



Papers and Proceedings
The Eighth Annual Conference
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The Eighth Annual Conference

"Rebuilding Our Financial Architecture"

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Organized by Sasin Graduate Institute of Business Administration
and Faculty of Commerce and Accountancy, Chulalongkorn University

Asia Pacific Finance Association

The Asia Pacific Finance Association (APFA) was created in 1993 to promote academic financial research (especially relating to the Asia Pacific region) to disseminate its findings and to facilitate the exchange of information, ideas and staff among educators and between business executives and academic through conferences and publications. APFA is modelled after the American Finance Association and the European Finance Association.

Transitioning from Dysfunctional to Normal Banking System after the 1997 Crisis : Thailand's Policy Considerations

Transitioning from a dysfunctional to a normal banking system after the Thailand 1997 crisis is fundamentally a **dynamic, trust building, process-oriented management problem**. It is not a static goal-oriented process with a close-end solution because of the multi-dimensional and dynamic complex nature of the problem. Critical factors for success are an adequate understanding of and prudent addressing of all the stakeholders' interests - foreign and domestic, private and governmental, borrowers and lenders. It is very important that banks should be restored to their normal function as '**bridges of trust**' for fund users and fund providers to nurture a recreation of innovative SME entrepreneurs. The objective is to stimulate new value-added private investment for sustainable growth and **wealth creation**.

To mitigate the principle and agent problems in this process, one must dynamically understand, monitor and administer the management process well. Good theoretical knowledge of and practical experience in banking operations in incomplete and imperfect markets are also required. The proposal for a transitional process in stages on **Schumpeterian grounds** is designed to **facilitate** an environment for identifying and creating incentive compatibility with risks and rewards-sharing among stakeholders in a cooperative competitive setting. Government as a principle first endows all agents with **trust capital** in the form of limited, but contestable, banking competition, partial credit guarantee schemes and demand side intervention in value-added business activities. All agents would have strong incentives to compete with one another in repeated game-like transactions to build **information capital** and **reputation capital** over time. The agency problems are alleviated by reputation building, efficient truth-telling, and self-sorting tournaments games with third party monitoring. The main focus is to jump start the economy through the fostering of new SMEs by providing partial credit guarantees with limited time, market-based incentives and other related measures.

"Financial transactions are often concerned with risk sharing and the outcomes are typically unpredictable...It is rarely optimal for one party to bear all of the risk."

Allen and Gale [2000, p. 493]

I. Introduction

Supervising a transition from a dysfunctional to a normal banking system in an emerging market like Thailand after the 1997 financial crisis is a very challenging task. The transition can be

done smoothly and effectively if the regulators and policy makers understand how deposit-taking financial institutions work in the imperfect and incomplete financial marketplace.¹ Critical factors for success are an adequate understanding of and a prudent addressing of all the stakeholders' interests. This is a *dynamic, trust building, process-oriented management*, not a static goal or philosophy-oriented problem.

Most financial regulators and supervisors would like to pursue at least the two conflicting

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¹ See more discussion by Allen and Gale (2000), Salanie (2000), Caprio et al (1998 edited), Freixas and Rochet (1997), Lastra (1996) and Dewatripont and Tirole (1993).

goals of *competition and stability*. Many believe that promoting competition in banking leads to efficient fund and risk allocation, while others argue that too much competition in the banking system leads to instability. Both ideologies have been proven correct in different countries at different times and in different stages of economic development. Depending mostly on the current and future state of macroeconomic environment, one goal would be more relevant than another in any given period. During the financial turmoil, financial market stability is the foremost issue superseding other issues, especially in the short run. Market failure is a prominent reason for government intervention to restore the welfare improving market conditions. When facing a systemic banking debacle, it is only rational that the government would try to prevent further panic by offering a blanket guarantee to all depositors to gain short-term stability at the expense of medium to long-term banking efficiency. A banking crisis is *an event*, but the bank restructuring afterward is *a process*. Much has been discussed about the banking crises; many have explored banking industry economics.² Little research has been done and few guidelines have been developed *on how* a crisis-hit country should be managed to transit from an 'obscure' state to a 'salient' state of banking, especially in an emerging market. In this paper, we attempt to take this opportunity to explore such a case for Thailand.

In their simplest form, banks³ collect deposits from households and make loans to other individuals and enterprises. Banks exist as a *second-best solution* because of financial market incompleteness and/or imperfection. Banks provide *intertemporal risk smoothing* for households, while banks make risky investments or lendings to business enterprises and others. Banks can be inferred to be vital financial intermediaries or '*bridges of trust*' from fund providers to fund users for *wealth creation* in the capitalistic world. Effective laws and well-defined rules, good governance and prudent regulators, international accounting systems and timely public disclosures are among the key components for an efficient banking system. However, these are *not cure-alls*. Telling banks not to fail or not to make bad loans is not practical. By construction, banks are in the business of lending to risky projects which, by definition, have a real probability of failure. Banks may diversify their idiosyncratic or *micro-risk* exposures across various economic sectors, though they are still prone to non-diversifiable risk or *macro-risk*. By their very nature, banks take mainly short-term deposits (or liquid liability) and lend long-term to enterprises (or illiquid assets) in a

highly leveraged manner. Hence, banks are inherently unstable with a mismatch between sources and uses of funds at any given time. If *one mismanaged bank fails*, then the ill-fated bank's assets can be liquidated or administrated, and its deposits will be paid off in an orderly fashion by a deposit insurance company and/or by government financial safety net providers.

*When an entire financial system collapses, system-wide risk becomes acute. The credit market fails. A combination of 1) declining value of collateral and/or assets, 2) widening asymmetric information problems and 3) the non-contingent nature of deposits or liability contracts for a major part of the economy are among the fundamental causes of the catastrophe. Banking as a system is closely intertwined via interbank borrowings, interbank payment clearing activities and interbank balance activities, hence making a systemic banking crisis resolution very multifaceted. In the after-effects of the crisis, banks are left with the debris of 'too-big-to-liquidate' assets: such is the case in the bank-based system of Thailand.⁴ On the liability side, on-going banks have to be funded, usually by the taxpayers money, to service their debts which have been implicitly guaranteed by the government. Moreover, a banking crisis is often accompanied by an exchange rate crisis. The central bank faces a dilemma: maintain troubled banks by lowering its interest rate or defend its currency by raising its interest rate. Consequently, general output would significantly fall as firms' balance sheets have been gravely damaged. Once the economy is caught in a *liquidity trap*, banks face a serious *adverse selection* problem in locating creditworthy borrowers as well as potential a *moral hazard* problem of misuse of funds. Banks are no longer benefiting from increased returns to scale in processing standardized proprietary information. Instead, banks suffer massively from operation costs and overhang of non-performing loans (NPLs) and non-performing assets (NPAs). Traditionally, an economic crisis leads to a development of the country's financial system. In the case of Thailand, it remains to be seen whether and how the 1997 crisis will positively unfold a new financial system.*

² See more discussion, for example, by Allen and Gale (chp. 9) and Caprio et al (1998)

³ Banks here are globally defined to cover all deposit taking financial institutions - bank, finance company, credit union, etc. for convenience use of wording.

⁴ See more discussion by Chaipravat and Hoontrakul (2000)

Section II will discuss the important roles of bank-based and market-based systems in various market conditions. Incomplete and imperfect market limitations and virtues are emphasized; Pre-and-post-crisis bank financial status are examined. In Section III, Thai bank stakeholders analysis is discussed. A new banking structure is conjectured. Some descriptive analysis is derived and presented from bank balance sheets and income statements. In section IV, policy implications are provided. Trust endowment by government and information and trust building by agents are the main focus for all stakeholders. It is imperative to reintroduce incentive compatibility for reputation-building. The last section concludes.

II. Financial Market, Bank and the Crisis Aftermath:

In neo-classical complete markets⁵ in the Arrow-Debreu-MacKenzie (ADM) sense, there would be no role for money, whereas in perfect markets⁶ in the Sharpe-Litner-Markowitz (SLM) sense, banks become redundant, intermediary institutions. This is an *ergodic* world where well-defined and known probability distributions of future contingencies replace Keynesian (fundamental) uncertainty with manageable risk as cited by Bossone (2000, p. 3). Indeed, the microeconomic theory of banks could originate in the early 1970's only after the establishment of the economics of information in the ADM model. Nevertheless, the fact remains that some countries markets, like bond and insurance, are missing; and market failures are common, predominantly in emerging markets like Thailand's.⁷ Hence, more realistic theoretical views on banks in Thailand are selectively presented as follows :

1. Financial Market Condition and Risk Sharing

When the markets are perfectly competitive but *incomplete*, the role of financial capital markets and banks should be distinguished. Optimal risk sharing, one of the most important functions of the financial capital market, cannot be achieved in incomplete markets. Banks, as a long-lived, financial intermediary institution, become a second-best solution to fulfill the demand for welfare-improving insurance against market fluctuations as discussed by Allen and Gale (1994, 2000) and Hoontrakul (1996). It is particularly noteworthy that even if markets exist, only idiosyncratic or *micro risks* can be diversified cross-sectionally. Simultaneously, financial markets can become very volatile and can destroy risk-sharing opportunities because modern day

investors - individuals as well as institutions - constantly rebalance their portfolios for higher returns and diversification purposes. Again, banks play an important role in intertemporal non-diversifiable systematic or *macro risk* smoothing for ex ante Pareto improvement compared to market equilibrium as revealed by Allen and Gale (1997). Unlike the capital markets, banks can also provide *tailor-made, risk-sharing contracts* for individual needs, especially for SMEs in the underdeveloped financial market place.

In the case of Thailand, financial markets are *incomplete and imperfect*. Some limitations and virtues of both financial markets and financial intermediation in the imperfect world should be recognized. First, an incomplete market may be imperfect due to *insufficient information* as a result of costly information production. Market-based financial systems, like the US and the UK, are crucially characterized by dispersed *public information* as reflected in a large number of *publicly traded firms*. This public information is actually a *different* kind of information which is collected and aggregated by banks. Banks collect data on *private firms* and turn it into *private information* for banks. This is a time-consuming and costly process. Then, banks use their in-depth, *local and tacit knowledge* to turn this *proprietary information* into *productive knowledge* and value-added services. Basically, banks acquire information at a relatively fixed cost and share it with their customers - both fund providers and fund users - and activate the resources allocation mechanisms at marginal cost. Banks benefit from increasing returns to scale in processing standardized information as argued by Allen and Gale (2000) and Chaipravat and Hoontrakul. It is intriguing to note that a bank-based system offers costly information supply where as capital market-based

⁵ The capital market is complete in Arrow-Debreu-MacKenzie (ADM) sense when every economic agent is able to exchange each good or opportunity set directly or indirectly with every other agent in every alternative future state of nature. More discussion by Allen and Gale (2000), Herring and Chatusripitak (2000) and Freixas and Rochet (1997).

⁶ Perfect capital market in the Capital Asset Pricing Model (CAPM) sense by Sharpe-Litner-Mossin and portfolio theory by Markowitz has the following necessary conditions: 1) Asset markets are frictionless. (e.g. no agency problem, no transaction cost, no tax, no regulation, etc.); 2) There is perfect competition in the asset market; 3) Markets are informationally efficient; 4) There exists a risk-free asset and market portfolio; and 5) all individuals are rational, risk averse, expected utility maximizers. More discussion by Allen and Gale (2000) and Freixas and Rochet (1997).

