Chapter 6

CONCLUSIONS AND POLICY IMPLICATIONS

6.1 Overview and conclusions

Three objectives are accomplished in this study. First, the structure and development of the financial system in Thailand is summarized. Even though the Thai financial system consists of many kinds of financial institutions, the main focus is the role of commercial banks which by far are the most important institution in terms of both savings and credit extended. The financial evolution can be classified into four phases. In the first (before 1961) and second (1961-1968) stage, commercial banks did not contribute much to the economic growth of the country. The third stage (1969-1989) was considered the modern stage of financial development and the banks were able to increase, for the first time, the ratios of time and saving deposits to GDP higher than M1. Many other financial institutions were established during this stage such as finance companies and the Stock Exchange of Thailand. However, most of the market share in both deposits and lending were still captured by commercial banks. The fourth stage (1990-present) is the liberalized period. Thai authorities have been introducing many financial reform policies since late 1989. These policies include the interest rate liberalization, the extension of banking activities and one of the most important policy is the setting of BIBF allowing free flow of foreign capital. One expectation from this liberalization is to enhance the competitive environment in the financial market which should lead to higher efficiency in the operations of the financial intermediaries and eventually to the benefit of consumers. However, the results in Chapter Five address this expectation.

Second, the time-series analysis of the impact of financial development on economic growth confirms the positive relationship which is also found by many earlier studies. The

Granger causality test conducted in this study is able to identify the direction of this relationship supporting the 'supply-leading' hypothesis. However, it should be noted that these findings are subject to the specific economic model by selecting the appropriate proxy variables for financial development. We propose that the loans and advances of commercial banks is especially representative for the accurate role of financial institutions in credit allocation. The findings in this chapter enable us to pursue further analysis on the efficiency in banking operations.

Third, in assessing the efficiency of the Thai commercial banking system, the study firstly describes the market structure of Thai banks. The results of the analysis indicate Thai banks operate in a market that best described as a loose oligopoly. With merely fifteen banks in the system, we divide them in to three groups: large, medium, and small according to their share of output in the market. Three banks from each group are selected as benchmark banks. The translog production function with all banks producing the homogeneous single output is derived. The model used in this study is related to Gollop and Roberts (1979) and Berg and Kim (1994). The main difference is the pooled time series cross-sectional data used in this study instead of only a cross-sectional sample, hence, we are able to investigate the effect of the financial reform enacted since late 1989.

The Cournot model is rejected both from within and across size classes. However, we can not reject two equality testings which are the homogeneous conjectures of banks from all size classes with respect to the change in output initiated by the large and medium benchmark banks. While we cannot find any evidence directly supporting collusive behavior, the fact that these two hypotheses cannot be rejected partially supports the characteristic of the dominant firm leadership model. The estimation of the final model reveals the retaliatory reaction among Thai banks since all CVs have highly positive values except CV_{31}. This negative result can be described as the expected accommodating reaction of large banks regarding the production decision of the small benchmark bank. These results are supported by the steadily increasing market share of the medium and small banks at the expense of the large banks during the investigation period. Thus, we conclude that Thai banks are operating in a loose oligopolistic market where the pattern of interdependence is not inconsistent with some pattern of dominant firm leadership.

In terms of the measurement of operational efficiency, the study finds that the Thai banking system experiences increasing returns to scale for the whole period of investigation. The size of the efficiency is much lower when measured with the conjecture variations model rather than the Cournot model. Thus, we argue that ignoring the conjectures from the model may result in biased conclusions and in our case, the bias is upward due to the retaliatory reactions among banks.

The analysis for the effect of financial reform reveals the banks' efficiency structure has significantly shifted after the implementation of the reform policies. On average, the Thai banking sector has been able to move close to the MES on the U-shaped average cost curve. However, it should be noted that the MES might not be the same as before the liberalization. Moreover, this phenomenon, according to our expectation, is induced solely by external financing. On the other hand, the rest of the inputs (which are the normal inputs in the production function: materials, labor and physical capital) produce higher increasing returns to scale, indicating the backward movement on the cost curve farther from the MES.

Moreover, the Lerner indices of the degree of monopoly power are computed for each factor input covering the period 1985-1996. In general, all of the indices reveal the higher degree of monopoly through time. The fourth input, foreign borrowing, shows a strong shift after deregulation and the index remains at the higher level thereafter. Thus, the findings in Chapter five partly confirm our expectation that after the financial liberalization, there is a significant structural shift in the efficiency of the operations of the Thai commercial banking sector. However, we cannot confirm that this shift is induced by the increasingly competitive environment in the banking system, or by the sharp increase in foreign borrowing. These findings, hence, lead to some interesting policy recommendations in the following section.

