

Interest Rate Policies of South Korea and Taiwan in Early Stages of Development

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Introduction

Until the early 1960s, per capita incomes of South Korea and Taiwan were lower than many African countries, such as Ghana and Kenya, as well as the Philippines. However, during the second half of the 20th century, both countries achieved remarkable economic growth and along with Hong Kong and Singapore, became known as the “four Tigers.” In 2005, South Korea ranked the 13th largest economy in the world, while Taiwan ranked the 18th.¹

Because the governments of South Korea and Taiwan aggressively intervened in their economies compared to other countries, some quickly jump into the conclusion that the spectacular growth was possible by the government policies. Although many scholars have attempted to prove the causality between the government interventions and economic performances, no consensus exists regarding the effectiveness of government intervention. For example, Alice Amsden (1989) attributes the growth to government policies by stating “the state [Korea] in late industrialization has set relative prices deliberately ‘wrong’ in order to create profitable investment opportunities.”² The World Bank, in its *The East Asian Miracle* (1993), however, failed to find a statistical link between policy and performance. While the Bank maintained that government interventions did not inhibit growth, it also argued that policies must be market-friendly in order to be successful.³ On the other hand, neoclassical economists like Jagdish Bhagwati view that government interventions had rather hindered the growth of these economies.

¹ According to the CIA World Factbook’s ranking of purchasing power parity-adjusted GDP. (<https://www.cia.gov/cia/publications/factbook/rankorder/2001rank.html>)

² Alice Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989), pp. 13-14.

³ World Bank, *The East Asian Miracle: Economic Growth and Public Policy* (New York: Oxford University Press, 1993).

Unlike the rigorous debate on and comparison of the two governments' industrial policy and export promotion policy, less attention has been paid to the macroeconomic policies, especially the different interest rate policies they pursued in early stages of development. Today, between the two countries, Taiwan has a higher per capita GDP and a more egalitarian income distribution. Taiwan's high interest rate policy to fight hyperinflation and South Korea's low interest rate policy to encourage investment may partially explain the gap between the two countries' economic performances. Hence, this paper will highlight the different interest rate policies of South Korea and Taiwan and evaluate their effects.

In order to understand the background of the policies, I will first discuss the similarities and differences in the two countries' history and the economic conditions after the Second World War. Then I will examine the interest rate policies the countries implemented. Of particular interest are Taiwan's Preferential Interest Rate (PIR) Program in 1950, and South Korea's financial reform in 1965 and 1972 Presidential Emergency Decree. I will evaluate their effects on savings and investment, inflation, industrial structure, business-government relations, and income distribution. Finally, I may draw policy lessons for other countries from the example of Taiwan and South Korea.

Similar History and Economic Conditions in the 1950s

Historically, South Korea and Taiwan share a Chinese tradition of Confucianism, which may explain the people's emphasis on education. Although the countries had low income levels in 1960, the Adelman and Morris' index of socio-economic development shows that, they achieved

nearly universal primary-school enrolment, while other countries at the same income level had around 60%. Their literacy rates were comparatively higher as well.⁴

Harbison and Myer's study using formal education also shows that in the late 1950s, Korea's human resource development was at the level of countries that had three times as higher median per capita GNP than Korea. Educational effort in Korea increased over time, and by 1965, Korea's human resource development exceeded that of the 'semi-advanced' countries in which median per capita GNP was nearly four times as higher than that of Korea's.⁵

The better-educated abundant labor force played an important role in South Korea and Taiwan's economic development. In addition, the Chinese tradition influenced work ethics and labor relations in the two countries. While workers in South Korea and Taiwan are well known for their long working hours, they also enjoyed employment stability.⁶

During the first half of the twentieth century, both countries have been under the Japanese colonial rule. Japan occupied Taiwan for fifty years and Korea for thirty-five years before the end of the Second World War in 1945. Tibor Scitovsky (1990) points out that during this period, the Japanese increased agricultural productivity and also built infrastructures such as roads, railway, and harbors. In addition, the confiscation of Japanese property at the end of the War, improved the income distribution in these countries. However, because most of the business capital was owned by Japanese and the majority of the technicians were Japanese nationals, the end of the colonial rule meant an economy deprived of capital and skilled labor force.

⁴ Dani Rodrik, "Getting the Interventions Right: How South Korea and Taiwan Grew Rich," in *National Bureau of Economic Research Working Paper Series*, No. 4964, 1994, p. 19.

⁵ David C. Cole and Princeton N. Lyman, *Korean Development: The Interplay of Politics and Economics* (Cambridge: Harvard University Press, 1971), pp. 138, 295-96.

⁶ Tibor Scitovsky, "Taiwan and South Korea, 1965-1981," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986), p. 131.

To make matters worse, most of South Korea was destroyed by the Korean War in 1950-53. On top of the 320,000 soldiers, nearly one million South Korean civilians were killed, and approximately one quarter of the population wandered as refugees during the war. Property damage amounted to \$2 billion and during 1949-52, agricultural production fell 27% and GNP dropped by 14%.⁷

After the wars, both countries received significant aid from the United States after the wars. The US provided aid averaging 5.1% of Taiwan's GNP until 1965 and South Korea received 8.3% of its GNP until 1966, though the amount slightly decreased afterwards.⁸ At the same time, South Korea and Taiwan were heavily burdened by military expenditures to defend themselves against the communists-controlled North Korea and the mainland China respectively. When receiving aid from the US, Taiwan spent nearly 10% of its GDP for national defense, and even after the aid ceased, the government refused to cut the spending. In 1982, although Taiwan's per capita income was less than one-fifth of that of the US', it spent a higher percentage—9.6% of income, compared to 7.7% of the US--on defense.⁹ During 1965-81, Korea also spent 5-6% of its, GNP, which is significantly higher than the average of 3-4% of other countries.¹⁰

More importantly, the countries had high densities of population and lacked natural resources and arable land. As a result, few imagined in the 1950s that South Korea and Taiwan could accumulate the wealth they enjoy today and many believe the growth was due to the interventionist government policies. However, the government policies of the two countries were

⁷ Cole and Lyman, 22.