⁷ More discussion by Allen and Gale (2000), Salanie (2000), Herring and Chatusripitak (2000) and Chaipravat and Hoontrakul (2000).

system suffers from a free-rider problem in information production.⁸

Second, a financial market is imperfect due to *asymmetric information*. When markets are imperfect and intermediaries experience principle-agent problems in Jensen and Meckling (1976) sense, corporations can resort to *internal sources of funds* for themselves. Lack of trust or *incomplete trust*⁹ among agents is intrinsically derived when the "agents are aware that others may try to pursue inappropriate gains either through deliberately renegeing on obligations or by hiding information relevant to the necessary transactions", in the words of Bossone (2000, p.3). Generally, in this imperfect world, banks are the intermediaries to be delegated by the agents to make sure each counterparty - saver or borrower - is trustworthy to fulfill his/her individual obligations. In this respect, banks act as *bridges of trust* between agents - fund providers and fund users. In fact, the relationship between a firm and a bank must be built on the process of self-learning through passage of time and on mutual *reputation or trust capital*. Trust *partially* solves moral hazard problems and risk-adjusted interest rate pricing problems as explained by Frieixas and Rochet (pp. 35-36) and Allen and Gale (2000, pp. 332-5).

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Alternatively, self-financing is prevalent in most firms in every part of the world as claimed by Allen and Gale (2000) and Shin and Stulz (1998). A market-based system relies on corporate control and governance as an *external* mechanism to discipline firms. Cash-rich, well-managed firms can actively seek to take over the investment opportunities in attractive, but cash-starved, poorly-managed firms. In a market with asymmetric information, this *external* control is very difficult, if not impossible, to materialize, resulting in an inefficient resource allocation. The bank-based system in Germany, Japan and Thailand involves long-term, close relationships to solve asymmetric information impediments. The *adverse selection* problem - who will use borrowed funds - is solved by banks' proprietary information; the *moral hazard* problem - how the funds should be used is solved by the bank's legal claim against the borrower's collaterals and the value of long-term relationships. Banks become *passive* fund providers to the entrepreneurial firms with occasional monitoring of the firms during 'good' times. Banks become *active* partners to assert their rightful claims, to renegotiate their loan conditions and to change the management teams of the distressed firms during 'bad' times. The bottom-line is similar to the market-based system: the bank-based system allows share-

holders to delegate their decisions on investment to semi-autonomous management teams, namely in good and normal state.

Third, a financial market may *not* be fully competitive. A perfectly competitive market condition is assumed explicitly as well as implicitly in most standard, financial economics textbooks and often in every-day policy making. Yet it is fundamentally a *wrong* assumption in under developed markets like Thailand's. Understanding how flawed markets operate is critical. Each market for each financial service has some distortion. Market microstructures (e.g. lack of liquidity, small market size, thinly traded,), frictions in the market (e.g. high transaction cost, tax, asymmetric information), and institutional constraints (e.g. licensing, short sale prohibition, price limit, market power,) are some of the causes for an imperfect market. On the other hand, the banking industry is a natural monopoly as a result of 1) economy of scale (in information processing), 2) economy of scope (branch network), and 3) legal barriers to entry.¹⁰ Present also are the existence of 'product diversity', 'high fixed cost in switching banks' and 'location convenience' for consumers in banking services. But using the game theory approach, Freixas and Rochet (1997, chp. 3) discuss and Allen and Gale (2000, chp. 6) prove that it is possible to achieve a perfectly competitive outcome even with duopoly banking. In essence, there is a tradeoff between *dynamic efficiency* which requires a large number of banks to enter and exit (with some instabilities) and *static efficiency* which requires only large banks (with stability). One can argue on *Schumpeterian* grounds that some degree of monopoly is desirable to have 'creative destruction'. Another can claim that the 'risk shifting' to 'high risk-taking' behavior problem is exacerbated by full financial deregulation which intends to increase competition. This

⁸ See more discussion by Allen and Gale (2000) and Stiglitz (2000).

⁹ Gambetta (1998) offers another complementary definition. 'Trust (or symmetrically distrust) is a particular level of *subjective* probability with which an agent assesses that another agent or group of agents will perform a particular action, both before he can monitor such action (or independently of his capacity ever to be able to monitor it) and in a context in which it affects its own action.' (p. 217)

¹⁰ Unlike in the USA, the Thai bank disintermediary process has not begun. The internet loan originations from www.thaifin.com (Bangkok Post associated), www.SCBeasy.co.th (owned by Siam Commercial Bank Plc.); www.globalthai.com (owned by Lehman Brothers); www.thailifestyles.com (owned by GE Capital), for example, have not flourished even in the past five years due to very low internet usage in Thailand and Asia. Securitization, bond and derivative markets and pension funds are also almost non-existent.

may instigate a very large, dead-weight cost of bankruptcy and a high degree of financial fragility concerns parallel to the post-1997 crisis in Thailand. Thus, a concentrated banking system can be more efficient than a competitive one, given prudent regulation during the transition period of 4-5 years until normalcy in the banking business is reinstated.

Finally, the theory of imperfect market competition originated from Cournot (1838), and its criticism from Bertrand (1883) is worth mentioned. Both seminal contributions have not been well-recognized and have been overshadowed by *'laissez faire'* assumptions and conclusions in their early days. Until recently, the 'imperfect market competition' was a fertile ground for 'Industrial Organization' theory after the 1950's. At this stage of financial economic research, an economy with imperfect competition poses too many problems that have not been solved as suggested by Salanie (chp. 8). Most of the literature focuses on the analysis of game theory, namely the non-cooperative type.

2. The Macroeconomic Consequence of Financial Imperfection

Both market-based and bank-based countries have long experienced financial crises. 'Dutch Tulip Disease' or bubble markets like Nasdaq in 2001 can occur and clash occasionally. Runs and panics on banks can sporadically occur for either non-information or information reasons. When the financial system collapses, *debt deflation* follows. An exogenous shock like the Thai de facto baht devaluation in 1997 can create devastating and long lasting impact on the productivity and wealth of all economic agents - borrowers (firms) and households. This can trigger a series of bankruptcies which generate lower private consumption and investment, and result in lower prices and lessened tax collection. The productive sector's indebtedness aggravates and provokes a further *series of failures* in a chain reaction. Banks face country-wide problem loans, and a massive restructuring process of non-performing loans (NPL) must be managed.

If one treats a bank as 'a black box' and a central banker has a complete control on money supply and credit, as in *monetarist views*, the central banker can inject massive liquidity to salvage the failing system. The approach may commonly be an auction of reserves on a *repurchase basis* against collateral of securities and short term *advances* to the troubled banks. In *normal* circumstances, the effectiveness of the central bank's intervention should be clear cut and observable in economic

activities. The three, key endogeneous variables - money, interest rates and credits would be highly and positively correlated with output. Lowered interest rate should prevail and pull Thailand out of the recession. Still, in a financially distressed environment, *banks do matter* to provide a credit rationing mechanism as claimed by Friedman and Schwartz (1963). Banks create *aggregate volume of credit* in firms in the IS/LM Keynesian macro model.¹¹ If one presumes bank malfunction as the main cause of deepening financial crisis, then one attempts to fix banks. The question remains why after the standard methods, as prescribed by the IMF and nearly all textbooks of bank failures handling such as: 1) liquidating NPA, 2) merging weak with strong banks, 3) "bad" assets purchased by the government and 4) recapitalization by the public funds have been implemented, the Thai economy remains in recession in 2001.¹²

As in the USA Great Depression in the 1930's, from *credit views*, Bernanke and Gertler (1990) point out that *finance does matter*. A financial crisis destroys wealth and devastates most firms' balance sheets and future income prospects. Firms like SMEs having insufficient funds or being not well known cannot directly access the financial market. Banks cannot lend 'fresh' money to these firms due to the lack of *credit worthiness*. Thai credit market failures lead to depth and persistence in the economic recession, much to everyone's surprise as asserted by Chaipravat and Hoontrakul (2000). In short, the macroeconomic performance (output *q*, investment *I*, cost efficiency *C*, probability of success, *P* etc.) does not depend only on the 'fundamentals' of the firms and industries in one nation. The macroeconomic performance also depends significantly on the financial strength - *creditworthiness* - of the firms and the *distribution of initial wealth*. In other words, low wealth entrepreneurs (who

¹¹ The introduction of imperfect competition can also engender the Keynesian effect in general equilibrium as argued by Hart (1982), Salanie (2000, p. 7, 138, chp. 8, chp. 13) and Freixas and Rochet (1997 chp. 6).

¹² The first major measure taken by the Thai Ministry of Finance (MoF) under the Democratic Party-led government on 14 August 1998 was basically on the 'Banking Recapitalization Assistance' program. The next important measure which the MoF pledged on 30 March 1999 was a consumption stimulus package (e.g., VAT cuts, gasoline and electricity tariff reductions, etc.). The third major measure was announced on 10 August 1999. This third leg of measures tries to support business restructuring efforts by establishing three new funds: 1) the US\$500 million Equity Fund, 2) the US\$100 million Thailand Recovery Fund and 3) the US\$26.5 million Fund for Venture Capital Investment in SMEs. Also, more discussion on Bank Resolution in Argentina by Ferranti et al (1999) and on Korea and Mexico by Luna-Martinez (2000)

are plentiful in the post-crisis period) with good fundamentals would face collapses in their investments and production. Bernanke and Gertler dubbed this as a 'financial fragility' environment. This has major policy implication. *A government cannot overlook the degree of severity in the microeconomic foundation before implementing any macroeconomic 'turn around' strategies.*

Major economic indicators are summarized in Table 1. After the 1997 baht flotation, the crisis was initiated. In the following year (1998), the GNP growth had slumped to -10.8% a year; private investment had collapsed by half; private consumption had declined by -11.5%. Export and import contracted by -6.8% and -33.8% respectively, while the balance of payments and current accounts improved somewhat. Indeed, the external debt has steadily declined from US\$ 105 billion at the end of 1998 to US\$ 75.2 billion forecasted by the end of 2001. The international reserves have gradually improved. The GNP enjoyed a brief bounce back from 1999 to 2000 by primarily using up idle capacity for export. One supporting fact of this assertion is that core inflation remains low despite the massive baht devaluation in 1997 and the surge in oil price during 2000. It also appears that strong demand from overseas from 1999 to 2000 were caused by positive *income effect* in major importing countries, particularly the US, rather than *relative price effects* from the baht devaluation since our foreign rivals also devalued their currencies in similar magnitude. However, the GNP growth is forecasted to slow down significantly in 2001 because of the global slowdown from 5.0% growth in 2000 to a mere 2% forecasted growth in 2001. The export of merchandise in US\$ terms is projected to decline in 2001. This is due primarily to negative *income effects* in Thailand's trading partners, especially the USA, Japan and Europe. Note that the Thai stock market capitalization has shrunk from over 5,000 billion baht at the end of 1996 to just little over 1,500 billion baht by the end of 2000. Nevertheless, total banking assets remain stable, with a slight increase in deposits but with a sluggish credit extension in the four years following the 1997 debacle.

