Monetary Policy Decision Making Structure Reform and Financial Development in Taiwan

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Abstract

The financial development faces serious problems in Taiwan during the last two decades. It lacks of financial innovation but with lots of excess liquidity. These cause low interest rates. The reason comes from the weak and conservative Central Bank and its monetary policy strategy to develop economic growth through low interest rate and foreign exchange rate of US$/NT$.

The weak and conservative decision making of the Central Bank is due to its independence and governance problems. To change this monetary and financial situation, further structure reform of monetary policy decision making is needed. Facing the 2008 financial crisis and aftermath, central bank digital currency emergence and internet economy payment system, the Taiwan's Central Bank's monetary policy decision making process plays the vital role in the future financial competition and stability. In addition, the low interest rate and cheap currency policies had produced excess foreign reserves and liquidity. Low long-term interest rate causes the low interest income of retirement funds. The phenomenon is very similar to what prevails in the international financial market due to the unconventional monetary policy (i.e. QE monetary policy).

Like the structural foundation reform of monetary policy in the US Fed and the European Central Bank, Taiwan Central Bank needs further restructure the monetary system and its decision making process.

1. Introduction

The financial development faces serious problems in Taiwan in the last two decades. Although Taiwan financial development contributed to economic growth from 1980 to 2000, while both Japan and Korea during the same period did not performance well, Taiwan did not continue its high growth path after 2000. The experience of the comparison was shown in "The Role of Financial Development in Economic Growth: The Experiences of Taiwan, Korea, and Japan, " 2003.

The reasons why Taiwan economic growth slowed down and the financial development became stationary were that Taiwan lacked of financial innovation, slow or moderate financial liberalization policies, in particular capital movement freely, and government negligence financial supervision and lax enforcement of financial regulation and the long term low interest rate and low exchange rate monetary policy. These caused potential financial crisis and economic deflation from 2001 to 2004. During this period, it is the Central Bank that had superpowers to monitor and supervise banking system as well as to manage the monetary, credit and foreign exchange policies. It turned out that the instability of financial system and economic deflation were due to the wrong and conservative decision making of the Central Bank (see Hsu (2004)).

Furthermore, the conservative and weak decision making resulted in low interest rates and low exchange rate. Although lots of foreign reserves were accumulated, lots of excess postal office deposits were idle at the Central Bank. Furthermore, the financial innovation and financial market development became sluggish.

Since the Central Bank is short of active and aggressive, the economic and financial situations was getting worse since the new government came in the stage in 2000. The Central Bank's decision making became passive and conservative even more. This causes economists to be concerned whether it comes from the independence and governance problems of the Central Bank. To change this monetary and financial situation, further structure reform of monetary policy decision making is needed.

Facing the 2008 financial crisis and aftermath, central bank digital currency emergence and internet economy payment system, the Taiwan's Central Bank's monetary policy decision making process plays the vital role in the future financial competition and stability. In addition, the low interest rate and cheap currency policies had produced excess foreign reserves and liquidity. Low long-term interest rate causes the low interest income of retirement funds. The phenomenon is very similar to what prevails in the international financial market due to the unconventional monetary policy (i.e. QE monetary policy). Like the structural foundation reform of monetary policy in the US Fed and the European Central Bank, Taiwan Central Bank needs further restructure the monetary system and its decision making process.

The purpose of this study is to explore how to restructure the Taiwan Monetary system and the Central Bank decision making process.

2. The Taiwan Moderate Financial Liberalization during 1980-2001

World Bank (1993) showed that Taiwan, Korea, and Japan have achieved high economic growth since the post-World War II is due to the guide of government policies. The government policies of financial liberalization process implemented by these countries were different during 1980 to 2001. The differences in financial liberalization processes were shown in four key elements: (1) interest rate deregulation, (2) deregulation of foreign exchange rate, (3) enlargement of the business scope of financial institutions, and (4) liberalization of capital movement. The details of financial liberalization in Taiwan, Korea, and Japan can be found in Ministry of Finance (1996), Bank of Korea (2002), Kim and Suh (1998), Tsuruta (1999), Takahashi and Kobayakawa (2003) and Honda (2003).

