

C HAPTER 5

TAIWAN'S ECONOMIC DEVELOPMENT STRATEGY

Taiwan's accelerated development from 1950 to the mid 1980s was modeled after the Western developed countries and Japan. Agriculture was supplanted by manufacturing and as the economy advanced, the service sector began to over take manufacturing. What is particularly interesting about the experience of Taiwan is not just the development but the pace of the development. Looking at other countries, for example, Germany took 80 years to increase the share of manufacturing to the gross domestic product from 18.5% in the 1850s to 39.9% in the 1930s; Taiwan, on the other hand, took only 35 years to move from agriculture to manufacturing. Since 1986, Taiwan's economy and service industry grew enormously over the manufacturing sector. In 1986, manufacturing was at its peak at 39.4% of the gross domestic product; by 1994, it had come down to 29 percent (Wu and Naughton, 1995).

Taiwan's industries were successful in managing the transition between these growth stages. Unemployment did not rise because workers negatively affected by the shift from labor-intensive manufacturing to the less labor-intensive service sector were absorbed by the growing service sector. Even though unemployment rates remained low, the shift from a manufacturing to a service oriented economy posed serious problems. Wu and Naughton (1995) indicate that "the appreciation of the New Taiwan dollar against the U.S. dollar and the increase of domestic labor costs and land prices have increased the price of Taiwan's exports, thus reducing the competitiveness of Taiwan's exports in the international market." Consequently, Taiwan's export industry has been outsourcing the labor-intensive manufacturing industries to low-wage ASEAN countries and to the Peoples Republic of China (PRC). Such a move has both positive and negative effects. Without direct investment abroad, labor-intensive industries will be unable to survive in the international economy (Wu and Naughton, 1995).

Taiwan will be confronting competition as investment in the region increases and the Asia-Pacific region becomes an international trade center. The PRC is a major agent of influence over the economic development of Taiwan and the expanding economic and trade relations across the Taiwan Strait have increased the interdependence between these two nations.

The economic development strategy of Taiwan must meet the challenges presented by the shift from a manufacturing to a service-based economy. Likewise, the country needs to develop new strategies to adapt to the international economic and political environment. The success of the Uruguay Round of negotiations of GATT and the formation of the World Trade Organization,¹ as noted by Wu and Naughton, will guide the global movement toward economic liberalization (Wu and Naughton, 1995).

5.1 Economic Development Strategies

The economic development of Taiwan has undergone drastic changes starting with the relocation of the government in Taiwan. The initial focus of the island's economic development was to improve the standard of living of its people and secure the nation. Later the focus was on strengthening the economy and self-sustainability. The economic growth of Taiwan has been marked by clearly identifiable stages (Clark, 1987).

Initially, Taiwanese industry was characterized by labor-intensive production but it rapidly developed into a capital and technology-intensive industrial production. Looking back to modern times we can describe six stages in Taiwan's economic development (Table 5-1). During the last decades, the government has adopted a series of economic plans to help guide and promote economic growth and industrialization. We begin our examination in the decade of the fifties because the 1940s, when the Kuomintang government (KMT) relocated to Taiwan, is considered a time of economic reconstruction in which the emphasis was on rebuilding the basic infrastructure (Gold, 1986).

¹ General Agreement on Tariffs and Trade (GATT) functioned as the precursor to the World Trade Organization trading system.

First Stage

The first stage of economic development begins in 1950-1959. During this initial phase, Taiwan focused its efforts on economic stabilization and agricultural production (Thorbecke, 1979). Aid from the United States was crucial for building up the industry of Taiwan and setting the basis to attain self-sufficiency (Gold, 1986; Clark, 1987). Among major strategies implemented at this time was land reform to encourage agriculture, stabilize food prices, and promote social stability. Labor-intensive industries began producing basic products to reduce the need to import products and the need for foreign exchange (CEPD, 2005).

