CHAPTER 3

FINANCIAL DEVELOPMENT IN THAILAND

This chapter aims to present the development of the Thai financial sector. The chapter places emphasis on the banking sector, which is the most important part of the Thai financial system. Moreover, a new constructed composite index is developed to quantify the evolution of the Thai financial sector.

3.1 Financial Development in Thailand

The evolutions of the Thai financial sector during 1966-2005 can be divided into four phases, which are as follows: Phase I: before financial liberalization (before 1990), Phase II: financial liberalization (during 1990-1996), Phase III: financial crisis (during 1997-2000), and Phase IV: after the crisis (after 2000 to the present). The reason is that financial liberalization and crises reflect the structural change in the Thai financial system.

3.1.1 Phase I: Before Financial Liberalization (before 1990)

The structure of the Thai financial system before financial liberalization was bank-oriented, with banks accounting for more than 70 per cent of the assets of the financial system. Bond and stock markets remained relatively underdeveloped. Indeed, Commercial banks and financial companies were the most important organizations in the Thai financial system. Actually, the first commercial bank established in Thailand was an affiliate of Hong Kong and Shanghai Bank in 1888. The first Thai commercial bank, Siam Commercial Bank[1] was set up later in 1906. In the formative period, foreign commercial banks played a more active role in Thailand than was to be subsequently the case. However, Thai commercial banks were soon firmly established, under local protection provided by the Government. Thai

[1] The Book Club is the old name of Siam Commercial Bank.

commercial banks went on to become widely accepted and more popular than the foreign affiliates. Through more standardized of operations and providing a greater scope for banking and business, Thai commercial banks were fully integrated into the monetary system (Bank of Thailand, 2002).

The emergence of finance companies in 1969 occurred out of the need to fill a gap arising from the lack of competition in the financial system. At first they were allowed to operate loosely with neither specific licenses nor supervision. They were then legalized as a "financial institution" with the aim of providing investment banking services (Panitchpakdi, 1985). However, financial companies did not create fierce competition with commercial banks because they were owned by the commercial banks. Moreover, the finance companies were able to draw savings funds from the banks. The credit allocation of finance companies over the various economic sectors was similar to that of the commercial banks (Viksnins, 1980).

In this phase, Thailand experienced various external shocks. Being a highly open economy, Thailand was inevitably affected by adverse changes in the world economy. Starting with the Nixon turmoil (1971)[2] followed the first oil crisis (1973), second oil crisis (1979) and two cases of baht devaluation (1981 and 1984). All shocks adversely affected the Thai financial system through engendering a decline in deposits.

Furthermore, during negotiations in the Uruguay round the WTO demanded access to markets and equal treatment of foreign institutions. Thailand had to open not only its industrial and agricultural markets, but also the finance sector. Consequently, it was reasonable that Thailand started liberalizing her financial sector in the late 1980s.

3.1.2 Phase II: Financial Liberalization (1990-1996)

The process of financial liberalization started from the promulgation of a plan of financial reforms with the aim of "coordinating, synchronizing several aspects for enhancing competitiveness, flexibility, efficiency, and stability of the financial sector"

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[2] Nixon turmoil refers to the problems which arose in the international monetary system in 1971 when President Nixon of the United States announced the end of US dollar-gold convertibility.

in 1990 (Wibulsawat, 1995). Many reform plans had been launched in the Thai financial system which may be grouped into four categories. Firstly, the Thai authorities announced Thailand's acceptance of the obligations of Article VIII of the International Monetary Fund (IMF) in 1990[3]. It was considered as the first step in financial liberalization. Second, the ceilings on commercial bank deposit rates were removed during 1989–91. In June 1992, ceilings on finance companies' deposit and lending rates and on commercial banks' lending rates were removed. Third, the restrictions on the scope of activity and portfolios of financial institutions were eliminated. Fourth, the licensing of International Banking Facilities (IBFs) was implemented to facilitate ease of international financial transactions. As a result, the consequences of financial liberalization were as follows:

