Macroeconomic Perspectives on Thailand's Post-Crisis Recovery

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Although the vulnerability of the Thai economy to financial and currency crisis has declined, the sustainability of the Thai economic recovery hinges upon the strength of the US economy and Thailand's economic policy consistency. The main factor preventing sustainable recovery is the lack of bank credit. Nevertheless, reducing the level of non-performing loans does not guarantee availability of funds as long as there are limited numbers of quality borrowers. Exchange rate depreciation and rising oil prices have reduced the speed of recovery by dampening business expectations and eroding consumer confidence. High interest rate policy cannot protect the value of the baht nor stimulate domestic consumption. Successful inflation targeting requires the interconnectedness between money and credit markets. Current public spending should be financed by contemporaneous taxes rather than bonds.

1. Introduction

The growth rate of the Thai economy rebounded to 4.2 percent in 1999 from the contraction of 10 percent in the aftermath of the currency crisis in 1998. In the first half of 2000, GDP grew by 5.9 percent, but in the second half of the year, consumption and investment expenditures did not rise as fast as in the first half. As a result, the 2000 growth did not exceed 4.5 percent. Pundits doubt whether the economic recovery is long lasting. With looming recession in the US and Japan, the slowdown in output can continue further into the year 2001. Negative sentiments abound: a continuously depreciating exchange rate, the lackluster performance in the stock market, and the adverse impact of

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the oil price shock. Because non-performing loans still remain at a high level, banks are not willing to provide the much-needed liquidity to the real sector. While bank deposits grew by 5 percent in 2000, bank loans declined by 9 percent. Consequently, credit crunch prevented investment and consumption expenditures from boosting aggregate demand to ensure sustainable recovery.

According to the National Energy Policy Office, industrial power consumption increased by 10 percent from the previous fiscal year ending September 30. The increase stemmed from steel, cement, and petrochemical industries, which experienced a surge in their power consumption by 20 percent. Residential and Commercial sector consumption of energy rose by 3 and 8 percent, respectively. The substantial increase in power consumption was in sharp contrast with the corresponding decline of 1.9 percent and 0.6 percent in 1998 and 1999. In 1995 and 1996, two years prior to the currency crisis, the energy consumption rose by 8 percent annually. The rate of changes in energy consumption can be thought of as a coincident indicator of movements in economic activity. In addition, power consumption also captures the informal sector's economic activity, which is usually underestimated by the official GDP figures. As the output has begun to expand from its trough in 1998, the demand for energy started to rise. In a survey conducted by the CB Richard Ellis, it was found that there was an improvement in the industrial property market in the first half of 2000, as evidenced in a 33 percent rise in sales of industrial land plots. There is also a considerable demand for factories for rent. All of these leading indicators confirm that the Thai economy has actually recovered from its worst crisis.

But the survey of consumer and business confidence paints a different picture. According to the Bank of Thailand, the business confidence index declined from 60.1 in January to 42.6 in August 2000. The fear of a recession caused by the oil price hike prompted several

forecasters to revise their growth forecasts downward. As Paul Krugman once said, "there are no good forecasters, only bad ones with luck," we can discount the forecasting accuracy of Thailand's prophets of doom. Doom mongers should be well aware when voicing their predictions because there might be negative externalities in such a way that it might cause confusion and panic among the public. Although perception is not reality, there exists such a thing as a self-fulfilling prophecy. If people expect the coming crisis, they would start hoarding and become more and more pessimistic, leading eventually to losses of confidence. Recession is ensued.

There is no doubt that the economy has recovered from the worst slump in the history of Thailand's economic development. The issue is whether the recovery is so fragile that it cannot withstand another external shock and whether it would contract once again like in 1998. In the first eight months of the year 2000, industrial production rose by 4.4 percent. According to the Ministry of Commerce, the number of business closures increased by 22.7 percent, while the number of new business rose by 7 percent. Nevertheless, the number of employees under the social security system rose from 5.4 million in January 1999 to 5.9 million in September 2000. As a result, the unemployment rate must have been falling. Since the unemployment rate is a lagging indicator of economic activity, the rising employment confirms that indeed the economy has rebounded.

This paper argues that, although the recovery remains fragile, there is a remote possibility that Thailand would succumb to a second crisis in the next few years. Given the current external situations on the oil prices and the US stock market, the Thai economy can gravitate around a new stable growth path of 4-5 percent. There is no point in dreaming of returning to the pre-shock growth path of 7 percent, for that precarious high-growth path is undoubtedly unsustainable. There are structural bottlenecks that prevent rapid recovery. A moderate 5 percent-growth

with external stability is more desirable than high growth with asset price inflation. The paper discusses these issues in detail and examines the implications of macroeconomic policy applied in the period of the post-crisis recovery.

2. Stock price volatility, market structure, and market psychology

The Index of the Securities Exchange of Thailand (SET) lost more than 40 percent of its value in 2000 (Table 1). It is one of the worst performing markets in the region. If the Thai economy has already come out of the crisis, why is its stock market experiencing the bears?

The Thai stock market rebounded in the second half of 1998, when interest rates declined and the baht regained its strength against the US dollar. During this period, Thailand experienced a new high level of foreign direct investment, in particular inflows to recapitalize the ailing commercial banks. Nevertheless, the euphoria in the stock market did not last long, as foreign investors realized that non-performing loans were so huge that commercial banks would have to set aside expenses for loan loss provisions. It is unlikely that Thai commercial banks would be able to make profit in the near future.