⁸ Scitovsky, 134.

⁹ Ramon H. Myers, "The Economic Development of the Republic of China on Taiwan, 1965-1981," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986), pp. 61-62.

¹⁰ Scitovsky, 134.

not identical. As Scitovsky puts, “unlike Koreans, [the Taiwanese] have shown great respect for the strength of market forces” and “while Korea’s development weakened the pull of market forces, Taiwan’s strengthened it.”¹¹ The different interest policies South Korea and Taiwan implemented supports this point of view.

Interest Rate Policies

1. Taiwan

When the Nationalists fled to Taiwan from mainland China in 1945, the new government suffered from corruption, budget deficit, and sudden inflows of capital to the island, which all led to hyperinflation. Price levels rose 1145% in 1948 and 3000% in 1949. Because the Nationalist leaders knew hyperinflation and financial instability were some of the many reasons they were defeated by the Communists, they feared that inflation in Taiwan will create domestic and foreign enemies of the state by shaking people’s confidence in the economy and hindering growth.¹² In addition, because of the experience from the 1940s when the Nationalist’s letters of credit were not accepted abroad, they also aimed to not rely on foreign borrowing. In order to prevent chaos and to maintain political control, fighting inflation immediately became one of the top priorities. For the sake of their political survival, “growth with stability and equity” became the ultimate economic goal of the new government in Taiwan. Since then, the government became reluctant to not intervene in the economy.¹³

To curb hyperinflation, Taiwan implemented a policy drastically different from those of many other developing countries in the early post-war period. Believing in Keynesian macroeconomics that low interest rates encourage investment, facilitate growth, and bring down

¹¹ Scitovsky, 136.

¹² Karl J. Field, *Enterprise and the State in Korea and Taiwan*, (Ithaca: Cornell University Press, 1995), p. 137.

¹³ Field, 85.

price levels, most countries at the time controlled the bank interest rates at an artificially low level. On the contrary, in March 1950, Taiwan introduced the Preferential Interest Rate (PIR) Savings Deposits, which offered an exceptionally high interest rate of 7% per month for one-month savings deposits. The PIR program was influenced by economist S.C. Tsiang's theory that bank interest rates determined by market forces will attract savings into banks.¹⁴ In order to pay the high interest rates on deposits, commercial banks in Taiwan had to charge high rates on the loans as well. In case they were unable to lend back the funds deposited, the PIR program allowed the banks to redeposit with the central bank at the same interest rate offered to the savers.¹⁵ With the sharp increase in savings and stabilized price levels in 1952, the interest rates were lowered and the PIR program lasted until March 1955.

In 1976, a money market was established in Taiwan as Tsiang and other economists had recommended. The money market's market-clearing interest rates of loanable funds outside of the government-controlled commercial banking system were to serve as a reference for the banks to set their interest rates. From 1978, interest rates of the banks were deregulated step by step and complete liberalization was achieved in 1989. Unfortunately, because of the monopolistic banking system and market entry regulations, banks were able to raise loan rates and lower deposit rates after the interest rate liberalization.¹⁶

2. Korea

¹⁴ Jia-Dong Shea, "The Liu-Tsiang Proposal for Economic Reform in Taiwan," in *Taiwan's Development Experience: Lessons on Roles of Government and Market*, eds. Erik Thorbecke and Henry Wan, Jr., (Norwell: Kluwer Academic Publisher, 1999) p. 166.

¹⁵ Gail E. Makinen and G. Thomas Woodward. "The Taiwanese Hyperinflation and Stabilization of 1945-1952." *Journal of Money, Credit, and Banking* 21 (February 1989) p. 94.

¹⁶ Shea, 169.

The economic priority of the South Korean government after the Korean War was to reconstruct the destroyed infrastructure and industrial facilities. Immediately, the United States increased aid through Public 480 and through the Agency for International Development (AID). The Public Law 480 provided Korea with American surplus agricultural products, such as grain and raw cotton, while the support from US AID focused on economic reconstruction. Although, in 1957, the US shifted its foreign assistance policy from grants to loans and the aid declined, the US aid was crucial in the early days of Korea's development. During 1953-60, official aid from the US amounted around \$1,745 million, reaching its peak of \$370 million in 1957.¹⁷ Not only did foreign grants finance over 70% of Korea's import, but also financed almost half of the government expenditures. As the government was able to sell what it received as grants instead of issuing additional currency and notes, the money supply was significantly lower than it should have been otherwise.¹⁸ Nonetheless, rapid inflation was prevalent in Korea. Only in the middle of 1957, when the more urgent reconstruction programs were completed, did the government shift its policy emphasis to price stabilization by restricting the money supply and eliminating the government deficit.

Meanwhile, interest rates were kept artificially low for several reasons. During the Yi Dynasty and the colonial rule under Japan, Koreans suffered from annual real interest rates of more than 50% in the private credit market, and by the time the new government was established, antipathy to usury was widespread in Korea. Because the government was unwilling to and unable to control the liquidity growth, price level continuously rose. Due to the inflation, nominal interest rates would have been very high if they were determined by the market.

¹⁷ Sung Yeung Kwack, "Economic Development in South Korea," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986), p. 71.

¹⁸ Kwang Suk Kim and Michael Roemer, *Growth and Structural Transformation*, (Cambridge: Harvard University Press, 1979), pp. 41-43.