Agriculture was a vital generator of foreign exchange with Japan as its principal importer of products such as sugar, rice, tea, pineapple, bananas, and textiles (Olds, 2003). Production of rice, fertilizers, and hydroelectric power were especially important but sugar cane was the major export product (GIO, 2005). Towards the end of the decade, import substitution industries were encouraged. The private sector also rose to the challenge and manufactured supplies needed by the citizens as well as the materials required by the incipient industrial processing plants (Gold, 1986). This was an era of harsh restrictions in view of the deficit in international trade and general lack of goods. Government regulations imposed at the time included (Gold, 1986):

- Limitations to the import and export of certain goods;
- Certain requirements for industrial development to ensure wise investment and rational use of natural resources;
- Promotion of local production of much needed goods and components; and
- Trade restrictions and protective tariffs to protect local industries.

Second Stage

The second stage (1960-1969) was marked by the wise use of Taiwan's human capital and the advantage of low wages to bolster labor-intensive and export-oriented industries and place Taiwan's products in the world market (Gold, 1986). Economic strategies crucial for this development were the reforms in foreign exchange

administration and taxation, investment reforms, and the establishment of the first export-processing zone. Taiwan exports increased rapidly during this decade and were the engine behind Taiwan's economic development.

The 1960s marked the beginning of the industrial era in Taiwan characterized by labor-intensive export industries, basic services, energy development, agricultural industries, and development of the island's limited natural resources (Clark, 1989). As the economy transitioned from agriculture to industry, the displaced farmers were absorbed by the industrial and export-processing plants. Important financial and economic reforms were introduced to lower trade restrictions, promote investment and contribute to the industrialization of the island. As a result, the investment climate improved and foreign capital flowed into the island attracted by cheap labor and the export processing zones (Clark, 1989). All these conditions combined brought about a competitive advantage and increased economic growth for Taiwan.

This decade also marked the reduction of American aid assistance and the strategic importance of the island. To compensate for this situation, Taiwan focused its efforts on expanding its export capabilities. The increasing economic growth brought about a strong and well-educated middle class that became a key actor in the development of the island's economy (Gold, 1986).

Third Stage

During the third stage, in the decade of the 1970s, the growing export industry promoted strong local demand for machinery, equipment, and intermediate materials and also spearheaded major development of the production infrastructure (Gold, 1986). This decade was marked by great managerial and technological advances. The government also promoted the production of domestic substitutes for imported intermediates and the development of capital-intensive industries (Clark, 2000). This strategy allowed Taiwan to reduce its dependency on foreign supplier of essential intermediate products and enhance its industrial infrastructure. As a result, Taiwanese industry began to move towards basic and heavy industry.

In the 1970s, Taiwan was affected by two energy crisis and global economic recessions (Ranis, 1979). To overcome the situation, Taiwan implemented the Ten Major Development Projects that set the framework for the development of machinery, food, petrochemical, textile and motor industries and reduce the effects of the economic recession (Clark, 1987). Many trade restrictions were lifted and tariffs were lowered to promote foreign trade. In response to the demands of the private sector, the government developed industrial parks so that investors could acquire land easily. In general, this was the time of fastest economic growth in the history of Taiwan. This was the time of Taiwan's industrial upgrading marked by the improved quality and quantity of its exports (Gold, 1986).

By 1971, exports of manufactured goods had registered spectacular increases and Taiwan's foreign trade pattern changed from one of chronic deficit to consistent trade surpluses (Clark, 2000). At this point, the government began to redirect its priorities from labor-intensive industries to the development of such capital-intensive sectors as shipbuilding, chemicals, and petrochemicals. The sixth four-year plan (1973–1976), adversely affected by the worldwide recession, was terminated in 1975 (GIO, 2005). It was replaced by a six-year plan (1976–1981) that focused on expansion of basic industries and completion of ten major infrastructural projects, including railroad modernization, development of nuclear energy, and steel mills, and the new port of T'aichung.

In 1978, the six-year plan was revised, and 12 new infrastructural projects were added, including completion of the round-the-island railroad, construction of three cross-island highways, expansion of T'aichung Port's harbor, and expansion of steel and nuclear energy facilities.