3. Thai Banks Institutional Setting - Pre and Post Crisis

In the modern world, banks essentially have four main functions: 1) conduit to a payment system, 2) transforming short-term liabilities into long-term assets, 3) managing risk and 4) processing information and monitoring borrowers. Bank services are usually more expensive than financial services provided by the

capital market-based system. Banks provide valuable intermediary functions for those small and medium size enterprises [SME] and households who are unable to obtain funds from the capital market or to access directly from other fund providers. Banks' simplified balance sheets consist of

$$\begin{aligned} \text{Assets} &= \text{Liabilities} + \text{Equity} \\ \text{Loans (L}_i) &= \text{Deposits (D}_i) + \text{Equity (E}_i) \end{aligned}$$

In normal time, on the asset side, commercial banks in Thailand lend largely to large corporations (50%) and SMEs (35%)¹³, with some extended loans to individuals (10%), other financial institutions, and the public sectors. By law, unlike investment banks, *commercial banks* are not allowed to hold large, corporate equity because of potential conflict of interest. As a result, other assets are relatively small compared to the total loan size. *On the liability side*, as a source of funding, banks normally take short-term (less than 6 months) deposits from households. By international standards, banks are required to have an equity base of at least 8% of their total risky loans. The 8% ratio was originally intended to be only a *credit default* cushion, drawn from normal industrialized countries' experiences.¹⁴ The capital adequacy ratio (CAR) or the capital from risky assets requires the minimum 8% for *Tier 1*, 'core' capital or banks' equity and for *Tier 2*, 'supplementary' capital, not exceeding 100% of Tier 1 capital as a contribution to total capital.¹⁵ Consequently, banks typically

¹³ According to Mr. Paiboon Wattanasiritum (former President and CEO of the Government Savings Bank) during a private meeting on April 24, 2001, nearly all SMEs depend on bank lending in Thailand and other Asian developing countries.

¹⁴ Claessens and Klingebiel (p.36) suggest for emerging countries to raise CAR above the industrial countries' 8% ratio since the emerging countries are subject to riskier macro and micro environments. On the other hand, Dewatripont and Tirole (p.187) claim the CAR Basle accords are second best solutions. By treating idiosyncratic (loan default micro risk) and macroeconomic shocks alike, the regulator is just being too tough on the banks in crisis times. Note that as of May 2001, the current CAR required by BoT in Thailand is 8.5%.

¹⁵ The international minimum capital adequacy ratios are regularly revised and set by Bank of International Settlements (BIS), Basle, Switzerland. According to Basle Accords (1992), capitals consists of two parts - *Tier 1* capital, or 'core' capital (e.g. stock issues and noncumulative perpetual preferred stock), disclosed reserves and retained earnings, and *Tier 2* capital or 'supplementary' capital (e.g. subordinated debt with maturity exceeding five years, hybrid debt capital instrument, perpetual securities, 'undisclosed reserves', general loan loss reserves, etc.) Subsequently, *Tier 3* capital which is purportedly made up of short-term subordinated debt (2 years) was instituted specifically for 'off-balance' sheet risk measured by value-at-risk and stress testing. More discussion by Bank of International Settlements consultative documents (2001) are available at www.bis.org



have a 10 to 12 times debt to equity ratio or leverage which is much higher than other industries with the ratios ranging from 1 to 3. In other words, because banks are primarily financed by other people's money, the capital structure of banks is highly leveraged and *mismatched* maturity duration between source and use of funds. It is also very critical to note that the banks' assets (L_t) are usually 'illiquid' and "non-marketable", while the banks' liabilities (D_t) are normally 'liquid' with short duration - less than 6 months. Thus, the solvency of banks and their financial fragility are one of the two main concerns for prudent regulators and bank management. To mitigate these risks, prudent regulators have traditionally used an early warning system called CAMEL (capital adequacy, asset quality, management, earning, liquidity) to identify problems.¹⁶

In the post-crisis period, all banks located in Thailand were subjected to extreme macro-economic shock from the 1997 baht flotation. Banks were left with ruined balance sheets as shown in comparison between the end of June 1997 and December 2000 (Table 2). The total equity has shrunk by about one half from 912 billion to 575 billion baht (bb). The composition of the total equity has also changed from nearly all Tier 1 capital - common stock, equity premium and retained earnings to a more equity hybrid or Tier 2 capital.¹⁷ Over half of total Thai banking equity now belongs to foreigners. Also, on the fund mobilization side, total deposits have increased by 25% from 3,868 bb at the end of 1997 to 4,629 bb at the end of 2000. Total bank borrowings have doubled as much from 140 bb to 280 bb. Nearly all these borrowings were obtained mainly from the Bank of Thailand (BoT) and the marketplace. Hence, the massive liquidity injected by BoT has kept some banks afloat, to halt the system-wide bank panic.

On the asset side, net credits have approximately contracted 35% from 4,981 bb to 3,724 bb. Banks' short-term lendings in the form of money market and repurchase transactions have more than doubled from 503 bb to 1,243 bb and from 67 bb to 156 bb respectively. In other words, from June 1997 to December 2000, banks have increased their lendings significantly through short-term money market, other financial institutions and the BoT, but have reduced net lendings to real and productive sector firms, as evidenced by Table 3. *Real estate, construction and public utilities* constituting about 25% of total lendings were the hardest hit business sectors during the period of credit contraction. Property foreclosures have jumped more than five fold from 17 bb to 104 bb. Manufacturing and commerce [e.g. export, import

and wholesale/retail/trader] accounted for more than 50%, the largest portion of total lendings. One intriguing tale is that while all the banks have been trying to lend to only 'winner' industries [e.g. export-oriented manufacturers, tourist related business,] after the 1997 baht devaluation, the actual credit extension to these sectors has declined relatively more than average lending. Export-related credit extension, for instance, has degenerated incredibly more than 40% in the over 3 years of the crisis. Conceivably, the winner industries have been financed by their cross-border partners to repay or refinance the high interest loans due to local banks or to be able to access the capital market directly.

As of March 2001, the overall NPLs rate stood at 19.2% of total loans, down significantly from the peak of nearly 40% in June 1999 (Table 4). But when taken into account the fact that many NPLs are merely transferred to be NPA [non-performing asset] of banks' subsidiary asset management companies (AMC), the overhang of 'bad' assets still persists. As conjectured by Chaipravat and Hoontrakul, state banks have much higher NPL and NPA rates than private banks, with much slower NPL working out due mainly to the loss of relational capital and information asymmetry. It is very intriguing to note that in spite of 'near zero' NPL and well capitalized positions, some foreign-owned banks, such as UOB Radanasin (UOBR), still find it very difficult to expand their loan portfolios because of the scarcity of trustworthy borrowers.¹⁸ In effect, a majority of these private debts are already nationalized through the state bank-assisted consolidation process, NPL/NPA spin-out into AMCs, and the sale of nationalized banks to foreigners through government subsidies.

In normal times, in essence, banks make profits on the interest rate differential or the spread between the deposit and lending rates, lower operating expenses and some loan loss provisions. Most banks in an emerging market do not make much profit from other incomes like 'off-balance' sheet items or proprietary

¹⁶ more discussion by BIS consultative documents (2001) available at www.bis.org, Lastra (1996) and Dewatripont and Tirole (1993).

¹⁷ In early 1999, privately owned Thai Farmers Bank successfully recapitalized by using a quasi equity instrument - SLIPS (Stapled Limited Interest Preferred Shares) and CAPS (Capital Augmented Preferred Shares). These derivative instruments essentially allow depositors to convert their deposit into quasi-equity. Soon after, other banks followed suit.

¹⁸ From a personal interview with a top executive from UOB Radanasin Bank on May 1, 2001.

investments because of the lack of market liquidity and required expertise. Thus, banks' income statements can be simplified as follows :

<u>Expense</u>	<u>Income</u>
Interest Paid on Deposits	Interest Earned on Loans
Operating Expense	Non-interest Income
Depreciation, Taxes,	
Loan Loss Provisions	

Subjected to the prevailing economic downturn, it may not be possible for any bank - local or foreign management alike - to make a profit in the subsequent years after the crisis. In the post crisis period, the whole banking system in Thailand continued to suffer losses. On *expense side*, though the total deposit base has increased significantly from 1997 to 2000 as shown in Table 2, the interest expense paid on deposits has considerably declined by more than half, from 377 bb to 144 bb, as a direct result of the BoT's 'near zero interest policy' as indicated in Table 5. Despite chronic loss, banks were not able to reduce their operating expenses from 1997 to early 2001. On the *income side*, the interest earned on loans has been cut to half, from 630 bb to 225 bb, owing to high NPLs and NPAs. Note that the nominal spread between the lending rate and deposit rate has remained at a lofty 3 to 5 % throughout this period. Banks in 2000 also earned more than double profit from securities investments [mostly government bonds] when compared to 1997. Gains on foreign exchange transactions has remained positive but made a relatively small contribution in 2000, while fee-based income remained unchanged. It can be inferred that the BoT's low interest policy has assisted banks to stop further deterioration in their balance sheets via *cheap* deposits. In summary, ordinary depositors, large or small alike, and tax payers are subsidizing banks and the financial system to provide financial services and intertemporal risk smoothing for the stability of the economy.

Banks' Stakeholders Analysis and Risk Sharing

Central to our economy is the financial system. It has *served* the real economy as our *economic culture* has progressed in stages. Allen and Gale recommend as a general policy that a stock market-based economy is more effective in fund raising for high degree of monitoring or 'new' economy industry, while a bank-based economy is for low degree of monitoring or 'old' economy industry.¹⁹ As a small *agro-industrialized*, open economy with a financial system far from perfect even in normal times, Hoontrakul (1996) suggests that Thailand is required to balance the importance of

both banking and the stock market in its financial system. Indeed, Thai oligopolistic banks have long nurtured and should continue to nurture the fragile financial system and recreate the emergence of *trustworthy* entrepreneurs as suggested by Claessens and Klingebiel (2000, p.6 and 23) and Hallberg (1999, p.7 and 12). Any banking revitalization plan after the crisis must include consideration for banks' stakeholder components - not just for a narrowly-based output and income revitalization, but acceptance of the principle-agent problems and political realism. Thus, it is imperative that policy-makers have to analyze *banks' heterogenous stakeholders* and the *incomplete trust* among them in order to succeed in any policy implementation as follows:

1. Bank Equityholders

As seen in Table 6, on the eve of the crisis, there were fifteen commercial banks and three specialized banks.²⁰ A dozen of these banks belonged to certain families, and the rest were state-owned or quasi state-owned. By the end of 2000, all small-and medium-size family-owned banks were nationalized, and some of them were sold to foreigners. The large, remaining three private and two quasi-state banks owned by Thai shareholders remain a major, but diminishing force. Thus, at the outset of 2001, there were essentially 4 types of basic equity holders in the Thai banking system with different motivations.

1.1 Foreign Owned Thai Bank Equityholders: Again from Table 6, these banks are DBS Thai Danu Bank Plc (DBST) acquired by DBS, Singapore, ABM Amro Bank of Asia Plc. (BoA) acquired by ABN Amro Bank, the Netherlands, Standard Chartered Nakorn Thon Bank Plc. (SCNT) acquired by Standard Chartered Bank, the UK and UOBR, acquired by UOB, Singapore. The acquisitions of the previously locally-owned banks were facilitated by the Democratic Party-

¹⁹ The 'high' degree of monitoring or 'new' economy industry is an industry which has techno-logically unproven innovations. Knowledge-based products and services, telecommunication, the soft-ware industry and biotechnology are examples. A large idiosyncratic industry is one which has large firms or industry-specific risk. State-owned enterprises and large mega projects are examples. The 'low' degree of monitoring or 'old' economy industry is one which has proven technology with consensus management. Fishery and agriculture are examples.