Most importantly, Korean policymakers shared the common view of development economists at the time that low interest rates will stimulate investment by lowering the cost of capital, and induce growth. In contrast to Tsiang's theory, it was widely believed that savings were unaffected by interest rates, but solely depended on income. Also, because of Korea's risky investment environment after the War, many argued that the cost of capital should be low.¹⁹

Prior to 1965, Korea's annual interest rates were set to 10-15%. The interest rates on deposits and loans of commercial banks were determined by the Central Bank, while the Ministry of Finance set interest rates for special banks such as the Korea Development Bank. An anti-usury law placed a ceiling on interest rates of 15%, though the interest rates in the unregulated market (or curb market) were more than three to four times of the ceiling. Although real interest rates remained positive from 1958 to 1962 due to low inflation, when price levels rose in 1963-64, it became negative again.²⁰

In a study commissioned by the US aid program in 1965, Professors John Gurley, Edward Shaw and Hugh Patrick recommended the Korean government to abandon the interest rate ceiling and raise the interest rate of financial institutions to the degree that it would be competitive with the curb market rates. The report was completed in late July 1965, and within two months, Korea's legislative branch raised the interest rate ceilings and carried out a financial reform with the purpose of attracting private savings and combat inflation.²¹

The 1965 reform significantly increased the interest rates on deposits. The increase varied among different categories of time and savings deposits and the annual interest rate on one-year time deposits increased from 15% to 30%, which was close to the curb market rate. Meanwhile,

¹⁹ David C. Cole and Yung Chul Park, *Financial Development in Korea*, (Cambridge: Harvard University Press, 1983) pp. 138-139.

²⁰ Cole and Park, 200.

²¹ Cole and Park, 198.

the degree of interest rate increase on loans was much less and applied to only a portion of the loans made. For example, loans to exporters, farmers and other investment projects were still highly subsidized. Because the interest rates on commercial loans, ranging from 24% to 28% per year, was lower than the maximum rate paid on more-than-one-year time deposits and their profit margins were squeezed, the banking community started to complain about the reform.²² The interest rates steadily decreased over time. Long-term deposit rates of 30% were reduced to 22.8% in June 1969 and to 20.4% in June 1971. By August 1972, when another drastic measure by the government was carried out, the interest rate decreased to 12.0%.²³

During the 4 years after the 1965 reform, Korea's economic performance was outstanding. The average growth rate of the country's real GNP was over 10%, and per capita income nearly doubled. Inflation was also below 8% per year. However, by 1970, Korea's aggregate demand started to decrease as both investment and export demand declined. Due to the tight monetary policy credit expansion slowed down as well.

So far, businesses maintained high rates of investment by borrowing from domestic banks, the curb market, and from abroad. When the government devalued the won in 1971 in order to promote the export industry, the won cost of foreign debt servicing also increased overnight and businesses turned to the curb market for short term loans. The financial structures of large businesses in Korea were weakened to the point that an increase in interest rate could possibly wipe out the ordinary incomes. The Korean government feared that businesses may collapse through a chain reaction and bankruptcy of these businesses would affect the country's credit standing in the international capital market when foreign funding was vital to its economy.

²² Cole and Park, 201-202.

²³ Cole and Park, 89.

Some other reasons for the policy change included changes in Korea's development strategy to heavy chemical industries (HCI), concerns that high interest rates increases the cost of capital and makes Korea's exports less competitive in the global marketplace, and the government's desire to limit the growth of the curb market.

In August 3rd, 1972, President Park Chung Hee issued a Presidential Emergency Decree in order to revive the economy and eradicate some of the economy's structural problems. The Decree nullified all loan agreements of business firms in the curb market. The agreements were replaced by new ones that allowed businesses to repay the loans over five-years with a three-year grace period. The interest rates on these new loans were fixed at 1.35% per month, or the lenders could switch the loans to shares of the borrowing businesses. Long-term loans with 8% annual interest rate substituted previous short-term high-interest loans. In addition, in the regulated banking system, overall interest rates on deposits were reduced from 17.4% to 12.6% and interest rates on loans were lowered from 19% to 15.5%.²⁴

The 1972 measures were not only radical, but are also unimaginable in a free market economy. However, the Korean government continued to use financial policy as a tool for reaching its economic targets, while big businesses were convinced that the government will bail them out in case of crises.

The interest rate deregulation has been slow in Korea. Starting from 1984, banks were able to charge different interest rates on the loans they made within a range of 1% to 1.5% based on the borrower's credit-worthiness. However, the Ministry of Finance's ambitious interest rate deregulation plan announced in December 1988 was reversed the next year due to an economic downturn. In the early 1990s another plan to deregulate interest rates and eliminate government's

²⁴ Cole and Park, 163.

intervention in the quantity of credit was implemented. However, naturally, Korean banks were unable to conduct credit analysis or make profit due to the long history of government control.²⁵

Comparison

Even though the governments of South Korea and Taiwan were able to deliberately set the interest rates of the banks, they were unable to control the interest rates of the curb markets. In those unregulated and semi-legal credit markets, lenders and borrowers transact freely and interest rates are determined by the supply and demand mechanism.

In Taiwan, critics of the high interest rate policy have argued that the rise in official bank interest rates will shift loanable funds from the curb market to banks. This shift will result in a decrease of total loanable funds as banks are required to hold certain percentages of the deposits made. Hence, many reasoned that due to the higher cost of financing capital, prices will rise consequently. Although the size of Taiwan's curb market remained large, providing nearly 20-30% of the total loans in the 1970s,²⁶ the government's policy to keep the interest rate as high as possible was proven successful in various aspects of the economy, including accumulation of capital and fighting inflation.