1) Surge in Capital Inflows, Increased Reliance on Foreign Capital, and the Shortening of the Maturity Structure

Thailand is a country that received the largest capital inflows relative to GDP in the East Asia region, indeed in the world (Bank of Thailand, 1998). During the period 1988–96, according to data from the Bank of Thailand, Thailand received a staggering cumulative amount of US$ 100.3 billion, accounting for 55 per cent of GDP in 1996, or 9.4 per cent of GDP on average per annum. Moreover, the Thai economy increased its reliance on foreign capital which was reflected by the increase of foreign debt to total dept rising from 59.1 per cent in 1988 to 94.1 per cent in 1997. At the same time, changes in the composition of capital inflows during the 1990s increased the proportion of short term and potentially more volatile inflows in total private capital caused by the adoption of the large Bangkok International Banking Facilities (BIBF).

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[3] Actually, there were implicitly liberalizing measures implemented in 1988-89. For instance, some foreign exchange controls were loosened utilizing the following steps. First, foreign exchange deposits for transit passengers and credit card processing adjustments were authorized in 1988. Second, non-resident baht accounts were permitted to accommodate foreign-borrowing settlements, stock transactions and foreign investment in 1989. However, the primary milestone which clearly indicated the systematic drive towards financial liberalization was Thailand's acceptance of the obligations of Article VIII of the International Monetary Fund (IMF) in 1990

In addition, with the BIBF, there was a rapid growth in private short-term debt, specifically short-term external debt increased from US$10 billion (12 per cent of GDP) in 1990 to US$41 billion (24 per cent of GDP) in 1995 (Table 3.1). As a result, maturity mismatches occurred because of borrowing to finance short-term debt and the provision of loans to the private sector by banks.

Table 3.1

Private External Debt 1990-1996 (end of period - billion US$)

	1990	1993	1994	1995	1996
Medium and Long-Term	7.4	15.4	20.2	25.1	36.2
Non-Bank	7.3	12.7	13.7	16.9	23.2
Bank Debt	0.1	2.7	6.5	8.2	13
BIBF	0.1	1.4	3	3.8	n.a.
Other	0.1	1.3	3.5	4.4	n.a.
Short-Term	10.1	22.7	28.9	41	37.6
Non-Bank	6.2	12.3	7.4	7.3	8.7
Bank Debt	3.9	10.4	21.5	33.7	28.9
BIBF	0	6.4	15.1	23.7	n.a.
Other	3.9	4	6.4	10	n.a.
Total Private	17.5	38.1	49.1	66.1	73.8
as % of GDP	21	30	34	39	41
Bank (% of GDP)	23	34	57	63	57
Short-Term (% of GDP)	12	18	20	24	21
Short-Term (% of total)	58	60	59	62	51

Source: International Financial Statistics (IFS) CD-Rom 2007, IMF

2) Rapid Growth of Credit and Deteriorated Risk Profile of Financial Institutions

Financial liberalization led to a lending boom in the first half of 1990s. Total credit outstanding grew on average by 22 per cent per annum in real term over the years 1988 to 1995. In this period, Thai banks and finance companies became more

exposed to credit risk as the quality of their portfolios deteriorated. This is because the lending boom caused improper credit assessments and slack monitoring of credit. Moreover, commercial banks and finance companies did not only increase their risky assets on the balance sheets, they also expanded their exposure to the higher risk and non-tradable sectors of the economy. This was even more pronounced in the case of finance companies, who expanded their lending activities in real estate rapidly (from an average of 15 per cent in 1988 to 24 per cent in 1996. Indeed, with some finance companies real estate exposure exceeded 40 per cent, (Bank of Thailand 1998).