2.1. Interest rate deregulation

The three economies' interest rate deregulation proceeded slowly and gradually. Among them, Taiwan had pushed on liberalization of interest rates fastest and Korean interest rate full deregulation occurred latest. Before 1975, Taiwanese interest rate was determined by the central bank. The amendment of the Banking Law promulgated in 1975, and Taiwanese government started to relax its controls on bank lending rates. In 1976, the money market was established and stressed the interest rates should be decided by market. Deregulation of the interest rate ceiling on the money market was effective in November 1980, when the Guidelines Governing the Adjustment of Interest Rates of Banks promulgated. And from March 1985 banks were allowed to price their own interest rates. In 1986, banks were accorded more freedom to decide interest rates of bank deposits, and deregulation of interest rate was finally completed in July 1989 Revised Banking Law. Therefore, it took 14 years for the liberalization of Taiwanese interest rates to be complete.

In Korea, the partial interest rate deregulation on commercial paper (CP) started in June 1981. The abolition of preferential interest rates in 1982 and extensive deregulation of interest rates of banks and non-banking financial intermediaries in 1988 resulted in the liberalization of most of the lending rates, interest rates in money and capital markets, and partial liberalization of the interest rates on deposits (see Kim & Suh, 1998). However, as the prospect of becoming an OECD member country was instrumental in the move towards liberalizing its financial market, Korean government accelerated its interest rates liberalization and announced a plan to implement a four phase interest rate deregulation from August 1991. The restrictions on interest rates of bank loans and deposits were totally abolished in July 1997. Therefore, Korean interest rates liberalization took about 16 years, longer than Taiwan and Japan. In Japan, the liberalization of interest rates on large-denomination CDs (certificates of deposit) began in May 1979. After several years of no further deregulation measures, the Japanese government started to decontrol interest rates step by step from 1984, due to the requests of the United States and consideration of the internationalization of the yen. The interest rate deregulation proceeded slowly and full deregulation occurred much later than other major industrialized economies. By 1993 almost all bank deposit rates except for small-denominated and demand deposits had been liberalized. The deregulation of deposit interest rate was completed in 1994. The liberalization of interest rates took 15 years.

2.2. Deregulation of foreign exchange rate

In foreign exchange deregulation the three economies also differed significantly. The Taiwanese foreign exchange system was converted from a fixed rate system to a managed flexible rate system and started operation in February 1979, when the foreign exchange market was established. The central exchange rate system was adopted. Banks and their customers were able to trade foreign based on the weighted-average of the exchange rates on transactions among banks on the previous business day. In April 1989, the central exchange rate system was replaced by the negotiation exchange rate system. Banks were allowed to negotiate the foreign exchange rates with their customers on all transactions except for small transactions between the banks and individual customers. By 1990, all remaining restrictions on exchange rate movements were removed. Every Bank is entirely free to set its own rates for foreign currencies.

Due to the continuous and huge trade surplus during the 1980s, Taiwanese government amended the Statute Governing the Foreign Exchange in 1986. And the foreign exchange control was remarkably deregulated accordingly in July 1987. In 1987, all foreign exchange controls on trade-related current account transactions were abolished.

Although the exchange rate of the NT dollar against the U.S. dollar has been allowed to fluctuate since then, it is controlled occasionally by the central bank. Until now, the foreign exchange market is still only partially liberalized. To guide financial system moving toward internationalization, the foreign exchange control on the current account was totally abolished, and restrictions on the capital movement had also relaxed significantly since 2004.

In Korea, a foreign currency call market was set up in December 1989, and a completely revised Foreign Exchange Management Act was passed in December 1991. The exchange rate regime in Korea was from the multi-currency basket system to the market average foreign exchange rate system in March 1990. Under the new exchange rate regime, the fluctuate limitation of foreign exchange transactions were based on daily exchange rate fluctuations, and because of this their movements failed to fully reflect the pressures for exchange rate change. As a result, there were frequent cases of foreign exchange rate misalignment and Korea fell victim to speculative attacks, which was what finally led to the crisis. To make the exchange rate better reflected the economic fundamentals and to stave off the speculative attack on currency and the financial market, the Korean government completely abolished the limit on daily fluctuations and adopted a free-floating exchange rate system in December 1997, allowing the won exchange rate to be determined by market supply and demand (see Kim, 2003, p. 5).