On the other hand, Korea's official interest rate on bank deposits, much below the market-clearing rate, had directed lenders and borrowers to the curb market. Despite the risk, lenders attempted to seek greater returns through higher interest rates in the curb market. At the same time, because the official rate is low and credit is rationed, borrowers also turned to the

²⁵ Sung-Hee Jwa, "A New Paradigm for Korea's Economic Development: From Government Control to Market Economy," (New York: Palgrave, 2001) p. 138.

²⁶ Robert Wade, "East Asian Financial Systems as a Challenge to Economics: Lessons from Taiwan," in *California Management Review* 27 (Summer 1985) p. 113.

curb market. As Scitovsky points out, Korea's large size of curb market due to the low interest rate policy created inefficiency in financial institutions and ultimately in its economy.²⁷

Effect on Savings and Investment

1. Taiwan

While the primary purpose of the high interest rate policy in Taiwan was to curb inflation by absorbing the excess liquidity through increase in savings, along came the benefit of capital accumulation. From 1965 to 1981, Taiwan recorded an exceptionally high domestic savings averaging 28.7% of its GNP, which was enough to cover domestic investment of 28.4% and export some of its capital abroad.²⁸ Thanks to the high savings rate, by 1984, Taiwan's total debt was below \$12 billion, or 21% of its GNP.²⁹

Interestingly, it was Taiwanese households that contributed to the country's capital accumulation most. Although corporations accounted for between 28.6% and 44.46% of total capital formation during 1975-1981, because their major form of savings was provisions for fixed capital consumption, or the depreciation of their assets due to normal wear and obsolescence, their net contribution was much less significant. On the other hand, households in Taiwan supplied as much as 47.19% of the total savings in 1977, and during the 1965-1981 period, the average savings propensity of households ranged from 11%-24%.³⁰

The high savings rate in Taiwan was due to several factors. Various tax incentives to save were introduced by the government. For example, in September 1960, the government exempted

²⁷ Scitovsky, 169.

²⁸ Scitovsky, 157.

²⁹ Ramon H. Myers, "Economic Development in Taiwan," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986), p. 41.

³⁰ Myers, pp. 16, 19.

income tax to those who received interest earned from time deposits of two years or longer. In 1971, the tax exemption was extended to recipients of interest from trust funds, month savings deposits, and postal savings to name a few.

Most significantly, the high real interest rates, i.e. the high nominal interest rates offered by bank deposits less the inflation rate, inevitably attracted savers and increased the propensity to save. When the PIR program in March 1950 offered bank deposit rates near to the curb market level at 7% per month for one-month savings deposits, Taiwan's deposits rose from NT\$2 million in early 1950 to over NT\$37 million in August. When the interest rate was decreased to 3% per month in October, people began to withdraw their deposits, and by the end of the year, only NT\$26 million was left.

2. South Korea

Throughout the 1950s and up until the mid 1960s, South Korea's domestic savings level remained low. For this reason, the majority of investment in South Korea was financed through foreign borrowing. In the 1950s, when investment counted for only 10% of South Korea's GNP, foreign savings accounted for approximately 64%-85% (depending on the definition) of the total investment and the government consistently ran a budget deficit during this period of low domestic savings.³¹ During the 1965-1981 period, when Taiwan was able to finance its entire investment that averaged 28.4% of the GNP through domestic savings, Korea was only able to fund 2/3 of its investment which averaged 26.5% of its GNP.³²

In addition to Korea's lower net corporate savings after depreciation allowance compared to that of Taiwan's, the discrepancy was most noteworthy in household savings. The rate of

³¹ Kim and Romer, 49.

³² Scitovsky, 169.

household savings as a percentage of consumers' disposable income averaged 17.6% in Taiwan and 7.6% in South Korea.³³ Scitovsky attributes several factors to explain South Korea's low savings rate compared to Taiwan, such as South Korea's slower growth of GDP, slower increase in the proportion of its labor force receiving part of its income in the form of bonuses, greater need to spend on education, lesser need to save for establishing or expanding their businesses, and lower level of returns on savings deposits.

Nonetheless, South Korea did experience increase in savings particularly after the financial reform in 1965. When the interest rates on saving deposits were raised to 20% or more after the reform, savings soared; savings of 9 billion won in September 1965 increased to 50 billion won by the end of 1966 and amounted 617 billion won by the end of 1972. The rapid increase in savings implied that funds from the curbs market shifted to bank deposits and new savings increased as well.³⁴ On the other hand, the reduction in interest rates on deposits in 1972 has been criticized for shooing away savers from banks. Because of the low rates of return on bank deposits, many savers shifted to unproductive methods of savings, such as real estate speculation and returned to unorganized curb markets.³⁵

Effect on Inflation

1. Taiwan

The PIR program in Taiwan was immediately successful in fighting inflation. While wholesale prices jumped 10.3% per month during the first quarter of 1950, for the first three months after the program was implemented, the price increase was 0.4% per month. When the

³³ Scitovsky, 157-164.

³⁴ Paul W. Kuznets, *Economic Growth and Structure in the Republic of Korea*, (New Haven: Yale University Press, 1977) pp. 79-80.