²⁰ On the eve of the crisis, there were also 92 finance companies of which 56 were closed by the BoT in December 1997. By the start of 2000, only 23 were still in operation. We conjecture that only a few merged groups (like National Finance, Tisco and other groups) are expected to survive in the form of restricted banks.

led Thai government with limited time, downside-risk guarantees. The foreign investors probably saw the Thai crisis was a 'once in a life time golden opportunity' to be in the very lucrative and heavily protected Thai banking industry. Will their hope come true as a new banking system develops in the future ?

It appears their business strategy will be to stream their Bangkok operations as a hub for their country-wide operations using a centralized IT system. Cutting down the local staff, sharing head office IT and other resources, auctioning off 'bad' assets and expanding aggressively into personal and corporate loan markets are among examples of their strategic thrusts. One concern is the nature of their *lumpy* acquisition cost and limited time government guarantee, these foreign equity holders have an incentive for risk-taking as discussed by Allen and Gale (2000, p. 371). Another concern is the government 'entry or exit' bank policies. The change in perception concerning bank policies (not actual) would matter to the equity holders for future competition as examined by Vives (1998). There exists an implicit fear of the '*winner's curse*' among these foreigners. It should be noted that there is *no* pure strategy equilibrium in these competitive conditions. In short, for new foreign equity holders who entered into the Thai banking system in the midst of the crisis, *trust building* would be hard earned from their local stakeholders - namely the local regulators and the existing employees, while reputation capital is being accumulated gradually through newly fostered relationship with credit-worthy local customers.

1.2 Family-Owned Thai Bank Equityholders: As of May 2001, Bangkok Bank Plc (BBL), Thai Farmer Bank Plc. (TFB) and Bank of Ayudhya Plc (BAY) still remained the only three private family owned banks. The other six family owned small-and medium-sized banks were nationalized. Most of these banks had belonged to the families for a few generations. There are sentimental value as well as economic value for family-owned equity holders. They all have long endured the booms and the busts - a couple of baht devaluation events, economic wreckage and political instabilities, including many military coups over half a century. Their *objective* seems to be simply to keep their (call) options to hold on to their banks alive as long as possible until the next economic upturn - '*A rising tide lifts all the boats*', as one old saying goes. Gradual capital increase (as little as possible), in a piece-wise manner, downsizing the balance sheet by recalling loans, cost-cutting in all areas and maintaining ample liquidity in every possible manner are among

their business strategies to fulfill government requirements during this financially distressed time. Will the tide ever rise if all stakeholders, including the government, sit idle and do nothing drastic to induce a policy breakthrough ?

It is imperative to note that the equity holders here generally view the government's banking rescue package - a capital injection assistance program announced on August 14, 1998 - as *a poison pill*. They all completely refused to accept the government's capital injection, possibly for fear of ownership dilution and the ultimate loss of management control. Thus, there is *little trust* from the family stock-holders towards the authorities, while their *reputation capital* accumulated over half a century has been steadily eroded as a reliable partner for all fund users and fund providers along with their long time executives and employees.

1.3 Quasi State-Owned Thai Bank Equityholders: As of May 2001, Thai Military Bank Plc (TMB) - majority owned by the Armed Forces, and Siam Commercial Bank Plc. (SCB) - majority-owned by the Crown Property Bureau, enjoy special status. Like others, both banks were terribly damaged by the crisis but enjoyed a charmed life as per Phongpaichit and Banker (2000, p. 221). Eventually, both banks were the only two banks to accept state-assisted recapitalization assistance under the 14 August 1998 rescue plan. Their *objectives* are probably to survive and to operate independently for both their agencies' interests under direct MoF and/or BoT directorship oversight. To look after their business clients, 'to sink or to survive' together with other banks, to follow the government initiatives and policies, to sell their non-core business units and to streamline their operations are seemingly among their strategic plans. Hence, the quasi state-owned equity holders' trust (and from other stakeholders) has been slightly shaken and their reputation capital has deteriorated somewhat.

1.4 State-Owned Thai Bank Equityholders: First, Krung Thai Bank Plc (KTB) is well-established and more than 90% owned by MoF. Second, there are four other special state banks - Government Saving Bank (GSB), Government Housing Bank (GHB), Bank of Agriculture and Agricultural Cooperatives (BAAC) and Industrial Finance Corporation of Thailand (IFCT). Third, another three state-owned banks, namely (1) Bank Thai Plc. (BT) - formerly known as Union Bank of Bangkok Plc, (2) Siam City Bank Plc (SCIB), and (3) Bangkok Metropolitan Bank Plc (BMB) were nationalized in 1998 and still are in operation today. Like any other public property, no one

really owns it, but everyone would like to benefit from it. State-owned equity holders' objectives largely depend on who is in the driver's seat - MoF, BoT and the head(s) of government are subject to dynamic political considerations. Thus, their banks' *objectives* are very complex with multiple - implicit and explicit - goals to serve both as a governmental mechanism and as many political constituency interests. In the middle of 1998, KTB was, for instance, instructed to take over both the defunct First Bangkok City Bank and Bangkok Bank of Commerce, and also told to stimulate the economy by extending more credit nationwide in the midst of the recession. Thus, these banks enjoy the reputation as relatively safe 'deposit-taking institutions' with 100% government backing, while suffering severely from the inconsistency and the lack of transparency in the credit extension process over decades.

2. Bank Management

This is a very tough time to be a banker in Thailand. As a matter of fact, experienced Thai bankers are very rare specie nowadays after considerable scandal investigations to point fingers for past misfortunes in the massive bank and finance company failures before, during and after the crisis. Private or public, foreign or domestically owned banks are subjected to the prevailing economic slump which greatly undermines the performance of any bank management team. Conversely, to treat all bank management executives alike is naive. Domestic banks will lose out in the increasingly competitive markets of corporate lending and personal loans. In response, domestic banks will increasingly leverage their *local knowledge and relationships* in the retail and SME markets. Foreign banks will rely more on their superior expertise²¹, and cheap and easily accessible funding sources in the globalized world. The trend toward '*two-tiered segmentation*' of banking markets is often achieved at a competitive disadvantage for SME financing as noted by Pomerleano and Vojta (2001, p. 5). One noticeable difference among all banks seems to be the degree of institutional rigidity as follows:

2.1 Foreign Owned Thai Bank Management: These executives are first *motivated* by a drive from the overseas parent bank's dynamic and evolving strategies as documented by Pomerleano and Vojta. For instance, ABN-Amro and Singaporean banks, in response to globalization, has their priority to serve the needs of specific firms from their home market, major multinational corporations and large domestic corporations. Standard Chartered Bank is more motivated to serve large, corporate and retail clients and to

become part of the fabric of domestic banking. The executives are usually on explicit, professional-hire contracts.

Their *objective* is a *rule based* mandate to generate profit-maximizing activities consistent with the parent's overall global banking policy. With their financial strength, clean balance sheet and rich pool of resources, the managers compete *aggressively* where arms-length relationships or explicit contractual banking can be established. The interest spread in mortgage loans and credit card business is on the decline. Applying the Industrial Organization theory, these foreign banks tend to compete in price, and use 'business-stealing' tactics and predatory strategies as described by Salanie (2000, ch. 10). Since all foreign-owned banks are content with a small number of branches, the manager relies heavily on their Bangkok-based lendings. One principle-agent concern for these managers is '*risk shifting*' toward the end of the management contract or the expiration of the limited-time government guarantee on "bad" assets. Potentially, the *moral hazard* problem cannot be overlooked. In sum, foreign-owned Thai bank management has all the incentives to capitalize in a specialized Thai banking niche - large, corporate and consumer sectors-and largely neglect the middle or SME market due to information deficiency.

2.2 Family-Owned Thai Bank Management: The '*Too-big-to-fail*' doctrine may justify the pattern of government regulation here. These remaining private banks have been and remain among the top five, large banks in Thailand making up for more than 38% of total Thai banking assets. Though these banks tend to cover all lending segments, they primarily dominate in the SME market. In over a half century, these banks had accumulated their *reputation or trust capital* as dependable fund providers to nurture middle-sized entrepreneurs. Management, which is controlled by family members or close peers, responds to crisis by *downsizing their balance sheets*: retrenching severely on loans, selling off or abandoning their non-core business units, and step-by-step capital increase. They keep ample liquidity for any contingencies in safe assets like government bonds or money markets. In order to maintain status quo, banks' owner-managers have all the incentives to understate NPL and NPA problems. Once borrowers get into trouble and cannot pay their debt obligation, banks rollover loans, hence increasing the probability of another

²¹ Expertise is in advanced treasury and capital market products, cross-border underwriting, merger and acquisition, credit cards, privatization, risk management, etc.



rollover. Dekle and Kletzer (2001) in the spirit of Bernanke and Gertler model, conjectures that banks would be progressively more *fragile* through debt renegotiations. As long as the blanket guarantee by the government continues, these banks continue to *survive* from depositors' trust, but are unable to raise sufficient capital for future business. Free-rider as well as *ex ante* and *ex post* moral hazard issues over any government policy implementation are undeniably serious concerns.

Thus, the owner-managers' *objectives* are first to remain solvent and to preserve its 'core' valued customers or to outlast the current recession. Then they hope to achieve profitability in business when the economy turns around. It is ironic that as both troubled bankers and cash strapped borrowers renegotiate their debts initially, they all have the same belief in keeping their call options on their respectful ownerships alive, as noted by Hoontrakul (1997). When the deteriorating situation persists, the debt-ridden entrepreneurs opt out and conserve cash to start a new operation for the well-being of their family members. Therefore, banks are overwhelmed by NPLs and NPAs. The principle (bank-manager) and the agency (borrower) problem has seriously widened gradually as the crisis continues, though the principle (bank equity owner) and the agency (bank manager) problem remains small. These collective self-rational micro behaviors have caused the credit market failure, especially to SMEs as asserted by Chaipravat and Hoontrakul.

2.3 Quasi State-Owned Thai Bank Management: With capital injection from the government, new management board members are more *diversified* than ever with various representatives from equity shareholders (e.g. local and foreign, institutional and individual, etc.), government (i.e. top civil servants), professional managers (i.e. banks top executives) and independent directors. Still, these banks remain vulnerable to the prevailing recession and new foreign entrants. Their traditional business (e.g. large firms, public related projects,) have been stalled by the overhang debt burden; their new push for business in retail and corporate markets has been challenged by foreign predatory schemes and poor credit worthiness of the borrowers. Thus, their first *objective* is to maintain their status quo - ownership and management structure without further capital injection. They are also under constant pressure from the BoT to work out NPLs of their allied firms and to improve their profitability by their equity holders. Having experienced a few management shakeups recently, the existing management team is more conservative in banking practice than ever for fear of losing their jobs.

2.4 State-Owned Thai Bank Management: The average lifetime of a Thai government in the 1990's lasted about 2.5 years. However, the average lifetime of the state-owned Thai bank top management executives is even less in the post crisis. By default, state-owned banks do not have a first priority of profit making (though they like to mention it frequently) but to act as a government mechanism to implement national policy. In any circumstance, the state-owned banks always enjoy an implicit, 100% guarantee by the government and the requirement for all state enterprises to deposit all reserves with them. Extending credit to the private sector as other commercial banks do not been fully developed at the state-owned banks.