The Japanese government formally adopted a floating exchange rate system in 1973. Foreign exchange transactions were liberalized in 1980 when New Foreign Exchange and Foreign Trade Control Law was implemented, although there are some restrictions still remained. The yen was internationalized through the establishment of an off-shore market and the deregulation of the Euro–yen in December 1986.

2.3. Enlargement of the business scope of financial institutions

The three economies display significant differences in their approaches to liberalizing the deregulation of the scope of financial institutions. In Taiwan, the government had strictly restricted on new entry to the financial business and expanded the business scope of financial institutions until the early 1990s, and all banks were either owned or partly owned by the government. In July 1989, the Taiwanese government accounting to the Banking Law amendment began to allow new applications for the establishment of financial institutions and permitted them to diversify their business scope. In addition, it also allowed foreign banks to engage in more financial operations, such as savings and trust business, but denied non-banking financial institutions (NBFIs) the same privilege. Furthermore, to improve the efficiency of government banks, in May 1991, the Taiwanese government started privatization of banks by selling part of shares in major commercial banks. After opening domestic banking market, Taiwanese interest rate and foreign exchange rate had been completely determined by market forces.

In Korea, the government had removed entry barriers and eased restriction on business scope of financial institutions earlier than Taiwan and Japan. The privatization of commercial banks started in 1982 and was completed by 1983, the commercial banks began to enjoy more freedom over both interest rates and credit allocation. However, continued government control of interest rates at all banks in the period, along with high proportion of non-performing bank loans and heavy dependence on the Bank of Korea for low-cost funds to support their outstanding loans, had left the privately owned commercial banks very vulnerable. A substantial of their outstanding loans had been still policy-related. The banks could not afford to ignore the government's suggestions, despite their shift to private ownership (see Smith, 2000).

In contrast with the restriction on the operations of commercial banks, unlike Taiwan,

Korean government had permitted established various NBFIs, such as investment and finance companies
and mutual savings and finance companies, and allowed them to diversify their business scope between 1982 and 1992. As NBFIs had always been privately owned and had been both less controlled and less protected by the government, the amount of NBFIs increased significantly. As a result, the number of domestic banks increased slowly from15 in 1981 to 21 in 1990 and 26 in 1997, then decreased to 15 in 2001. The banking sector's share of deposits decreased from43.3% in 1980 to 20.4% in 1997(see Ji & Park, 1999, Table 2). The share of NBFIs, in contrast, increased from 35.6% in 1980 to 63% in 1997. The NBFIs occupied significant proportion in the financial market. However, due to the fact that Korean chaebols owned most of the non-bank financial sector, they relied increasingly on non-bank financial institutions for their investment needs.
Particularly, chaebols were largely dependent on short-term debt for financing their investment, which rapidly increased their short-term liability. The results of overexpansion led firms to deteriorate their financial structure. Poor financial structure and high interest payment as well as domestic economic recession had resulted in a chain of chaebol bankruptcies in early 1997.

After the crisis, in April 1998, the Korean government announced the basic framework of financial sector restructuring. Korean government had taken a series of measures to improve the financial situation, including lowering the debt ratio of chaebols, eliminating cross-debt guarantee, concentrating on core business, and purchase of non-performing loans, etc. (Chopra et al., 2001).
Also, to facilitate the financial sector reform, several financial supervisory authorities were created or modified. For example, the Financial Supervisory Commission (FSC) was created and the Korea Asset Management Corporation (KAMC) and the Korea Deposit Insurance Corporation (KDIC) were modified. To help financial institutions dispose of their non-performing assets, the Nonperforming Loans Management Fund was set up under the umbrella of the KAMC. The Financial Holding Company Act was also passed to promote universal banking in October 2000. As of the end of September 2001, three financial holding companies had been established (See Bank of Korea (2002, p. 23)).

Since 1948, Japan had followed the U.S. policy of separating securities activities from banking activities. Banks were prohibited from underwriting, trading equities and corporate bonds except public sector bonds such as government bonds, and security companies were prohibited from conducting banking business including foreign exchange transactions.
After 1975, to offset fiscal deficits, Japanese government began to issue large scale revenue financing bonds and forced banks to raise the share of bonds in their portfolios. To increase in the supply of government bonds also encouraged the development of money market. And the Ministry of Finance of Japan was compelled to open a secondary market for government

bonds in 1977, and to start issuing bonds through public auctions in 1978 (see Hoshi & Kashyap, 1999, pp. 134–135).