³⁵ Cole and Park, 271.

government tried to decrease the interest rate after the outbreak of the Korean War, prices started to rise instantly, forcing the government to resume higher rates.³⁶ The redeposit feature of the PIR program, which guaranteed that excess deposits could be redeposit with the Bank of Taiwan, enabled the Bank to advance its credit without issuing notes. Hence, the rate of growth in the monetary base was reduced to curb inflation.³⁷ Prices were gradually stabilized by 1952.³⁸

Taiwanese economist T.C. Liu and S.C. Tsiang continued to advise the government to implement this high interest rate policy to counter inflationary pressure. In fact, high interest rates were adopted in 1974, 1979, and 1980 when price level rose due to the oil crises. Learning from Taiwan, even international monetary authorities such as the World Bank and IMF urged developing countries to increase deposit rates in the 1980s.³⁹

2. South Korea

After the Korean War, South Korea experienced rapid increase in price levels. The peak level of inflation was 531% per year in 1951, and the rate declined to 31% by 1956. Economists and policymakers believed the excessive monetary expansion was the source of inflation. Government borrowing from the Bank of Korea, which increased the money supply, was one of the main causes of Korea's inflation before mid-1960s. Instead of implementing a high interest rate policy as Taiwan did, however, Korea's financial stabilization program of 1957 emphasized restricting the growth of money supply by eliminating large government deficits. While prices remained stable during the 1958-59 period due to good grain harvests, before long, inflation returned with political and social instability as a result of the student revolution in 1960.⁴⁰ The

³⁶ Shea, 166-167.

³⁷ Makinen and Woodward, 97.

³⁸ Shea, 166-167.

³⁹ Shea, 167.

⁴⁰ Kim and Roemer, 42.

inflation rate in South Korea during 1960-65 recorded an average annual rate of 19%.⁴¹ After the interest rate reform in September 1965, the annual inflation rate fell to less than 14% during 1965-72.⁴²

Scitovsky (1986) points out that the low interest rate policy decreased domestic savings, making Korea dependent on foreign capital. The extensive foreign borrowing to finance high investment resulted in inflation, which in its turn reduced savings, creating a vicious circle.⁴³ In addition, he argues for the importance of inflationary expectations citing the examples of the oil crises in the 1970s. Until then, South Korea pursued opposite policies of Taiwan, promoting growth over stability. During the first oil crisis, the wholesale price index rose 40% in both countries. On the other hand, South Korea allowed inflation of 40% by doing nothing, and the real GNP growth rate increased. The Taiwanese government raised the interest rate and restricted credit. Although the GNP growth slowed down, Taiwan was able to control the inflation by bringing down the price levels increase by 5%. When the second oil crisis hit after President Park's assassination, the South Korean government changed its priority to stability and raised the interest rate and cut down investment. However, the expectation of inflation was higher in South Korea than Taiwan, and in fact, South Korea had to fight inflation more costly over a longer period of time.⁴⁴

Effect on Industrial Structure

1. Types of Production: Labor- v. Capital-Intensive

Taiwan

⁴¹ Kuznets, 183.

⁴² Kuznets, 79-80.

⁴³ Scitovsky, 168.

⁴⁴ Scitovsky, 171-172.

Because the cost of capital was high due to high interest rates, Taiwanese firms turned to labor-intensive methods of production. In a developing country like Taiwan, where relatively well-educated labor force was abundant and capital was scarce, this was a great advantage, as Taiwanese firms were able to create more job opportunities, at any given level of investment. In fact from 1965 to 1981, unemployment rate in Taiwan remained below 2%.⁴⁵

In the 1950s, Taiwan adopted an import substitution policy to create light industries, and labor-intensive industries grew the fastest during this period. The share in the total industrial value added of the seven industries most intensive in labor rose from 10.9% in 1954 to 17.6% in 1961.⁴⁶ Annual rates of nonagricultural labor absorption were more than 3% and the manufacturing sector grew from 13% of the GDP in 1953 to 19% of the GDP in 1960.

As the US aid was to end in the early 1960s, Taiwan transformed its import substitution policy into an export promotion one. The manufacturing sector of light consumer goods and intermediate goods expanded rapidly and exports increased at an average growth rate of 26% during the 1963-73 period.⁴⁷ The exporting industries were internationally competitive as they took advantage of Taiwan's abundant labor force. Only in the wake of the 1973-74 oil crisis did Taiwan take measures to build up capital-intensive heavy industries as they feared its economy's vulnerability to international conditions.

South Korea

⁴⁵ Scitovsky, 139-140.

⁴⁶ Fei, John C. H., Shirley W. Y. Kuo, and Gustav Ranis. "The Taiwan Success Story: Rapid Growth with Improved Distribution in the Republic of China, 1952-1979," (Boulder: Westview Press, 1981) p. 67.

⁴⁷ Chen, Pochih. "The Role of Industrial Policy in Taiwan's Development," in *Taiwan's Development Experience: Lessons on Roles of Government and Market*, eds. Erik Thorbecke and Henry Wan, Jr., (Norwell: Kluwer Academic Publisher, 1999).

In contrast to Taiwan, where high interest rates encouraged labor-intensive methods of production, the official low interest rates of South Korea decreased the cost of capital, leading to a capital-intensive industrial structure. Because the government controlled the banking system, when the low interest rates created excess demand for loans, the government had the power to allocate credit the way it desired to direct the Korean economy.

In January 1973, President Park announced the Heavy Chemical Industries (HCI) Promotion Plan, which were to support six selected industries—iron and steel, nonferrous metal, machinery, shipbuilding, electronics, and chemical. While the private sectors were to undertake the plan, the South Korean government used a variety of incentives to accomplish the government-set targets.

In order to channel resources to the businesses, the government had to shift its financial policy among others. The National Investment Fund (NIF) financed by the government and other financial institutions was established. As the NIF was unable to meet the needs of the entire HCI plan, portion of commercial banks lending were utilized as well. Because the South Korean government reasoned low interest rate will reduce the risk for the private sector to undertake the risk of participating in the HCI projects, the real interest rate remained negative throughout the 1970s.⁴⁸

On the other hand, under the HCI Plan, the government shifted its trade policy from export promotion to import substitution. Previously, in the 1960s, the exporting labor-intensive industries enjoyed privileges of preferential loans, tax exemptions, wastage allowances, accelerated depreciation, and discount on public utilities. However, as the government decided to support the capital-intensive industries instead, the labor-intensive industries which could have

⁴⁸ Suk-Chae Lee "The Heavy and Chemical Industries Promotion Plan 1973-79," in *Economic Development in the Republic of Korea, A Policy Perspective* ed. Lee-Jay Cho and Yoon Hyung Kim (Honolulu: East West Center, 1991) pp. 441-442.

taken advantage of Korea's inexpensive and plentiful labor force were deprived of incentives and resources, including access to bank loans.

