Y. "Urban And Regional Planning In Taiwan", The Bank of Taiwan, Quarterly, Vol.24, No.3, Taipei, Taiwan Press, 1968.

c. Capital, Market, Resources, Technique And Labor Force

Capital

Capital formation for Taiwan's development came from both the public sector and the private sector. In terms of domestic capital formation, the public sector occupied over half of total and primarily consisted of three sources -- government monopoly enterprises, the income of public property and land, and the U.S.Aid fund. As I mentioned before, after Taiwan's recovery, government monopoly enterprises not only included those taken over from the Japanese colonial government, but also some of the important private industries and enterprises, such as those of sugar production, electricity, fertilizer, cement production, paper production, aluminum smelting, petroleum smelting and steel and iron smelting etc. The large scale of government monopoly enterprises controlled the major part of domestic capital and industrial production in Taiwan. For example, in 1951, 62% of total income of industrial production went into public monopoly enterprises.¹⁰

Since the recovery, all the land and public property of the colonial government had been confiscated by the government. Confiscated property amounted to quite a fortune, especially the land. As I mentioned in section I, before the recovery, over 80% of cultivated land and most of forests belonged to the government. After 1951, most of the public cultivated land was rented or sold to the peasants by the government through the process of "Land Reform" in order to increase

public capital accumulation. All the public forests came under the authority of the Forestry Bureau of the central government and became one of the important public monopoly businesses.

U.S.Aid capital played an important role in public capital accumulation. Within the Aid period, 80.1% of total U.S.Aid capital was invested in the public sector. Only 19.9% of U.S.Aid capital flowed into private enterprises. U.S.Aid capital helped not only to cover the government's budgetary deficit but also to promote public capital accumulation.

The capital for the development of private industries and enterprises mainly came from four sources -- the private capital of some national capitalists brought from mainland China after 1949, the capital of local landlords and rich peasants transferred from rural sectors to industrial and urban sectors through the government's implementation of "Land Reform" policies, foreign investment capital, and U.S.Aid capital. Within this period, foreign investment capital only occupied 6.9% of the total amount of private capital formation, while U.S.Aid investment occupied 11.9%.

Market

A vital operating market system is one of the most important preconditions for rapid development, according to the conventional theory. But at the beginning of the Aid period, Taiwan's consumption capacity was very low and the development of domestic market was very limited, mainly because of the destruction of World War II and the serious impact of civil war from mainland China which followed. In

addition, physical conditions of this small and isolated island, such as the scarcity of arable land and nature resources became the major limitations for advanced development of the domestic market system. Therefore, the emphasis of island-wide development must be on the establishment of an international market-trading system.

During the initial period, the development focus should be on the establishment of close relationships between the market systems of the U.S. and Japan and domestic production in order to stimulate the progress of Taiwan's social force of production. This development strategy was initiated and implemented by CES, the MEA and MC, and CIECD within a series of Four-Year Economic Development Plans under the assistance of U.S. experts. The implementation of this principle can be identified by the percentage of value of Taiwan's imports and exports to principal trading countries.

Resources

Taiwan's aboveground and underground resources are very limited, especially mineral resources. During the colonial period, development of the agricultural sector completely depended on intensive labor, large amounts of fertilizer imported from Japan, and the major construction efforts in water conservation by the colonial government. During the late colonial period, so-called "industrialization" mainly focused on supporting the Japanese military invasion. Most of established industries were light and processing industries, because of natural limitation and colonial policies, and most of resources

for these industries were imported as well.

After the recovery, under the assistance of U.S.Aid experts, the government began to search for the best way to overcome these limitations in order to pursue the fastest path to industrialization. From various reports that were made during this period, it was declared that a fast rate of industrialization could not be achieved on the basis of self sufficiency and reliance on domestic resources. Large-scale import of resources was necessary for rapid growth and development. In other words, Taiwan's industrialization must depend on heavy imports of raw resources and close ties with foreign markets.

Technology

In the fifty years of Japanese occupancy, Taiwan's social forces of production began to step into the primary stage of capitalist production, and the basic system of industrialization had been developed. But with the end of the Japanese occupation, all the Japanese experts retreated to Japan, taking with them all the technology that Taiwan needed badly for development. Under these circumstances, basic reconstruction of industrial facilities faced serious problems.

Therefore, then, under the U.S.Aid program, large numbers of U.S. and Japanese experts came to Taiwan with their advanced technology to assist in the reconstruction and development of industries. But this assistance did not include any training programs for Taiwan to develop its own skills and technology, except for very few training programs in simple techniques of operation. Because of this, although Taiwan's development grew

faster than most of other developing countries, complete dependency on imports of foreign technology became one of the major characteristics of Taiwan's process of industrialization.

Labor Forces

The plentiful supply of labor was seen as the most important asset for industrialization in Taiwan. Before the recovery, surplus labor existed in the rural areas, because of the colonial agricultural policies of labor-intensive production. This created the potential for the development of the industrial labor market. Moreover, within the period between 1949 and 1952, there were more than two million immigrants who retreated with the government from mainland China to Taiwan. Except for some who were government employees, immigrants naturally became part of Taiwan's surplus labor market, and all the surplus labor gathered around several large urban areas. This created a most beneficial condition for the initial development of small-scale industries and family-size factories. Within the period of 50's, these kinds of small industries and handicraft factories expanded very rapidly in the urban sectors. Most of them were engaged in the production of commodities and simple processing industries.

After the late 50's, some of the big landlords and rich peasants transferred their capital from rural sectors to industrial and manufacturing businesses and became the new national bourgeoisie class in urban sectors. At the same time, private foreign investment in Taiwan's industries and manufacturing enterprises began to increase rapidly due to

a series of foreign investment acts published by the government to ensure and protect high profits for foreign investment in Taiwan. The surplus labor force in both rural and urban sectors began to flow into the newly established businesses and industries of national bourgeois and foreign capitalists.

d. Agriculture

During the initial period of Taiwan's recovery, most of the population still belonged to the agricultural sector, and agricultural production occupied the major part of domestic production. Within Taiwan's society, although part of the industrial and manufacturing sector had entered the stage of capitalist production, agricultural production in large rural areas still remained at the stage of feudalism, due to the agricultural policies of the ex-colonial government. Class differences among landlords, rich peasants and peasants were very serious. The feudalistic relation in agricultural production became the major constraint upon development of productive forces in large rural areas.

Under the U.S.Aid program, the government undertook a series of survey and planning processes for purposes of further development. It was realized that the basis of long-term industrialization in Taiwan must lay in the development of agricultural production. In order to promote the development of agricultural production, the existing feudalistic relations of production in large rural areas must be eliminated. Therefore,

between 1949-1953, the central government launched a Land Reform Policy to improve the general rural relation of production. This policy included:

(1) In 1949, land rent was reduced to 37.5% of the main corps; the landlord received approximately a similiar amount of foodstuffs from the local government as rent instead. The duration of lease was extended to a minimum of six years.

(2) In 1951, public land was sold to the tenant peasants.

(3) In 1953, a final effort was made to implement the "Land to the Tillers" program, through a procedure of compulsory purchase of farm land from landlords and resale to farmers. The compensation to landlords was paid 70% with land bonds and 30% with government stock shares.

Some of the most important accomplishments are the following:

(1) Farmers worked harder on their own land after the new policy was implemented ; production increased 20%. The average income of the farm tenants increased by 30% and 6,600 tenant families had purchased land by the end of 1951.¹¹

From 1949-1956, a total of 77,965 tenant families bought farm land with their own resources as a result of the sale of public land with the completion of the "Land to the Tiller" program. The government resold private land to 194,823 tenant families, and 71% of public and private leased farm land was transferred to private ownership by the tenant farmers.¹²

(2) During 1949-1965, agricultural production showed great

prosperity. The amount of net domestic investment on agriculture and industry was U.S.\$329 million (12.6% of the total) and U.S.\$1,218 million (46.8% of the total). The amount of U.S. capital assistance on agriculture and industry was U.S.\$193 million (23.8% of the total) and U.S.\$ 157 million (19.4% of the total). Agriculture played a very important role in Taiwan's development during the U.S.Aid period. Agricultural products occupied around 35% of GNP before 1965.

The agricultural sector also provided very important resources for public capital accumulation. According to "Land Reform" policies, the farmers paid for public farm land according to a seasonal ten-year installment plan. For each season, farmers' payment took the form of crops. The price of crops was decided by the government, which ended up being always 15%-20% lower than the market price.

The tax payment by the agricultural sector formed an important resource for government income. Around one-third of government direct tax was collected from the agricultural sector. According to a report "Tax Burden For Taiwan's People" (published in 1971), in 1966, the burden of direct tax for a farmer's family was 1.73 time heavier than an non-farmer's family. The total burden of tax for a farmer's family occupied 6.95% of their total income of production, and 21.73% of their annual net income, if their income was under U.S.\$ 2,500 annually.

Profits from sale of fertilizer to farmers was another important method of public capital accumulation. The importing

and production of fertilizer was a principal public monopoly. Usually, for Taiwan's agricultural production, the cost of fertilizer occupied around one-fourth of the total cost of production. The only channel for farmers to acquire fertilizer was from the government fertilizer agencies. According to government regulations, the farmers must pay the price of fertilizer by crops. But the government price for fertilizer was 23% higher than market price and 53% higher than factory prices (Statistic Data from Taiwan Foodstuff Bureau in 1966)

e. Industry

Industrial development within the U.S.Aid period focused upon public monopoly businesses. For the total amount of U.S. Aid fund, only 6.9% flowed into private businesses, 27% into the semi-public enterprises, and the rest was occupied completely by public monopoly enterprises.

Since 1952, a series of four year economic development plans were implemented. For the first two periods of the four-year plans (1952-1955, 1956-1959), the major emphasis of industrial development was on electric power, sugar production, fertilizer, textiles, petroleum, cement food processing, timber and paper manufacturing. Within these, all the large-scale industries such as electric power, sugar-production, fertilizer, petroleum and cement were monopolized by the government. Some of the others, such as textile and timber were semi-private.

Most of the private industries developed within the 50's were the small scale or family-style, simple processing industries. Investment in these industries was poor and capital accumulation slow. Moreover, the investment of U.S.Aid funds and private foreign capital in these industries were very limited. All of these factors restricted the growth and development of private industries. Under this situation, at the beginning of the third four-year development plan, government policy began to emphasize export expansion.

In 1960, the policy of Promulgation of the Statute for Excouragement of Investment was published by the Executive Yuan. Under this policy, all foreign enterprises in Taiwan receive considerable protection by law. For instance, there is a four-year exemption from income tax, profit can be remitted easily without any limitations, there is an exemption from customs duty on imports of raw materials and manufacturing supplies for re-export, and 100% ownership of foreign investors is allowed in order to facilitate investment in industrial production. At the same time, dur to a rapid increase in wage rates and manufacturing costs in Japan and Hong Kong since the beginning of the 1960's, Taiwan had the advantage of righ labor force and lower labor cost in comparison with the above two areas.

Under these two favorable conditions -- the government's encouragement policy and the comparatively low cost of labor, private foreign investment in Taiwan's industrial sector increased more than five times in 1960, compared to the average

annual investment figures for the 1950's. Investment continued to increase rapidly for the rest of the U.S. Aid period of the 60's. The large amount of foreign investment stimulated the export economy and the industrial development of private and semi-private enterprises. Emerging large-scale industries within the late U.S. Aid period included those of electrical appliance and electronic equipment, timber, chemical and food processing.

Some public and semi-public heavy industries also developed very rapidly due to the investment of foreign capital and technology, such as those of petroleum, chemistry, steel, automobile, electric power and fertilizer etc.

Generally speaking, the latter five-year period (1960-1964) of U.S. Aid was the turning period for Taiwan's industrial development, due to government development strategies and the change of social and economic structure. (Detailed discussion is in the article "Technical Change, Foreign Investment , And Growth in Taiwan's Manufacturing Industries 1952-1970", Economic Review Monthly, Jan. & Feb. 1975)

f. Urbanization And Change of Social Structure

A complete and systematic study on urbanization and change of social structure in Taiwan has never been accomplished after 1950. During the first decade of retreat from mainland China, the government emphasized the enforcement of military, political and economic control to maintain the stability of Taiwan's

society. After 1960, although some studies had been done by scholars and public institutions in response to the emerging seriousness of social problems caused by rapid urbanization and change of social structure, the development agencies have never been able to implement any effective policies and strategies to solve the problems. This is mainly due to the general concepts held by these public agencies. They consider urbanization and most of the social and physical problems caused by it to be unavoidable phenomena during the process of industrialization.