This made it difficult for the Japanese government to maintain deposit rate ceilings and therefore allowed banks to issue CDs in May 1979. The Japanese government gradually deregulated financial system in 1980s. For example, private banks and postal savings were allowed to sell government bonds in 1983 and 1988, respectively. Bank dealings of all types of bonds and the participation of foreign institutions in government bond syndicates were allowed in 1984. Foreign banks were able to participate in domestic trust business in 1985. And from August 1987 the U.S. banks could do securities business. However, due to the fact that firms could choose more freely among alternative fund sources, many Japanese companies had financed their funding needs in the capital markets rather than through bank lending in the late 1980s. By 1987, the Japanese domestic commercial paper market was created, giving firms another non-bank source of funding (see Hoshi & Kashyap, 1999, p. 137)

Thus, there existed competition of firms' borrowing in financial markets. To survive, banks tried to maintain loan outstanding. This caused banks to look for new borrowers, such as construction companies, real estate developers and non-banking finance companies on which they had not learned enough credit information. This is one of the reasons why Japanese banks have accumulated huge bad loans (see Honda, 2003, p. 137).

As the bubble's collapsed, the Japanese economy slumped into the long stagnation in the 1990s. To solve this stagnation, the government began to encourage financial reform. In 1992, the Financial Reform Law was approved and financial institutions were allowed to enter into other kinds of financial business by establishing subsidiaries. For example, banks were allowed to engage in securities business through their subsidiaries. Banks also could conduct trust businesses either through trust-bank subsidiaries or by themselves. The government allowed securities companies to set up trust-bank subsidiaries from 1993. And the pension fund market was opened in 1995. Finally, in 1996 all rules regarding bond issues were lifted.

In late 1996, the government revealed a plan to reform financial markets and institutions, and to create a free, fair and global financial system. The financial system reform is so-called Japanese Big Bang. Under the Big Bang reform, Japanese banks had established bank holding companies that own a securities subsidiary since March 1998. Furthermore, banks had been allowed to sell investment trusts at their counters since December 1998. There were also limits on the scope of businesses permitted bank's securities and trust subsidiaries. But these restrictions were totally abolished from October 1999. Also, banks conducted insurance business through subsidiaries from October 2000. Furthermore, revision to the Insurance Businesses Law in 2000 made possible for banks to engage in retail sales of certain kinds of insurance products from April 2001.

Although the Japanese government began to engage financial reform earlier than Taiwan and Korea, however, the reform still went slowly. The quick rising in non-performing loans led to Japan's banking crisis burst in late 1997 and early 1998. The banking sector NPL ratio in Japan increased from 3.5% in March 1995 to 5.38% and 6.26% in March 1998 and March 2001, respectively. The disposal of non-performing loans is lagging behind Korea.

2.4. Liberalization of capital movement

In capital movement liberalization the three countries also differed significantly. In Taiwan, to promote the liberalization policy and capital market expansion, the liberalization of the securities market started in January 1988, when the Securities and Exchange Law was revised to lift the restriction of the establishment of new securities companies. The OTC transaction was permitted in 1989. Taiwanese government also approved foreign investors to invest limited amount in the domestic stock market since September 1990. However, the participation of foreign investors in the Taiwan stock market was allowed to increase gradually and slowly. In the stock markets, the maximum investment quota for each qualified foreign institutional investor was U.S. $600 million before November 1999. In December 2002, it was raised to U.S. $3 billion and was released in 2004.

In Korea, the government allowed direct foreign investment in stocks markets in 1981 for the first time (see Bank of Korea (2002, p. 23)). In the 1980s, foreigners were only allowed to invest in stocks through vehicles such as beneficiary certificates for foreigners and country funds. However, to join the OECD, Korea's financial liberalization and market opening had been accelerated since the early 1990s. Japan and Korea joined the OECD in 1964 and 1996, respectively.

By that time, Korea's interest rates and exchange rate policy were not completely liberalized. The branches of foreign securities companies and joint venture securities companies were permitted to set up in November 1991. Foreign investors were allowed to invest directly in stocks listed on the Korea Stocks Exchange in January 1992, which was later than Taiwan in 1991. The government expanded the investment ceilings on foreign investment in Korea stocks several times until it reached 55% in December 1997. And it was completely abolished in May 1998, according to the IMF program, except for investment in public corporations (see Lee, Lee, & Yang, 2001, p. 17). In 1994, Korean government lifted restrictions on short-term foreign borrowing by financial institutions and corporates, but retained controls on long-term borrowing. However, foreign firms could list on the Korea stock exchange in 1996.