Fourth Stage

Taiwan's fourth stage, from 1980-1989, was when the results of the trade promotion strategies of earlier decades were perceptible and an increasing surplus was recorded in foreign trade (CEPD, 2005). During this decade, Taiwan implemented economic liberalization and internationalization as new guiding principles to continue

promoting economic development, and take advantage of market forces. Major developments in the area of capital and technology-intensive industries as electronics, information, and machinery were accomplished using Taiwan's capital resources (Clark, 1989).

The 1980's marked a shift in the economic development of Taiwan with a mild decrease in the economic growth compared to the previous two decades as a result of modifications in the country's industrial sector as well as political and social reforms happening in the country (Clark, 1989). This decade defined the development of high technical level industries in Taiwan. To accommodate the trend of liberalization, import tariffs were greatly reduced (MOEAIDB, 2006).

During this period, the agricultural sector had the lowest performance and the average annual growth rate of the industrial sector was also below the level of the preceding two decades. The service sector, meanwhile, experienced the highest growth rate far above that of the industrial sector (GIO, 2006).

Fifth Stage

The fifth stage, or the decade of the 1990s, was characterized by infrastructure development. The Six-Year National Development Plan was enacted early in the 1990s and it included the implementation of major construction projects in the areas of transportation, culture and education, improvement of living standards, water resources development, and environmental protection (CEPD, 2005). In 1997, a Plan for National Development into the Next Century (1997-2000) was introduced. The purpose of this plan was to spearhead the transformation of Taiwan into a modern industrialized society. The main goals were to strengthen national competitiveness, improve quality of life, and promote sustainable development. Meanwhile, the decision was made to develop Taiwan into an Asia-Pacific Regional Operations Center (APROC).²

Taiwan began to prepare for the new millennium by adopting a strategy to enhance research and development (R&D), in other words, the country had evolved completely

² APROC aims to develop Taiwan into an Island of Science and Technology that is also a gateway to the Asia-Pacific region.

from the labor intensive “perspiration” stage and stepped into an era of “inspiration” (CEPD, 2005). The economic strategy was to transform the industrial infrastructure, further develop the human capital, improve logistics networks, and implement environment protection and preservation.

Sixth Stage

For the new millennium, the Plan for National Development in the New Century (2001-2004) was prepared. The main guidelines for the plan were liberalization, internationalization, and systemization (CEPD, 2005).

Challenge 2008 is the new six-year development plan and focuses on international competitiveness, quality of life, and sustainable development (CEPD, 2005). The plan calls for major investments in manpower, R&D and innovation, logistics networks, and the environment. Challenge 2008 includes ten major projects targeted to maintaining Taiwan’s number-one competitiveness status in Asia and transform it into one of the world’s three strongest economies. The major areas of emphasis include cultivating talent for the E-generation (with a special emphasis on mastering English); developing the cultural arts industry; developing a digital Taiwan, using information technologies to make government more efficient and industries more competitive; developing Taiwan as a regional headquarters for multinational corporations; and constructing culturally rich hometown communities as a means of retaining talent, in addition to more standard goals of increasing value-added, improving the transportation infrastructure, conserving water resources and doubling the number of tourists (Lin, 2006).

Taiwan’s industrial structure has built a solid foundation through more than 50 years of endeavor, and is now an important player in the global economy. With its accession to the WTO in 2002, Taiwan has encountered challenges from a more liberalized and competitive domestic market, as well as from Mainland China’s dynamic impact (CEPD, 2005).

The economic development strategies implemented in Taiwan from the mid 20th century to date are presented in Table 5-2. This table shows how the country has

evolved from an economy based on agriculture to an industrialized nation. The themes of the different strategies show the maturation of the economic strategies that adapted to the country's own development and the outside market influence. Today Taiwan is pursuing closer trade and economic ties with the Asia-Pacific region while working towards converting itself into a "green silicon island" (CEPD, 2005).