Taiwan's urbanization began in the late colonial period. But the development of urbanization was slow during that period because of the restriction of existing feudalistic relation of production in large rural sectors and colonial exploitation.

Within the period between 1949-1952, the government retreated completely from mainland China to Taiwan. Most of the government organizations of administration, army, police, bank and commercial services followed the government's retreat and migrated into several large urban areas in Taiwan. Following this retreat and migration, nearly two million of the mainland population moved to Taiwan and settled in these urban areas. Except for the six hundred thousand in military forces, there were over one million mainlanders that moved into Taiwan's urban sectors within five years (1947-1951). Most of these were intellectuals, government employees, businessmen, and skilled laborers.

The sudden increase in urban population stimulated the development of urbanization. Large numbers of small-scale shops, restaurants, factories, and manufacturing businesses emerged in the urban sectors. At the same time, the government's "Land Reform" policy disrupted the feudalistic relation of production in Taiwan's large rural sectors. Large numbers of big and middle landlords and rich farmers lost their land and influence in rural sectors. Only a small part of big landlords transferred their capital and influence successfully from the rural sectors to urban sectors and began to operate modern-style enterprises under the heavy protection of the government. Moreover, large amounts of U.S. Aid capital came into urban sectors and was invested in the construction of the infrastructure.

Under these kinds of development conditions, a new national bourgeoisie class emerged in the urban sectors within a short time period. This new class included the big local landlords, the original mainland bourgeois, the relatives of mainland bureaucrats and some of the local rich businessmen emerging from ex-colonial enterprises through the abnormal (sometimes illegal) operations of speculation during the transition period. But conditions of limited local markets, capital and technology soon became the major obstacles for their development during the late 50's.

After 1960 a series of government acts for the encouragement of foreign investment and development of export production helped to overcome the restrictions on further development. Large amounts of foreign investment and experts came into the

urban sectors. Also, numerous large-scale factories and manufacturing enterprises became concentrated in several large urban areas due to the conveniences of administrative and infrastructural services, banking and commercial services.

The booming development of these urban industries absorbed large amounts of surplus labor from rural sector. The pace of urbanization increased rapidly. (the urban population increased from 32.6% of total population in 1958 to 42.6% in 1962) According to government statistics, in 1952, 61.3% of the total employed population in Taiwan belonged to agricultural sectors, in comparason to 56.3% in 1960. 1964 was the first year in which the non-agricultural employed population equaled that of agriculture, and in 1965, the employed population of the agricultural sector only occupied 47.6% of the total. These figures indicate a great change of social structure in that large amounts of agricultural laborers migrated into the industrial sectors and formed a new social class - the urban workers.

This new group of urban migrants contained more children and older males than that of the migration streams in most Western countries, according to the study of an American scholar Speare A.J. in his book "The Determinants of Rural to Urban Migration in Taiwan" in 1968. Most of these migrants entered the processing and manufacturing industries. They worked 10-14 hours a day. Some joined the urban service sectors.

In general, most of the emerging urban workers were unskilled, and their wages were far below that of the average wage. For the children and older people, the situation was worse than for others. There were no social welfare programs provided. Furthermore, workers' unions which could have been the only institutions that would have protected their interests were prohibited because of government martial law. At the end of the U.S.Aid period, this new class occupied over half of the urban population in Taiwan.

g. Housing Development

(i) The Origins of Housing Problems -- Urban Slum and Squatters

During the period between 1947-1951, there were over two million mainland immigrants in the urban areas. A small part were government employees. For these government employees, only 57% of the total were able to get public housing; the rest were forced to solve their own housing problems. The sudden increase in demand for urban housing for these two million new immigrants raised both the rent and land price in the urban areas to a level that the average citizen was not able to afford.

In order to obtain emergency shelter, most mainland immigrants were forced to occupied public or some private vacant land plots and construct simple and crude dwellings with their own hands. Usually these houses appeared in groups. This is the origin of large-scale urban slums and squatters.

Following the pace of urbanization, these slums and squatters grew rapidly because of continuous inflow of new urban migrants from the surrounding rural countryside. During the 50's most of the slums and squatters were concentrated around downtown areas. Most residents earned their living either by operating small home-style businesses and handicraft factories or by offering their labor in part-time employment.

But following the development of industrialization, most of these small business and factories were forced to bankruptcy, because of their inability to compete with emerging larger-scale business. At the same time, the price of public and private land occupied by slums and squatters also rose higher and higher because of continuing urbanization. In 1957, the government began to initiate urban renewal plans in order to eliminate these slums and squatters and pursue a better usage of urban land.

After 1960, large amounts of capital flowed into the urban sectors. This stimulated the booming development of urban areas. Part of the capital went into the land speculation business. Because of the operation of these capital, the urban land price increased 11 times the average price during the U.S. Aid period (1949-1965), according to government's statistics. Meanwhile, the government began to implement the "plan for eliminating slums and squatters" in 1961. Old slum and squatter areas began to disappear in downtown areas and new commercial districts were soon allocated.

But the problems of slums and squatters had not been resolved. New slums and squatters began to appear in every district of the urban areas, and their expansion was faster than ever, due to the rapid urbanization after 1960. The physical environment of the new slums and squatters was worse than that of the old. "The Survey and Study for Landownership and Housing Facilities of the Slums in Taipei City" published in 1969 is a very good reference in understanding the physical conditions of slum area during the late U.S. Aid period. The major references and maps of this study came from the city government's statistical studies in 1964. The studies covered all the ten districts in Taipei city.

According to the survey, in terms of landownership, 75.35% of total slum units were constructed on public land, 15.50% was on self-owned land, 9.15% was on rented or leased land. In terms of dwelling ownership, 66.80% of total slum families owned their house, 32% were rented from landlords, only 1.2% lived in public housing units, 86.68% of total units were squatters.

For the income survey, within the slum area, labor income occupied 58.51% of total income, commercial income including the income of vendors or small grocery stores occupied 19.82%, wage income occupied 19%, and property income only occupied 0.51%. 84.31% of total family monthly income was below U.S.\$ 40. There were no family monthly incomes over U.S.\$ 150.

As for expenditure, 93.45% of total income was expended on food, housing, clothing and transportation. Only 3.1% was expended on expanded on education, 1.57% on health treatment, and 1.33% on entertainment.

In terms of housing facilities, 57.06% of total slum families had no living room. 49.50% had no kitchen space, 9.35% of the families share the kitchen with others. 77.13% of total families had no toilets at all, and 7.96% shared toilets with others.

For the average space of the houses, each slum family unit occupied 237.24 sqft, within which the living room occupied 82.8 sqft, the kitchen occupied 59.76 sqft, and the bedroom only 163.08 sqft. The average population of each slum family was 5.59 members.

Generally speaking, during the late U.S. Aid period, the average monthly income for a slum family with almost six members was U.S.\$ 28.91, and average expenses were U.S.\$ 29.66. Most of these families had no living room and toilet. Half of the families had no kitchen and had to cook outdoors or in the living room or bedrooms. Each person had 29.17 sqft space to sleep. Such living conditions as these were clearly sub-standard.

(ii) Housing Development Agency and Housing Policies

Within the period between 1947-1952, the social increase of two million mainland immigrants caused the problems of housing shortage, slums and squatters in urban areas. These problems of housing shartage, slums and squatters in urban areas.

These problems caused the deterioration of both social and physical urban environments.

Finally in 1955, with the assistance of housing experts of the U.S. Aid program, the "Council for Construction of Public Housing" (CCPH) was organized directly under the authority of Executive Yuan. This committee was in charge of all the affairs of administration, finance and loans, construction, distribution, design and research of public housing.

From 1955 to 1958, CCPH had initiated several different kinds of housing loan regulations. The most important achievement of this council was the initiation of the "Regulation of Loans for the Construction of Public Housing" in 1957. It had been published by the central government in July 25th, 1957. This regulation established the base for a long-term (not less than ten years) and low-interest (must not exceed 0.6% annual interest loan) loan policy of public housing construction. According to this regulation, the debtor organization of housing loan had the right of mortgage to the creditors.

At the end of 1958, the central government considered that the base for the promotion of public housing construction had been established. Therefore, the CCPH was abolished. All the business of public housing construction was then taken over by the Taiwan Provincial government.

In January 1959, a new "Commission for Construction of Public Housing" (CCPH) under the authority of provincial government was set up as the organization responsible for design guidance. All the business activities of public

housing construction had been distributed to the relevant departments, bureaus, or offices of the provincial governments. For example, the business of housing planning, design and construction was assigned to the Public Housing Construction Department of the Public Construction Bureau.

A new "Regulation for Management of Public Housing Construction (RMPHC), Taiwan Province" had been published in 1959 by provincial government in order to make up the deficiencies of the "Regulation of Loan for Public Housing Construction" (RLPHC).

According to the regulations stated in the RLPHC, Taiwan's society was at the transition stage of development, and therefore, the object of public housing loans should be workers, farmers, fishermen, government employees and general citizens. According to the regulation of RMPHC, public housing construction should be implemented in the following four ways --

(1) offering housing loan for self-construction, (2) constructing public housing by government, (3) encouraging housing construction of private investment and (4) offering housing loan to government organization for the construction of employees' housing.

As far as priority in offering housing loan, the RLPHC regulated that the first priority should be given to low-income groups of workers, farmers and fishermen. But according to RMPHC, the priority for offering housing loans should be as follows: (1) the government's construction of public housing within destined residential zone, (2) construction of public

housing aimed at the elimination of squatters, (3) construction of housing along with urban renewal, (4) construction of general public housing.¹³

(iii) Housing Finance and Development of Public Housing Construction

Within the U.S. Aid period, the situation for all the government supported public housing construction was as follows:

(1) From 1950-1954, 1,100 housing units were constructed under the policy of financial and technical cooperation between the government and private institutions for housing construction.

(2) In 1953, because of the devastation of typhoons, thousands of people lost their homes. Under the financial support of the U.S. Aid program, the local government and private institutions constructed 4,677 public housing units in order to resolve the emergency housing shortages for laborers, mining workers, and low-income families.

(3) In 1955, CCPH under the Executive Yuan was organized. The financial support of CCPH for public housing construction came from two major sources: the U.S. Aid housing loan (N.T.\$ 33,495,100) assigned to the construction of public housing for workers, farmers, fishermen and general low-income citizens, and the public bank housing loan (N.T.\$31,211,700) assigned to particular housing construction for government representatives and officials.¹⁴

Under the CCPH policy of public housing construction, U.S. Aid housing loans were transferred through local workers, farmers, or fishermen organizations and the local government to

citizens. Conditions of the loan were regulated as follows:

- (a) the creditor must own his land for housing construction,
- (b) the maximum loan for workers, farmers and fishermen was N.T.\$ 20,000 and N.T.\$ 40,000 for general citizens, (c) the loan could only cover half the cost of construction, the rest had to be paid by the creditor, (d) the period of repayment was three years and the monthly interest 1.5%. Under this policy, 1596 units of farmer's housing, 3139 units of worker's housing and 1413 units of general housing were constructed.

In 1957, under U.S. Aid policies, this amount of loan was transferred to public housing grants to the government. At the end of 1958, the government's total income from grant and interest came to N.T.\$ 112,994,379.¹⁴

Loan regulations by public banks for housing construction of government officials were as follows: (a) the creditors must own the land for housing construction, (b) the maximum loan could exceed 90% (three-year loan) or 80% (four-year loan) of the total cost of construction, (c) repayment can be three years or four years, and the monthly interest is 1%.

(4) After 1959, a new CCPH of the Taiwan provincial government was organized. New policies, of RMPHC were published to deal with the deficiencies of RLPHC under the U.S. Aid program. According to RLPHC, funds for public housing loans came primarily from U.S. Aid loans. The new RMPHC regulated that except for U.S. grants, part of the income of urban taxes and social welfare funds should also be appropriated to the construction of public housing.¹⁵

Within RLPHC, regulations were that the interest rate for public housing construction loans must not exceed 0.6% annually, and the period of installment should not be less than ten years. Under the new RMPHC; (a) the interest rate was raised to 0.5% monthly, and the period of installment is 15 years, (b) the interest for private investment in housing construction will be according to the contract of loan and the installment period is 10 years, (c) interest on land purchase for housing construction is 0.75% monthly, and the period of installment is 5 years, (d) low-income public housing should be constructed by the government. Low-income families could either buy or rent the housing from government. Down payment for low-income housing was 1% of the total sales price and the rest could be paid for by a 20-year installment plan without interest. The rent for low income housing is 0.2% of the sales price monthly.¹⁶

According to RMPHC, from 1959-1967, total loans for housing construction amounted to N.T.\$ 2,372,133,144.36. 76,327 housing units were constructed with the financial aid of this loan. Achievements of RMPHC included:

(a) 24,287 housing units for general citizens. N.T.\$1,581,594,809.98 loan.