Foreigners were also able to engage in stock price index future transactions with the opening of this market at the same year. In April 1999, the Foreign Exchange Control Act was abolished and the external transactions of companies and foreign exchange banks were almost fully liberalized. Individuals external transactions such as external remittances were also liberalized as of January 2001. The initial opening of the Korean bond market took place in

July 1994 relatively later than the stock market, with foreign investment being allowed in convertible bonds issued by small and medium enterprises. All restrictions on foreign investment in listed bonds were finally abolished in December 1997. In May 1998, foreign investment in short-term financial products issued was also permitted.

In Japan, outward foreign direct investment was liberalized in June 1972, while inward direct investment was liberalized with exception of five categories of business in May 1973. Since 1976, the Japanese government had issued deficit bonds in large quantities, and this resulted in relaxing the restriction on financial market. Both primary and secondary bond markets expanded rapidly. Foreign exchange transactions were liberalized in December 1980, although some restrictions still remained. These include the following: extending non-residents' eligibility to issue Euro–yen bonds to some foreign private corporations, abolishing the withholding tax on non-residents' interest earnings on Euro–yen bonds issued by Japanese residents, giving foreign banks access to the Euro–yen bond market, and relaxing restrictions on Euro–yen lending to residents. The Japanese bond futures market was established in 1985. Both the U.S. and other foreign brokers become Tokyo Stock Exchange members. The Foreign Exchange Act was revised in 1997, which removed most international capital controls. Capital account and foreign exchange transaction were fully liberalized in April 1998.

2.5. Stylized facts

Based on the above discussion, we summarized the sequence of financial liberalization process of Taiwan, Korea, and Japan as the following. The financial liberalization process in Taiwan comparing with that in Japan and Korea during the last two decades followed the order suggested by McKinnon (1991) to transform the economy from a financial control economy to a market-oriented one. Although capital movements were liberalized much later in Taiwan, however, Taiwan's deregulation of financial system had followed an appropriate sequence.

Before the opening of international market, Taiwan had just begun to deregulate the domestic financial industry and to decontrol its domestic market. It had also followed an appropriate sequence to open up its financial account. The current account should be liberalized before the financial account, and long-term capital before short-term capital. While Korea and Japan liberalized its domestic financial sector after external liberalization, in particularly, the removal of controls on international capital markets before interest rate liberalization. This conservative liberalization policy together with the partial deregulation of capital movement allowed the Taiwan economy to be free from the serious attack of the Asian financial crisis of 1997–1998. For example, from the end of June 1997 to the end of June 1998, the New Taiwan dollar against the U.S. dollar depreciated only 19.04% much less than the currencies of Korea (35.34%). Although Japan's currency only depreciated by 18.25%, the Taiwanese stock price dropped by only 12.37% much less than that of Japan (20.82%) and

Korea (60.04%) (see King and Levine (1993a, 1993b), Demetriades and Hussein (1996), Levine (1997) and Beck et al. (2000)).

The bank's average ROE in Taiwan decreased 11.36% in 1996 to 9.29% in 1998, while in Korea from 3.8% to 52.53% and in Japan from 3.35% to 12.37% in the same period. The nonperforming loan ratio for the banking sector increased from 3.68% in 1996 to 4.36% in 1998 lower than those in Korea (increased from 3.9% to 16.8%) and Japan (increased from 6.0% to 5.38%). Taiwanese average real GDP growth rate remained at 5.79% between 1996 and 1998, which was much higher than that of Korea (1.72%) and Japan (1.03%) in the same period.

The banking sector development in the three nations during the period of 1981–2001 could be shown by looking at four indicators. (1) the number of domestic bank: (2) the ratio of M2 (broad money stock) to nominal GDP, which is to capture the overall size of the formal financial intermediary sector which is a typical indicator of financial depth (see Goldsmith, 1969; King & Levine, 1993a); (3) bank claims on the private sector divided by GDP which excludes loans issued to governments and public enterprises. (Levine et al., 2000); (4) the ratio of bank domestic assets to total assets of banks and the central bank which measures the degree to which commercial banks or the central bank in allocating the society's savings (see Beck et al., 2000). It shows that the number of domestic banks, M2/GDP and Private Credit in Korea were far less than those in Taiwan and Japan over the period. Also, it depicts a trend of increase in M2/GDP and Private Credit for the three nations.