The banking and property sectors represent 40 and 25 percent of the market value respectively. While export revenue increased by 20 percent in 2000, the export-related companies account for only 10 percent of the market capital value. As such, the stock price index does not adequately capture the overall performance of the economy. Investors' sentiment would not improve if the market activity were still sluggish. Retail investors, whose investment horizons are so short that they make the Thai stock market look like a gambling den, account for 70 percent of the stock market trading. This is particularly important since it causes stock price volatility and makes it susceptible to rumors and shocks. The retail investors are normally influenced by actions taken by foreign

investors. As foreign investment houses reduce their weights of Thai stocks in their portfolios, we observe that the sentiment is transcendent across the board to Thai investors. Thus good and bad news on Wall Street can be easily transmitted to the Thai market. There is a positive correlation between the movement of stock prices and the trading volumes (Table 1). An increase in demand due to euphemism pushed up the price-to-earning-ratio (P/E) and increased the turnover volume.

On the supply side, many Thai firms are not interested in having their companies listed in the stock market because of their lack of corporate transparency and disclosure standards. If firms do not pay corporate income tax properly, they will have to pay more taxes after they enter the capital market, unless the government reduces the corporate income tax rates to induce firms to have their shares listed in the stock market. Major shareholders, which on the average control the management of about 70 percent of the listed companies, entered the stock market to enrich themselves during the bull market, rather than to genuinely seek direct finance to expand their operations. When some firms were de-listed from the stock market after the bubble burst, few firms were interested in raising capital funds during the bearish period, causing a further shrinkage in the number of shares available to investors. Although tax incentives are not large enough to entice firms to join the market, the government incidentally provides incentives for short-horizon investors by not taxing capital gains. On the contrary, long-term investors in bonds and fixed income deposits are discouraged by taxes on yields and interest incomes.

According to the Bank of Thailand and the National Statistical Office, 71 to 88 percent of Thai savings are in the form of bank deposits, while only 0.25 to 1.7 percent are in the form of stocks. Only 400,000 of the 65 million Thais hold stocks, compared to 1.2 million Singaporeans. The statistics are not surprising since stocks are normal goods, while portfolio holders must take into account the real rate of return, net of

risk. Until the perceived degree of risk is reduced, mobilization of funds through the stock market cannot be dependable.

In contrast, as shown in Table 2, Thailand's market capitalization relative to domestic credit and GDP is small relative to those in Hong Kong, Singapore, Malaysia, and South Korea. The conclusion is that the depth of the capital market, as measured by market capitalization, may not be a good indicator of economic development. On the contrary, a higher level of market capitalization may simply reflect the fact that the stock prices are far above their fundamental values. In 1993, when the Thai stock index hit an all-time high, the value of the Thai market capitalization relative to GDP was 104 percent. This level was higher than the corresponding values in many developed markets such as Germany, where its capital market in January 2000 was only 80 percent.

As Charles Mackay, a Victorian writer, pointed out, the movements in stock prices are driven by irrational herd mentality and mass psychology and investors can only recover their senses slowly one by one. Since the Thai Rak Thai Party of Mr. Thaksin won the majority in the parliamentary election in January 2001, the SET index rose sharply by more than 16 percent at the end of January. The daily trading volume peaked at 23 billion baht, compared to the average of 3.7 billion baht in 2001. The party has pledged its campaign to set up a national asset management company to buy out bad debts of Thai banks. And since Mr. Thaksin is a telecom tycoon himself, it is not surprising that the shares of the banking and telecommunications sectors went up sharply. If the surge is not supported by fundamental factors, sooner or later the bubble will disappear.

Because the stock market in Thailand is still plagued with many structural problems, other alternative forms of asset accumulation and sources of investment funds must come from issued debt instruments

and bonds. The fact that fixed income from bonds are alternatives to volatile stocks, investors shift funds from the stock market to the bond markets, resulting in a greater fall in the demand for equities.

3. The bond market and fiscal stimulation

Ronald McKinnon (2000) argues that the reason why Asian countries suffered so much from the debacle of their currencies is the lack of bond markets. Since firms in these countries rely heavily on external financing through bank borrowing, the bank credit contraction means that liquidity-constrained firms cannot maintain their level of business activity. Had they been able to rely on issuing bonds, they could have survived the credit crunch.

Private investment had been declining before the crisis broke out in July 1997. Nevertheless, the volume of bank credit in real terms did not slow down until the first quarter of 1998. With rising price levels and declining credit in nominal terms, the resulting sharp contraction in the real volume of bank credit and the sharp fall in investment took place simultaneously in the second half of 1998. Because of the severe slump in private consumption and investment, the 1998 GDP contracted by 10 percent. Nevertheless, the recovery in private investment was evident throughout 1999. The imported capital goods, the stock market index, and sales of cement and other construction materials showed signs of recovery. Despite a declining trend in bank credit, the private investment index showed a strong sign of recovery in 1999. It seems that there has been a structural change in the relationship between investment and bank credit; investment can rise without an expansion in bank credit.

If commercial banks are not willing to lend during the recession, private investors can reduce their liquidity constraint if they find other sources of financing. Large firms started to issue debt instruments that attract market interest as long as the yields on their debentures are

higher than the bank deposit rate. Having previously issued bonds worth 75 billion baht, Siam Cement further issued bonds worth 15 billion baht in October 2000. The bonds with two years maturity carry a 5.75 percent fixed annual interest rate. With the low interest rate on fixed bank deposit around 3 percent, corporate bonds are highly attractive for rich individuals and institutional investors such as mutual funds and pension funds. In early 2001, Advanced Info Services, a mobile-phone operator, issued bonds worth 6.5 billion baht. The bonds were oversubscribed by more than six times. Thai Rating and Information Services (TRIS) has rated the 5-year AIS bonds AA-. The ability to tap liquidity through issuing debt instruments means that large and successful corporations can reduce long-term interest cost significantly, while they do not have to rely mainly on commercial banks during the period of credit and capital crunch.