(b) 18,671 housing units for reconstruction after damage N.T.\$289,643,600 loan.

(c) 13,498 housing units for repairs after typhoon damages. N.T.\$9,121,400 loan.

(d) 3,231 housing units constructed with private investment.

N.T.\$156,755,357.30 loan.

(e) 1,811 housing units for government employees. N.T.186,763,300 loan.

(f) 4,555 low-income housing units for elimination squatter and slums. N.T.\$145,254,667.38 loan.

(g) 274 low-income housing units. N.T.\$11,896,000 loan.¹⁷

During the latter period of U.S. Aid, the most serious problems of housing shortages were caused by the emerging class of low-income urban workers and residents. But for the above newly constructed housing units, low income housing units only occupied 6.3% of the total. 6.6% of the total public funding was appropriated for low-income groups. The RMPHC also promoted the development of private housing construction and real estate business. 73.2% of the public funds for housing construction went to this sector.

C. The Export Development Period

a. The Change of Development Structure

After ten years of U.S. Aid development, Taiwan had established some foundation on which to base its financial and economic development. In 1960, the government initiated the policy that changed the nature of Taiwan's development from one of U.S. Aid dependency to that of self-sufficiency in order to wean itself from U.S. Aid program. The major goal of the policy was to promote Taiwan's industrialization and export-trade economy. The government implemented this policy at the beginning of the third four-year development plan in 1961. The four major thrusts of this policy were: (1) the establishment of protective tariff rates in order to protect and ensure the profit of several important existing local industries. (2) legislation of preferential investment law for promoting capital accumulation for rapid industrialization, especially to foreign investors. (3) publishing of the export promotion incentives to stimulate the rapid growth of export trading businesses. (4) price control of major agricultural products in order to create a favorable investment environment for investors. Under these guidelines, some of public monopoly businesses were transferred to private hands. Within the period of 1960-1972 the above government policies played very important roles in directing the growth of manufacturing industries in Taiwan.

By 1965, the U.S. officially announced that Taiwan had sufficient basis for development under its own momentum and

could maintain a GNP growth rate around 6.3% - 7.2% per year during the period of 1965 - 1972 without aid, Thus U.S. Aid was terminated. Correspondingly, significant changes in the development structure took place, and large amount of foreign capital started to enter into Taiwan, especially from Japan.

b. Capital, Market, Technique And Labor Force

Capital

In order to promote capital accumulation in industrialization, the central government published the Promulgation of the Statute For Encouragement of Investment in 1965, a revision of the 1960 Statute but expanded in scope. Moreover, in 1965, a large-scale tax and duty-free industrial processing zone was established at the harbor of Kaoshiung. Foreign investment in Taiwan industries and manufacturing businesses increased very rapidly. The total amount of foreign investment (U.S. \$1,126,788,000) within the period of 1965 - 1973 increased 11 times compared to that of the U.S. Aid period (U.S.\$93,106,000). This did not includes foreign loans and U.S. grants. Foreign capital occupied over 15% of the amount of total national public and private capital. Within total foreign investment, overseas Chinese capital occupied 21.8%, U.S. private capital occupied 38.9% and Japanese capital 16.6%. Some important industries relied almost exclusively on the large inflow of foreign capital to start their production. For instance, 55% of foreign capital went into the chemical industry in 1963, and 40% went into electric machinery in 1965. These two, in addition to the textile

industries occupied 73.2% of total foreign investment for the period of 1962 - 1969. The effect of foreign investment was not only financial but extended also to better technical know-how, opportunity to import parts and appliances and excellent marketing abroad for export expansion. Foreign loans also formed a very important source of Taiwan's capital accumulation. For instance, in 1965, 1967, and 1969, total foreign loan amounted to U.S. \$2,758, 1458, 2277, million, and these were 64.4, 24.5, 48.7 percent of total foreign investment.¹⁸

(ii) Market

During the U.S. Aid period, Taiwan's market system for international trade was extremely dependent on U.S. and Japan. Most of the imports of raw materials and industrial equipment came from these two countries, and most of the export of rprocessing products also went into these two areas. Therefore, Taiwan established a very close relationship with them. After the establishment of the Statute For Encouragement of Investment in 1960, large amount of U.S. and Japanese capital came into Taiwan's capital market. Within the period of 1965 - 1973, 55.5% of total foreign investment came from U.S. and Japan. Most of this capital went into manufacturing industries. Foreign trade thus expanded rapidly, especially after 1965. At such the dependency of Taiwan's economy on the U.S. and Japan became more severe.

Within the period of 1965 - 1973, the large-scale expansion of international trading occurred mainly through the establish-

ment of U.S. and Japanese multi-national companies in Taiwan. Most of the multi-nation investments are establishments are established under the name of "technical and investment cooperation". After 1968, most of the important industries in Taiwan such as fertilizer, electrical machinery, petrochemicals, textile, and automobile, were controlled by multi-national companies. Their market expanded, not only in areas of South East Asia, U.S., Japan and some European countries but domestically as well. The operation of this market system brought excellent profits for the companies ("Two Different Approaches to investment in a Capital-Intensive Industry in R.O.C." by C.J. Chang, Industry of Free China 1974-1975, p.179). But according to statistics, Taiwan has experienced continuous annual budget deficits on import and export affairs except the year of 1964, 1971, 1972, 1973.

(iii) Technology

According to the conventional development theory, the development of technology can be divided into four major steps according to the stages of development. For a developing country within the period of transition, complete dependency on foreign investment and advanced technology of the industrialized world is the most efficient way to acquire the necessary capital accumulation, to improve the productive force, to learn advanced management technology and to expand the international market. After entering the period of take-off, domestic capital for development should have been accumulated, the number of skill

labor has increased, and the basic technology for industrialization and the foreign trade market should have been established. These factors render "technical and investment co-operation between the domestic and foreign industries" possible. Through the co-operation, the developing society can develop its own advanced technology. Finally, within the period of maturity, an independent system of technology development for its own industrialization should have been formed. ("Industry of Free China" 1972-10).

In terms of Taiwan's experience, this theory appears invalid within the process of industrialization. Since 1968, the government declared that Taiwan's development can be characterized as having entered the stage of take-off. Many development programs involving "cooperation of technology and investment" have been set up since that time. The achievement of these programs can be examined by following facts: (1) The quality of labor force in Taiwan is relatively low. 1975 statistical data of the Taiwan Provincial Labor Force Survey & Research Institute show: College graduates comprise only 6.6% of labor force. Senior middle school graduates account for 14.7%. Junior middle school graduates account for 15.71%. Those with primary school education account for 62.88% ("China Time" 2,8, 1976) (2) The structure of industry. All the major industries in Taiwan (such as electrical appliances and electronics, textile, petroleum, automobile, steel, ship construction and timber) were set up in technical cooperation with Japan, U.S., and some European manufacturers. But, in fact, all the finished or semi-finished products are processed through assembly lines from imported

accessories and components. For example, engines and some essential parts of the automobile industry still can not be produced in domestic industry. The ship construction industry is dependent on foreign design, foreign technical assistance and imported components. Generally speaking, most of the industries remain at the stage of labor-intensive production, and the basic structure for the development of heavy and chemical industries had not been established through the "cooperative programs" .

(iii) Labor Force

After the period of U.S. Aid, the transfer of the labor force from the agricultural sector to the industrial sector proceeded more rapidly than before, and most of the emerging labor force also flew into the industrial sector. This migration of labor force changed the productive structure in Taiwan during this period. During the process several characteristics appeared in the labor force of the manufacturing sector: (1) uneven distribution of sex. For several leading manufacturing industries, the female labor force increased more rapidly than the male, and finally during the last several years, the female labor force comprised over 50% of the total labor force.¹⁹

According to government survey data of labor force distribution by sex in 1971, for textile industries, the female labor force occupied 78.54% of total employment; for electrical appliances and electronic industries 55.81%. Moreover, within Kao-shung industrial processing zones, the first and largest one in South-eastern Asia, 85% of total employees were female. The same char-

acteristic also appeared in most other industrial processing zone.

(2) uneven distribution of education. As mentioned before, the majority of the labor force consisted of employees with educational level equal or below primary school. (3) uneven distribution of age. During this period, employees with ages under 19 occupied a large proportion of total. According to official data, for the total employed population, those with age 15-19 occupied 22.07%.²⁰ There is no official record for the large amounts of existing and continuously increasing laborers whose age is under 15. The rural children entered the urban factories and became young urban workers in order to support their family after they graduated from primary school, and as such few of them had the chance to enter middle school and continue their education.

During the initial period of industrialization, the outflow of labor force from the agricultural sector solved the problem of existing surplus labor. But the continuous and increasing outflow created a new problem of insufficient supply of labor in the rural areas. Finally the problem became quite serious in the late 60's. At the same time, most of labor force flowing into the industrial sector were young and productive. Gradually, the average age of the labor force became lower and lower. Toward the end of 60's, the situation became worse. The farmers had to hire large amounts of expensive laborers from outside the rural areas for each cultivation and harvest season. This not only increased the cost of production, but also reduced the productivity of the agricultural sector.

c. Agriculture

The agricultural sector played a very important role during the U.S. Aid period. Unfortunately, after the implementation of the "Land Reform" policy, the government did not carry out further steps to assist the growth of the agricultural sector. On the contrary, the agricultural sector has been stymied under the government development policy, specially after 1965, when the mainstream of Taiwan's development policy was on export industries. Agriculture dropped to a subordinate position. The factors which changed the agricultural position in the past 24 years are as follows:

(1) In order to maintain price stability, food price had been kept to a minimum by the government (also, to maintain cheap wage costs for foreign investment industries) despite the severe inflation vaused by rapid industrialization and increasing cost of other industrial products and commodities. Gradually, farmers had to find non-farm jobs to supplement their minimum standard of living. According to official government data, the percentage of full-time farmers to that of total farmers fropped from 47.6% in 1960 to 31.9% in 1965 down to 27.6% in 1970. The percentage full-time farmers who had to find some non-farm job as the major source of income had increased from 22.5% in 1960 to 27.1% in 1965 up to 30.3% in 1970.²¹

(2) The government's policy of heavy direct and indirect taxes, and monopolization of fertilizer, caused the increased cost of production. Direct and indirect taxes included the farm tax, license tax, farm house defence tax, business tax, and

income tax etc. According to statistics of the Foodstuff Bureau in 1969, the index of farm tax increased from 100 in 1946 to 160 in 1950, to 219 in 1962, to 298 in 1967, to 305 in 1968. But during the same period the crop production only increased from 100 in 1946 to 116 in 1950, to 151 in 1962, to 194 in 1967, to 201 in 1968. Moreover, from 1971 to 1975, farm tax increased 80% more.²²

The high cost of fertilizer under the government's policy of monopolization is another heavy burden on farmers. Fertilizer production is monopolized by a semi-public institution. For example, in 1969, the selling price of urea fertilizer from the factory to the Foodstuff Bureau of the central government was U.S. \$110 per ton. The sales price of the Foodstuff Bureau to the market was U.S. \$145 per ton. But according to government policy, farmers must pay each ton of urea fertilizer with crops which cost almost U.S. \$165. (1969,2,23 "Central Daily News") This policy had lasted for 21 years and was finally canceled in 1972. But the market price of fertilizer under the control of Foodstuff Bureau remained high.