'To whom are these management teams of the banks responsible?' emerges as one of the most critical questions. Because of their huge organizations, large inertia and complex red tape, the state-owned banks would be extremely difficult to reform in the short run. The management teams, faced with *multi-tasking and fussy mission context*, are naturally dominated by high ranking civil servants and close associates of politicians. Multi-dimensional efforts and outputs interact to weaken incentives for team efforts as uncovered by Dixit (1997). Frequent changes in management teams lead to near-sighted, mostly political, goal-oriented in all Thai state owned bank cases. Uncertainty over the nature of tasks pursued or the effort allocation between dispersed tasks reduces incentive to perform again, as revealed by Dewatripont et al. (1999b). Since managers are working with the *strict* bureaucratic procedures of the state enterprises, any misjudgement or loss may be considered as a criminal offense. No one is likely to do subjective judgment calls or anything less than consensus ruling. The management objective is to survive political pressures - inter and agencies - rather than profitability. Their tactics are merely on a *go-as-we-care basis* with great flexibility for frequent changes in planning and agenda. Therefore, there exists a serious '*common agencies' with 'several principals' problem* as explicated by Dixit and Dewatripont et al., apart from the moral hazard problem in lending practices influenced by political pressure.

3. Bank Employees

As shown in Table 6, about 57,000 employees, or 45% of total bank workforce, were employed by the top three Thai private owned banks as of the end of December 1997. The rest of about 70,000 employees or 55% of the workforce, were employed directly by state-owned, quasi state-owned and small-and medium-sized family-

owned banks. Though a large portion of employees are employed at the head office, the majority of bank officers are spread all over the country to cultivate relationships with clients, either for deposit taking or for lending purposes. It is the *bank loan officers* - not so much the top executives - who have extensive *relationship and/or trust capital* residing in these bank branches throughout the country. Hence, a trade-off between the benefits of diversification and the costs of *internal delegation* (which increase with the size of the banks) cannot be overemphasized as asserted by Freixas and Rochet (p. 29 - 32).

Working in a bank used to be a very secure job with good compensation. The globalization of the banking industry and in crisis situations has caught most bank officers by surprise in a fortified workplace, principally at the middle management level. All banks have to face the *twin* challenges of cutting down overhead and reducing headcounts. Voluntary retirement packages, new job assignments and increased workloads with pay cuts are among the tactical measures. Facing possible permanent unemployment prospects, many middle managers take early retirement packages and try to start a new productive life. It is conjectured that the *'winners'* with portable skill sets tend to leave the existing jobs to seek better opportunities elsewhere. The *'losers'* with less opportunity patiently stay and actually progress from the decreasing pool of talented officers. The *'sideliner'* and new generation appear to lose their confidence in every day restructuring. For state enterprise employees, things may fare better because of high union protection and rigid 'hire and fire' rules. In the end, *job security* seems to be the overriding objective of every bank employee, *not career path promotion*. Bank officials are afraid of making mistakes (often after watching their past judgment fail) and become even more risk-averse in their operations. These undermine the powerful mechanism of *renegotiation* in the bank loan contracts or private bi-lateral agreements, as noted by Freixa and Rochet (p. 112) and argued extensively by Allen and Gale (2000, chp.10). Hence, with much *distrust* in their working environment and with their top executives, the bank lending officers create further credit contraction.

4. Fund Providers²² - Depositors

As shown in Table 7, as of the end of December 2000, out of the over 60 million Thai population, there are over 45 million deposit accounts accounting for more than 4,883 bb. Over 90% of these bank accounts are classified as small deposits. It is less than 100,000 bahts with more

than three quarter of these accounts in short term saving or 3-month time deposits. These mass small accounts represent only less than 7 % of total deposits. On the other hand, only 53, 935 large deposit accounts, each exceeding 10 million baht, accounted for more than 40% of total deposits. Similarly, only 642, 818 accounts, ranging from 1 to 10 million baht each, represent another 40% of total deposits. Again, more than three-quarters of these large account deposits have maturity of less than 3 months. In short, about 700,000 individual or legal identities, roughly 10% of the total population, hold about 80% of the total banking deposits in Thailand.

During the financial panic, these depositors switched their savings from non-bank financial institutions to banks. For those who missed the opportunity for the 'flight-to-quality' switch and were caught in the closed down finance companies, the BoT agreed to pay back their saving - principle and nominal interest spread over up to 10 years. Yet depositors who had their savings in the defunct banks fared better than the defunct finance companies. All defunct banks' operations were not affected because all the rescues were handled by KTB or BoT. According to Jantaraprapvech (2001), new household savings are now nearly 100% in bank deposits in comparison to about 75% in 1993. In summary, bank deposits now are the only means of safekeeping for household savings.

5. Fund Users - Borrowers or Firms

Hoontrakul (1997) uses an option concept to illustrate the importance of the contingency nature of borrowers' behavior. Moreover, proposition 9.1 of Allen and Gale (2000, pp. 298-304) illustrates the importance of the shocks deriving from the real sector in precipitating further financial crisis. If the collateral value falls far below the firms' net present value, then borrowers declare bankruptcy and avoid further loss. If the value of borrowers' portfolio is higher than his obligation, he keeps the residual claim after repaying the bank. This generates a *preference of risk*. Since asset-backed loans are traditionally used to solve information gap problems between borrowers and lenders, the fallen value in asset - land and stock - has exacerbated the NPL and NPA problems. Given the long and persistent nature of the crisis, Chaipravat and Hoontrakul conjecture that the severity of the NPL situation have bottomed out by now. The borrowers who can repay or work

²² For simplicity, we exclude foreign creditors from our analysis since their contributions have declined significantly after the crisis.

out their NPLs have already restructured their balance sheets. The borrowers who cannot sustain financial damage have declared defaults on their obligations. Furthermore, as the crisis is prolonged and incomplete trust gap widens, Thai firms resort to their internal sources for funding [e.g. retain earning, equity, etc.] as the only available financing alternative, as evidenced by Table 8a. Indeed, many large firms are repaying nearly all of their bank loans by issuing more capital market instruments to refinance their bank debts.

First, the large surviving firms behave like banks by trying to consolidate their businesses and to streamline their core business. With their size and financial strength, they are expected to stay afloat and work out their loans in the next business upturn. Second, the small individual borrowers try to maintain their family well-being by keeping up with their payments of mortgages and other personal loans. Finally, Chaipravat and Hoontrakul conjecture the potential difficulty of SME groups as the hardest hit among the three major segments of the bank loans. Their business is equivalent to their family well-being. They stop their payments when they foresee a potential illiquidity problem in their businesses and degenerating relationships with the banks. Some entrepreneurs take early retirement, if they can. Many are too young to retire and yearn for a 'second' chance to be back in business. Their banking relationship has turned sour and, sometimes, bitter. Their children may be too young to start from scratch again. The existence of unexploited productive entrepreneurial capital is one of the greatest dead-weight losses to society. Hallberg (1999) claims that because of SME's evolution to large enterprise in developing countries like Thailand, promotion of the SME is very critical for private sector-led growth economy. The question remains how to resolve the principle (bank) and the agent (SME) problem in a slowed down, incomplete and imperfect economy such as Thailand.

6. Monitoring the Monitors

Explicit monetary compensation is not the overriding consideration for both civil servants and politicians. What drives both politicians and regulatory agents are still self-gratification, career concerns, ego and other implicit compensation as argued by Dewatripont and Tirole (1994), Dewatripont et al (1999 b) and Gurgess and Metcalfe (1999). Banking management and supervision are *continuous* activities, but the authority powers are *disruptive* and frequently change hands, especially during the on-going crisis. Regulators are often used as scapegoats, as noted by Dewatripont and Tirole [pp. 194-9]. Yet,

passivity is socially suboptimal. Discretionary regulation under local and international political pressure internalizes other interests. The rule-based or non-discretionary regulations are too static. The rules are crude and not responsive to a dynamic fast-changing, financial environment. How can active government policy makers cut through all these conflicting and interweaving impediments?

Chulalongkorn University Political Economist Prof. Pasuk Phongpaichit and Chris Baker (2000, pp. 134 - 159) devoted one entire chapter to summarizing the 'Old Politics, New Politics' in Thailand. Political reform had been progressing well before the crisis (p.122-7). The 1997 People's Constitution promised a new and social welfare-improving paradigm. A new parliamentary structure, a new powerful constitutional court and three main enabling bills on political structure (on election, political parties and the independent Election Commission) are some of the fundamental political reform implementations to check and balance political power.²³ There exists a tension between neoliberalism, globalization led by the Democrat Party (previous administration, 1997-2001) and socially oriented, dissident activists led by the Thai Rak Thai Party administration (2001-present). Hoontrakul (1999) provides further discussion on the need to balance the compatible package of capitalism, democracy and the social welfare in his 'Globalization and Trilemma' article. Historically, democracy, not capitalism, has created the middle class. It is critical to note that Thailand's two previous constitutional reforms in 1946 and 1974 each lasted around eighteen months before they were torn up after a coup. In addition, Phongpaichai and Baker claimed *this crisis was created by ideology and politics.* The international politics of financial liberalization - open market and good governance - cannot be overemphasized (p. 245-6). Eleven landmark bills (e.g. bankruptcy law, foreclosure law, intellectual property law, corporate ownership reform, land ownership for foreigners, etc.) were, for example, passed during November 1998. The crisis ends up hitting the most vulnerable - the rural poor and the urban unemployed who depend on income from migratory labour. The bedrock for a democratic system - the middle class workers and entrepreneurial SMEs - are immeasurably ruined.

²³ More discussion on The Freedom of Information Act, the permanent Human Right Commission, privatization, Non-Government Organization (NGO) movement, private foreign foundation - Carnegie Foundation, CERN 1999 activities - and in foreign and local lobbyist interests among others are also discussed by Phongpaichit and Baker.

In the end, international as well as domestic pressures remain because the social, political and economic adjustment problems remain abjectly unresolved. Who then should monitor the delegated monitor?

Policy Implications

The 1997 financial crisis has placed Thailand's banking system in an obscure state. All banks' stakeholders have widened their incomplete trust among each other under uncertainty. Incomplete trust adversely affects financial intermediary to jump start the economy. Financial markets and intermediaries are no substitute for competent managers and skillful workers to create efficient, well-run firms to produce the goods that society demands. The current dysfunctional banking crisis is an ongoing struggle among banks' stakeholders as advised by (Kane 2001a, b). The key question for all is how one can induce all banks' stakeholders to have common interests to survive and to prosper together in the dynamic and growing economy via income and wealth regeneration.

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All agents must invest considerable time and resources to build trustworthiness. What matters is that all stakeholders are able to rely on each other. No agent should be allowed to have a strong incentive to exploit information limitations unethically. The core proposition is to enable an incentive compatibility environment to share common values among heterogeneous agents in good conduct as much as possible through market forces. More emphasis will be placed on banks as 'bridges of trusts'. Banks have to supply information efficiently for productive resource allocation to facilitate the risk sharing mechanism in the context of repeated transactions. Naturally, one implicit assumption here is that the government is a 'progressive benevolent planner' who fosters incentive compatibility and creates new wealth among the stakeholders as described below.