In the first half of 2000, the turnover in the bond market increased to 24 percent of GDP, compared to only 4 percent in 1999. The daily turnover volume of bonds and corporate debt instruments was higher than the turnover in the stock market.[1] The government bonds and government-guaranteed bonds accounted for 82 percent of total bonds. Since 1998, there has been a changing structure of the bond market (Figure 1). Because the government ran a budget deficit through bond financing, the share of government bonds rose rapidly to 42 percent in 1999, compared with 3.4 percent in 1996 during the period of budget surplus. The bond market, which used to be dominated by state enterprises, has become active in trading of many bonds with different maturities. Since the volume of trading began rising sharply in 1999, the bond market has become more liquid. The average daily transaction for the first half of 2000 was 4.7 billion baht, an increase of 270 percent from 1999. Although the bond market is still in a nascent stage, it has

[1]The turnover ratio rose by 107 percent in 2000, compared with 40 percent in 1999.

provided reliable yield-curve benchmarks. The top-tier bonds were trading at 100 basis points above the government bonds of the same maturity. Foreign-owned banks in Thailand, first class commercial banks, state enterprises, and blue-chip corporations issue these high-grade bonds. The yield spread increases to 300 basis points for firms with higher risks.

Nevertheless, the recent development of the Thai bond market cannot adequately provide much needed funds to all credit-constrained firms; only about 100 Thai corporations can issue bonds with at least a BBB rating, which is a minimum bond quality requirement. Small and medium-sized firms with high risks would not be able to obtain funds through this channel.

With the rising popularity of the bond market, the government can use this opportunity to finance its budget deficit by issuing bonds. The low interest rate would not put pressure on the fiscal burden, while a bond-financing budget deficit can be effective and non-inflationary. The fiscal expansion financed by bond issuance can be powerful if conditions of Ricardian Equivalence Hypothesis do not hold. The government can rule out the tax-discounting hypothesis because of imperfect capital markets, distorted tax systems, and the absence of forward-looking households with ultra rationality. It should be noted that although there are opportunities for expansionary fiscal policy, these bonds should not be indexed to inflation. Experiences in Latin America show that by linking bond yields with the inflation rate, the fiscal burden on the government can later lead to inflationary financing through expansion of seigniorage.

The rule of effective fiscal policy for long term growth requires that marginal benefits of government spending must exceed its marginal cost. Furthermore, current spending should only be financed by contemporaneous taxes—not by bond financing. This is because the burden of a budget deficit financed by bonds would fall to the next generations that must pay the future tax liabilities, while not receiving the

current benefit from the current expenditures. Some of the populist policy promises by the Thaksin government such as farmers' debt suspension, a national asset management corporation, a one-million-baht village funds, and a thirty-baht per-visit-medical care do not comply to this rule of effective fiscal policy. Instead, money raised through selling bonds should be used for capital spending on infrastructure and public goods—not current public consumption.

To stimulate the economy, there has been a policy recommendation for a cut in income tax rate. A personal income tax cut may not be effective as the value added tax cut since there are only 5 million people paying income tax, while 61 million Thais have to pay indirect tax via the VAT. Because of its regressive nature, maintaining the current 7 percent rate of VAT is better than restoring its previous 10 percent level while simultaneously reducing the income tax rate. When the economy regains its stable growth path, the fiscal deficit will not be a serious problem.

4. Non-performing loans and debt restructuring

At the end of August 2000, the level of non-performing loans was 1.6 trillion baht, representing 31.2 percent of total outstanding loans. The level of non-performing loans of financial institutions peaked in mid 1999, reaching 48 percent. The write-offs and the transfer of bad loans to banks' Asset Management Corporations (AMCs) began earnestly in the last quarter of 1999. The percentage of Non-Performing Loans (NPLs) that has been restructured has been increasing. As a result, the NPLs has been declining throughout 2000 (Figure 2). By July 2000, the NPLs of commercial banks has dropped to 33 percent. By December 2000, the level of non-performing loans declined to 858 billion baht or 17.9 percent of total loans. At its peak in 1998, the NPLs amounted to 2.7 trillion baht or 45 percent (Table 3). The reduction of the NPLs was due to the transfer of bad debts of commercial banks to asset management

corporations and bad debt write-offs.

Although substantial progress has been made, many problems remain. Some of the restructured loans are reverting to non-performing status. The spread between lending and deposit rates of banks was 3.5 percent in the first half of 1997. It was reduced to minus 1.6 in the second half of 1998, minus 1.9 in the second half of 1999. The negative interest margin was the result of the large amount of non-performing loans and the corresponding loan-loss provisions.

From December 1997 to July 2000, there was a substantial reduction in the NPLs. More than half of the lending of the state bank (KTB) and nationalized banks are still non-performing. The medium-sized banks have the least progress in reducing the NPLs. In contrast, small banks, which have the highest level of NPLs, were able to reduce their NPLs by more than half.