The increasing burden of production cost to the farmers could not be relieved by raising the price of products due to severe government control of food prices. Gradually, farmers became short of capital to seeds, fertilizer, and farm implements. They have to pay high interest plus land mortgage in order to borrow money. This led to over 85% of farmers having personal debts as high as up to three or four years total income (1970, 8 "SUJCRR report"). As a result, the out-migration of rural youth into urban areas proceeded more and more rapidly. The

agricultural population dropped from 45% in 1969 to 40% in 1973 and down to 30% in 1975 in relation to the employed population.²³ Major agricultural products like rice, sweet potato, sugar cane, soy beans, corn and peanuts all decreased in production since 1968, although the unit yields increased. The average annual growth rate of agriculture was around 5.2% during 1953 -1968, 2.2% during 1969 -1972, 0.8% during 1973 -1974, and -2.2% during 1974 -1975.²⁴

Overall, farmers did not receive an equitable share of the benefits of development. The rural sector has a relatively low per capita income, U.S. \$224 in 1973 and U.S.\$315 in 1974 as compared to the national per capita income of U.S.\$489 in 1973 and U.S.\$700 in 1974.²⁵ Furthermore, farmer's real income has been decreasing (by deducting the inflated value). Some of them can not even afford to till their own land, and are forced to sublet or sell the land to others. However, buyers are few because the income and profit from agricultural production is too low. Thus, the agricultural sector was sacrificed under the development policy of the export-development period.

d. Industry

Foreign investment increased more than 5 times in 1960 compared to average annual investment figure for the 1950's,²⁶ because of governmental policy in the Promulgation of the Statute for Encouragement of Investment. In 1965 (the end year of the U.S. Aid period), the first export processing zone was established in Kao-shung by the government. More incentive for investment were published especially on the development of

industry in the export processing zone. Foreign investment investment increased more rapidly than ever. For instance, the total amount of foreign investment within the period of 1952-1964 was U.S.\$93,106,000, foreign investment in 1965 was U.S. \$ 162,956,000 in 1971, and U.S.\$ 248,854,000 in 1973 (Statistic in report of foreign investment of Bureau of Internation Trade, Executive Yuan). Foreign-financed factories and industries increased with incredible speed following the spreading of export processing zones. Industrial development showed a great prosperity within the period of 1965-1973. But the most important incentive for foreign investment remains the cheap labor force in Taiwan.

The article "U.S. Investment in Taiwan Up Substantially in 1970" (published in "Commerce Today" 8,9, 1971) listed many beneficial conditions for foreign investment on Taiwan. These included the stability of the social, political, and currency situation, cheap construction of factories, cheap and sufficient supply of electric power and convenient transportation facilities such as highway, railroad, airport, and harbor. Most of all, it emphasized the cheapness and quality of the labor force in Taiwan. Within an advertising booklet titled "Investor's Guide, Export Processing Zone in the Republic of China" published by the management department of export processing zones in 1973,1,1, cheap labor was stressed as the most important advantage to foreign investors. It also presented the general wage level for workers in 1972. According to the Labor Act, the minimum monthly wage for workers is U.S.\$15. Working hours amount to eight hours per day

and six days per week. The average wage were as follows: for non-skilled male worker, the wage range was U.S.\$22.5 - U.S.\$35. monthly; For non-skilled female worker, the wage range was U.S.\$20 - U.S.\$30 monthly; For skilled male workers the range was U.S.\$42.5 - U.S.\$60 monthly, and the range for female workers was U.S.\$35 - U.S.\$50 monthly. Average wages for general labor was U.S.\$502 annually, equal to one-sixteenth of general labor wages in the U.S., two-third of Hong Kong's general labor wage, and less than one-third of Japanese labor wage.²⁷ Moreover, in Taiwan, there is no labor legislation concerned with the physical working environment and security facilities of the factories. Under this kind of incentive, after 1965, most of the foreign invested industries belonged to the labor-intensive type.

The Kao-shung Export Processing Zone, which was established in 1965, is a very good example in illustrating the situation of industrial development in Taiwan after 1965, it contained 126 factories which included textile, metal plastic production, handicraft, cloth, leather and electric appliance and electronic industries. Within the period of 1966-1969, total investment for the industries is U.S.\$28.25 million. National capital occupied only 14.4% of the total investment. The 85.6% came from foreign investment. For most of the industrial production in Kao-Shung Export Processing Zone, foreign investors imported large amount of raw materials, semi-finished products and technology, processed in the factories through assembly lines. Therefore, in 1969, the total cost of production in the zone was U.S.\$70.25 million, 61.8% (U.S.\$43.5 million) of which belonged to the import of

goods and technology. 23.1 of the total (U.S.\$16.25 million) belonged to net productive income and machinery depreciation. Excluding the depreciation, net productive income was U.S.\$15 million. Within this net productive income, the foreigner's income (including wage income, property income) occupied 6.5%, and the foreign profit occupied 31.5%. (this is the average profit. The profit of some production, such as electronic industries was higher than 50% of net productive income). Out of the total revenue of industrial production in Kao-Shung Export Processing Zone in 1969, only 28% (U.S.\$19.5 million) belonged to domestic net income (Net income of domestic production U.S. \$9 million + domestic expenses U.S.\$10.5 million). The detailed figure are shown in table. In terms of the total domestic income of production for Kao-Shung Export Processing Zone in 1969, labor income was less than 8 million (53.3%). The total number of employees was 29,399 over 87% of which were female workers. The average income of an employee then was only U.S.\$269 annually.

According to the analysis above, we can see that Taiwan's industrial development during the period of 1965-1973 was still at the stage of labor-intensive production. After 1965, two more large-scale industrial zones were established at Nantze (Southern Taiwan) and Taichung (Central Taiwan). These three zones, in 1974, had 292 plants with 68,000 workers, of which 85% are females. Not all foreign financed industries are in export processing zone. Some of them are located in the suburbs of large cities. The major industries which were developed during this period included textiles, electric appliances and electronic equipments, tourism,

automobile, food processing, fertilizer, chemistry, and timber. The availability of foreign investment greatly aided in the development of these industries.

e. Urbanization and Change of Social Structure

During this period, the development emphasis of governmental policy was placed on industrialization and expansion of trade economy. Many benefits were given to the industrial and trading sectors. At the same time, the agricultural sector was being squeezed due to disincentives, such as the control of product price and a heavy tax. After 1968, the differential between two sectors became more and more pronounced. Industrial development and trade expansion resulted in a large increase in number of factories and companies. Most of these were concentrated in several large urban areas. For example, in 1972, Taipei, the capital city, had 37,014 registered companies, which represented 50.6% of total registered companies in Taiwan in that year. The capital for the companies in Taipei equals 56% of the total capital for all companies in Taiwan. The booming development of the urban sector increased the pace of urbanization. Within the period of 1965-1973, the annual increase of urban population was over 30% of the total. ("Urbanization and Population in Taiwan" 1974, 4, Economic Review). Most of these increasing population were urban migrants coming from the deteriorating rural sector, and most of them were unskilled laborers. Toward the end of 1972, this class of population occupied over 70% of the total urban population. Their wages were far below the general social stand-

ard, and their livelihood did not show much improvement compared to that what they had had in the rural countryside. Labor insurance policy covers only a small part of this class. Most of the factories lack any security system to protect the workers from accidents.

After 1965, a new social minority -- the middle income class began to emerge in the urban sector following the rapid development of industries and trading businesses. Most of them came from the young intellectual group of 50's. They had better educational backgrounds than the social majority. Following industrialization and trade expansion, the demand for management talent and professionals increased. Most members of this class entered either into private industries or public enterprises to serve in management and technical departments. According to official statistics in 1970, the graduates of colleges and professional institutes occupied 12.11% of the total employed population.

f. Housing Development

(i) Housing Problems

After 1965 -- the beginning of the export-economy development period, urbanization progressed more rapidly than before. Housing rents and land prices in urban areas also increased rapidly following the increase in urbanization.

The expensive rent and housing prices forced the emerging urban imigrants into small, overcrowded, and inadequate living conditions within the urban area. Many older communities began

to deteriorate under this situation and became slums. By the beginning of the 70's, problems of overcrowded living conditions, insufficient supply of public facilities, bad sanitation, became serious not only for the urban destitutes but also the majority of general middle and low-income families. According to official statistics published in the "General Survey of Housing Conditions in Taiwan" in 1970, average living space for each family was 474 sqft, with each person only occupying 88.18 sqft of living space. 14.4% have no toilets at all. 41% of the total housing space was occupied by the families with living space less than 357 sqft. For the low-income residents who lived in four-story apartment units, each member typically only occupied 21.42 sqft.

Within this period, housing problems in Taiwan's urban area were no longer limited to housing shortages. The booming development of processing industries and trading business increased the gap between rich and poor in Taiwan society. This differentiation also appeared on urban housing problems. After 1965, within the large amount of inflow of foreign capital, large portions of overseas Chinese capital went into the land speculation and real-estate business. At the same time, the government published some acts for the encouragement of housing construction (detail will be discussed later). Under these conditions, many real-estate and housing construction companies were established. Some large companies set up their own departments of market surveys, land purchasing, architectural design, advertisement, building construction and sales. Usually, these companies cooperated with the land speculators who possessed large

amount of capital and operated large scale businesses of urban land speculation. They constructed the high-class suburban residential areas and luxury high-rise apartments in order to meet the demands of the national bourgeoisie class. They also constructed modern high-rise office building in the downtown area, and some of the housing units for the emerging class of middle and upper-income families. The gap in living conditions between the upper and lower strata was becoming increasingly evident. Some of the luxury apartments in downtown areas possessed twenty rooms with more than 5000 sqft of living space.

The profits in land speculation and real-estate business caused rapid price increases in general urban land and housing and uneven distribution of urban land ownership. These posed two major problems for housing development in urban areas, according to government data of urban land price, within the period of 1965-1973, the price of urban land increased more than seven times in average. This increasing rate is vastly out of proportion to that of average wages, especially that of the urban working class. According to U.N. statistics on "comparison of housing purchasing ability of workers in different nations" in 1968, the price of a small dwelling with reasonable minimum space (640 sqft) is equal to eight times a worker's average annual income. In Japan, it is 3.5 times. This figure has increased 10 times in 1973 in Taiwan. The price of urban housing increased more rapidly than inflation caused by industrialization. It became increasingly impossible for the urban majority-middle and low income residents and workers to buy or rent a shelter.

Land speculation is a very important factor in the price increase of urban land and housing. The land speculators earned their tremendous profit simply by buying large pieces of urban land, waiting for a short period and selling off to others. Gradually, more and more domestic capital and overseas Chinese capital went into the business of land speculation instead of investing in productive businesses, especially during the period of inflation.

Following the boom in land speculation urban land began to be concentrated in the hands of a small group of so-called "urban landlords". For example, according to the statistics of the Taipei municipal government in 1973, the total area of Taipei's land is 53,468 acres, and it is owned by 143,646 landlords.

Within these landlords, 32% of the total landlords (4,741) controlled 32,783 acres of land, and this small group of landlords only occupied 0.26% of the total population in Taipei city. ²⁸

On average, each of these landlords occupied almost 7 acres of land. But, meanwhile, for the urban majority -- the workers and the low-income class, each person had 21.42 sqft of living space. During the beginning of 70's, the rapid increase in urban land prices caused by urbanization and land speculation and the uneven distribution of urban land ownership became the major obstacles for construction of large-scale public housing in order to solve the urban nightmare of housing crisis.

(ii) Comprehensive Planning Institute For Islandwide Urban
And Housing Development

Generally speaking, during the U.S. Aid period, the

emphasis of government policy and U.S. Aid programs for urban and housing development was placed upon the solution of emergency and short-term problems. Most of the planning work concerned with long-term urban and housing development was put under the aegis of the local governments. But with the shortage of finance, manpower and technology, the local government could not accomplish much in term of lang-term planning work. At the same time, continuous industrialization and rapid urbanization changed the economic and social structure. Because of the rapidity of such change, all the past housing policies, such as encouragement of housing investment, implementation of public housing construction and the elimination of slums and squatters were inadequate to deal with emerging urban and housing problems. In 1965, the government applied for special assistance from the U.N. for urban and housing development programs. In April, 1966, with the assistance of 11 U.N. experts, the government established a new institute -- Urban And Housing Development Committee (UHDC) which was under the direct authority of CIECD, Executive Yuan. The major goal for the establishment of UHDC was to initiate a long-term urban and housing development plan in relation to islandwide economic development and the process of urbanization. In drder to achieve this goal, the major missions of UHDC included the initiation of long-term urban and housing development plans, the initiation of the urban and housing act, the establishment of a survey and analysis system for housing development data and the study of new town development. UHDC was abolished in 1971. During the period of 1966-1971, several important plan-

ning projects were implemented under the authority of UHDC, which included Regional Planning for Northern, Middle and Southern Taiwan, General Planning for Metropolitan Taipei, Planning for Linkou New Town etc. At the same time, under the assistance of UHDC, the Public Construction Bureau of the Taiwan provincial government organized an urban planning team in charge of planning projects for local towns and cities in 1970. After 1971, a new planning organization -- the Department of Urban Development (DHD) was established under CIECD in order to take over all the planning affairs of UHDC.²⁹

(iii) Housing Development Policy and Housing Construction

During the period of UHDC, the basic framework for housing development policy was established according to a study report of U.N. expert Donald Monson. Within the report Monson declared that the major responsibility for public housing development for low-income population should be with the government. The emphasis of general housing development policy, however, should be placed on the encouragement of investment in large-scale housing construction in order to meet the needs of the emerging middle class which was expanding rapidly. Under this concept, the major achievement of UHDC are as follows:

(1) the drafting of the housing act. UHDC considered it necessary to establish a complete and systematic housing act which could provide general guidance for long-term housing development. The housing act drafted by UHDC in 1970 included general principles, housing capital, housing loan, site,

construction standard, encouragement of housing construction, encouragement of production for standard housing construction materials, public housing, community construction, protection of housing ownership and housing management. This draft was submitted to the Executive Yuan in 1970.