I. Trust Building as Microeconomic Foundation

Chaipravat and Hoontrakul explain how Thailand has suffered from the credit market failures in the 1997 aftermath. This provides a clear justification for government intervention to restore the normal working of the markets and to create new income and wealth. *Neglecting* the complexity of the political process, the government has the legitimate power to help, to endow and to build trust capital among banks' stakeholders. Using an ex post one time stock concept of assistance to shore up banks' balance sheets - on the asset and equity side - may be necessary, but not sufficient. Using

'off-balance' sheets and an ex ante flow concept of income and wealth generating process in risk and reward sharing schemes may prove to be adequate to rebuild trust capital among the stakeholders. Good behavior shall be rewarded; bad behavior shall be penalized. Each will learn from another's behavior through the self-revealing game of tournaments. Time and community-based dynamics become very important elements of wealth and income creation for Thailand.

1. Trust Capital and Endowment: the Role of Government

Government, like everyone else, has to earn trust from other stakeholders. It takes trust to breed trust from one another. One clear signal is to end the industrial organization uncertainty by limiting competition, though contestable, on a temporary basis to strengthen the banks. Managed competition should be in a limited and fixed period (say 4 years equivalent to one full government term). Consolidating state banks, and redefining state banks as narrow banks, and performance-based risk sharing schemes for private banks are among the initiatives. This should not be considered as protectionist or nationalist because foreigners already participate in the system. 'The real enemies of capitalist stability have always been war and depression', as proclaimed by Krugman (1999, p.6). Besides, all banks are listed in Security Exchange of Thailand (SET), everyone is welcome to own part of the banks. In theory, bank stock prices should be higher in response to forward-looking potential rents.²⁴ The perceived wealth effects may spur more consumption without liquidity injection to the market by a cash-starved government. One may think of this recreation of bank rent as an indirect tax from the fund providers and users to jump start the economy.

A clear financial product differentiation by various types of banks may further cultivate rent opportunities. Aoaki (2000) defines four types of rent for banks as:

- 1) **Monopoly Rent** that a financier can extract from the borrowing firms through its advantageous position ;
- 2) **Policy-Induced Rent** that a financier can extract through some kind of government intervention in exchange for its implicit obligation to relationship financing ;

²⁴The rent or extra profit in economic terms absorbs large resources, redistributes wealth and imposes social costs under a monopoly variant scheme.

3) **Reputation Rent** that a financier can extract by building a reputation for commitment to long-term relationships with clients;

4) **Information Rents** that a financier can gain from the borrowing firms through the production of economically valuable knowledge that is not immediately available to others.

Explicitly, regulators can temporarily enable the banking business environment for the first two type of rents - monopoly or oligopoly rent and policy induce-rent. Once the initial explicit time (say 2 years) has elapsed, one can consider another 2 year extension. The objective is to allow the banks to endogenize reputation and information rent again before being deprived of the first two rents. The procedures may be considered as follows:

1.1 Private Bank Concentration, Competition and Wealth Creation: Competition in banking can be undesirable in the post crisis. Regulators can impose *temporary restraints* on banking competition and regulation to increase the franchise value of domestic institutions and to improve temporary quasi-rent collection. These policies may include no more sale of nationalized banks and a leniency in NPL accounting rules to allow for private banks to recoup from the meltdown. Dewatripont and Tirole (1994, p. 185), Krugman (1999, pp. 154-161) Bossone (2000, p. 19) and Allen and Gale (2000, pp. 497-501) provide the rationale for *wealth creation* for banks during deep financial recessions. Claessens and Klingebiel (1999, p. 3, 15) suggest managed competition in the banking system which is not to be 'super-competitive'. From Mexican experience after the large-scale privatization of 1991-2, the banking system was 'super'-competitive, unprofitable and unstable through high risk-taking behaviors from all banks' stakeholders. It was a seed of the new financial crisis in 1994/5. On the other hand, Claessens and Klingebiel (p.15) and Allen and Gale (2000) justify that *a concentrated banking* can be competitive and *statically efficient* as in earlier discussion. The *contestability* of the system already exists in the Thailand banking system because 4 out of 9 private and quasi-private banks are foreign-owned as of May 2001. This current setting is also in compliance with the WTO Financial Services Agreement of December 1997 and gives a clear *signal* to the marketplace. It is critically noted that using cross-countries empirical evidence, Gardener et al. (1999) show the number of entrants in the system matters in the issue of contestability rather than their market shares. Foreign as well as local bank owners may enjoy

the spillover effect and *positive externality* to rejuvenate their business. Schumpeter (1942) also provokes that some degree of monopoly would help to spur innovation and '*creative destruction*'.

1.2 State-owned Bank, Narrow Bank and Accountability: State-owned banks and nationalized banks have long been hindered by '*common agencies with several principles*' problem. All state banks, if possible and at an appropriate time in the future, should get out of the lending business by consolidation and/or voluntary withdrawing withdrawn from the credit market when the economic situation returns to its normalcy. To further expand on the previous commitment and to minimize the multiple agencies-principles problem, the government can limit the role of state banks to that of the '*narrow bank*' type. Their main function would be as a 'safe haven' for depositors and to invest these mobilized funds into *riskless asset*-like government bonds. If access funds are available, then the narrow banks may be allowed to participate in higher-quality, securitized and private credit. Boot and Greenbaum (1993, pp. 270-5 and proposition 3) also add that these narrow banks should restore the funding-related reputation benefits as liquid providers for the financial system. For example, KTB combined with many branches from BT and BMB may *split* into 4 regional or community banks, while newly-established Small Industry Credit Guarantee Corp. (SICG) and/or Small Industrial Finance Corp. (SIFC) would selectively acquire some branches and assets from SCIB and/or BMB on '*purchased and assumption*' basis as noted by Lastra (p. 137-8). GSB, BAAC, IFCT and GHB may remain in their special niche or another special type of 'narrow' bank. This eliminates the traditional risky bank business as 'illiquid' banking in transforming 'liquid' liability (deposit) into 'illiquid' asset (loans) as examined by Peare (1999). These state banks become narrow or specialized banks which should be more competitive in the financial market and enjoy its service differentiation. Private banks would be subjected to less *market distortion* in credit extension although they would face *more competition* in bond and money markets and deposit takings from these 'narrow' banks.

The additional service for fee-income may be performed for value-added *financial advisory* service. A third party verifier, a 'financial supermarket outlet' for government instruments, a 'technical business assistance program', a telecenter and a knowledge center are among such services for the local community and SMEs. SCIB, BMB and BT are among good alternatives for the new service fee-income base since much

old, private organizational capital may inherently reside with the service-oriented staff. The new 'narrow' objective should give incentive to management to be more accountable to other banks' stakeholders since it is more transparent. *Moral hazard and adverse selection problems* will be minimized as suggested by Dixit (1997) and Dewatripont et al. (1999b).

1.3 *On Balance Sheet Clean Up, TAMC and Credit Market Failure*: Previous and present governments have focused mainly on once-and-for-all ex post *stock concept or balance sheet* (on equity and asset side) cleaning. The current government emphasizes a centralized approach (Thailand AMC or TAMC) with public money subsidies; the previous government focused on a decentralized approach (individual bank AMC) with some limited government incentives. Both methods have merits and drawbacks as discussed by Klingebiel (2000, p. 4-8). Both may aim to expedite corporate restructuring and rapid asset disposition vehicles. Klingebiel argues that cross-countries evidence suggests that in general, AMCs are rarely a good tool. Most of the failures are rooted in political interference and fraught. AMC tends to provide fertile ground for moral hazard problems in the next lending cycle because the stakeholders are not disciplined.

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The Swedish case is an exceptional case in Klingebiel's study where the 'not so bad' assets acquired were mostly *commercial real estate related*. Manufacturing and other assets that are harder to restructure were stored in another firm. Perhaps, the newly-established TAMC could take a lesson or two from the Swedish model. On the other hand, Argentina and Mexico had reportedly very effective bank crisis resolution with a market-based mechanism and complex formulas as per Ferranti et al (1999) and Luna-Martinez (2000). Argentina's *bare-bones* cleaning system, for instance, resolved a troubled bank-Banco Alfafuerte with total liability of US\$270 millions over one weekend, while 18 cases were done between July 1995 to April 1999. But Argentina's *dynamic efficiency* banking system was one of the principal causes for the most recent crisis in early 2001. Again, as mentioned earlier, even a healthy balance sheet UOBR still cannot expand its credit in this market because of the *lack of trustworthy* borrowers. Thus, the question remains whether banks can resume their original role of 'bridges of trust' after balance sheet cleaning. We think not.

2. Trust Building: Risk Sharing, SME and Credit Guarantee:

The gist of recession problem is the *lack of 'effective demand'*: too little spending on real goods and services as rightly pointed out by Krugman (p. 10, 155) Where can we find this growth? We cannot export our way out of the current recession as discussed earlier. We cannot stimulate domestic consumption by simply printing money as per a monetarist view, though we might impose capital control as suggested by Krugman (pp. 11, 144, 163-5). The crux of the matter is that the firms, especially the SMEs, have no 'trust worthiness' to borrow money from the banks, and too many people are now out of jobs. Hence, the top priority of national policy is *the job and income creation*.

Income growth is one common interest for all stakeholders. Another is wealth creation if this is *not* perceived as a zero sum game. In a macroeconomic context, Allen (1993) has applied the same principle to explain how a high rate of economic growth (like Germany during 1950 to 1960 and Japan during 1960 to 1980) can create incentive opportunities. A fast growth economy will be self-reinforcing or feed back into higher growth, better incentives and better performance. The greatest incentive to all economic agents is the prospect of prosperity.

In an entrepreneurial oriented economy like Thailand, firms as self-organizing entities are an ecosystem in which different stakeholders - employees, managers, suppliers, etc. live and flourish to economize on transaction costs and to maximize profits.²⁵ The presence of asymmetric information on or incomplete trust of entrepreneurs is a very important source of transaction costs and causes the credit market failures. Treating *NPLers* like environmental *polluters*, the 1991 Nobel Prize winning *Coase Theorem* (1960) provides an insight that the problem is tantamount to - *the reciprocal nature of the externalities problem*. In other words, the issue is not to imply that 'NPLers or related parties inflict harm on banks and should be restrained from further banking relationships.' The converse is true. 'To avoid more harm to the banks is to inflict even more harm on NPLers.' The solution is a mixture of public-private risk sharing, private bargaining with judicial enforcement for incentive compatibility and direct administrative intervention. It is really a tradeoff

²⁵ See more discussion by Coase [1937]

between helping new or unverifiable borrowers and social welfare improving effects from private investments by these borrowers.

As recommended by Hallberg (1999), SMEs should be promoted because of at least five social, political and economic reasons. First, the SMEs account for the largest share of firms and employment in emerging countries like Thailand. The growth of small firms is also a vital part of a process of democratization and increased social stability. Second, the SMEs are more likely than to grow and become competitive in domestic and international markets as claimed by Hallberg (1999). The SMEs are, to some extent, dynamic, innovative and growth-oriented under the management of educated and hard working managers with entrepreneurial spirits as in Thailand. Third, the SMEs always face credit access problems even in normal times due to business size bias. In the crisis aftermath, the credit market for SMEs fails miserably more than other credit market segments - corporate and personal. Fourth, though the SMEs are quite a heterogeneous group, the majority in Thailand is in retail commerce and some in supporting industrial sectors. This is a traditional area where Chinese ethics dominate. The new crop of SMEs may come in many flavors. Finally, SMEs are always subjected to policy bias and market distortion - market structure, technology-based economies of scale and transactional inefficiency.