Table 5-1 Taiwan's Strategies for Economic Development

Year	Economic Development Strategies
1950s	<ol style="list-style-type: none"> 1. In Pursuit of Stability and Self-Sufficiency; 2. Introducing economic planning in 1953, after the completion of postwar rehabilitation; 3. Implementing a land-reform program, stimulating agricultural production, and promoting economic stability; and 4. Developing labor-intensive import-substituting industries to reduce the trade deficit.
1960s	<ol style="list-style-type: none"> 1. Expanding Exports of Light Industry; 2. Encouraging savings, investment, and exports; 3. Introducing new agricultural products; and 4. Establishing export-oriented industries and export-processing zones.
1970s	<ol style="list-style-type: none"> 1. Developing Basic and Heavy Industries; 2. Improving infrastructural facilities and eliminating transport bottlenecks; 3. Establishing intermediate-goods industries; and 4. Developing basic and heavy industries.
1980s	<ol style="list-style-type: none"> 1. Economy Liberalization and Technology-Intensive Development; 2. Restructuring industrial production and expanding R&D spending; and 3. Promoting economic liberalization and internationalization.
1990s	<ol style="list-style-type: none"> 1. Coping with change and setting new priorities; 2. Stepping up public investment and improving the investment climate; 3. Speeding up deregulation to strengthen national competitiveness; 4. Enforcing pollution control and rationalization of land use to promote sustainable development; 5. Encouraging more-balanced economic and social development to improve the quality of life; and 6. Developing Taiwan into an Asia-Pacific Regional Operations Center.
2000s	<ol style="list-style-type: none"> 1. Sustainable Development on a Green Silicon Island; 2. Developing a knowledge-based economy, and providing a clean and self-renewing natural environment; 3. Fostering the development of an affluent and compassionate society; 4. Promoting the spread of e-commerce and developing a complete range of supply-chain services to speed Taiwan's emergence as a major international procurement and logistics base; 5. Implementing the Challenge 2008 National Development Plan — a strategic plan paving the way for Taiwan's emergence as a "green silicon island" in the first decade of the new century; 6. Planning the New Ten Projects, to address the pressing need for raising public investment in infrastructure and to speed the implementation of Challenge 2008; and 7. Moving toward more knowledge-based, sustainable and equitable socio-economic development.

Source: CEPD (2005).

Table 5-2 Major Themes of Taiwan's Economic Development Plans — 1953-2008

1st Medium-Term Plan 1953-1956	2nd Medium-Term Plan 1957-1960	3rd Medium-Term Plan 1961-1964	4th Medium-Term Plan 1965-1968	5th Medium-Term Plan 1969-1972
1. Step up agricultural and industrial promotion	1. Expand agricultural production	1. Maintain economic stability	1. Foster economic modernization	1. Maintain price stability
	2. Accelerate industrial and mining development	2. Speed up economic growth	2. Maintain economic stability	2. Promote export expansion
	3. Stimulate export expansion	3. Expand industrial base	3. Stimulate the development of high-level industries	3. Intensify infrastructural development
	4. Create job opportunities	4. Upgrade investment environment		4. Upgrade industrial structure
	5. Improve the balance-of-payments position			5. Push forward with agricultural modernization

Table 5-2 Major Themes of Taiwan's Economic Development Plans — 1953-2008 (cont.)