(2) The planning for housing construction within the fifth four-year economic development period. Within this project, UHDC presented the idea that housing development should be integrated with regional development in order to create a better living environment. UHDC also estimated that the demand for public housing within this period to be 197,200 units. This figure was estimated according to data analysis on population growth, urbanization process, the need for housing reconstruction after damage within past several years, and the reconstruction of some slums areas and squatters. But this project was not implemented by the government, due to capital shortage.

(3) The estimate of housing demand within 20 years and the planning for long-term housing construction. The major goal of this project was to establish a long-term (20 years) housing construction plan in order to relieve the pressure of the urban housing crisis. According to the estimate, during the period of 1969-1988 housing demand in Taiwan reached 3,043,310 units, within which 2,081,810 units were to be urban housing. In other words, the average demand for urban housing was about 100,000 units annually. The long-term housing construction plan was initiated according to the estimates of the changing needs, different types of families, studies on the relationship between

housing investment and GNP, and inflation indices within the 20 year period. The major focus of this project was on middle-income families. The long-term plan for this project was presented by Monson as follows.

(4) Issuing housing bonds. Monson suggested in this project that the capital could be accumulated by issuing long-term (20 years) incentive housing bonds. The annual interest was to be 11%. Incentives could include the government's guarantee of profit and interest for the bond, free income tax policy etc. The focus of housing construction was to be on middle-income families defined as those with a monthly income range of NT\$3,000 to NT\$ 5,000 (1969). The basic requirements for eligibility was 10% down payment of the total price of land and dwelling. The rest was to be paid by a 20-year installment plan. Each monthly payment was about 20% of the applicant's income. Monson estimated that this project would begin with the construction of 21,000 housing units annually during the initial period, increasing to 80,000 units per year by the last period of this long term project. This project, however, has not been implemented due to too many practical problems.

After 1971, DUD discontinued UHDC's efforts in researching housing problems. Most of UHDC's projects remained at the stage of proposals. The only existing legislation concerned with housing development remains the RMPHC, published in 1959. During the period of 1967-1975, the government constructed 56,221 units (25.4% of the total). But during this period, private investment in housing construction and land speculation became more

and more prosperous, resulting in approximately 40,000 housing units built annually, part of which was in the suburbs. Most of these housing units belonged to the middle and upper-income class. Luxury high-rise apartments were also erected in the cities. But at the same time, slum areas and squatters spread all over the urban areas. The overcrowded living situation in these areas became more and more pronounced, and sanitation especially became a serious issue. A large percentage of urban, social, and criminal problems arose in these areas. By the early 1970's, the government's policy of eliminating slum areas and squatters had become virtually ineffective.²⁹

D. Conclusion: The Development Period of Energy Crisis and
Worldwide Inflation

a. The Change of Development Environment

Taiwan's development was heavily dependent on foreign trade after the 1960 due to governmental policy which encouraged large amounts of imported foreign capital. The result of trade-oriented development had deeply affected the domestic economy, especially during the energy crisis and the international upheaval caused by recession and inflation during the years of late 1973 and 1974. After 1974 many nations began to implement series of protectionist measures to guard the development of domestic industries and manufacturing business , and the worldwide consumptive force declines. Concurrently, following the continued increase of energy costs, the price of raw materials (produced mostly by third world countries) also began to spiral upward. All of the aforementioned factors increased the cost of manufacturing goods and brought about serious inflation to the tiny' island of Taiwan. During 1974, inflation rate was around 50%. With whole sale and retail prices up 60% compared with 23% in 1973. Commodity prices rose to 47.5%. Annual whole sale price maintained only 2% - 3% growth rate in the last ten years. Taiwan's trade volume recorded a deficit of U.S.\$1,326 million in 1974 (the highest ever) after surplus of previous three years. The deficit in 1974 was almost equal to the total surplus of past three years combined. In 1974, Taiwan's inflow of foreign capital was down one-third or to U.S.\$59.4 million (U.S. capital

was down 57.9%, Japanese capital was down 39.5%) in comparison with 1973. In 1975, a reduction of U.S.\$71 million or 37.5% compared with 1974. A decrease of U.S.\$130.4 million or 52.6% of the total foreign capital was registered from 1973 to 1975. In order to overcome economic stagnation, Taiwan's Legislative Yuan passed a revised State for the Encouragement of Investment to reduce income tax burden on foreign enterprises from 35% to 30-20% in 1975. In addition to tax deduction, the central government heaped favors on foreign investors. A note worthy phenomenon should be that some of the foreign capital were not productive in the investment field but rather the inflow was only for purposes of Taiwan's fiscal transactions, and foreign investors were to gain tremendous interests therefrom. (Detail will be discussed in "The Ten Construction Project")

On February 19, 1976, the Economic Planning Council announced that the Six 4-year Economic Development Plan (1973-1976) was cancelled as targets were too unrealistic to be achieved. A new 6-year Economic Plan (1976-1981) was proposed, in which all the targets were scaled down by a third. The main thrust of the new plan is on the Ten Construction Project alter the fundamental framework of Taiwan's development.

b. The Crisis of Industry

During 1974, industrial production declined and fell over 30%. Firms and factories especially in textile, plywood and metal industries were forced to either lay off employees or face shut down. (because they relied heavily on import of raw materials)

The firms closed down at a rate of 20%-50% as a result of excess inventions and depressed demand.

In fact, because of the government's policy of encouragement of foreign investment, most of the large-scale leading private industries and factories were monopolized by the foreign investors, with the exceptions of textile and plywood industries. Most of the domestic industries and factories were unable to compete with foreign investment due to the lack of capital and market and remained at the small and medium range. These small and medium industries lacked sufficient capital and were compelled to depend on interest, short-term private loan to maintain production expenses. After 1974, the situation of these industries become acute. According to the survey released by Taiwan's Industrial Bureau, in 1976, 95% of the factories and manufacturing enterprises were small and medium-sized with capital less than NT\$5 million and with less than 100 employees. These factories encompassed 75% of the total industrial employee population. After 1975, those factories with serious financial insolvency had to operate under heavy debts (the amount of debts was over three to five times their actual investment) and occupied 75% of the total. The interest of usury from private resources was around 36% annually. (Sept. 21, 1976, "China Daily News"). For the small and medium size enterprises, most of heavy debts were from the underground usury. During 1976, over half of the small and medium firms were at the edge of bankruptcy.

c. The Crisis of Agriculture

After 1970, the differentiation between agricultural and industrial sector became more and more pronounced. The cost of production in the agricultural sector increased 100% and the farm tax leaped 80% during the period of 1971-1975. According to the report of SUJCRR, the income of a farmer's family with less than 1 hectare's land can not pay for their minimum living expenses, and over two third of farm families had less than 1 hectare of land. Therefore, more and more farmers abandoned their land and migrated to urban sectors. During the late 1974, there were over one hundred thousands cha's farm land abandoned. Facing the issue of farmer bankruptcy and abandonment of rural areas, the central government approved U.S.\$52.5 million for accelerating agricultural and rural development in Taiwan. This program included: (1) strengthening of rural infra-structure (45% of the total budget), (2) establishment of specialized agricultural production area (30%), (3) extension of integrated use of improved cultural techniques (10%), (4) strengthening of agricultural research and extension (9%), (5) improvement of agricultural marketing and the establishment of industrial plants in rural areas (6%) (China Yearbook 1975,p.191). Moreover, in 1975. the Executive Yuan proposed the remedial measure for rural reconstruction, which included an additional U.S.\$50 million allocated on different projects: (1) to reduce the production cost by lowering prices of fertilizers and farm machines; to maintain stable agricultural prices. (2) to expand the scale of farm operations and improve their services. (3) to improve agricultural marketing and reduce the cost of marketing services. (4) to improve the agricultural financing system and provide an ade-

quate supply of long-term, low interest loans to farmers (China Time, December 12, 1975)

However, agricultural production did not witness any significant improvement nor was living standard of farmers elevated in spite of these programs. The growth rate of agricultural production was 3.6% in 1973, 0.8% in 1974, and -2.2% in 1975. Actually, after 1970, the agricultural production was no longer able to meet supply domestic needs and the situation deteriorated sharply. According to Taiwan's United Daily News of February 7, 1976, it disclosed: Foodstuff imports totaled 3,050,000 metric tons in 1975 -- including wheat 540,000 metric tons, soybeans 870,000 metric tons, corn 1,640,000 metric tons. And for the first quarter of 1976, the Agricultural Department released the following import statistic: wheat 354,800 metric tons, barley 917,000 metric tons, corn 384,700 barrel. There are also 129,400 metric tons of corn, 181,400 metric tons of soybeans and 179,600 barrel of cotton on the way. The figures revealed that the crisis in the agricultural sector had caused a serious foodstuff shortage for Taiwan in recent years. The governmental policies which caused the deterioration of agricultural sector -- the low price control of agricultural products and the heavy direct and indirect tax made any increase of agricultural production unlikely, and the total bankruptcy of agricultural sector is unavoidable.

d. The Ten Construction Projects

The ten Construction Projects were initiated during the period of the Sixth Four-year Economic Development Plan (1973-

1976). The purpose of these projects was to broaden the industrial base. The government believed that the accomplishment of these projects would expedite Taiwan's development. The Ten Construction Projects include the North-South Expressway, Railroad Electrification, Northlink Railway, Taoyuan International Airport, Nuclear Power Plants, Petrochemical Industries, Taichung Harbor, Kaohsiung Shipyard, Suao Port, and Integrated Steel Mills. World-wide inflation after 1973 doubled or even tripled the cost of each project, causing the government to face a serious financial problem. The construction projects are still continuing and are the emphasis of the new Six-year Economic Development Plan, primarily because the government believes that these projects can provide jobs, stimulate foreign investment and promote economic growth during the period of recession. According to official reports, the capital, equipment and technology needed in the Ten Projects are to be imported from U.S. and Japan. Taiwan had no means to finance these huge investments at the present time, (Half of the capital was borrowed from abroad, 35% borrowed from local financial institutes). Interest is 8-10% annually, and it is estimated that over one-third of the total annual tax revenues in 1976 will go into payment of interest. Announcements of foreign debts in newspapers in 1976 include:

(1) the Export-Import Bank of U.S. loaned U.S.\$4.4million to China Petroleum Corp. (a public monopoly enterprise) to develop the petrochemical industry.

(2) Chemical Bank lent U.S.\$6 million to China Steel Co. (public enterprise) to build an integrated operation system.

(3) Chemical Bank lent U.S.\$ 100 million to the Ten Construction Projects.

(4) The Export-Import Bank of U.S. announced a US\$ 200 million loan to China Steel Co.

(5) The Export-Import Bank of U.S. loaned US\$ 500 million to new Nuclear Power Plant.

(6) The Export-Import Bank of U.S. loaned first US\$ 637 million and then US\$ 934 million to the Ten Construction Projects.

(7) Continental Bank announced a US\$ 200 million loan to China Steel Co.

(8) Totonto Dominion Bank of Canada announced a US\$ 5 million loan for a guarantee reserve of other loans.