The evolution of stock market development in these three economies could be shown by taking look at (1) the number of listed companies ; (2) the ratio of the market value of listed shares to GDP which a measure of stock market size; (3) the value of the trades of shares on domestic exchanges divided by total value of listed shares which is the turnover of the value of stock transactions relative to the size of the market, and it is frequently used as a measure of market liquidity (see Demirgu¨c-Kunt & Levine, 1996a, 1996b, 1996c); (4) the rate of growth of the nominal stock price index which is the measure of stock market returns.

In the three nations, Taiwanese listed companies increased by four times from 1980 to 2001. The number of listed companies shows an increasing trend in all three economies over the period. The Japanese stock market was largest in numbers, while Korea's turnover ratio of listed stocks was the largest among three economies but its stock market capitalization ratio was the smallest. The volatility of stock price index in Japan was lower than those in Korea and Taiwan.

Finally, structural changes had occurred in all three economies during the period, i.e. Asian financial crisis 1997:3–1998:2 and foreign exchange system change. For Taiwan and Korea, the exchange rate system change started from 1987:3 and 1990:1, respectively. For Japan, the change test started from 1986:4 when the yen was internationalized. The experience has shown that the exchange rate policy is crucial to the success of liberalization. Usually liberalization leads to capital flows (see Gibson & Tsakalotos, 1994).

The macroeconomic trends for Taiwan and Korea have higher average growth rates with 6.87% and 7.34%, respectively. The finance-aggregate variable could be explained the bank development, which is the integration of three indicators of bank development, i.e. the ratio of M2 (broad money stock) to nominal GDP, bank claims on the private sector divided by GDP, and the ratio of bank domestic assets to total assets of banks and the central bank. It has a positive and significant effect on economic growth in Taiwan, while it becomes insignificant or even negative in Korea and Japan . This may be due to the relative stability of financial system and prudentially financial regulation and supervision in Taiwan comparing with those in Korea and Japan, in addition to the appropriate sequence to financial liberalization in Taiwan from 1980.

However, Japanese banking system in these periods, dominated by large banks, had been suffering from serious problems with non-performing loans since the bursting of the stock market and urban real estate bubbles at the beginning of the 1990s. At the same time, the Japanese economy slumped into the long stagnation. To solve the problem, the Japanese government started to encourage financial reforms, although it was clear that the financial reform was not sufficient to terminate the stagnation in the early 1990s. Being delay by regulatory authorities and due to the fact that the Japanese banks had an intertwined relationship with the government the Japan economy had been led to a banking crisis burst in the late 1990.

Similarly, Korea's banks also had an intertwined relationship with the government. And many financial reforms just followed Japan's steps. Moreover, to join the OECD and to meet the OECD's requirements, without taking account of financial structural imperfections, the process of financial deregulation not only continued but also had been accelerated. The Korea government even further abolished financial account controls. The financial and currency crisis eventually burst in 1997–1998.

3. The Overbanking and Economic Stationary in the Early 2000s

Most East Asian governments after the started to do financial reforms after the great shock of Asian financial crisis 1997-98 and Russia debt turmoil 1998. For example, the Japanese government adopted the swift removal of remaining financial regulations to bring Japan up to the international level of deregulation, and to place Japanese financial institutions on an equal footing with world competition. Moreover, the revision of the Foreign Exchange Law took effect in April 1998 and the Japanese version of the "Big Bang" of the financial deregulation program was implemented between 1997 and 2000. The deregulation to encourage competition among financial market players in the world inevitably resulted in more bankruptcies among financial institutions. This is the cost-benefit balance and tradeoff between the efficiency and international competition of financial institutions and the failures of banks and other financial institutions.