How can banks extend credit to the SMEs with 'good' projects which are proposed by new and/or unverifiable financial background entrepreneurs? How can banks build trusts on the SMEs in the prevailing financial distress? How can one design a market-oriented strategy for the SMEs? Finally how can we create an incentive compatibility mechanism and proportional risk and reward sharing among the banks' stakeholders?

2.1 Virtues of Risk Sharing and Government Role: When the market is incomplete, as in the Allen and Gale (1994, chp. 4) analysis, theoretically, there exists *unexploited gains* from sharing risks. By paying a *fixed cost* and introducing new risk sharing 'insurance security' scheme (from the government), banks have incentive to increase their value by *innovating* and '*spanning*' on their 'risky' loan portfolios. The attained solution may not be Pareto efficient, but it is efficient in the constrained dynamic sense. If no single bank has significant power to influence this market, perfect competition assumption for this market is roughly applicable. If the society collectively benefits from the 'new scheme' which coincides with a single

firm's benefit, positive externality exists. On the other hand, if the market is *imperfect* in which someone has undue market power, then the solution is complex, though a unique strategic solution exists. There will be a Stackelberg or *first movers' advantage* although the competition through imitation will quickly erode the rent if the action is observable.

Government has long pioneered financial innovation. In the sixteenth century, French government was first to issue sovereign 'Grand Parti' bonds. During the Great Depression, the U.S. government played a major role in developing the market for mortgage-backed securities guaranteed by the government through its agencies - Fannie Mae, Ginnie Mae, etc.²⁶ The government is in a unique position to provide risk sharing securities because of its monopolistic power to print money and tax. To foster the credit market for the SMEs, the current Thai government can provide partial loan guarantees on banks' total SMEs loan portfolios for a limited time and for a premium. In other words, the government provides high-value business propositions for both fund providers and fund users in the form of risk diversification, enhanced risk adjusted reward profile, some degree of control over the payoff outcome and the opportunity to reverse 'bad' investment decisions at low cost. In essence, the government can provide insurance by arranging inter-generation risk sharing. The idea is to exploit the law of large numbers by spreading the risk of each business cycle over many generations as suggested by Allen and Gale (1994, pp. 293-300).

2.2 Trust Capital and Endowment for SME: Risk-Sharing, Credit Guarantee Scheme, Voucher and Market Based Intervention: Apart from the government nurturing troubled banks into salient states as advised earlier, the government has to help the SMEs to be back in business. Traditionally, government provides direct credit as well as subsidized loans to the SMEs through banks and specialized institutions. This is reflected in the belief that SMEs are subjected to higher cost of credit. On the contrary, the evidence suggests that the SMEs care more about *access to credit* than its cost, especially in financial distressing times. As recommended by Hallberg (1999, pp. 11-13), any assistance to the SMEs should be a *market-oriented strategy* to overcome obstacles in reducing the credit risk and transaction cost. Government responses to this SME credit market failure by offering a community-wide, limited credit

²⁶See more discussion on Chaipravat and Hoontrakul (pp 25-26, footnote 7) and Allen and Gale (1994).

guarantee scheme via SICG and / or SIFC may be as follows:

2.2.1 The SME Credit Guarantee's objective is to stimulate *new private value-added investment* in Thailand. The scheme shares the credit risk and costly information collection with the banks and gives a chance for new or unverifiable financial background, but with potentially good managerial skill, entrepreneurs to start up their businesses. Bank stakeholders would enjoy *first movers' advantage* to generate more income with more manageable risks. SME owners would have more chances to *access* funding and to build *reputation* with the banking system. Banks and SMEs would, over time, accumulate their *reputation capital* to foster a functional credit market after the scheme is no longer needed and the economy returns to normalcy.

2.2.2 Loan Definition: Under this scheme, the SME loan is classified as a new credit extension for *new value-added investments* based basically on cash flow merit. The total amount of loan per customer ranges between 5 to 100 million baht. Note that the average SME loans size is around 7 million baht per account for a total of 300,000 accounts in the pre-crisis banking system. The loans may include partial (say, up to 30% of the total loan) acquisition of old premises and equipment and land. Human capital may count as 'sweat' equity base. Entrepreneurs and their backers must also provide some hard cash or equity capital for the project. New cash credit extension is solely for the purpose of *new* private investment to simulate the overall economy.

2.2.3 Partial and Limited Credit Guarantee: To reduce risk, a government body would provide only *partial* credit guarantee schemes for the banks' *total* SME portfolios within a *limited* time frame. Insurance against the *total SMEs portfolio* would give banks freedom in lending among heterogeneous SMEs - to select who should get the funds and what project should be funded - without prior approval from the government agencies. The *partial and time limitation* conditions are designed to induce risk-taking and share costly information collecting burden on a *temporary* basis. Banks also have incentive to *quickly* establish themselves by either building up *relationship capital* or developing credit scoring system on SME loans before further banking liberalization. Yet the scheme will minimize the lenders' ex ante and ex post *moral hazard problem* to avoid costly mistakes in lending to any non-feasible projects. The losses will be shared and good ex post performance will be rewarded through various incentive schemes in the next round of lendings.

2.2.4 A Baht for a Baht Principle: Debt is *not* a substitution for equity. To minimize the moral hazard problem and to avoid the '*free-rider problem*' from the fund user, *a baht for a baht principle* is used: the credit guarantee is equal to the firm's equity. However, the credit guarantee shall not exceed the 50% of the total loan per contract or per firm. Note that typically with asset or project-backed financing, banks require a borrower to provide up to 40% of the cost of the project implementation as suggested by Gallardo (1997, p 4). In this respect, SME entrepreneurs are estimated a need of about 15 to 30 % equity on top of the state guarantee to start up any potential value-added investment project. This should abate the *moral hazard problem* of taking 'excessively risky projects'. Moreover, *group* (more than 10 peers) *lending* or community based lending²⁷ for a project will be treated more favorably further cushion because social capital and peer pressure are valuable.

2.2.5 Microfinance Institution (MFI) and Lending Per Sector Limitation: Credit extensions from the MFIs, such as leasing, forfeiture, hire-purchase, factoring, acceptance, *Islamic banking*, Grameen Bank variant, etc. shall be noticed as value added '*disguised SME loans*' accordingly to Greuning et al and Gallardo.²⁸ Unlike the banks, MFIs normally focus more on the cash flow required, weekly pay collection, and much less up-front cash equity. Thus, banks' lending to these MFI should be eligible for using the SME loan guarantee facility to stimulate the consumer credit. However, the total lending of these sectors or any sector in this matter should not be exposed to the maximum prudent limit of, say 20% of the total SME loan portfolio in each bank. MFI can be another funding channel for the mini SMEs with clear and enforceable, though often removable, asset backing.

2.2.6 Premium and Credit Line on Credit Guarantee Scheme: In the *first* year of the loan guarantee scheme the premium²⁹ on credit guarantee would be *compulsory*, and payment would be *fixed* on a quarterly basis. This

²⁷ Chantima Park is one example of group lending in residential housing loans done by SCB. More details are available at Chairavat and Hoontrakul.

²⁸ Gallardo [pp. 21-22] finds that about 50% of SMEs uses lease or its variant as a source of funds. Also, the services, steel & engineering, garments and food account for almost 50% of fund users by industry.

²⁹ Merton (1993, 1977) provides a framework for this loan guarantee pricing. Essentially, by guaranteeing the loan, the guarantor has issued a put-option on the assets of the borrowing firms. More discussion by Mayer and Vives (pp.292-327).

presumably *underpriced* premium should provide incentives for banks to *innovate* on the SME lending in early stage, as Allen and Gale (1994, p. 72) asserted. Progressive lending, PEARLS³⁰, the credit objective Z-scoring system and frequent - weekly repayment system may be among some of these innovations. As a rule of thumb, an insurance premium is roughly 20% of the spread between the deposit rate and minimum lending rate, while the quarterly credit guarantee line roughly equals 0.5% of the total deposit base. The spread and deposit base are good benchmarks to reflect the risk and the size of the banks' policy induced rent. The 20% and 0.5% parameters are set arbitrarily for simplicity, subject to debate. In sum, in the first year, the SIIFC and/or SICGC are the facilitators providing trust endowment to all stakeholders in the form of 'insurance'. Banks are paying for the up-front fee to pool their risks and their partial coverage from SME default risks and strong incentive to expand their SME loan portfolios.

In subsequent years, the premium and credit line would vary in terms of size, duration, business sector, geographic approximation and other considerations according to SIFC or SICGC risk management appetite. New guarantee offers will be *auctioned* off in open bids on a quarterly basis in a series of block credit guarantee policies. After the first year of trust endowment provided by the government, the insurance issuer and banks may have accumulated information and knowledge on the SME loan default probability. The auction is designed to be a *market price* based mechanism and on a voluntary basis.

2.2.7 Guarantee Claim and Settlement: All guarantee claims will be fully paid accountable for the principle plus accrued interest in the form of 4 to 7 years zero coupon government bonds. The bond would be allowed to be swapped for other banks' unsecured subordinated bonds on a *reciprocity* basis and counted as Tier 2 capital. In essence, each bank would be allowed to help each other in term of capital increases to finance future growth and to cover the SME loan loss provision. The subordinated bonds in nature would create bank peer review within their community. Hopefully, this would minimize the capital increase concern of all banks' equity holders.

2.2.8 Transparency, Public Awareness and Community Participation: The credit guarantee scheme would be reported every tenth Monday of every quarter. By the end of the quarter, aggregate credit extension, sectorial analysis and geographic relevant lending figures, loan loss provision and profit and loss would be *posted on*

the window in all bank branches and in BoT and MoF websites as practiced in New Zealand and other countries. The two page summary - one for the overall banks' financial health (e.g. key financial ratios, loan extension, profit and loss, etc.) and the another for the local concerns (e.g. deposit growth, SME lending growth, etc) would be posted. Transparency in banking practices will create public awareness to monitor banks' performance, whereas participation will increase a strong, self-supporting community. This is also one step closer to the explicit limited deposit insurance as discussed below.³¹

In the first year, the new credit guarantee will be available on the first day of every quarter with each credit line change according to the relative performance with their peer bankers. Naturally, the reports will be verified periodically by a third party - a regulator or state narrow bank - on an *ex post and interim* basis. The unused credit guarantee line in each quarter would expire and not to be accumulated to encourage more lendings and to avoid lumpiness of the contracts.

2.3 State Narrow Bank as Service Center: Information failures preventing the poor and SMEs from enjoying full credit cannot be overemphasized. On the *government* side, for a fee, the new state banks can collect data and information on all SME activities and others. Market assessment, monitoring and evaluation of SME results and building institutional capacity are among the important activities for the state banks. New innovative lending, creative commercial ideas and business practice reports along with SME activities index are recommended to the MoF on a monthly basis and freely available at BoT and MoF websites.

In the *private* sector, on the *demand-side intervention*, the government will issue *complementary transferable vouchers* for all SME business operators who are under the credit guarantee scheme. SME owners are entitled to receive vouchers equivalent to an arbitrary 5% of the interest paid on their SME loans. The amount can be used to pay for the services from state banks. *Vouchers used to satisfy SMEs' demand* for training and services from a particular state bank

³⁰ PEARLS (e.g. Protection, Earning, Asset Quality, Rate of Return and Cost, Liquidity and Signs of Growth) was first developed as a management tool and later became an effective supervisory mechanism. The main difference between PEARLS and CAMELS is that the former is objective criteria oriented, and the latter is subjective judgment by analysts or examiners. More discussion, Greuning et al. (1998).