All the loans were provided to purchase U. S. goods and services needed in the projects. It is estimated that government debts reached US\$9.3 billion in 1974, US\$ 15 billion in 1975, and US\$ 30 billion in 1976. In March, 1977, the Legislative Yuan revised its legislation in limiting the maximum amount of government foreign loan. The limitation was raised from a maximum of US\$30 billion to US\$45 billion in 1977. It is difficult to see how the Taiwan economy can support its mounting debts on interest payments, and terms payments from the Ten Construction Projects especially during a period of inflation. It would appear that development would be delayed by overwhelming foreign debts.³⁰

e. The Crisis of Social Change

The impact of world-wide inflation and economic recession in 1974, not only influenced Taiwan's development but also its

social structure. First of all, unemployment increased rapidly, due to the bankruptcy of large numbers of medium and small enterprises. The unemployment rate increased from 7.6% in 1973 to 38% in 1976. According to the survey report of the Institute of Labor Force Research and Survey, published in February 1976, total population is about 16 million, and the employed population is 5,557,000. The employed population in the agricultural sector occupied 1,679,000 (31% of total), industrial sector occupied 1,962,000 (35% of total), and the service sector occupied 1,916,000 (34% of total) But the unemployed potential labor force occupied 3,375,000. Moreover, there will be 150,000 - 200,000 more young persons joining the labor force annually in the near future. The government stated that the implementation of the Ten Construction Projects can absorb part of the unemployed labor force and reduced the unemployment rate. But most job vacancies on the Ten Construction Projects were for skillful labor. It was estimated in 1976 that only 15% of the total unemployed labor force was skilled. Toward the latter part of 1976, some of the unemployed population began to flow back in rural sectors. Most of the unemployed population, however, stayed in urban sectors and formed a new strata that may be termed the urban proletariat. It was the rapid increase of this new sector of the population that led to increasingly serious social problems. Following the emerging of urban proletariat class, the widening gap in the society became more and more obvious. Within this period, small number of entrepreneurs through the assistance of government and foreign investors developed dominant influence in

both domestic markets and trade businesses. The bankruptcy of large numbers of medium and small enterprises led to the monopolization of several large enterprises. Through increasing concentration of various industries and the imperfections of market forces, the impact of inflation was shifted disproportionately to the consumers, causing a further and widening gap between the rich and poor. This uneven distribution of income can be seen as the root of what has been called "the crisis of social changes", manifested in the spiralling of various social problems and dramatic increase in crime rate.

f. The Crisis of Housing Development

The 1973 worldwide inflation and economic recession had the effect of stimulating the development of land speculation and real-estate business. The energy crisis and inflation caused the devaluation of U.S. and Taiwan's currency causing domestic wholesale price to increase 64.25% annually, and the rate of currency supply in the domestic market to increase 52% annually. Large amounts of capital was transferred from productive business into land speculation and real estate business in order to protect property value from devaluation. This also promoted the booming development of private housing construction and the related industries. Large amounts of luxurious apartments and upper and middle income dwellings were erected around urban areas. Land price increased three times and the rent doubled in general during the period of 1973-1975. Moreover, the price of materials for housing construction tripled. After 1975, the economic recession discouraged the increase of land and housing prices. But

prices had already far exceeded the reach of middle and low income majorities. The gap between the housing need and housing supply became larger.

During this period, one of the most important large scale public housing project was Linkou New Toan. This project had been planned by UHDC since 1971. The major emphasis of this project was the development of an industrial zone, with middle and low-income and working class housing. The favorable conditions for the development of Linkou New Town include Linkou's physical locality being very suitable as a satellite town for the Taipei metropolitan area, and providing a release for the pressure of urbanization on the Taipei metropolitan areas. Moreover, the most important factor is that the land price around Linkou area is very cheap and the land accumulation for development is easy. But during the process of planning, some big land speculators and brokers colluded with government bureaucrats and bought up most of the important land of the Linkuo Project. After the government decided to implement this project in 1973, land price around Linkou area rose 10 times. Finally, the project had to be cancelled in 1974.

During this period, the government investment in public housing construction was very meagre. On the average, there were only 2,000 public housing units constructed annually, and in 1975, there were only 135 public housing units constructed in the Taipei metropolitan area (the largest urban area in Taiwan) within which low-income housing only occupied 90 units. The problems of housing shortage, slums and squatters became increasingly serious.

In 1975, a series of announcement by the Executive Yuan declared that public housing construction had become top priority for government policy, and the Executive Yuan has made the final decision to implement immediately public housing constructions. The implementation will increase job opportunities and promote the development of related industries. All the problems concerned with the implementation such as land acquisition and capital accumulation have been studied by government and should be resolved shortly. In February 27, 1976, the Executive Yuan announced that the public housing construction has been integrated with the new Six-year Economic Development Plan and there should be 220,000 units of public housing to be constructed within this six year period. But till now, all the projects are still at the stage of proposals. There is no evidence to prove that the government can afford to implement a project with such great investment needs. A revision of RMPHC was published in 1975, within this revision, the government did not propose a practical solution to the problems of large-scale public housing construction. Instead, according to the regulation the government expected the problem of housing shortage for the majority of middle and low income residents to be solved by encouraging the development of private investment in the construction business. According to the history of housing development in the past 27 years, the crisis of housing development can not be solved, if the government continues to depend on private investment, land speculation and real estate business to be influential factors in large-scale housing construction for middle and low-income and working class

residents. According to the report "A Study of Public Housing Policy, Bureau of Domestic Affairs" in June 1976, only 40% of Middle and low income families can afford to buy a dwelling with minimum standard of living space and facilities under the existing long-term (20 years) installment plans. The cost of these dwellings must not include any profit. The housing crisis only can be solved by major public efforts.³¹

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SECTION III

A CRITICISM OF POLITICAL ECONOMY TWARD REGIONAL HOUSING DEVELOPMENT

- A. Introduction: Political economy as a basis of critique
 - a. The essence of development
 - b. The theory of political economy
- B. Critique of the "Dependency" theory of regional and housing development
 - a. Critique on the basic assumption
 - b. Critique on development precondition
 - c. Critique on theory of the relation between agriculture and industry
 - d. Critique on theory of urbanization and change of social structure
 - e. Critique on theory of housing development
- C. Conclusion: Critique of the regional development strategy and housing development

A. Introduction: Political Economy As A Basis of Critique

a. The Essence of Development

The concept " development " which came into being during the early twentieth century included two important aspects: (1) the renovation of technology and economy (2) the renovation of politics and society. This concept of development stressed social welfare rather than the increasing of property. Development of technology can promote industrialization, and industrialization is the necessary process to lead society into the stage of comprehensive welfare system. Therefore, industrialization within developing countries should be considered a process of modernization, rather than a process of development.

Since 1950, however, the essence of development has been restricted to a much narrower sense -- the progress of technical and economic activities within the capitalist system. The integration and interrelationship between politics, economics, and technology has been ignored. Therefore, the term " development " became synonymous with " economic development " and " economic growth ". The pursuit of economic growth within the capitalist system usually meant measurement by increase of GNP or per capita income. But no positive relation has been found to exist between the rapid increase of GNP or per capita income and the " development " of the whole society. The experience of many underdeveloped countries within the recent twenty years shows that the increase in GNP or per capita income has not resolved many economic, political and social problems. The accumulation of capital and property has

not reduced the differential gap between the rich and the poor; increasing consumption has not contributed to overall welfare, and the continuous growth of the economy has not brought the Third World into the ranks of the industrialized. On the contrary, social, economic and political problems have become more numerous and the differential gap between the rich and poor larger.

The original concept of capitalism is the application of universal principle of free competition in human society. This principle has been practiced within the exchange system of the society market. The capital is the driving force of market system. Within the market system, everything is labeled with certain price (including labor) can be exchanged. The more capital one possesses, the more merchandises one can exchange from the market. The accumulation of merchandises and capital represents the increase of property. Therefore, the emphasis of capitalist economists on the study of operation of market and accumulation of capital. Within their theory, development means the accumulation of economic property, and the process of accumulation necessarily entails the emphasis of material values. The more human values the problems of distribution and the goal and essence of integrated development, the change of social relation, and the development of individual potentials during the process of development had been unjustly neglected.

The major concern of " development " should be " the human being ". The purpose of " development " is the development should be a " integrated social progress " and include economic progress, social relation and politics.

b. The Theory of Political Economy

The following criticism for " dependency " theory and the development experience in Taiwan is based on Marx's theory of political economy. Marx's political economy is a method for the study of the relationships of production. According to the basic concept of Marx's political economy, the social relation of production is the fundamental relation which determined all the other human relations in the society. Because of the necessity of social production, men entered into certain social relation of production which is determined by the existing social force of production at the given stage. All the social relations of production constituted economic foundation of the society. Based on this social foundation, the corresponding superstructure includes the reins of government, army, law and social ideology. The total social relation of production and the social force of production, as well as the economic foundation and the social superstructures. Marx's political economy emphasized the study of contradictions between the relation of production and the force of product. The contradictions between the superstructures and the economic foundations, and the objective interdisciplinarity of development of human society. The major difference between the Marx's political economy and the capitalist economy is that capitalist economy treats the economic relation in the society as the relations between materials (for example, the relations of market, capital accumulation, or merchandise etc.); under this basic attitude, the relation of exploitation within capitalism society has been ignored, this is the basic problem of capitalism

society. Marx's political economy emphasized the social relations between men and men during the study of social and economic structure instead of relations between materials and materials. Therefore, Marx's political economy explored the major contradiction of capitalist society as between classes rather than between materials. Marx described the basic theory of political economy as follows: " In the social production which men carry on they enter into definite relations that are indispensable and independent of their will; these relations of production correspond to a definite stage of development of their material power of production. The sum total of these relations of production constitutes the economic structure of the society -- the real foundation, legal and political superstructures are based and corresponds to definite forms of social consciousness. " At a certain stage of their development, the material force of production in the society will conflict with the existing relations of production. With the advent of social revolution, with the attendant changes of the economic foundation the entire superstructure is being rapidly transformed. (Excerpted from preface of A Contribution To The Critique Of Political Economy By Karl Marx, first published in 1859)

B. Critique Of The " Dependency " Theory Of Regional And Housing
Development

a. Critique of the Basic Assumption

The capitalist theory was established on a series of assumption which can be summerized into three major concepts:(1)concept of class differentiation (2) concept of the roles of state institutions (3) concept of individual behavior.

(1) Concept of class differentiation. The capitalist theorists consider the class differentiation exists in any given society and the contradictions of uneven distribution of social property among different classes is a common phenomenon. They believed that all the contradictions among the different social classes can be compromised because a society is organized under a common set of ideals. The capitalists ignored the origins of the contradictions of class dfferenciation and the true relations among these classes. It is to be questioned whether the class differentiation has existed from all eternity. Within a certain stage of economic development, certain privileged classes plundered material advantages and became the oppressing classes, the class differentiation would appear and from which the contradiction among the different classes arise. The true relation among these classes according to Marx, therefore, is the relation between the oppressor and the oppressed. Under this relation, the contradictions can not be resolved nor compromised unless the oppressing class is eliminated. The human history in the Marxian mold is the history of class struggle.

(2) Concept of the roles of state institutions. Many modern liberal consider the state as an institutions established in the interests of society as a whole, and for the purpose of mediating and reconciling the chronic antagonisms between social existance. The weakness of this theory is that it failed to explain where state comes from and what is the function of the state. From the historical view point, the state is the product of a long and arduous struggle, and the class that succeeded in occupying the key position in the process of production fashions a state that will enforce a set of relations which is favorable to its own special needs and interests. When class reaps material advantages other classes in evitably suffer material disadvantages. Within capitalist society, " class domination " and " the protection of private property " are virtually synonymous expressions.

(3) Concept of individual behavior. Most of capitalist theorists believe that human nature is defective; most of the existing social problems are caused by this defective nature of individuals; social institutions exist to restrict the manifesta- tion of individual defects and the social development must depend on the behavioral change of each individual. They blame the existing contradictions on individual defects. The fact is that the social development does not depend on the behavioral change of individuals but on the development of social forces of production and the changes of relation of production in the society that are independent of one's free will.

b. Critique on Development Preconditions

Capitalism is an economic system controlled, regulated; and

directed by market alone; production and distribution of goods is entrusted to this mechanism. Under this theory, it assumes that markets in which the supply of goods (including services) available at a definite price will equal the demand at that price. It further assumes the presence of capital, which functions as purchasing power. Production is controlled by price, and the profits goes to those who owns the capital and means of production. The distribution of the goods will then depend on price, and price forms incomes, and with income the goods are eventually distributed among the members of society. Accordingly, every elements of development within a society is regarded as having been produced for sale. In short, there must be markets for every element; and that each element has a price, which interacts with demand and supply. These markets are interconnected and coalesce into one big market.

The crucial point is that labor, resources and capital are the essential elements for development; they also must be organized in markets; in fact, these markets form the vital part of capitalist system. But labor, resources and capital are not merchandise. Labor is only another name for human activity, and is not produced for sale, nor can such activity be detached from the rest of life, be stored or mobilized. Resources is another name of nature which is not produced by men; capital is merely a taken of purchasing power which is not produced at all, but come into being through the mechanism of banking or state finance. None of the above is produced for sale.

The right of private ownership within capitalist system allows the market mechanism to direct the fate of human being, their

natural environment and the amount and the use of purchasing power. This has resulted in the exploitative relation of social production, the contradiction of unevened distribution, and the degradation of human environment.