Likewise, Taiwan government also reformed the financial industry from 2001 to 2011. These actions allowed those banks with serious bad loan problem to exit the market. Since 16 private commercial banks was established in 1991, the number of domestic banks had increased from 24 in 1990 to 47 in 1997 and 53 in 2001. The average rate of return on the net worth (ROE) for the banks dropped tremendously from 20.79% in 1990 to 3.61% and 7.35% in 2001 and 2002, respectively. The non-performing loans (NPL) rose from 0.93% of total loans in 1990 to 5.34% and 8.16% in 2000 and 2001, respectively (see Table 1). Over banking phenomenon came out.

Table 1

Non-performing loans ratio (%) at banking sectors of Taiwan, Korea, and Japan

	Taiwan	Korea	Japan
1980	4.68		
1990	0.93	2.1	
1995	3.00	0.9	3.5
1996	4.15	3.9	6.0
1997	5.67	14.9	
1998	4.93	16.8	5.38
1999	5.67	12.9	6.16
2000	6.20	8.0	5.93
2001	8.16	3.4	6.26
2002	6.84	2.3	8.44

Source. The data for Taiwan are from Financial Statistics Monthly, Central Bank of China. For Korea, the data of 1996–1997, figures are from Ji and Park (1999, p. 32), and other figures are from He (2004, Table 1). For Japan, the figures in1995 and 1996 are from Taniuchi (1997, Table 1), and other figures are from Japanese Bankers Association, analysis of financial statements of all banks, various issues. Data for Japan are for 31 March of year shown, which is the fiscal year-end.

In order to solve the over banking problem, the Taiwan government had undergone significant changes in financial reforms. Firstly, in order to raise the competitiveness of financial institutions, the Financial Institutions Merger Law was promulgated in December 2000. Secondly, to effectively handle unhealthy financial institutions, the financial restructuring fund was set up in July 2001. Thirdly, to raise the overall operational efficiency of financial system and promote the soundly development of the financial market, the Financial Holding Company Act was enacted and formally implemented in November 2001. The Act provides banks, securities firms and insurance companies with a mechanism for cross-industry operations. As of August 2003, the government has approved the application of the Financial Holding Company Act to allow 14 financial institutions to set up financial holding companies.

Also, to facilitate the financial sector reform, financial supervisory authorities were created or modified. The Financial Supervisory Commission (FSC) was created in 2004 and the Deposit Insurance Corporation (DIC) were modified. To help financial institutions dispose of their non-performing assets, each financial holding company was asked to set up its financial asset management company. Furthermore, the Financial Reconstruction Fund (FRTC Fund) was set up under the umbrella of the Act of FRTC Fund to help the merge and acquisition of both the commercial banks and local thrifts. In particular, the Taiwan Government allowed foreign banks to take over the failed banks in Taiwan.

Due to the high non-performing loans and the balance- sheet effect, bank loan and security investment growth rate declined sharply. This caused credit and price deflation during 2001-2004. As the serious problem of deflation was getting worse and the risk of financial management for banks and insurance companies increased substantially, both the credit and deposit money growth rate declined sharply. In fact, the Taiwan Central Bank did not actively implemented any policy to save the economy.

Hsu et al. (2003, 2004, Ch. 6) proposed both the monetary QE policy to bailout and support the Financial Reconstruction Fund to deal with the merge & acquisition bad banks problem. Also we also initiated the restructure of the Central Bank, so that it could become more independent and actively efficient and transparent.

4. The Need for Independence

The idea of central bank independence that the central bank should be independent of political pressure is not new. Before the 1990s of unprecedented economic stability, i.e. the “Great Moderation”, when the median inflation was 7% in the period 1985-1994 among 63 countries, politicians were driven to give up control over monetary policy. In the monetary economics literature, it was the realization that independent central bankers would deliver lower inflation than they themselves could. As shown by Alesina and Summers (1993), the countries with the most independent central banks like Germany and Switzerland had the lowest inflation 3%, while the countries with the least independent central banks like New Zealand and Spain had the highest inflation between 7 to 9%. The study period is from 1973 to 1988.

This idea resulted in the reform of monetary structure in the 1990s, when nearly every advanced-economy government made the central bank independent of the finance ministry. The Banque de France became independent in 1993; political control of the Bank of England and the Bank of Japan ended in 1998. And the European Central Bank had been independent since it opened on July 1, 1998.

Independence includes two main elements of policy management operation. (1) monetary policymakers must not be controlled by politicians through budgets. (2) the central bank’s policies must not reversible by people outside the central bank.