6th Medium-Term Plan 1953-1956	7th Medium-Term Plan 1957-1960	8th Medium-Term Plan 1961-1964	9th Medium-Term Plan 1965-1968	10th Medium-Term Plan 1969-1972
<p>1. Accelerate industrial modernization</p> <p>2. Expand infrastructural development</p> <p>3. Enhance manpower quality</p> <p>4. Encourage export expansion</p>	<p>1. Raise energy efficiency</p> <p>2. Improve industrial structure</p> <p>3. Strengthen manpower development</p> <p>4. Promote balanced economic and social development</p> <p>5. Complete the Ten Major Development Projects</p>	<p>1. Maintain reasonable price stability</p> <p>2. Continue economic growth</p> <p>3. Harmonize industrial development</p> <p>4. Provide adequate job opportunities</p> <p>5. Promote more-equitable income distribution</p> <p>6. Balance regional development</p> <p>7. Harmonize social life</p>	<p>1. Promote trade liberalization</p> <p>2. Expand public investment</p> <p>3. Strengthen the fiscal and monetary system</p> <p>4. Speed up the modernization of services</p> <p>5. Actively develop key technologies</p> <p>6. Strengthen the control of environmental pollution</p>	<p>1. Basic Policy: - Increase public expenditure - Improve laws and regulations, and pursue economic liberalization</p> <p>2. Development emphases: - Improve investment environment - Develop transportation infrastructure - Strengthen environmental protection - Augment social welfare</p>

Table 5-2 Major Themes of Taiwan’s Economic Development Plans — 1953-2008 (cont.)

Six-Year National Development Plan 1991-1996	Plan for National Development into the Next Century 1997-2000	Plan for National Development in the Next Century 2001-2004	Second-Term Plan for National Development in the Next Century 2005-2008
1. General goals: -Rebuild social and economic order -Pursue balanced all-around development 2. Policy goals: -Raise national income -Bolster industrial potential -Promote balanced regional development -Improve quality of life	General goals: -Enhance national modernization -Sharpen national competitiveness -Improve the national quality of life -Promote sustainable development	General goals: -Develop Taiwan as a “green silicon island” -Develop a knowledge based economy -Provide sustainable environment -Foster a fair and just society	General goals: -Develop Taiwan as a “green silicon island” with a rich humanistic culture -Reduce the production gap -Reduce the sustainability gap -Reduce the national welfare gap

Source: CEPD (2005).

5.2 The Taiwan Miracle

Numerous authors (Chan and Clark, 1992; Clark, 1989; Fei et al, 1979; Galenson, 1979; Gold, 1986; Haggard, 1990; Ho, 1978; Li, 1988; Myers, 1984; Ranis, 1992; Wade, 1990; Winckler and Greenhalgh, 1988) refer to the economic development of Taiwan as the “Taiwan Miracle”. Taiwan has, in the course of the last three to four decades gone through one of the world’s highest rates of economic growth. Taiwan is a particularly interesting case not only because of its economic growth and evolution from an impoverished agricultural society into a wealthy industrial nation, but because the economic growth brought about a strong middle class and fairly equitable distribution of income among the citizens. This is a unique situation because the common pattern in developing nations is unbalance and inequality in terms of richness. Taiwan’s development experience is of considerable interest and relevance for the study of economic development.

Beginning in 1952 and for several decades forth, Taiwan achieved economic records when compared to the rest of the world; it was also able to keep an impressive average annual economic growth rate of 8.63% (Gold, 1986). Agriculture initially grew at an average yearly rate of 3.64 %, exceeding the natural population growth rate. Later on, agriculture was supplanted by industrialization. Taiwan implemented a series of policies and took advantage of its geopolitical situation and reached outstanding industrial development. Presently, the service sector has been enjoying a high growth rate and has become the major engine behind economic growth in Taiwan (CEPD, 2005).

The spectacular economic success of Taiwan does not follow the typical path proposed by the models of economic and political science (Clark, 2000). Clark suggests that the Taiwan Miracle is a direct result of its shift from the typical dependency pattern of developing countries.

Economic Models

The economic success of Taiwan has been analyzed under the scope of several developmental economic models. Two models have been particularly looked in for the case of Taiwan: the Lewis Dual Sector Model, the Todaro Model, and the Kuznets Curve which we will discuss below.