Profit is the primitive ideal for the development of market under the capitalism system. The more the market system expands, the more profit the capitalists can make. Therefore, the opening up and monopolizing of new foreign market had become the major mission for capitalists within developed countries. Under this major intention, a series of capitalist's theories of market capital, technology, resources and labor force of developing countries have been developed to serve the capitalists interests. Through the export of capital and technology, the advanced capitalist states have monopolized the markets and resources of developing countries. As a result, the relation of exploitation among the advanced capitalist states and the developing countries. Through these relations, the capitalist state can transfer the unavoidable crisis of capitalism system from its own society to that of the developing countries. This is one of the important reason that led Lenin to define imperialism as the highest stage of Capitalism.

c. Critique On Theory Of The Relation Between Agriculture And Industry

After 1950, the capitalist theorists created the development theory of so call " Dualism " for developing countries based on the development experience of advanced capitalist countries. They believed that the disequilibrated development between agricultural and industrial sectors in the unavoidable and necessary procedure for most developing countries during the initial period of industrialization. The theorists further declare that the import of foreign capital and advanced technology can stimulate the development of productive force in domestic industries; the traditional agricultural sector should supply the industrial development with sufficient cheap products, raw materials and cheap labors in order to achieve rapid industrialization. The rapid development of industrial sector can in turn lead the agricultural production to the stage of mechanization.

In practice, within developing societies most of population belongs to the agricultural sector, and agricultural production is the base of any other development. The import of foreign capital and advanced technology and establishment of foreign invested industries can neither supply the immediate domestic demand nor support the development of productive force of traditional agricultural sector, but benefit the intrusion of international capitalist market. The development experience of most developing countries within recent twenty years has proved this points. After opening up of domestic market to foreign capitalists, most

surplus value of domestic production of developing countries transferred into the hand of those foreign bourgeoisies through the exploited relation of production between the foreign investors and domestic workers, and the unequal relation of trade between the agricultural and industrial products. The primitive accumulation of capital for industrialization can never be achieved.

d. Critique On The Theory of Urbanization And Change Of Social Structure

According to capitalism theory, urbanization is always a product in the process of industrialization. Some capitalist theorists even consider it as the sign of progress in the society, especially in developing countries. But what is the real cause of urbanization? The answer of this question lies in the antagonism between town and country.

For the experiences of most developing countries, the import of foreign capital and technology upset the equilibrium of traditional society between the urban and rural sector, and change the mode of production and force of production within urban sectors. The improved force of production and mode of production caused the concentration of social production in urban sectors. This concentration increased the disequilibrated development and uneven distribution of social property between the two sectors. The differentiated gap between urban and rural sector widens. In the process of development, antagonism between town and country would surface because of economic conditions and large-scale immigration of population from rural countryside to urban sectors.

Along with urbanization, the change of social structure occurred in urban sector because of the change of productive force. This change breaks out the traditional mode of relation of production, and a new social structure forms. This new social structure is established on an exploited relation of production among the foreign capitalists, national bourgeoisie and the majority produc-

tion class. Usually, the foreign capitalists associated with the state power and national bourgeoisie of the developing countries to exploit the maximum surplus value. Under the circumstances, it becomes impossible to imagine that the developing state or institutions can play the role of unbiased arbitrators and implement social policy to protect welfare of the majority proletarian class. The inequality in income distribution will then become more and more severe, confrontation will become equally severe. Finally this contradiction will become the major fetter for the improvement of social force of production in developing countries. Quite contrary to the capitalist's theory of the transformation of industrial production from the stage of labor-intensive to that of capital and technique-intensive production.

e. Critique On The Theory Of Housing Development

The housing problem is the common crisis in all the capitalist societies including the most advanced capitalist nations, and is more serious in developing countries. Most capitalist theorists consider that the housing problem in urban area is caused by continuous urbanization; an unavoidable phenomenon during the process development. Therefore, the housing problem is intrinsic to any urbanization. The problem can be resolved by the gradual economic equalization of supply and demand, and a subsidized policy should be implemented as part of social welfare program to solve the housing problem for low-income classes, and new town construction also should be set up in order to release the pressure of over urbanization for large metropolitan areas.

Neither of these policies can really be the final solution. The housing problem will exist during the process of development. The greatest effect that these policies can achieve is the temporary release of the housing crisis pressure for the urban environment. Housing is the major problem of capitalist regional development strategies. As long as the inequality exists between the urban and rural development, the oppression of agricultural sector continues unabated. The urban housing problems will persist no matter which kind of housing policy is undertaken.

The urban housing crisis is more serious in most developing countries than that of advanced capitalist nations, because the urbanization processes more sudden. However, the capitalist theorists insist that the solution in developing countries is still

the same, but the emphasis of housing development for most developing countries should be placed on the public subsidiary policy of large scale housing construction in order to relieve the immediate urban crisis, among the low-income population. The housing policies such as housing bond issuing, public saving fund establishment, and long-term low-interest installment plan initiated for developing rural areas was based on this idea. There are two common obstacles in developing countries for implementing the large-scale subsidiary plan: (1) Under the exploited relation of development between the foreign capitalist power and developing countries, the primitive accumulation of public capital is very slow. Few of the developing state can afford to implement any large scale subsidized housing development plan. (2) The productive force in most developing countries is still very low; moreover, under the exploitation of foreign capitalists, the national bourgeoisie and the state, the social majority of low income classes is too poor to afford any payment of public subsidized plan that the state offers to solve their housing problems. The housing crisis is the common urban nightmare for most developing countries.

C. Conclusion: Critique Of The Regional Development Strategy And Housing Development

The Basis for Taiwan's development was established during the late colonial period under Japanese control. At that time, the capitalist mode of production had been formed in Taiwan's society within the colonial mode in both agricultural and industrial sectors. In the agricultural sector, most of Taiwan's cultivated land and forests had been raped by colonial government and Japanese capitalists through political and military domination. The colonial government was then the biggest landlord in Taiwan. Through the policies of heavy tax and monopoly of all the necessary raw materials and market, all the surplus value of production went into the coffers of Japanese imperialists. In the industrial sector, all the important industries and manufacturing business were monopolized by colonial government in conjunction with Japanese capitalists. The capitalist mode of production was established on the basis of the colonial relation of production. The pains of urbanization appeared during this period, with housing problems in the urban sectors. The colonial government ignored the problems of housing development because it still had not reached the serious stage.

After Taiwan's recovery by Chinese in 1945, the nationalist government began to implement "national capitalism". All the monopoly industries and manufacturing business of colonial government took over by nationalist government and all the agricultural land and forest of colonial government and Japanese capitalist

also transferred to public property. But the colonial social relation of production remained intact.

After the retreat from mainland China to Taiwan in 1949, the nationalist government began to focus on Taiwan's development. Along with the nationalist came U.S. influence and interests. Under massive economic support by U.S. Aid program, the government began to strengthen the monopoly industries and business. At the same time, government also realized that the existing relation of production in agricultural sector seriously hindered the development of agricultural force of production. Therefore, a series of " Land Reform " policy was implemented in order to improve agricultural productivity. Unchanged was the policy of heavy tax and strict control of supplies and market for production because the agricultural sector was the most important source for public capital accumulation. The result was an increase in productivity, but the farmers' livelihood remained at the subsistence level. Under U.S. Aid, U.S. influence had penetrated all the public institute because huge amount of U.S. capital in the guise of U.S. Aid program invested into the full spectrum of public economy. The rapid growth of public monopoly business and strict control of both political and military force stabilized Taiwan's economic and social structure. After 1960, the private foreign investment intruded, and these investments increased rapidly after 1965. Over 50% of these capital were from U.S. and Japan. Because of the magnitude of foreign investment, most of the important industries were controlled by foreign interests. Even the public monopoly industries and business had been seriously infiltrated by foreign

financial power due to the continuous inflow of foreign loan. The foreign capitalists exploited tremendous amount of surplus value from Taiwan's. Moreover, they directed Taiwan's development through the financial control. Therefore, Taiwan's Major industries still remained at the labor-intensive stage.

Taiwan's housing crisis had its origins in " antagonism between town and country ". The antagonism was caused primarily by government's development policies. The " Land Reform " policy stimulated the development of agricultural productivity during mid-50's, but the policy of heavy tax and control of supplies and market became the major fetters for the continuous development of productive force in the agricultural sector. After the enactment of encouragement act for foreign investment in 1960, government began to execute a agricultural policy of strict control to depress product price in order to create a low wage benefit for the encouragement of foreign investment. The unequal conditions of development between the agricultural and industrial sectors resulted. Following the rapid inflow of foreign capital and the booming development of foreign invested industries, the gap between the agricultural and industrial sectors became abysmal. The antagonism between urban and rural sectors became more and more acute. Large numbers of rural youths migrated to urban areas and to join the urban proletarian class. The urban housing problem grew increasingly serious since the mid-50's. Some development experts of U.S. Aid program actually perceived the serious effect of housing crisis and began to initiate a series of subsidized development plan for low-income majority (RLPHC). Large amounts of U.S. capital were

loaned to government with very low interest for housing construction several years later. The government then loaned this capital to low-income family for housing construction with much higher interest and with a much shorter installment period. At the same year of the establishment of RLPHC, the government also set up a long-term, low-interest subsidized program of housing construction for government bureaucrat. The interest of this program is much lower than that of loan program for low-income citizens, and the installment period of this program is twice large than that of loan program for low income citizens. Five years later, the government reaped more than five times profit from the loan program for low-income citizens. In spite these factors, most of the public housing fund went to housing construction for bureaucrats and government employees. These facts indicate two basic concepts of public housing construction:

(1) The government considered this kinds of projects as an public investment instead of social welfare program disregarding the fact that the majority of low-income classes were too poor to afford this expanse to improve their living condition. (2) The government considered public housing construction as an instrument for statlizing the ruling classes in society and to enforce the ruling power. Both the RMPHC and the newly revised RMPHC reflected government's narrow priorities.

Under the exploitation of foreign capitalists, national bourgeoisis in conjunction with governmental policy, low-income majority in Taiwan became poorer and poorer. It becomes more and more impossible for them to maintain a decent standard of living.

The housing crisis in Taiwan: " Is there any solution for this coming crisis under the existing ststem?" is the most pressing problem that any Taiwan planner would have to face in the years to come.

Table I-1 Position of Agriculture in Taiwan Economy

	1912	1922	1931	1935
Total population (in thousands)	3,502	3,905	4,808	5,297
Agriculture population (in thousands)	2,199	2,222	2,583	2,790
Percent of total	63	57	54	53
value of output (in million yens)	146	354	440	681
Value of agriculture products (in million yens)	93	183	220	361
Percent of total	63	53	48	53

Table I-2 Distribution and changes in the ownership of Farmland

	Number of Households		Percent of Total	
	1921	1932	1921	1932
Less than 1/2 cha	172,931	130,732	42.68	38.37
More than 1/2 cha	81,711	71,181	21.40	20.89
More than 1 cha	99,152	91,524	24.47	26.86
Less than 2 cha	330,381	265,764	81.54	78.01
More than 3 cha	23,276	23,641	5.74	6.65
More than 5 cha	14,891	15,324	3.68	4.50
More than 10 cha	7,649	8,497	1.89	2.50
More than 50 cha	572	775	0.14	0.23
Total	405,181	340,674	100.00	100.00

Table I-3 Farm Size vs Number of Household and Area

	No. of households	area(cha)	per cent of total household	per cent of total area
Less than 1 cha	259,642	103,000	64.08	14.31
Less than 1/2 cha	172,931	40,987	42.68	5.68
1/2 cha - 1 cha	86,711	62,513	21.40	8.67
1 cha - 3 cha	99,151	196,889	24.47	23.55
3 cha - 5 cha	23,276	88,672	5.47	12.29
5 cha - 10 cha	14,891	101,066	3.68	14.01
More than 10 cha	8,211	258,123	2.03	35.80
10 cha - 20 cha	5,454	73,722	1.35	10.22
20 cha - 30 cha	1,353	32,995	0.33	4.57
30 cha - 50 cha	842	31,837	0.21	4.47
50 cha - 100 cha	376	25,497	0.09	3.34
More than 100 cha	196	94,072	0.05	13.06
Total	405,181	721,252	100.00	100.00

Table I-4 Farm Ownership Pattern

	Number of Households				Percentage of Total		
	owner	part owner	tenant	total	owner	part- owner	tenant
1922	116,300	111,512	157,065	385,277	30	29	41
1926	114,599	119,322	161,897	395,818	29	30	41
1928	118,280	124,521	162,682	405,483	29	31	40

Table I-5 Taiwan Trade Figure (in thousands of yen)