Foreign banks' injection of capital to weak domestic banks can reduce their non-performing loans considerably. Because small banks can be taken over easily by foreign banks, ABN Amro took 75 percent of the stake in the BOA. Similarly, DBS and UOB of Singapore hold 75 percent of TDB and RSB respectively. With new capital injection from foreign banks, small Thai banks remain solvent and reduce their non-performing assets from 65 percent in September 1999 to 30.8 percent in July 2000. When Standard Chartered Bank took over a 75 percent share in the NTB, its NPLs fell from the peak of 58 percent to just 1.3 percent. In August 2000, DBS -TDB sold problem loans to a subsidiary of Lehman Brothers, totalling 30 billion baht. This is the first liquidation of NPLs by a commercial bank. The liquidation of NPLs was at a loss ratio of 71 percent. With a sharp discount, other commercial banks with low capital adequacy ratio would not be able to liquidate their non-performing asset, unless they receive an immediate increase in capital.

KTB, the state bank, has to shoulder the burden of bad loans

through assuming deposits and NPLs from some defunct banks. Other banks, such as BBL and TFB were able to raise their capital from issuing new shares. Consequently, they have made a substantial reduction in NPLs through bad debt write-offs. TMB and BAY were able to reduce their NPLs through writing-off their bad loans. Medium-sized banks face more difficult tasks than small and large banks. They are too big to be taken over by foreign banks and they are too weak to secure interest from overseas investors when launching recapitalization plans. The failure of a plan to sell BMB to HSCB indicated the long slump in the banking sector. The plan to sell the nationalized SCIB to a foreign institution has yet to materialize. Since the levels of NPLs in both BMB and SCIB are 70 percent, it is not surprising that they could not draw attention from foreign banks or Thai institutional investors.

The Corporate Debt Restructuring Advisory Committee (CDRAC) was established to mediate between creditors and debtor companies. If successful, the cases can be forwarded to the Central Bankruptcy Court for debt forgiveness and business restructuring. If both parties fail to agree on the debt-restructuring plan, the case proceeds to the Civil Court. In 1999 alone, 700,000 cases reached the Civil Court. Because of many unsuccessful restructured cases that ended up in the courts, the Chuan government created an arbitration program to accelerate out-of-court settlements of corporate-debt cases. Sixty percent of the cases would be transferred to the arbitration program. In sum, it has been a great difficulty to accelerate debt restructuring programs in order to reduce NPLs significantly within a few years after the bank crisis.

It was thought that after banks reduced their NPLs significantly with successful bank recapitalization, fresh credit could be channeled to the manufacturing sector to sustain its recovery. The strength of financial sector and economic expansion are both causes and effects of each other. Unless the real sector grows steadily with external balance and

price stability, the financial sector is still subject to the threat of downside risks. In the mean time, while waiting for a solid recovery, Parliament and the Senate passed the Bankruptcy Law and the Foreclosure Law in 1999. The Bankruptcy Law is aimed at liquidation, rehabilitation, and reorganization of corporations. However, the passage of the new laws has been ineffective in accelerating the recovery of bad loans secured by collateral. The proceedings may take up to 10 years before banks can charge for loan loss against immovable land, which is considered as the sole asset that can be collateralized under the Thai law. On the international legal standard, borrowers can pledge inventories and movable assets as collateral that can be easily charged by banks if borrowers default. The amendments of secured transaction laws are imperative to include business assets other than land as collateral. The Bankruptcy Law is applied for firms as well as individuals. The problem is that judges are reluctant to declare individuals bankrupt. A bankrupt person cannot conduct business for at least three years. Viewed in this light, the cost to individuals may not be large enough to deter moral hazard problems. The number of bankruptcy cases is a small proportion of NPLs.

Recently the Bank of Thailand has allowed commercial banks to raise its capital through issuing hybrid debt-capital instruments, which are unsecured subordinated debts with maturity periods of more than 10 years. The new instruments can be classified as upper tier-two funds without restriction. Other subordinated debentures are limited to 50 percent to total funds counted as tier-one capital. The hybrid-debt-capital instruments are closer to capital than debt. Issuing banks can postpone interest payments if banks do not generate profit. The Bank of Thailand can encourage market discipline of commercial banks by mandatory issuance of subordinated debt by banks. The advantage of subordinated debt is that it is incentive compatible because it matches the incentives and risk preference of asset holders and banking supervisors (Calomiris, 1999). Debt holders are risk sensitive and must

monitor the performance of banks because their assets are subordinated to the other liabilities of banks. If banks do not show corporate governance, disclosure, and transparency, they will suffer from bearing higher costs of funding, since subordinated debt holders must require higher rate of return to compensate for higher risks.

Although substantial progress has been made in reducing the level of NPLs, there are other reasons why NPLs are still stubbornly high, aside from the above mentioned constraints on legal infrastructure that limit the speed of the Bankruptcy Courts in processing debt-restructuring cases.[2] Because of the slowdown in economic activity in the second half of 2000, some restructured loans become bad loans again. The re-entry NPLs averaged around 10 percent in July and August. As a result, the NPLs did not fall as expected earlier. It was earlier forecast by the Bank of Thailand that the NPLs would fall to 7.4 percent by the end of 2000. In fact the NPLs in December declined to 17.9 percent. The speed of the reduction depends on the number of asset management corporations established by financial institutions, and the amount of the assets being transferred.