Lewis Dual Sector Model

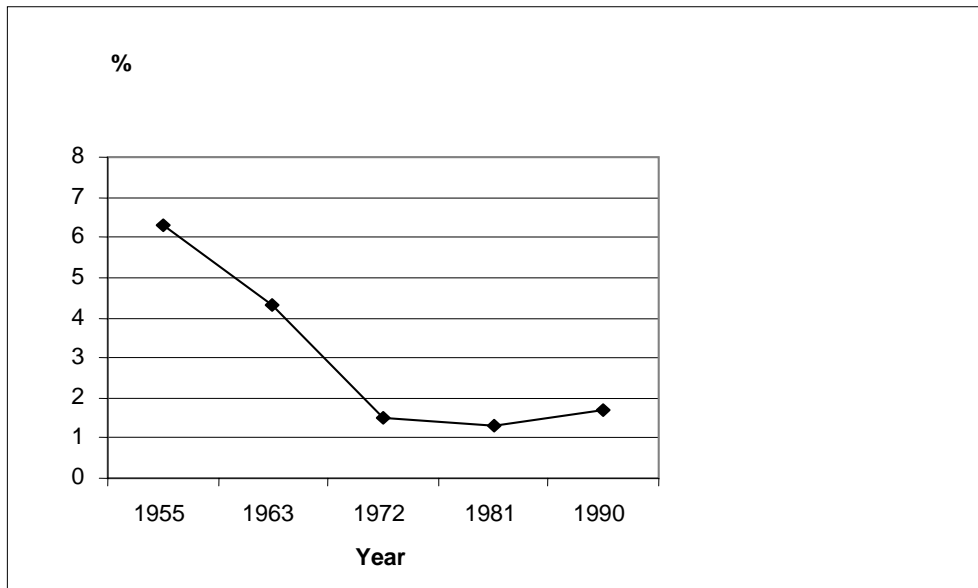
Sir Arthur Lewis wrote his famous essay “Economic Development with Unlimited Supplies of Labor” to present his theory on labor market dualism (Lewis, 1954). This model explains the growth of a developing economy in terms of a transition of labor between two different sectors: a traditional agricultural sector and a modern industrial sector (Fields, 2004). The traditional sector is characterized by low wages, innumerable supply of labor, and low productivity of a labor-intensive agricultural production. On the other hand, the modern industrial sector is characterized by higher wages, high productivity and a demand for labor. According to the model, the agricultural workers

migrate to the modern sector attracted by the higher wages. Competition later brings down the wages in the industrial sector to the level of the agricultural sector leading to high profits in the industrial sector. This excess profit helps expand the industrial sector even more. The model helps explain the reason why wages remain low and capital profits high in developing nations in the course of rapid development.

There are two predictions in the Lewis model. First, provided there is labor surplus, economic growth will produce shifts of employment between the two sectors but little or no increase in real wages in the industrial sector. Second, when the unlimited supply of labor is consumed and the turning point is reached, the ensuing economic growth is characterized by higher wages in general (Ranis, 2004).

Many authors have analyzed the Lewis model as it applies to real life cases (Fields, 1975, 1979), and it has been applied in models (Harris and Todaro, 1970) but it also has critics (Sen, 1966, 1967). The Lewis model has been quite prophetic in many instances such as the case of Taiwan as analyzed by Fields (2004). Figure 5-1 shows that in the mid fifties, the open unemployment rate was high (6.3%) but as Taiwan's economy grew in the following year the unemployment rate decreases and reached 4.3% by 1963 and real wages in the industrial sector rose by only 2% during that period; this is consistent with excess labor being supplied relative to the amount demanded. Unemployment rate kept falling and by the 1960s it fell to 1.5%. In the 1980s and 1990s, unemployment remained below 2% and real wages doubled again in each decade, not only in the industrial sector but in the country in general (Fields, 2004).

According to Fields (2004), the Lewis dualistic model is exemplified by the particular case of Taiwan: falling unemployment at practical constant wages, then rapidly rising real wages at full or over-full employment. The Lewis model is still applicable today and some authors are applying it currently to the off-shoring experience of emerging economies such as India (Fields, 2004). Ranis (2004) uses the Lewis model to explain the fact that the employment effects of low wages during the initial reallocation process can lead to an increase in the wage bill and an efficient distribution favoring labor, which in turn results in an improvement in the family distribution of income as is the case of Taiwan showing the relationship between growth and equity.