3.1.2 Phase III: Financial Crisis (1997-2000)

The year 1996, was the turning point for the Thai economy because real GDP growth dropped from 9 per cent in 1994 and touched 5.9 per cent that year. This was the lowest growth rate in 1990s. It also became obvious this year that Thailand was experiencing problems arising from a slowdown in exports, which traditionally was an engine for economic growth. Over the previous ten years, export growth averaged 22 per cent per annum, bringing total exports up to 1.1 trillion baht in 1995. Export growth dropped to only 0.2 per cent in 1996 due to heightened foreign competition, especially from other developing countries e.g., China, Indonesia and Vietnam, etc.

The economy slowed down between 1995 and 1997. This led to a considerable rise in NPLs (Non-Performing Loans). This was because a number of real estate-related businesses faced liquidity problems becoming able to service neither interest nor principal to financial institutions on time.

Meanwhile, Thai competitiveness in export markets continued to decline as the US dollar strengthened further. The baht, rigidly pegged to the US dollar through its overwhelming weight in Thailand’s basket of currencies, also strengthened. Baht speculation became widespread at the beginning of 1997. As a result, the Exchange Equalization Fund and Bank of Thailand (BOT) continually intervened in foreign exchange on both the spot and swap markets. Eventually, only a few hundred million US dollars was left in Thai international reserves.

In view of the prevailing situation on July 2, 1997 the Thai government changed from a rigidly pegged to a managed float exchange rate regime. The exchange rate moved to 27.38 baht per US dollar from 25.79 baht per US dollar on 30

June 1997. The rate then fluctuated between 30-45 baht in the second half of 1997. As the contagion effect of the Thai financial crisis hit other countries in the East Asian region e.g. Indonesia and South Korea. the Thai authorities decided to request financial and technical assistance from the International Monetary Fund (IMF) in July 1997. The resulting impact of the financial crisis on financial intermediaries can be explained as follows:

1) Finance Companies Crisis

Finance companies had proportionately the largest exposure to the property sector and they were the first financial institutions affected by the economic downturn. Later on the crisis spread to other institutions, particularly to the banking sector. After the pegging of the baht was abandoned in July 2, 1997, the rapidly depreciating exchange rate and falling property values led to a major deterioration of banks' loan portfolios. Moreover, the baht value of their foreign debt burden increased sharply. Thus, concerns over the solvency of the entire financial system were rising. By the IMF's estimates in mid-July 1997, based on rough assumptions on the level of problem loans and recovery rates, some 500 billion baht (US$17 billion or 9 per cent projected 1997 GDP) would be required to restore the legally required minimum capital adequacy of banks and finance companies (270 and 230 billion baht in banks and finance companies, respectively). As a consequence, 91 finance companies were insolvent. At that time, the authorities, in cooperation with the IMF, developed a strategy to restructure the financial system. The strategy was organized in three steps. Firstly, 58 insolvent financial institutions were closed (later on 56 finances companies were permanently closed on 8 December 1997). Secondly, the authorities issued a temporary blanket guarantee protecting all depositors and creditors in remaining financial institutions, in order to stabilize the market and give the authorities enough time to implement restructuring measures. Finally, the Thai financial system was rehabilitated and restructured to meet international standards

2) Commercial Banking Crises

As a result of the crisis the quality of banks' assets deteriorated rapidly because of credit defaults. Hence, the public lost confidence with the commercial

banks who were faced with substantial withdrawals. In addition, internal credit lines were called up by foreign creditors. Consequently, liquidity support from the Financial Institutions Development Fund[4] was needed.

3.1.2 Phase IV: After the Crisis (2001-the present)

There was a dramatic change in the Thai financial system after the crisis: Firstly, in order to facilitate the better management of overall financial systems, new laws and regulations were set in order to meet the post-crisis financial reforms and international standards. The new financial institutions law aimed to comprehensively modernize and strengthen the particular framework for regulating and supervising banks. In particular, the law concentrated supervisory responsibilities with the BOT and provided the BOT with an adequate legal framework to regulate and undertake consolidated supervision of credit institutions and their subsidiaries.