After the complete liquidation of 56 defunct finance companies and the sell-off of 5 banks out of the total 12 private banks, there has been no improvement in bank lending. There has been a suggestion to establish a national AMC in order to speed up the transfer of bad assets. This proposal ignores the enormous fiscal burden placed on taxpayers. Although the market-approach adopted by the Chuan government requires a considerable time for bad asset disposal, it incurs less fiscal burden. While the public-owned banks have NPLs of 55 percent, the private banks can reduce their NPLs much faster like in the case of the DBS Thai Danu Bank. Without capital injection, NPLs

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[2]As of October 2000, there have been about 41,200 cases awaiting the Bankruptcy Court's verdict for less than a year, and 33,380 cases pending more than a year.

cannot be lowered. The fund for recapialization should not come from the government. Bank shareholders must bear the brunt of their mistakes in handling the principal-agent problem. If a national AMC is established, the public debt will undoubtedly increase since the government will have to shoulder the cost of transferring bad debts to the national AMC. Obviously the NPLs would fall substantially right after banks transfer their bad debts. The issue remains whether banks would start lending once again. It is argued here that banks would start lending when they expect a positive rate of return from lending. If business confidence remains low, the banks would not be willing to supply credit to cash-constrained borrowers. The idea of establishing a national AMC is ill conceived. Moreover, there is an issue of income transfer from taxpayers to banks' shareholders, in addition to the immediate capital gains from rising share prices. The establishment of a national AMC indeed helps the rich directly—not the poor.

5. Exchange rate policy and capital controls

Throughout 1998, the baht had regained its strength against the dollar, despite the sharp contraction in GDP. The baht appreciated from 41.4 to 37.8 baht by the end of 1999 (Table 3). Nevertheless, both real and nominal exchange rates gradually depreciated throughout 2000. In late November 2000, the baht plunged to its 28-month low, touching 44.4 baht to the dollar. In April 1999, the baht gained strength against the dollar and appreciated to 35.8 baht. The Bank of Thailand did not intervene despite the outcry from exporters for a weaker baht. As the baht regained its value, the international competitive edge gained from depreciation was gradually eroded.

From January 1999 onward, the baht had been depreciating in both nominal and real terms. As inflation remained very low, due to deflationary pressure, there is a small difference between real and nominal appreciation (Figure 3). Throughout this period, the current account

was in surplus, despite the baht depreciation. This suggests that currency depreciation is not a necessary condition for improving trade balance. In the case of Thailand, the foreign income elasticity of demand for Thai exports and the domestic income elasticity of demand for imports are high. There seems to be a close relationship between the baht appreciation and the slowdown of Thai exports in dollar terms in 1998 (Figure 3). Similarly, the baht depreciation between 1999 and 2000 happened at the same time with the improvement in exports. However, the Japanese and American economies did not perform very well in 1998, while the two economies' growth rate improved significantly between 1999 and 2000. In the first eight months of 2000, exports rose by 21 percent in dollar terms. Electronic and electrical appliances, vehicles and parts, gems and jewelry exports rose by 24 percent, while imports also rose by 27 percent. The income effect has stronger impact on trade balance than the substitution effect arising from changing price levels. It is a myth to assume a close link between currency depreciation and international competitiveness.

Until recently, international reserves had risen continuously, while the baht and dollar remained relatively stable. Despite the outflows of capital from the private sector, the surplus balance of payments was as a result of a larger surplus from current and income accounts. The declining terms of trade does not preclude Thailand from obtaining the current account surplus. Since the baht remained stable, the surplus balance of payments and the rising level of international reserves indicate that the Bank of Thailand must have intervened to prevent the baht from appreciation. In effect, the Bank of Thailand is in favor of a weak baht to stimulate foreign demand to spur domestic growth.

With substantial interest rate differences between Thailand and the US, capital outflows can take place in the forms of over-invoicing of imports and under-invoicing of exports. Capital controls are required to subdue capital flight. Capital controls were imposed during the period

when the baht depreciated sharply against the dollar in early 1998. The Bank of Thailand imposed a 50 million baht limit on transactions without underlying trade or investment purpose. Commercial banks were not permitted to supply baht loans to non-residents above the maximum amount so those baht speculators would have difficulty obtaining baht offshore. In November 2000, the BOT implemented a new regulation requiring detailed information on offshore baht transactions. For highly-leverage financial institutions such as hedge funds, the central bank needs to monitor their activities closely. They should be forced to disclose their open positions. The amount of foreign currency transactions for speculative purpose is far greater than the volume of transactions that are related to trade and investment activities. A Tobin-typed tax would not work if all countries do not impose the Tobin tax simultaneously. In addition, evidence found by De Gregorio et al. (2000) indicates that the effects of capital control imposed by Chile in 1991-1998, an unremunerated reserve requirement, have no long-run significant impact on interest and exchange rates. Nevertheless, the significant impact was found by altering the composition of capital flows into longer maturity. This seems to be the case of Thailand. After the Bank of Thailand applied several capital controls on short-term foreign borrowing, the composition of debt maturity has been changing from short-term to longer-term loans (Figure 4).

The dollar always serves as a safe currency, rising during the period of rising level of the oil price or international conflicts. When the dollar appreciates against all major currencies, baht depreciation is a natural consequence. The recent drop in the value of baht has rekindled the fear of a second currency crisis. The expectations of further depreciation also speeded up the capital outflows of the private sector. In the first seven months of 2000, net capital outflows was 8.2 billion dollars, 75 percent of which were foreign debt repayments. As the stock of short-term debts relative to long-term debts has declined considerably,

the vulnerability of the Thai economy to a currency crisis has been lessened (Figure 4). Despite the fact that Thailand has already started paying some of the IMF debts, there should be no fear that the 32-billion dollars reserves would be insufficient to protect the value of the baht. In theory, the amount of reserves needed by a country under the flexible exchange rate system need not be as high as the amount under the fixed exchange regime. The adequacy of international reserves can be approximated by the size of international reserves relative to the stock of short-term debts. As Figure 4 indicates, after overshooting to 1.4 in 1997, the ratio of short-term debt to international reserves declined to 0.4 at the end of 2000, indicating a reduction in the degree of vulnerability to a currency crisis.