Source: Fields, (2004).

Figure 5-1 Unemployment Rate in Taiwan

The model also applies to Taiwan's case from 1950 to 1970 when the agricultural sector presented high average labor productivity while the agricultural and non-agricultural real wages increased very little, in other words, falling substantially lower than the industrial sector, until the commercialization or Lewis turning point was reached (Fields, 2004).

Todaro Model

The Todaro or Harris-Todaro Model economic model is used to discuss and analyze situations related to rural-urban migration (Harris and Todaro, 1970). According to the model, people decide to migrate based on expected income differentials between rural and urban areas, not wage differentials. In other words, rural-urban migration in a context of high urban unemployment can be economically rational if expected urban income exceeds expected rural income.

The model implies that a point of equilibrium will be reached eventually. At the point of equilibrium, the rural to urban migration rate is zero since the expected rural income equals the expected urban income (Fields, 2005). In other words, the expected agricultural wage rate equals the expected urban wage rate, which is the urban wage multiplied by the number of available urban jobs over the total number of urban employment seekers.

The equilibrium condition of the Harris-Todaro model is as follows (Harris and Todaro, 1970):

$$\text{Wages (rural)} = \frac{\text{number of employed urban workers}}{\text{(urban) total number of urban force}} \times \text{Wages}$$

In other words, the expected rural wage rate equals the expected urban wage rate, which is the urban wage multiplied by the number of available urban jobs over the total number of urban employment seekers.

The Todaro model is used to explain that rural to urban migration causes urbanization as rural workers move into the cities to take manufacturing or industrial jobs. Temple (1999) states that urbanization tends to be associated with greater inequality, at least if capital is mobile across sectors.

In this sense, Taiwan is a special case because the rapid urbanization of Taiwan did not bring about an adverse change in distribution. Inequality did not rise in Taiwan over 1966-80 because of an emphasis on balanced growth and dispersed industrial development (Temple, 1999).

Kuznets Curve

Taiwan is listed as one of the “few exceptions” that have escaped the gloomy predictions of Kuznets for income inequality (Gold, 1986). According to Kuznets, income inequality would follow an inverse U-curve in developing countries, increasing as the economy grew and leveling off and then declining much later. Taiwan, on the

other hand, illustrates the expectations of structural transformation in economic that characterize and industrial economy. Taiwan has achieved remarkable economic growth and egalitarian distribution of income (Fields, 2005).

5.3 Main Determinants of Economic Growth in Taiwan

Economic development usually includes three parts: economic growth, distribution of income, and quality of life. Taiwan has excelled in all those aspects as well as in other economic indicators. Taiwan has had low inflation rate, low unemployment rate, abundant foreign exchange reserves and practically no foreign debt. There are very few other countries in the world that have been able to achieve success rates comparable to Taiwan's.

One of the main determinants of Taiwan's success was its rapid growth and equitable prosperity. From the second half of the 20th Century, Taiwan's economy grew initially fueled by agriculture but rapidly shifted to the development of the industrial sector. The focus of Taiwan's economy later moved away from the industrial sector toward the service sector. Taiwan's population also enjoys a fairly equitable level of prosperity parallel to the nation's economic development (GIO, 2005).

During the early stages of Taiwan's economic development following the relocation of the central government, the effects of wars, and a general lack of basic necessities drove the inflation rate up substantially (Ranis, 1979). Lately, inflation in Taiwan has been moderate. In terms of unemployment, Taiwan's rates are outstandingly low. The main reason is strong exports and the fact that labor-intensive export enterprises have provided jobs to large numbers of people.