6.2 Policy implications

The various analyses throughout this study produce some worthwhile policy recommendations. We have shown in the first part of this study that financial development has a positive effect on economic growth, moreover, in the second part we prove that the effect of financial deregulation enhances the operational efficiency in commercial banks. In fact, the efficiency is much lower when we exclude foreign borrowing as an input. The sharp reduction of increasing return to scale which moves close to the minimum point of constant return, leads to the awareness of what happened in Latin America in the 1980s (De Gregorio and Guidotti 1995).

The same phenomenon is now repeating itself in Thailand, with consumers and bankers confident that in order to prevent loss of public confidence, the government will bail out banks in times of crisis and protect deposits while no formal deposit insurance agency exists in the country. These beliefs cause some financial institutions to be less careful in their lending activities. Lax lending, coupled with the free flow of low-cost international funds, has resulted in massive over-lending and has been followed by the collapse of many finance companies in 1997.

With respect to the impact of the free flow of external financing, various researchers (Jansen and Meckling, 1976 and Brander and Lewis, 1985) reveal that a firm with more leverage will act more aggressively in the output market when two conditions prevail: variability in profit and the existence of bankruptcy costs. Thus, debt financing can lead to more aggressive behavior of the firm (both finance and non-finance firms), which is known as the limited liability effect. However, we are not saying that financial liberalization is the main cause of economic crisis in this country. What we want to emphasize is the importance of sequencing the process of the deregulation.

In this context, we firstly suggest macroeconomic stability is the necessary precondition for any reform policy to succeed. With respect to the macroeconomic aggregation, this stability can be satisfied by the certainty in relative prices including interest rates, foreign exchange and inflation, hence, encouraging investment in real assets.

Moreover, there is another method of stability measurement as mentioned in Jansen (1990) where the macroeconomic stability is measured by sectoral analysis. Jansen shows that the fluctuation in household savings due mainly to external shocks (i.e. export prices) coupled with fluctuation in corporate investment leads to imbalances between ex ante saving and investment plans. The author concludes the major macroeconomic problem for Thailand in the mid-1980s was the structural imbalance in the public sector. Private investment cannot be crowed out by the requirement of huge amounts of public financing due to the ability of the private sector to borrow from abroad. This accumulation of foreign debt creates a debt-servicing burden in the long run which can only be managed if the country can increase its domestic saving. Table 6.1 shows the amount of outstanding debt of private sector. This amount is steadily increasing and jumps from 9.0 percent of GDP in 1987 to 31.86 percent in 1995.

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Table 6.1 Outstanding debt (private sector)

year	*billion US Dollars*	*% of GDP*
1987	4.543	9.0
1988	5.290	8.6
1989	7.585	10.5
1990	13.551	15.9
1991	20.476	20.8
1992	24.296	16.1
1993	32.657	25.8
1994	39.289	27.9
1995	51.803	31.86

Source: Bank of Thailand.

Secondly, when we open ourselves to global financial markets, our financial structure must be strong enough to cope with this new environment. Theoretically, financial liberalization should be introduced first in the domestic market. After the success of creating a competitive environment in the domestic financial system (e.g. allowing free entry into the banking sector) then the country is ready to move on toward the international level. However, the actual sequencing of financial liberalization in Thailand has been influenced mainly by political considerations rather than theoretical judgment. Therefore, some of the policies such as the interest rate deregulation are not likely to succeed. A financial system which is not fully competitive prevents interest rates from reaching their market-clearing levels, resulting in inadequate benefits to the economy. Thus, the monetary authorities may need to reintroduce the controls on some rates in order to reduce the pressure in the market. Moreover, as we have seen that the degree of monopoly power is increasing after the deregulation, banks are enjoying larger margins as a result from low-cost foreign funds. In addition, in the time of liberalization, finance executives both in financial and non-financial institutions should have adequate knowledge when dealing with new financial opportunities where cheap funds come with high risks. The advanced financial instruments trading in the world markets need real professionals to utilize their advantages otherwise they can end up with huge losses.

Last but not least, the most important role in the process of liberalization lies in the hands of the government and the regulatory authorities. Fruitful liberalization can only come through the coordination among all government agencies concerned including the state enterprises. The high level executives in the government should be aware of this issue and so perform their roles accordingly.

Regarding the importance of the regulatory framework, the monetary authorities should be able to adequately supervise the operations of financial institutions. They need to have thorough knowledge about the impact of the policies pursued, be aware of any downside risk in the system and send the right signals to the public. The structural shift of the efficiency found in this study does not imply the success of the policies, rather it is a signal that the banks' operations are moving close to the minimum scale efficiency. Banks will soon pass this point and experience decreasing economies of scale if they remain unaware. As has been shown in Table 5.11, commercial banks rely heavily on foreign funds, hence it is the ability of the bank executives and also the authorities to carefully monitor the operation of the banking sector in order to prevent further crisis in the system .

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