Second, bank credits declined from 120 per cent of GDP in 1999 to 80 per cent by the end of 2005 because of shrinking private borrowing and NPLs being written off by Asset Management Companies (AMCs).

Finally, the capital markets (stock and bond markets) have been more widely accepted as a mobilizing channel of savings and developing risk instruments. In 2005, the value of the equity market, in terms of its proportion of the overall system, increased to 43 per cent and the value of the debt market increased to 20 per cent; whereas the value of deposits decreased to 43 per cent (see figure 3.1).

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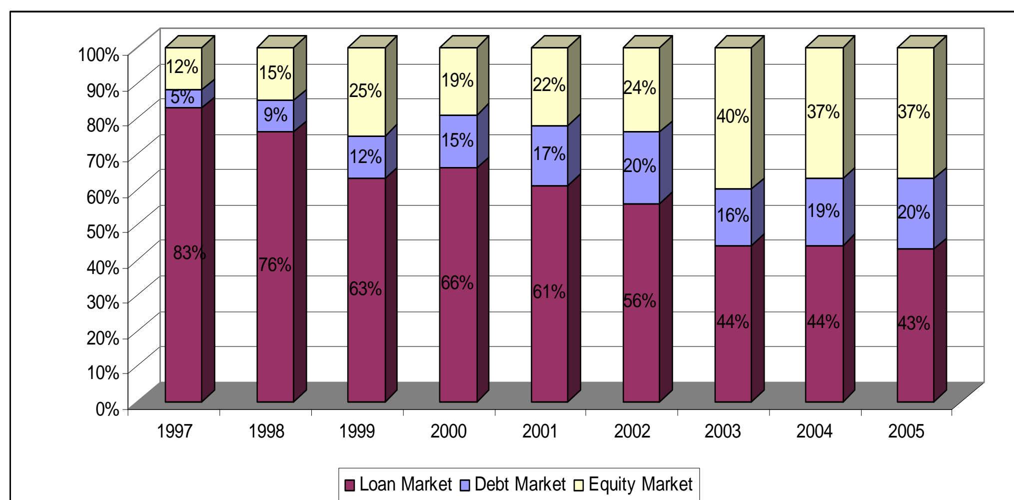
[4] The Financial Institution Development Fund (FIDF) was established by the Act amending the Bank of Thailand Law B.E. 2485 on 27 November 1985 aiming to overcome the limitations on the BOT in resolving problems and strengthening the financial system. In particular, the act broadened the scope of financial assistance that can be provided to financial institutions, e.g., through buying shares in the financial institutions or providing them with financial liquidity based on a broader variety of collaterals than those allowed by the BOT. The FIDF is governed by a board of directors, with the Governor of the BOT acting as the Chairman, and the Permanent Secretary of the Ministry of Finance as the deputy chairman, along with a other directors appointed by the Minister of Finance (Bank of Thailand, 2002).

Figure 3.1

Proportion of Deposits and Capital Market Value (1997-2005)



Source: www.bot.or.th

3.2 Index of Financial Development

In this section, an index of financial development is constructed to illustrate its evolution in Thailand over the past four decades, which were discussed in the previous sections. As discussed in Chapter 2, financial development can be measured by its relative importance in terms of liquid liabilities *(M)*, commercial-central bank assets (*A*) and private credit (*P*), all of which are combined in this study into a single index, a composite index of financial development.

A composite index of financial development is needed for two reasons. The first reason is that consensus has not been reached regarding what the most appropriate measure of financial development is. Each measure reflects certain aspects of financial development and they tend to complement each other. Therefore, it would be more appropriate to combine them together to reflect the developmental level of the financial sector. Secondly, putting them all as separate variables in the econometric analysis seems to be problematic. It is likely that they are highly collinear so that econometric concerns would be subject to over-parameterization (Ang and McKibbin, 2007). This is even more severe in the context of developing

countries where quarterly data are limited within the recent period. Hence, to avoid such problems, one needs a single composite index of financial development in which all individual measures are combined together.