Dominguez and Frankel (1993) argued that foreign intervention could work if it is properly conceived and executed. If traders react to intervention by revising their forecasts of future exchange rates, they will act in a direction that the policy makers desire. In the case of Thailand, where policy credibility is questionable, it is very difficult to influence traders' anticipations of the direction of the exchange rate. The exchange rate, like any other asset prices, is subject to mass psychology and herd instinct. Thus, it is not possible for the central bank to alter expectations into the directions that are against market sentiment. Both real and nominal interest rates have declined since 1998, yet the baht was able to gain strength against the dollar. There is no one-to-one relationship between the currency value and the domestic interest rate. By early 2001, the lowest saving deposit rate of commercial banks was at 1.75 percent, 2-3 percent for the fixed deposit rate, and 7 percent for the prime lending rate. The federal funds rate was at 5.5 percent, while the Thai Repo rate stood at 1.5 percent, creating substantial interest rate differentials that can lead to capital outflows and a deterioration of the value of the baht.

Should the Bank of Thailand raise the interest rate to defend the currency? The Bank of Thailand has learned this lesson well from the

failed attempt to defend the baht prior to the float. For one thing, the high interest rate does not necessarily attract capital inflows nor stop capital outflows during the period of depreciation expectation. Secondly, raising the interest rate might complicate the debt-restructuring program, thereby delaying the recovery process. The low interest rate policy does not discourage consumption. On the contrary, low interest rates can lead to higher consumption. To argue that low interest rate leads to lower consumption is to assume that the income effect of interest rate rise outweighs the substitution effect. In sum, we should not use the interest rate as an instrument to stabilize the exchange rate. Furthermore, it is inappropriate to intervene in the credit market by giving pressure to commercial banks to reduce their interest spreads. If the economy is in a slump, there will be no demand for deposits by commercial banks or demand for loans by quality borrowers. The strength of commercial banks depends on their profitability, which is directly related to interest spreads. The policy inconsistency exists if the government wants to squeeze interest spreads while attempting to improve the soundness of the banking system. Capital controls, not the interest rate, can be used temporarily to prevent capital flight.

6. Inflation targeting

According to Grenville (1997), an independent central bank is a requirement for establishing successful inflation targeting. If the central bank has command over its instruments as well as its institutional independence, it can enhance the credibility of monetary policy by reducing inflationary expectations. In addition, it provides a benchmark for accountability for central banks. As more countries have abandoned fixed exchange rates, they desperately need a nominal anchor for the price level. Although inflation targeting provides an alternative anchor for monetary policy, there is no guarantee that this new monetary strategy that has worked well in developed countries can be efficiently

executed in Thailand.

At the meeting of the Monetary Policy Board in February 2001, the 14-day repurchase rate was maintained at 1.5 percent. With the year-on-year inflation rate in February above 2 percent, the real interest rate was negative, suggesting that monetary policy is expansionary. This is an appropriate policy response since the rising price level was originated from the supply factor. Aiming for convergence of inflation to the target over time is an optimal policy, rather than adjusting policy instruments to immediately reach an inflation target (Clarida et al., 1999).

By historical standards, inflation in Thailand is relatively low, unlike in some countries that adopted inflation targeting after experiencing high inflation. The marginal gain from having inflation targeting can be low in Thailand. Forecasting the inflation rate may not be a problem if the volatility of the inflation rate is low and the exchange rate is stable. In general, the higher the foreign exchange volatility, the greater the price fluctuations. For countries that are highly open to external trade, inflation targeting is akin to targeting the exchange rate. The central bank must not forget that Thailand is now under the flexible exchange rate regime and adopting inflation targeting implies a commitment to no other nominal targets. Because of inflation inertia, due to price controls in some input and output markets, the monetary policy reaction may not be executed with appropriate magnitude and timing.

The adjustment of the federal funds rate can significantly affect the short-term course of the real economy through monetary transmission mechanism (Bernake and Blinder, 1992). However, the absence of the well-developed bond market in Thailand can severely limit the effectiveness of the interest rate channel. If the Monetary Policy Board decides to raise the Repo rate, the degree of pass-through from the short-term interest rate to the prime lending rate or other long-term interest rates may be limited. When there is no close and stable relation-

ship between the short-run monetary instruments and long-term interest rates, a policy rule like the Taylor's rule may not produce a desirable outcome. In particular, if monetary policy has long and variable lag effects.

As Figure 4 suggests, the vulnerability of the Thai economy to currency crisis has substantially been reduced. The ratios of short-to-long term foreign debts have been declining since the crisis broke out in 1997. The fear of further weakening of the baht encouraged Thai corporations to settle their debts while they can at the ongoing exchange rate. Further delays in payments could result in substantial losses. Thus the capital flight would slow down eventually. By the end of 2000, Thai commercial banks' capital-adequacy ratio has increased to 11.4 percent, the level that is far above the minimum requirement set by the BIS standard. The adequacy of capital implies that the vulnerability of Thai banks to financial crisis has declined considerably from the pre-shock period between 1995 and 1996.

Figure 5 reminds us that the Thai economy is still vulnerable to external shocks from a slowdown in world trade. Variations of Thailand's export growth can be explained very well by the fluctuation of world income, approximated by the weighted average of the output growth rates of USA and Japan. The strength of the two economies is closely correlated with strong export performance of Thailand. Thus a slowdown of both Japan and the US economies in 2001 can undermine the sustainability of the recovery.