Another factor influencing Taiwan's economic growth is the foreign exchange reserves accumulation and lack of debt. From 1981 to 1999 Taiwan enjoyed a continuous trade surplus. In 1985, exports accounted for about 20% of Taiwan's total GNP. By 2000, accumulated foreign exchange reserves reached US\$110 billion. This is remarkable especially considering Taiwan's small size. In fact, Taiwan has been one of the world's largest foreign exchange reserves holders. In addition, Taiwan has not

accumulated much foreign debt. In 1987, Taiwan's foreign debt was roughly US\$1.4 billion (GIO, 2005).

Looking at the elements of success in the case of Taiwan requires further analysis of both the international and national scenarios present when Taiwan was building its economy (Chan and Clark, 1992; Clark, 1989; Galenson, 1979; Gold, 1986; Ranis, 1992).

International Scenario

In the post WWII scenario, Taiwan's economic take off was favored by the lack of competition in the international market as the world superpowers like England and the United States were open to free trade and did not feel threatened by emerging nations such as Taiwan (GIO, 2005).

National Scenario

The national scenario of the emerging nation was characterized by stability, widespread education, and hardworking people. Characteristic situations of the domestic conditions were as follows (GIO, 2005):

1. Stability and harmony. In the 1950's the cross-strait situation was tense therefore the Taiwanese people united for the common goal of making their nation strong and self-sufficient.
2. Widespread education. As the country matured and began to industrialize in the sixties, the number of years that all children needed to attend school was increased from six to nine in 1969. This additional generalized education policy was crucial to generate the skilled workers the nation needed.
3. Good work and saving habits. The Taiwanese people have been known for being hard workers and for their saving habits. In the 1980s, the savings rate climbed as high as 40 percent. While consumer habits have changed somewhat over the past few years, the savings rate remains above 26 percent.

4. Strategic economic planning. In spite of the limited supply of natural resources, Taiwan was able to grow economically thanks to timely adopted economic policies such as:

5. Market Economy. Even though during the initial years, Taiwan adopted strict policies and rationing, the later stages of development were characterized by more freedom of choice and a market economy that helped the nation advance from developing to a developed status.

6. Shift from agriculture to industry. In the fifties, Taiwan was an agricultural society with the goal of “fostering industry through agriculture, while supporting agriculture through industry.” Land reform and high productivity in the agricultural sector generated the capability to satisfy the domestic needs and export the surplus. Agricultural exports generated the foreign exchange to strengthen the industrial sector.

7. Open economy. After the initial phase of its development, Taiwan’s economic policies promoted trade to offset the resource limitation of the island. Initially, the country adopted protective measures to safeguard its emerging industrial sector. As the economy grew, Taiwan adopted economic liberalization and globalization policies.

8. Shift from Labor to Capital intensive industry. Initially, Taiwan’s greatest factor of production was its labor force therefore the government developed labor-intensive industries that prospered rapidly and gave way to capital intensive industries as the economy grew.

9. Light to heavy industry. The private sector of Taiwan played a key role in the development of light industries that required minimum capital investment but by the 1970’s the industrial sector moved swiftly to heavier industry.

10. Governmental responsibility. The government has gradually evolved following the development of the country. From the authoritarian style characteristic of the initial phases, the government has shifted to more democratic and legislative styles.

11. Government and Citizen Harmony. The prosperity and success of Taiwan was also determined by the diligence of its people and the drive of the private sector working to solve each problem and reach the common goals.

5.4 Summary

This chapter has presented a summary of the economic development strategy of Taiwan. In general we can say that the particular characteristic of Taiwan is not just its successful economic growth but the fact that the growth was achieved in a remarkable short period of time. Another interesting factor is the continuous adaptations and reforms implemented throughout time to accommodate the development guidelines to the ever changing conditions within society and the world. In addition, Taiwan has made an effort to identify its assets and construct over its strength to overcome its weaknesses. This fact has given Taiwan a definite advantage to adequately face the challenges presented by its geographic limitations and global competitors.

In conclusion, the Taiwanese people have been extremely successful in establishing a powerful economic strategy that has spearheaded their development and placed them in a unique economic status among the nations of the world.