Prior to 1998, either Bank of England or Bank of Japan policymakers recommended interest-rate changes to their ministers of the finance ministry. Since 1998, both the Bank of England’s and Japan’s Monetary Policy Committee have made those monetary policy decisions autonomously. The same is true in the US., where the Federal Open Market

Committee's decisions on when to raise or lower interest rates cannot be overridden by the President, Congress or the Supreme Court. As it is well-known, successful monetary policy requires a long time horizon. There are time-lag effects of today's decisions. Therefore, the impact of monetary policy won't be felt for a while until several years later. The literature of rational expectations and time-consistency problem of monetary policy has shown that central bank independence is a means to overcome these problems of destabilizing inflation and inflation expectations inefficiency. This allows our societies to delegate monetary policy to an independent central bank that strongly prefers price stability. And this central bank's commitment to keep low inflation would make credible by its prudent inflation preferences, making policy time-consistent.

5. Threats to Central Bank Independence

A political backlash following the bailouts of big banks and nonbanks during the financial crisis of 2007-2009 continues to threaten the Fed independence. In working to restore financial stability, the Fed acted as if it were an agent of the Treasury, i.e. the government bank. Recently, the Fed faced the threat of independence of monetary policy from the President and the Congress. This involvement in monetary policy included detailed "auditing" of monetary policy decisions from the congressional oversight committees, such as the Fed disclosure of the details of its assets and its lending. As for the unpopular actions like raising interest rates and shrinking its balance sheet back to the pre-crisis scale, the fiscal authority and the President revealed political backlash against the Fed's actions.

As pointed by Kevin Warsh (2018), although the global financial crisis was over, and the challenges of the next few years are different from those that confronted the Fed in the late 1970s and in the darkest days of the 2007-2014 financial crisis when Ben Bernanke served in the Fed, the Fed needs courage to pursue a robust reform agenda of monetary policy (Warsh(2018) p.238). Warsh warned that if the institution, i.e. the Fed, does not look first to itself for reform, then its lenders might not like what happens at Congress, the next slowdown, the next shock (Warsh (2018), p.244).

The problems faced by the Fed and needing to reform the central bank's monetary policy are applied to other country's central bank. There are problems like policy independence threats, balance sheet scale, low interest rates, exist for a long time in Taiwan. To restructure the financial markets and institutions after the 1998-2000 financial crisis in Taiwan, in the early of 2000s there was an 10-years financial reform. There were a series of reforms of Financial Bills and Acts in those areas of financial regulation and supervision from 2000 to 2011. These improved micro-prudential and macro-prudential regulatory tools.

After the financial reform, there needs a monetary policy reform in Taiwan. The conservatives Taiwan's central bank persistently rebuffed outside requests for more monetary openness to promote the financial and economic development.

References

1. "The Role of Financial Development in Economic Growth: The Experiences of Taiwan, Korea, and Japan", **Joint Conference of KNU, KIEP, and RCIE-Asian Crisis V: New Challenges and Opportunities for the Post-Crisis Asia**, Kangwon National University, Chuncheon, Korea, December 9-10, 2003.
2. "Taiwan's Monetary and Financial Policies in Post-Financial Tsunami Era," ***Taiwan Development Perspectives 2010***, National Policy Foundation, 2010.
3. "The Banking of the Great China Area in Financial Turmoil and the Asian Lamfalussy Process," ***ADBI Working Paper Series***, No.221,2010.
4. "Profit Performance of Financial Holding Companies: Evidence from Taiwan," ***Emerging Markets Finance and Trade***, Vol.50, Supplement 3, pp. 190-200, 2014.
5. " Inflation Targeting, Exchange-Rate Targeting Monetary Policies in an Open New Keynesian DSGE Model," KEA-APEA 2017 International Conference, Korea University, Seoul, Korea, July 2017.
6. **An Exploration of Problematic Listed Companies and Financial Institution after the 1998 Financial Crisis in Taiwan**, Sun, Yin Sheng Foundation, 2000 (in Chinese).
7. **The Economic Effects of Taiwan's Financial and Fiscal Reforms**, Council of Economic Planning and Development, 2003 (in Chinese).
8. **Unemployment, Deflation, and Economic Stabilization Polices**, Linking Publishing, 2004 (in Chinese).