2. Size of Firms: Small and Medium Enterprises (SME) v. Chaebols

Taiwan

Although large companies exist in Taiwan, their annual sales, asset size and number of employees lag far behind Korea's conglomerates, also known as *chaebols*. In 2005, Korea's #1 chaebol, Samsung Group, employed approximately 229,000 people and its sales recorded more than \$141 billion.⁴⁹ On the other hand, Taiwan's largest conglomerate, Formosa Plastics Group, which is composed of 33 companies, conducts businesses ranging from raw materials to transportation, and owns a hospital and a university, hired less than one-third of employees Samsung did.⁵⁰

The relationship between the government and the private sector in Taiwan has been different from the government-business partnership that existed in Korea due to historical and ideological reasons. According to Gold (1986), the government-business relationship in Taiwan was influenced by the Nationalist government's concerns that although they retained political power, the economic power of growing private sector dominated by ethnic Taiwanese could be translated into political power.

In the course of Taiwan's development, small and medium enterprises (SME) have thrived instead, due to several reasons. Scitovsky (1986) points out that when overseas Chinese with capital immigrated to Taiwan, most of them set up their own businesses. Taiwan's government also established numerous industrial parks and districts in order to help

⁴⁹ "Samsung Group," Hoover's Company Records. Austin: Dec 1, 2006. p. 41463.

⁵⁰ Katherine Hille, "Formosa Plastics **Tycoon Hands Over to Children**," FT.com. London: Jun 5, 2006, p. 1.

entrepreneurs with skills to start independent businesses. The presence of many SMEs in return contributed to competition in Taiwan's economy as the smaller size of firms made it easier and cheaper for new firms to enter the market.

Taiwan also had higher saving rates, thanks to the high interest rates offered on deposits, which were needed to secure capital. The high interest also prevented firms from growing fast by limiting their profits.⁵¹ Although the interest rate remained slightly lower than the market-clearing rate, the high interest rates substantially reduced the excess demand for loans. Therefore, Taiwan had a smaller degree of credit rationing by the government or banks. Instead of the firms that the government or banks favored, credit rationing through interest rates allowed firms that are able to afford the high cost of capital through greater returns on investments to obtain loans they needed. As a result, the country's average return on investment increased, further accelerating growth. In addition, the Taiwanese government did not repress the curb market as the Korean government continuously did, through measures such as the August 3rd Presidential Decree. Despite the slightly higher interest rates, the curb market in Taiwan served as the major source of funds for SMEs, as credit availability was the more urgent problem.⁵²

From 1966 to 1976, the number of manufacturing firms increased by 150% in Taiwan, while the number of employees in each individual firms increased by only 29%. In contrast, the number of manufacturing firms in Korea increased by only 10% while the number of employees per firm increased by 176 percent during the same period. Also, in 1976, 43% of all manufacturing firms in Taiwan had less than 5 employees. Excluding those very small firms, an

⁵¹ Scitovsky, 136-137.

⁵² "Small Business in Korea, Japan and Taiwan: Dirigiste Coalition Politics and Financial Policies Compared" Hun Joo Park, *Asian Survey*, Vol. 41. No. 5 (Sep.-Oct.,2001) pp. 846-864.

individual Taiwanese firm hired an average of 34.6 employees in Taiwan, which was approximately half of Korea's average of 68.8 employees.⁵³

During Taiwan's export promotion era of 1961-1971, SMEs grew tremendously in industries that were labor-intensive. While small firms produced textiles, apparel, leather goods, wood and bamboo products, basic metals, metal products, and machinery equipment, larger firms produced food, paper, chemicals and nonmetallic mineral products.

South Korea

In Korea, most chaebols were founded prior to President Park's regime as small family businesses. Samsung Group started out as a rice mill under the Japanese rule,⁵⁴ and the Lucky-Goldstar Group, Korea's third largest chaebol by total revenue in 2004, started out as a cosmetic cream factory. Later the Luck-Goldstar Group diversified its business to the plastic, oil-refinery, electronics, and telecommunications industry.⁵⁵

During the 1960s, the chaebols, successful at exporting started to receive preferential treatments such as new loans and tax exemptions. However, it was the Park's regime in the 1970s when they were able to enlarge their size substantially. Believing in economies of scale, the HCI Plan explicitly aimed to encourage big firms to grow bigger.

The expansion of Korean chaebols could be attributed to the government's low interest rate policy and the government-business partnership. As discussed earlier, the low interest rates on loans to stimulate investment inevitably created excess demands for loans. Because banks were controlled by the government, the loan decisions ultimately depended on the government. While the government used such 'policy loans' to direct investment in a certain industries, it was

⁵³ Scitovsky, 136-137.

⁵⁴ "Samsung Group" Hoover's Company Records. Austin: Dec 1, 2006. p. 41463.

⁵⁵ Rodrik, 28.

often the chaebols who received them due to bigger assets and better collaterals. By participating in the government's developmental plans, they received most of the concessionary loans at interest rates much lower than the market rate.

Predictably, Korea's chaebol-based growth strategy hindered the growth of SMEs. While the chaebols were receiving preferential interest rates on loans, the SME share of bank credits were stagnating, most notably under the HCI plan. To make matters worse, in the second half of the 1970s, the government changed the definition of SMEs from firms with 5-199 employees to firms with 5-299 employees, further shrinking the credits available to SMEs in Korea.