Liquid liabilities (*M*) are defined as the ratio of liquid liabilities of the intermediaries, which consist of currency plus demand and interest-bearing liabilities of financial intermediaries over (nominal) GDP. It used to be a common variable in the literature to be employed as a proxy for financial development. This is because it measures the overall size of a financial intermediary (Demetriades and Hesein, 1996; Lieng and Teng, 2006; Ang and McKibbin, 2007, for example). Commercial-central bank asset (*A*) is the ratio of commercial bank assets divided by the sum of commercial bank and central bank assets. It is used as an alternative measure in terms of the relative importance of commercial banks (Lieng and Teng, 2006; Ang and McKibbin, 2007 etc.). Private credit (*P*) is measured by the value of credit by financial intermediaries to the private sector as a ratio of (nominal) GDP. It does not include credit to the public sector since the private sector is able to utilize funds in more efficient and productive manner as compared to the public sector. Thus, the exclusion of credit to the public sector better reflects the extent of efficient resource allocation (Demetriades and Hussein, 1996; Lieng and Teng, 2006; Abu-bader and Abu-qarn, 2006; Ang and McKibbin, 2007).

These three measures are combined together into a single composite index, which consists of four steps in a construction: variable selection, normalization, weighting, and aggregation and validation, weighting and aggregation is central to the construction of a composite index. In this study, the Principle Component Analysis (PCA) approach is employed to find weights corresponding to components in the composite index that captures the common trend in each component.[5] Nevertheless, as argued in Nardo et al. (2005), equal weighting (EW) is another sensible alternative when there are no statistical or empirical supports. Thus, in this study, the EW-based composite index is developed to examine the sensitivity of the constructed index.

Nevertheless, the composite index discussed so far has ignored the effect of rules or regulations that have a considerable effect on financial development in terms

[5] Full discussion of the construction of composite index is in Appendix A.

of its quality and efficiency. Hence, to rectify this shortcoming, an index of rules and regulations (*RULE*) is constructed to capture major historical changes in rules and regulations in the financial system during the past four decades starting in 1962.

In this study, we follow the approach developed by Susan et al. (2007) to construct *RULE*. The set of rules and regulations is categorized in three aspects, which include changes in financial acts, capital adequacy requirements and implementation of financial liberalization. In each aspect, each developmental stage is assigned an arbitrary number, identified by the major changes. The higher the number, the better the rules and regulations. The major shortcoming of this approach is that it largely involves an arbitrariness of assigned score. We guard against this shortcoming by conducting a sensitivity test of the assigned score as well as reporting results with and without *RULE*.

With regard to changes in financial acts, the whole sample period is divided into four sub-periods. They are 1960-1961, 1962-1978, 1979-1991 and 1992-2005. The first sub-period is prior to the Commercial Banking Act I and the three following sub-periods are for the effect of Commercial Banking Act I, II and III, respectively. As far as the capital adequacy requirement is concerned, there was a major change in 1994 where Thailand implemented the Basel I capital adequacy requirement. As a result, the whole sample is divided into prior and after 1994 i.e. 1960-1994 and 1995-2005. Finally, to capture the effect of financial liberalization, there are three sub periods, namely 1960-1989, 1990-1996, and 1997-2005. The lowest score is assigned to the middle sub-period as during this period Thailand pursued an active financial liberalization policy, whereas the highest score is for the sub-period of 1997-2005. The reason for this is that during the post-active liberalization period there was significant financial reform, leading to more prudent rules and regulations in the Thai financial sector. These three aspects are combined to be *RULE* by Principle Component Analysis (PCA). Four alternative indices of financial development are constructed. The first index (F_I) is the index where *M, A* and *P* are combined, using PCA. The second index (F_{II}) is similar to the first but using an equal weighting approach. This is done to examine the sensitivity of the weighting approach. The third index (F_{III}) is the first index with *RULE*. That is, the third index is a composite index of *M, A, P* and *RULE* using PCA. Finally, the fourth index (F_{IV}) is the third

index with an equal weighting approach instead of PCA. Table 3.2 reports the weights used in each index.