7. Concluding Remarks

The contraction in bank credit caused by uncertainties and stringent bank regulations led to liquidity problems that prevent speedy recovery. Unless the level of non-performing loans can be reduced to the level such that banks are willing to resume normal lending, the

recovery is still fragile. The legal institutional constraints prevent the rapid debt-restructuring process. The post-crisis recovery in the period 1999-2000 was the result of rising exports and consumer spending. The resurgence of exports is more of the result of world economic expansion than the depreciation of the baht. Expectations of future income are crucial to solid recovery in both real and financial sectors. The emergence of the bond market has somewhat mitigated the shortage of bank credit. Successful inflation targeting requires that money and capital markets be closely related. The nascent stage of the bond market does not rapidly transmit the short-run interest adjustment into changes in cost of investment financing.

High interest rate policy cannot help protect the value of the baht nor stimulate domestic consumption. Furthermore, increasing the interest rate can lead to higher rates of re-entering non-performing loans. Relaxation of banks' capital adequacy standards will not encourage lending, while it could have a detrimental impact on the soundness of the banking system in the future. Establishing a national AMC is a departure from the market approach to debt restructuring. A debt suspension program for farmers will destroy financial discipline and intensify moral hazards. There are more efficient ways to help poor farmers. An inconsistent economic policy can create confusion and loss of policy credibility from the point of view of foreign investors that favor market-oriented reforms and financial discipline.

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Table 1. Capital Market, Volatility, and Volume

Year	SET Index	P/E	Market Capitalization (% of GDP)	Daily Average Turnover (mil. Baht)
1993	1,682.9	26.1	104.9	8,984.28
1994	1,360.1	19.5	90.8	8,628.00
1995	1,280.8	19.8	85.0	6,239.67
1996	831.6	12.0	55.4	5,340.75
1997	372.7	6.6	24.0	3,763.50
1998	355.8	10.0	27.4	3,504.80
1999	481.9	14.7	46.6	6,570.60
2000	269.2	5.5	26.1	3,739.70

Source: Stock Exchange of Thailand

Table 2. Market Capitalization: A Comparison

	Mkt. Cap / Domestic Credit	Mkt. Cap / GDP
Hong Kong (Dec 99)	2.7	3.8
Singapore (Dec 99)	2.7	2.6
UK (Mar 99)	1.7	2.5
US (Dec 99)	1.5	1.8
Malaysia (Nov 99)	1.1	1.6
Korea (Nov 99)	0.9	0.7
Japan (Dec 99)	0.6	1.5
Germany (Jan 00)	0.5	0.8
Thailand (Jun 00)	0.3	0.3

Source: Bangkok Post and Mark Bernkopf's Central Banking Resource Center

Table 3. Key Economic Variables

	96	97	98	99	00
GDP Growth	5.9	-1.7	-10.2	4.2	4.5
Inflation	5.2	4.7	7.2	1.5	0.7
Current Account (% of GDP)	-8.3	-0.9	12.8	10.2	7.5
Interest rate (MLR)	13.3	15.3	12.0	8.5	8.0
Exchange Rate (B/$)	25.3	31.4	41.4	37.8	39.5
Domestic Credit Growth	13.9	34.5	-1.2	-4.2	-7.6
Bank Deposit Growth	13.7	16.0	8.8	-0.5	5.3
NPL (%)[1]	N.A.	N.A.	45.0	38.9	17.9
Public Securities (bil. Baht)[2]	336.9	359.6	464.4	996.2	1071.9
Capacity Utilization	72.4	65.5	52.1	60.0	56.0

Source: BOT

Notes: 1. Nonperforming Loans of all Financial Institutions, excluding Credit Foncier Companies