The SME policy in Korea changed as the HCI drive ended with the introduction of the Comprehensive Stabilization Program in 1979. The new military dictator, President Chun DOo Hwan's government that came into power after President Park's assassination eliminated the preferential interest rate treatment chaebols enjoyed under the HCI Plan and attempted to give SMEs better access to bank credit by reserving a certain portion of industrial credits to them. By the mid-1980s, the share of SMEs' bank credit increased from 20-30% during the 1970s to 45%.⁵⁶

Despite the effort to promote SMEs in the 1980s, chronic problems of Korea's chaebols and financial structure due to the low interest rate policy eventually led to the financial crisis in 1997. As Korea's banking system liberalized, chaebols no longer enjoyed the subsidies of the government through preferential interest rate treatment as they did during the export promotion era in the 1960s and the HCI Plan in the 1970s. The gap between the official interest rate on

⁵⁶ "Small Business in Korea, Japan and Taiwan: Dirigiste Coalition Politics and Financial Policies Compared" Hun Joo Park, *Asian Survey*, Vol. 41, No. 5 (Sep.-Oct., 2001) pp. 846-864.

loans and the market-clearing rate decreased over time and the real interest rate on loans began to rise.⁵⁷

However, the rate of return on investment of the chaebols could not keep up with the increasing debt-servicing burden. This was not only due to the natural diminishing rate of return, but was also partially affected by the preferential interest rate treatment itself. Because the financial incentives were large enough to guarantee profitability, particularly during the HCI Plan, most chaebols failed to update technology and increase productivity, eventually hurting them in the long run.

Meanwhile, when they were able to borrow at low interest rates, firms borrowed as much as possible, increasing their debt. Prior to the export promotion period in the early 1960s, the average debt-equity ratio of Korea's manufacturing firms remained approximately 1.0. When the HCI Plan was launched the ratio increased to nearly 3.0 and by the time the HCI Plan was abandoned it rose to 5.0. Throughout the period, chaebols had 30-60% higher debt-equity ratio than non-chaebols in the manufacturing sector. By the early 1990s, they accounted for 49% of assets and 42% of sales in the manufacturing sector.

On top of their high debt-equity ratio, individual firms that belonged to the same chaebol were closely linked financially. Firms often invested in each other and guaranteed repayment when bank loans were made, preventing unprofitable firms from going bankrupt.⁵⁸ While chaebols became "too big to fail" as their importance in Korea's economy increased due to their assets, sales, employment and exports, when some eventually failed during the 1997 crisis, the impact was not only limited to the companies but the entire society.

⁵⁷ Anne O. Krueger and Jungho Yoo, "Falling Profitability, Higher Borrowing Costs, and Chaebol Finances During the Korean Crisis," in *Korean Crisis and Recovery*, ed. David T. Coe and Se-jik Kim, (Washington D.C.: International Monetary Fund and Korea Institute for International Economic Policy, 2002) pp. 157-194.

⁵⁸ Krueger and Yoo, 174-182.

Income Distribution

Many economists and policymakers view economic growth and equal income distribution as mutually exclusive goals. For example, South Korea, especially under President Park's regime, pursued a "growth at any cost" strategy. Although poverty and underemployment concerned the policymakers, redistribution of income or wealth was not their priority. Instead of directly dealing with those problems, initially they sought for foreign assistance to relieve the impoverished and then believed high growth rates will provide employment and a more equitable income distribution.⁵⁹

Cross-country studies of Kuznets, Paukert, and Adelman and Morris show that in developing countries, as income level increases, income distribution worsens before it improves.⁶⁰ In fact, most less-developed countries (LDC) have less equal income distribution than developed countries. However, Taiwan became an exception. During its rapid economic growth in the past half century, Taiwan's income distribution has improved substantially.

Scitovsky (1986) attributes Taiwan's more egalitarian income distribution to its high savings rate, labor-intensive methods of production, and improvement in rural income, all which were influenced by Taiwan's high interest rate policy. The high interest rate on bank deposits and loans favored lenders and limited borrowers. Recalling from the previous section that households played a more significant role than corporations in Taiwan's capital accumulation, the high interest rate must have benefited low-income savers and restricted the profits of

⁵⁹ Cole and Lyman, 167.

⁶⁰ Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review*, Vol. 45 (March 1955), pp. 1-28; idem, "Quantitative Aspects of the Economic Growth of Nations: VIII, Distribution of Income by Size," *Economic Development and Cultural Change*, Vol. 11 (1963), pp. 1-80; Felix Paukert, "Income Distribution at Different Levels of Development: A Survey of Evidence," *International Labour Review*, Vol. 108 (August and September 1973), pp. 97-124; Irma Adelman and Cynthia Taft Morris, *Economic Growth and Social Equity in Developing Countries* (Stanford: Stanford University Press, 1973).

businesses. This implies that high interest rates transferred businesses profits to ordinary savers, supplementing their wages and salary incomes.

The high interest rates also encouraged businesses to use labor-intensive methods of production which increased the demand for labor and hence wages. Consequently, in Taiwan, the share of labor in Taiwan's national product increased steadily while property's share decreased over time. Because wages are more evenly distributed than income from property, the gradual shift resulted in a more equal income distribution.