Table 3.2

Weights Used in the Composite Indices of Financial Development

Variable	F_I*	F_{II}**	F_{III}*	F_{IV}**
M	0.327	0.333	0.278	0.250
A	0.340	0.333	0.215	0.250
P	0.333	0.333	0.243	0.250
RULE			0.264	0.250

Note : * weight is calculated by PCA

** weight is calculated by EW

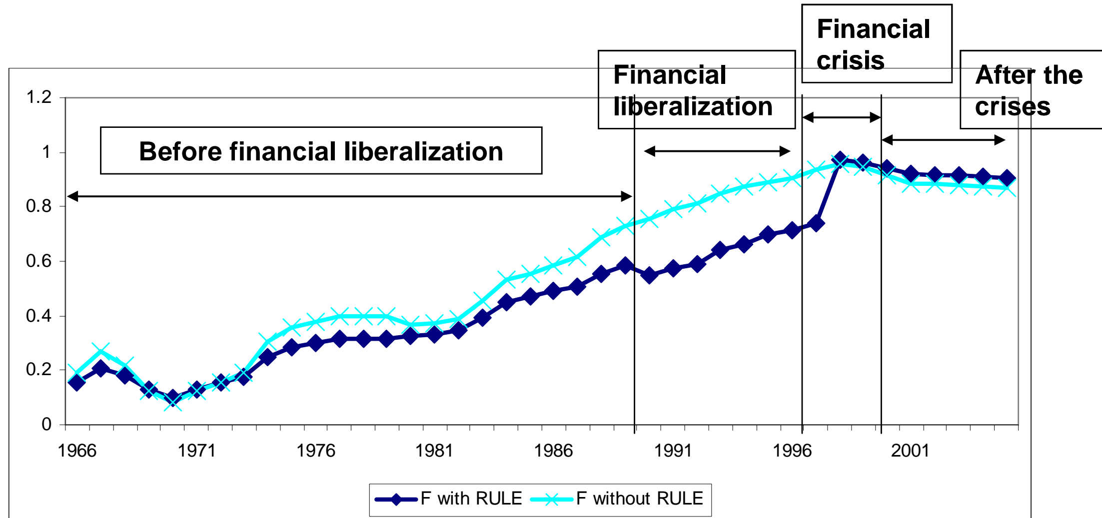
Source : Author's calculation

Three inferences can be drawn from Table 3.2. Firstly, it is clear that the weighting approach does not have any significant effect on the constructed indices. For example, weights used in F_I and F_{II} are marginally different from each other. Hence, our following discussion is based on the PCA-constructed composite indices. Secondly, the major difference between including and excluding *RULE* is the weight assigned to *M*. *M* has the highest weight when *RULE* is included, but the lowest when *RULE* is excluded. A possible explanation is that the private credit of banks (*P*) and the assets of bank (*A*) are influenced by *RULE*. For example, when Thailand actively liberalized the financial sector (1990-96) (i.e. *RULE* index is low), there was a rapid growth in credit. This led to lending to risky firms without caution concerning credit assessment. Hence, when *RULE* is introduced, the relative importance of *A* and *P* drops.

While we realize rules and regulations could have a significant influence on the financial development-growth nexus, its measurement is subject to an arbitrary assumption. Hence, in this study, F_I (*F* with *RULE*) and F_{III} (*F* without *RULE*) are used to examine the causality relationship between financial development and economic growth. Figure 3.2 shows patterns of F_I and F_{III} over the past four decades.

Figure 3.2

Financial Development Indices



Source : Author's calculation