Year	Export to Japan	Per cent of Total Export
1897	2,105	19
1903	9,729	49
1908	24,423	63
1913	40,436	73
1917	105,497	74
1922	127,301	76
1925	215,249	77
1929	238,705	79
1931	201,424	86
1932	222,683	88
1933	230,747	88
1934	279,410	88
1935	314,200	87
1936	358,894	89

Table I-6 · Major Exports to Japan (in thousands of yen)

	1925	1933
Rice	72,110	64,628
Sugar	105,651	118,614
(A) Total	177,751	183,242
Banana	9,096	7,899
Tea	121	623
Honey	18	858
Salt	1,240	1,063
Dried fish	1,322	470
Canned pineapple	1,918	4,791
(B) Total	13,715	15,704
Camphor	915	1,714
Camphor Oil	2,468	1,555
Alcohol	3,855	5,455
Hemp product	577	62
Hat	1,415	2,574
Card board	96	259
Coal	1,901	1,195
Copper	-	-
Ore	839	6,144
Cypress	2,196	2,084
(C) Total	14,262	20,500

Table I- 7 Taiwan's Major Imports from Japan (in thousands of yen)

	1925	1933
Grain and grain flour	22,353	6,697
Wheat flour	3,936	3,414
Tobacco and drinks	25,667	30,007
Fishery	10,221	8,954
(A) Total	47,930	36,104
Oil and fat	4,768	7,756
Mineral oil	1,917	3,705
Pharmaceutic	4,902	7,812
Paint	982	1,665
(B) Total	10,652	17,233
Fibre materials	2,932	3,387
Cotton cloth	20,604	25,021
Silk product	15,708	17,250
(C) Total	23,536	28,408
Ore and metal	7,535	13,422
Iron	7,402	11,517
Metal product	5,438	9,592
Watch, vehicle and machiney	6,137	17,152
Bicycle	1,225	2,346
Car	231	3,622
(D) Total	19,110	40,166
(E) Miscellaneous	15,416	34,479
Lumber	3,421	8,765
Other fertilizer	3,801	8,937

Table I-8 Comparison of the Wages of Taiwanese and Japanese Workers (in yens)

		maximum		minimum	
		Taiwanese	Japanese	Taiwanese	Japanese
Food Processing	Flour worker	1.00	1.40	0.60	-
	Noodle worker	1.10	1.50	0.60	-
	Soysauce maker	1.30	1.50	0.70	-
	Pickle and Sauce maker	1.30	1.50	0.60	-
Machinery Industry	Lathe operaror	1.80	2.85	1.20	1.80
	Carpenter	1.80	2.64	1.22	2.00
	Forger	1.80	2.52	1.00	1.80
Textile Industry	Weaver	1.12	1.60	0.40	0.70
	Dyer	1.50	2.40	1.00	1.35

(source: "Old Taiwan Governor-office Survey, 1935" in Fan, "The Political Economy of Taiwan")

Table II-1

U.S. ECONOMIC AID OBLIGATIONS BY STATUTORY INSTRUMENT, FY 1951-65
(In Millions of U.S. Dollars)

Instrument of Aid	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Grand Total
I. Project	<u>13.7</u>	<u>13.4</u>	<u>21.4</u>	<u>31.7</u>	<u>36.1</u>	<u>28.1</u>	<u>42.9</u>	<u>29.7</u>	<u>55.4</u>	<u>33.6</u>	<u>24.4</u>	<u>8.2</u>	<u>2.0</u>	<u>59.5</u>	<u>0.6</u>	<u>400.7</u>
Defense support	11.4	10.2	16.0	23.1	28.6	24.7	39.3	26.6	22.0	10.7	5.7	-	-	-	-	218.3
Direct forces	0.6	2.3	3.2	5.0	5.1	0.1	0.2	-	-	-	-	-	-	-	-	16.5
Technical cooperation	1.7	0.9	2.2	3.6	2.4	3.3	3.4	3.1	2.6	2.5	2.0	-	-	-	-	27.7
Development grant	-	-	-	-	-	-	-	-	-	-	-	3.0	2.0	2.1	0.6	7.7
Development loan	-	-	-	-	-	-	-	-	30.8	20.4	16.7	5.2	-	57.4	-	130.5
II. Nonproject	<u>69.7</u>	<u>69.5</u>	<u>79.2</u>	<u>76.6</u>	<u>95.9</u>	<u>73.5</u>	<u>64.0</u>	<u>52.0</u>	<u>69.1</u>	<u>74.5</u>	<u>72.9</u>	<u>59.1</u>	<u>82.6</u>	<u>84.0</u>	<u>42.1</u>	<u>1,064.7</u>
Agriculture	<u>49.5</u>	<u>45.2</u>	<u>51.6</u>	<u>55.6</u>	<u>53.2</u>	<u>54.4</u>	<u>57.2</u>	<u>52.0</u>	<u>59.0</u>	<u>44.0</u>	<u>60.1</u>	<u>59.1</u>	<u>63.7</u>	<u>69.5</u>	<u>42.1</u>	<u>816.2</u>
Defense support	48.7	42.3	45.5	43.6	43.1	35.4	30.9	33.3	36.4	30.7	29.7	-	-	-	-	419.6
Direct forces	0.8	2.5	6.1	11.5	7.5	9.4	6.5	1.6	-	-	-	-	-	-	-	45.9
PL 480	-	0.4	-	0.5	2.6	9.6	19.8	17.1	22.6	13.3	30.4	59.1	62.9	68.8	42.1	349.2
Program loan	-	-	-	-	-	-	-	-	-	-	-	-	0.8	0.7	-	1.5
Nonagriculture	<u>20.2</u>	<u>24.3</u>	<u>27.6</u>	<u>21.0</u>	<u>42.7</u>	<u>19.1</u>	<u>6.8</u>	<u>-</u>	<u>10.1</u>	<u>30.5</u>	<u>12.8</u>	<u>-</u>	<u>18.9</u>	<u>14.5</u>	<u>-</u>	<u>248.5</u>
Defense support	16.1	11.7	10.3	11.0	25.8	18.6	6.8	-	10.1	30.5	12.8	-	-	-	-	153.7
Direct forces	4.1	12.6	17.3	10.0	16.9	0.5	-	-	-	-	-	-	-	-	-	61.4
Program loan	-	-	-	-	-	-	-	-	-	-	-	-	18.9	14.5	-	33.4
III. GRAND TOTAL	<u>83.4</u>	<u>82.9</u>	<u>100.6</u>	<u>108.3</u>	<u>132.0</u>	<u>101.6</u>	<u>106.9</u>	<u>81.7</u>	<u>124.5</u>	<u>108.1</u>	<u>97.3</u>	<u>67.3</u>	<u>84.6</u>	<u>143.5</u>	<u>42.7</u>	<u>1,465.4</u>

Source: U.S. AID Mission to China, FY 1951-64: actual obligations as of June 30, 1964; FY 1965: programmed as of April 15, 1965.

Table II-2

PERCENTAGES OF TOTAL U.S. ECONOMIC AID PROVIDED BY STATUTORY INSTRUMENT, FY 1951-1965

Instrument of Aid	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
I. Project	<u>16.4</u>	<u>16.2</u>	<u>21.3</u>	<u>29.3</u>	<u>27.3</u>	<u>27.6</u>	<u>40.1</u>	<u>36.4</u>	<u>44.5</u>	<u>31.1</u>	<u>25.1</u>	<u>12.2</u>	<u>2.4</u>	<u>41.5</u>	<u>1.5</u>	<u>27.3</u>
Defense support	13.7	12.3	15.9	21.3	21.7	24.3	36.8	32.6	17.7	9.9	5.8	-	-	-	-	14.9
Direct forces	0.7	2.8	3.2	4.6	3.9	0.1	0.2	-	-	-	-	-	-	-	-	1.1
Technical cooperation	2.0	1.1	2.2	3.3	1.8	3.2	3.2	3.8	2.1	2.3	2.1	-	-	-	-	1.9
Development grant	-	-	-	-	-	-	-	-	-	-	-	4.4	2.4	1.5	1.4	.5
Development loan	-	-	-	-	-	-	-	-	24.7	18.9	17.2	7.7	-	40.0	-	8.9
II. Nonproject	<u>83.6</u>	<u>83.8</u>	<u>78.7</u>	<u>70.7</u>	<u>72.6</u>	<u>72.3</u>	<u>59.9</u>	<u>63.6</u>	<u>55.5</u>	<u>68.9</u>	<u>74.9</u>	<u>87.8</u>	<u>97.6</u>	<u>58.5</u>	<u>98.5</u>	<u>72.7</u>
Agriculture	<u>59.3</u>	<u>54.5</u>	<u>51.3</u>	<u>51.3</u>	<u>40.3</u>	<u>53.5</u>	<u>53.5</u>	<u>63.6</u>	<u>47.4</u>	<u>40.7</u>	<u>61.8</u>	<u>87.8</u>	<u>75.3</u>	<u>48.4</u>	<u>98.5</u>	<u>55.7</u>
Defense support	58.3	51.0	45.2	40.2	32.6	34.8	28.9	40.8	29.2	28.4	30.5	-	-	-	-	23.6
Direct forces	0.9	3.0	6.1	10.6	5.7	9.2	6.1	2.0	-	-	-	-	-	-	-	3.1
PL 480	-	0.6	-	0.5	2.0	9.4	18.5	20.9	18.2	12.3	31.2	87.8	74.3	47.9	98.6	23.8
Program loan	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.5	-	.1
Non-agriculture	<u>24.2</u>	<u>29.3</u>	<u>27.4</u>	<u>19.4</u>	<u>32.3</u>	<u>18.8</u>	<u>6.4</u>	<u>-</u>	<u>8.1</u>	<u>28.2</u>	<u>13.2</u>	<u>-</u>	<u>22.3</u>	<u>10.1</u>	<u>-</u>	<u>17.0</u>
Defense support	19.3	14.1	10.2	10.2	19.5	18.3	6.4	-	8.1	28.2	13.2	-	-	-	-	10.5
Direct forces	4.9	15.2	17.2	9.2	12.8	.5	-	-	-	-	-	-	-	-	-	4.2
Program loan	-	-	-	-	-	-	-	-	-	-	-	-	22.3	10.4	-	2.3
III. GRAND TOTAL	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Table II-3

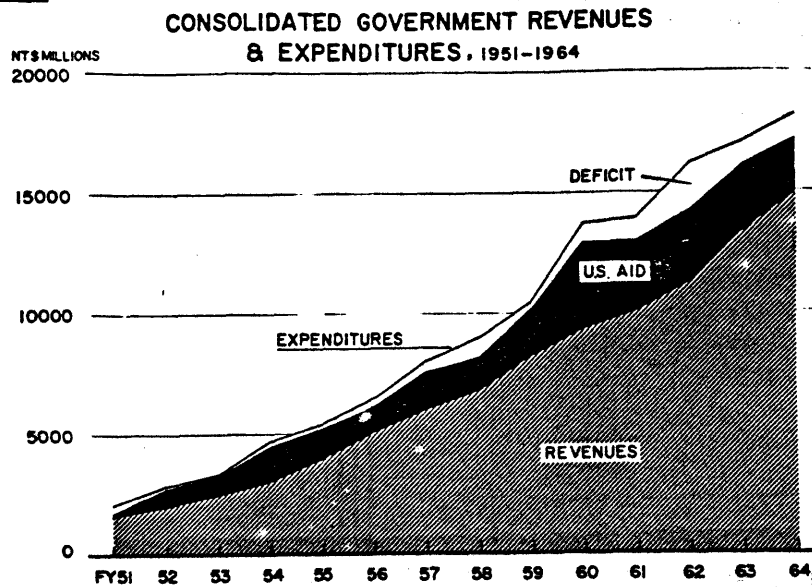


Table II-4

U.S. CAPITAL ASSISTANCE OBLIGATIONS AND NET DOMESTIC INVESTMENT
BY MAJOR SECTORS, 1951-63
(In U.S. Dollar Equivalents)

Sector	Net Domestic Investment		U.S. Capital Assistance		Per Cent of U.S. Capital Assistance to Domestic Investment
	Amount (millions)	Per Cent	Amount (millions)	Per Cent	
Infrastructure	\$ 481	18.5	\$ 356	44.0	74.0
Agriculture	329	12.6	193	23.8	58.7
Human resources	577	22.1	104	12.8	18.0
Industry	1,218	46.8	157	19.4	12.9
TOTALS	\$2,605	100.0	\$ 810	100.0	31.1
Public	\$1,253	48.0	\$ 649	80.1	51.7
Private	1,353	52.0	161	19.9	41.8
TOTALS	\$2,605	100.0	\$ 810	100.0	31.1

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