2. Including BOT, Public enterprises, Monetary Authority and Special Organization

Figure 1. Emerging Bond Markets

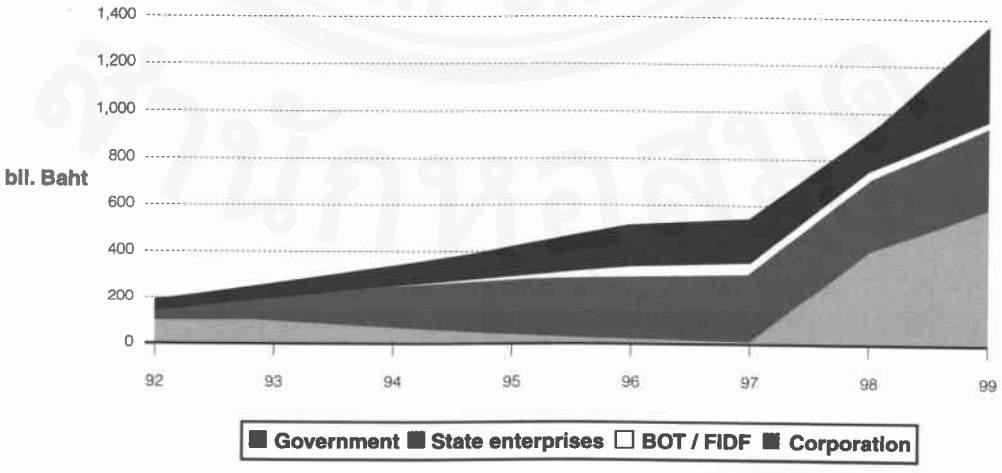

Figure 2. NPLs and Debt Restructuring

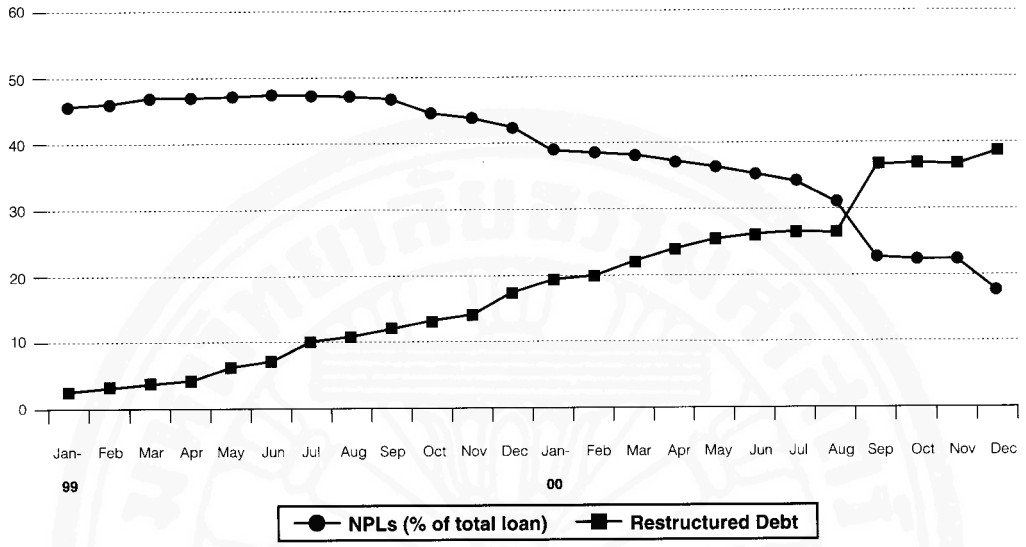

Figure 3. Exchange Rate Depreciation and Export Growth

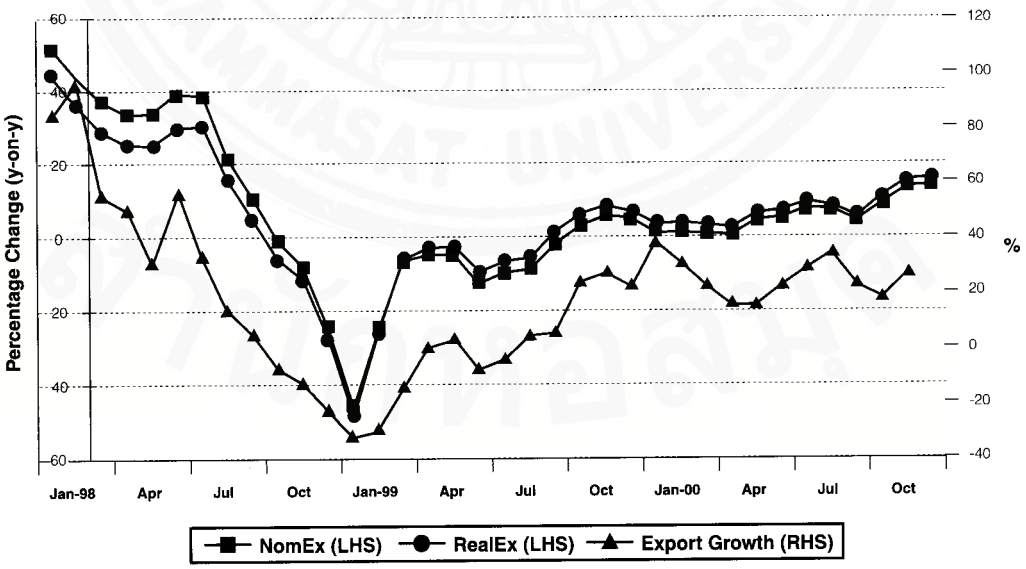

Figure 4. Declining Vulnerability

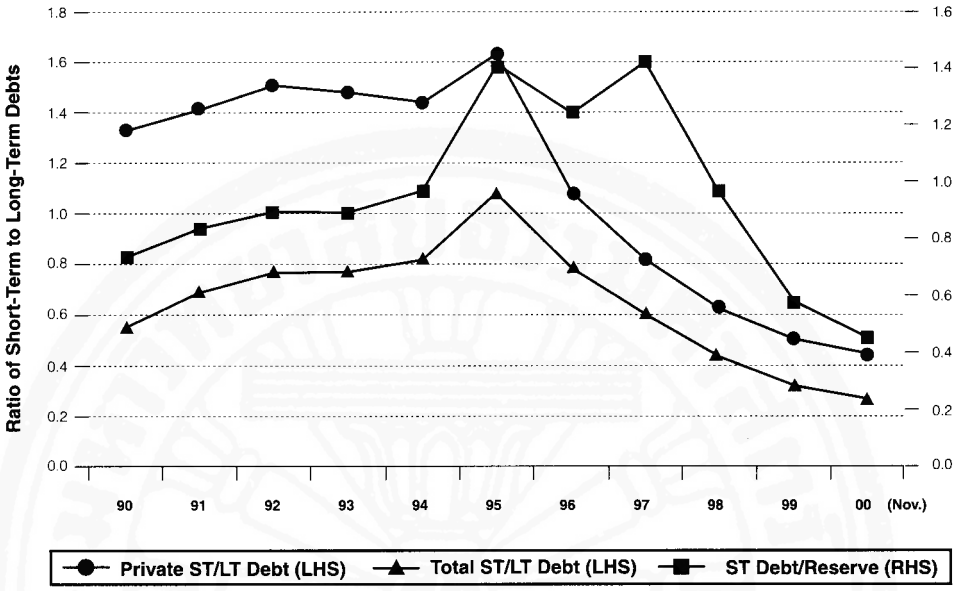

Figure 5. Export Growth and World Economic Expansion