Above all, unlike many countries that experienced urbanization and subsequent social problems in the process of economic development, Taiwan increased its rural income. Many new manufacturing businesses, mostly small in size, have been established or moved to the rural area as wages in the cities rose. With well-paved roads and good public transportation, people decided to commute on a full-time, part-time, or seasonal basis to those new jobs. By the mid-1980s, only one quarter of an average farm family's income came from farming and rural income increased to the level of urban incomes in Taiwan. Korea also offered tax incentives to firms located in rural areas, but the result was not as desirable as Taiwan's. Alternatively, the government attempted to increase rural income in a more costly way by paying farmers a higher price for their rice and barley, which was then resold to consumers at a much lower price.⁶¹

Conclusion

The purpose of this paper was to examine the different interest policies Taiwan and South Korea adopted in their early stages of development and understand the effects they had in the two economies. From the experience of Taiwan and South Korea, developing countries can learn the importance of discipline in macroeconomic policy.

⁶¹ Scitovsky, 147.

The Taiwanese government attempted to set the interest rate close to the market-determined level as much as possible. As a result of the high interest rate, household savings were high, price levels were controlled, and due to the labor-intensive methods of production, unemployment was low. All these contributed to efficiency of Taiwan's economy and a more egalitarian income distribution.

On the other hand, believing in the Keynesian macroeconomic model that low interest rates encourage investment and induce economic growth, the Korean government set the interest rate much lower than the market-clearing level. However, when the interest rate did not function as a price signal, savings remained low and inflation was rampant. As the government controlled the entire banking system and the artificially low interest rate created excess demand for loans, the government used the power to allocate credit as a tool to direct its development policies. When the market mechanism did not function, it inevitably created corruption and inefficiency, as seen in the 1997 crisis.

Bibliography

Adelman, Irma and Cynthia Taft Morris. *Economic Growth and Social Equity in Developing Countries* (Stanford: Stanford University Press, 1973).

Amsden, Alice. *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989).

Chen, Pochih. "The Role of Industrial Policy in Taiwan's Development," in *Taiwan's Development Experience: Lessons on Roles of Government and Market*, eds. Erik Thorbecke and Henry Wan, Jr., (Norwell: Kluwer Academic Publisher, 1999).

Cole, David C. and Princeton N. Lyman. *Korean Development: The Interplay of Politics and Economics* (Cambridge: Harvard University Press, 1971).

Cole, David C. and Yung Chul Park. *Financial Development in Korea*, (Cambridge: Harvard University Press, 1983).

Fei, John C. H., Shirley W. Y. Kuo, and Gustav Ranis. *The Taiwan Success Story: Rapid Growth with Improved Distribution in the Republic of China, 1952-1979* (Boulder: Westview Press, 1981).

Field, Karl J. *Enterprise and the State in Korea and Taiwan*, (Ithaca: Cornell University Press, 1995).

Hille, Katherine. "Formosa Plastics **Tycoon Hands Over to Children**," FT.com. London: Jun 5, 2006.

Jwa, Sung-Hee. "A New Paradigm for Korea's Economic Development: From Government Control to Market Economy," (New York: Palgrave, 2001).

Kim, Kwang Suk and Michael Roemer. *Growth and Structural Transformation*, (Cambridge: Harvard University Press, 1979).

Krueger, Anne O. and Jungho Yoo, "Falling Profitability, Higher Borrowing Costs, and Chaebol Finances During the Korean Crisis," in *Korean Crisis and Recovery*, eds. David T. Coe and Se-jik Kim, (Washington D.C.: International Monetary Fund and Korea Institute for International Economic Policy, 2002).

Kuznets, Paul W. *Economic Growth and Structure in the Republic of Korea*, (New Haven: Yale University Press, 1977).

Kuznets, Simon. "Economic Growth and Income Inequality," *American Economic Review*, Vol. 45 (March 1955); idem, "Quantitative Aspects of the Economic Growth of Nations: VIII, Distribution of Income by Size," *Economic Development and Cultural Change*, Vol. 11 (1963).

Kwack, Sung Yeung. "Economic Development in South Korea," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986).

Lee, Suk-Chae. "The Heavy and Chemical Industries Promotion Plan 1973-79," in *Economic Development in the Republic of Korea, A Policy Perspective* eds. Lee-Jay Cho and Yoon Hyung Kim (Honolulu: East West Center, 1991).

Makinen, Gail E. and G. Thomas Woodward. "The Taiwanese Hyperinflation and Stabilization of 1945-1952." *Journal of Money, Credit, and Banking* Vol. 21 (February 1989).

Myers, Ramon H. "The Economic Development of the Republic of China on Taiwan, 1965-1981," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986).

Park, Hun Joo. "Small Business in Korea, Japan and Taiwan: Dirigiste Coalition Politics and Financial Policies Compared" *Asian Survey*, Vol. 41. No. 5 (Sep.-Oct., 2001).

Paukert, Felix. "Income Distribution at Different Levels of Development: A Survey of Evidence," *International Labour Review*, Vol. 108 (August and September 1973).

Rodrik, Dani. "Getting the Interventions Right: How South Korea and Taiwan Grew Rich," in *National Bureau of Economic Research Working Paper Series*, No. 4964, (1994).

"Samsung Group," *Hoover's Company Records*. Austin: Dec 1, 2006.

Scitovsky, Tibor. "Taiwan and South Korea, 1965-1981," in *Models of Development: A comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau, (San Francisco: Institute for Contemporary Studies Press, 1986).

Shea, Jia-Dong. "The Liu-Tsiang Proposal for Economic Reform in Taiwan," in *Taiwan's Development Experience: Lessons on Roles of Government and Market*, eds. Erik Thorbecke and Henry Wan, Jr., (Norwell: Kluwer Academic Publisher, 1999).

Wade, Robert. "East Asian Financial Systems as a Challenge to Economics: Lessons from Taiwan," in *California Management Review* Vol. 27 (Summer 1985).

World Bank, *The East Asian Miracle: Economic Growth and Public Policy* (New York: Oxford University Press, 1993).