³¹ See more discussion by Walker, Hoontrakul and Connolly (2001).

and branch should create *market mimic mechanism* to sort out the relative performance of each state bank. While the bank is not empowered to provide any credit extension, it is subjected to private SME demand in terms of deposit-taking and service providing. The more relevant information, services and relationship building for the state bank give the bank a better chance to survive in the midst of state bank consolidation. At the end, the government may *objectively* fund the *good* performance banks according to voucher accumulation and close down the *poor* performance branch or bank. As respect, the *supply-side intervention*, the new narrow bank would provide financial as well as non-financial, advisory services and a *business knowledge center* for the local community. Management training on basic business diagnostics, legal consultancy, financial counseling, marketing, incubator center with secretarial support, telecom center - internet access, fax, telephone, and regular business forum are among the 'market support structure' to build SME competitiveness domestically and internationally. Each state bank branch would be subjected to *rank performance* comparison vis a vis its peer *profitability* as in a tournament game explained below. In short, knowledge spillover, business networking and improved SME competitive structures are anticipated under this arrangement if managed properly.

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II. Reputation Capital, Tournament and Incentive Compatibility Design:

The above proposals are based on the flow concept of a dynamic repeated tournament - game in an asymmetric information environment to create incentive compatibility among all banks' stakeholders. Each would learn from one another's behavior. Transparency and public awareness also become interim and ex post auditing and monitoring mechanisms in the *trust building process*. Our objective is that *reputation capital* would be earned and built among banks' stakeholders as an implicit promise for a 'fair' process when an event occurs that is uncovered by a legal contract. The more faith each has in their business partners' ability and willingness to fill in contractual voids in a reasonable manner, the lower the costs of transacting. This *strategic 'economic' culture* should be restored and nurtured again.

1. Tournament as A Means to Nurture Incentive Compatibility for Public-Private Partnership:

A principle-designed tournament is a *rank-order performance based incentive* (RPBI) which

promotes contestants or (in our case, bank managers) who have relative ranks higher than all others over a given period to compete for *prizes* (career path, credit guarantee, vouchers, etc.), as Lazear and Rosen (1981) first applied. Rasmusen (1993) states that the tournament is similar to an *auction*, but the big difference is that *the losers* matter directly (e.g. the bank branch closure, the loss of job and the limited future credit opportunity, etc.). As Nalebuff and Stiglitz (1983), and Lazear and Rosen suggest, under *credibility threatening and high risk aversion* as it exists now, tournaments are superior because the agent is hurt more by losing than by winning. This is quite *different* from profit sharing. Tournaments are also very useful when the principle (government) wants to *extract* information from the agents (banks and SME owners). *Sequential tournaments* as in our case provide further insights on the skewness of each contestant's talent and knowledge as in a *golf* contest³² where losers are eliminated from each round. Job reassignment may be considered if comparative advantage for each contestant can be found, while job duplication may be eliminated. Note that tournament is a *path dependent process* in which an early promotion has a durable effect on further promotion chances, as discussed by Burgess and Metcalf. More importantly, promotion would induce more effort for subsequent tournaments.

On the other hand, a tournament may sometimes be viewed as a *quota system* since the fixed amount of prizes are distributed among the contestants, as per Holmstrom and Tirole (1998, p. 114-7). The essential characteristic is the sum of prizes - (vouchers and the credit guarantee scheme) is constant in a given period. The rewards which are paid based on ordinal rather than cardinal measures can be a further advantage when measurement costs (e.g. quality of the SME loans, customer satisfaction on state banks' services, etc.) are high or difficult to quantify in the standard setting. RPBI serves as a powerful *signal* to transmit performance information. It should be noted that tournament is more effective to managers who are junior, have experienced recent promotion, are higher earners and have superior performance in the growing business environment. In summary, all stakeholders should be motivated on the risk and reward of their superior / poor performance relative to their peers for incentive compatibility to collectively and

³²Burgess and Metcalf present the 1987 European PGA golf series similar to formula 1 racing car sport that the golfers' performance does vary positively with the marginal return on the effort and their starting point. High risk-taking is shown to occur more for higher absolute prize differentials.

efficiently stimulate private investment for economic recovery.

1.1 Investing in Reputation Capital : the Role of Economic Capital

How can we turn our trust endowment and the initial reputation capital into economic capital? After all, economic capital is a core component in the financial economic system. The key question is what business SME entrepreneurs should be in, given current economic environment. In a free country, the entrepreneurs may choose to do any business which he or she pleases, while the government duty is to enable the environment for business to flourish. Alternatively, the government may be keen to promote some areas to better serve the national interest as the whole. As an example for the sake of discussion, Chaipravat and Hoontrakul propose a national-wide subsidized residential housing project (NSHP) as one of the pump-priming projects for Thailand for the following reasons:

1.1.1 NSHP is an equivalent to land reform. However, it is politically more acceptable because it enhances the quality of life for the entire nation, not just one particular interest group. NSHP would generate high **multiplier effects** on other markets, such as household appliance and building material industries. All have very low import content or less leakage compared to other measures.

1.1.2 On the *demand* side, banks are willing to lend in the mortgage loan market, particularly from foreign-owned banks in Thailand. Though the demand for residential housing is good, the consumers' reluctance to buy is very much due to economic uncertainty. It appears that there is no lack of enthusiasm on the demand side for intervention for private investment as evidenced by August 10, 1999 and March 2001 package announcements. Many measures (e.g. fixed and low interest rate payments, long term financing, subsidized, first-home buyer, etc.) may be provided for the loan originators - private banks or government banks-to further stimulate the demand.

1.1.3 On the *supply* side, after having nationalized more than half of the banking system and establishing the centralized AMC, there are plenty of land banks for commercial residential housing development. In the Swedish model mentioned earlier, residential housing has the high probability to clear out the overhang land bank in a commercial sense. However, very few housing projects have been completed in the last

few years since most of the housing developers are still suffering from chronic overhang debt burden. In short, there is a ***discontinuity of supply function*** resulting in the non-existence of equilibrium. Unless market failure as the direct result of the crisis in this sector is corrected, little policy-induced investment can be done effectively.

1.1.4 Though housing is *not* a public good (e.g. defense, public park, etc.), it may be considered as publicly provided private goods and services (e.g. education, health care, etc.) to meet the four basic necessities in human life. Like urban transportation and garbage collection, housing development is constrained by geographic location and local judgment. Consumers can decide which local community they will inhabit. Thus, it is most logical that community-serving people like war veterans and army foundation (via TMB), farmers (via BAAC), Thai Commerce Association members (via BBL or TFB), civil servants (via SCB), etc. can be organized as a professional group project. This is truly a Social Investment Program (SIP) where community members participate in each and every multi-layer decision process, from endowment to project management. The credit guarantee scheme would be better directed in this group lending than other SME cases.

1.1.5 Suppose having success on NSHP, banks would become victims of their own success. Bank equity holders have to raise more capital to raise their growth. Securitization offers benefits in reducing liquidity risk, providing a source of fee income and, most importantly, reducing their liability for lower CAR requirements. The government has to assist ***securitization initiative*** for the banks by a special purpose vehicle, such as the Secondary Mortgage Corp. and/or a new legal framework.

In short, NSHP stimulates private investment. Banks have their balance sheets cleaned up and increase their profit for their equity holders and employees. Consumers improve their quality of life with inexpensive, long-term mortgage financing. Housing developers and building material suppliers have their business generated.

1.1.6 Final Note on Sectorial Supply Side Market Failure : It is very important to note that as a general principle, each market failure must be studied in terms of its own characteristics *before* expressing any policy implication. Some examples are as follows : First, the steel industry may face different problems. It has, for example, incomparative advantages to export and may

need to consolidate or to specialize in the middle of the excess capacity in the world. NSHP may ease their immediate problem but not address the long-term issue. Second, possibly automobiles and their parts may have good potential as evidenced from the influx of foreign direct investments in this sector after the 1997 woe. It has high export potential and for local consumption due to our large domestic market and may need more supporting industries. The main question is how to bridge the gap between world-class and Thai engineering skills. Third, internet-related businesses may fail due to the poor quality supply of human capital from the poor education system or a lack of proper and affordable training programs. Finally, other land-grant related projects, such as universities, colleges and parks should be considered extensively to provide longlasting positive externality.

1.2 Investing in Reputation Capital : the Role of Self-Regulation

Bank regulation is usually a by-product or reaction to crises. Bank failures can cause negative *externality* as we witness today. We have proposed some remedial measures on information deficiencies in the banking system. Sooner or later, blanket deposit guarantee has to cease. Accountability for banks should be directly addressed. Confidence and trust play a critical role in the banking business.

To ease off political pressures, banks should regulate themselves sufficiently in many different ways. First, more information about the state of the banks can be disseminated on a more timely, regular basis. More transparency, more public awareness (i.e. posting two page summaries on web sites and branch windows) and third party *interim* and *ex post verifier or monitor* as discussed earlier should provide a role of self-regulation. Second, high bank capital ratio is equivalent to partial self-deposit insurance system to mitigate the risk of bank specific runs. However, after the state-bank consolidation deepens in our above recommendation, the necessity for partial deposit insurance actually increases since the systemic risk is now concentrated on fewer banks. Potentially, some minor (5%) *cross holding* in equity or hybrid equity swaps may help strengthen cooperation among all banks, foreign or domestic. It also creates incentive for *peer review*, but is not strong enough to create a conflict of interests. Third, banks should be regularly required on semi-annual basis to issue subordinated debt as Tier 2 capital to the public. The initial public offering and trading price would give a clear

signal to the market place and create incentive to monitor by outsiders. Narrow state-banks can add liquidity into this market and build their reputations as being relatively 'risk-free' asset holders. The narrow banks also would restore the funding-related *reputation benefits* for all activities that are uninsured and thus *reduce moral hazard* incentives. Finally, some new risk management techniques (e.g. value-at-risk (VAR), stress testing, GAP, risk adjusted return on capital (RAROC), economic value-added (EVA) analysis, a credit rating agency, etc.) may be required to be disclosed on the bank's balance sheet on a quarterly basis.

1.3 Investing in Reputation Capital: The Role of Regulator

One remaining question is how to monitor the delegated monitor. Banking supervision is continuous, but the regulators are often disruptive and are changed without course and early warning. It is logical that the best investment for the central banker and the government is to separate the banking micro-supervision for a safe, stable banking sector from macro-monetary and inflation target policies as suggested by Nukul Report (2000). The new identity may be called Thailand Deposit Insurance Corporation (TDIC) and be derived from the merging, current *de facto* banking resolution mechanism - Financial Institutions Development Fund (FIDF) and banking supervision units. Basically, the government should *split* the BoT into two independent units - for TDIC *micro* banking and *macro* monetary policy. FIDF units and departments of supervision and examination of the financial institutions should be combined into TDIC as a new entirely *independent* unit. The government has to *empower* TDIC by amending the set of at least three Acts: the FIDF Act for financial assistance, the Banking Act and the Finance Company Act for non-financial assistance purposes among other legal means³³. Though the power to print money and the ultimate power of lender-of-last-resort remains with the BoT governor, the director of TDIC has full independent legal power to examine, regulate, close down and resolve the banks' problems.

In theory, deposit insurance can help the banking system with limited bank failures to

³³ Managerial assistance, onsite supervision and inspection, replacing directors, lawsuits against any wrongdoing director, reducing capital value, closure and liquidating and appointing liquidator are among the enacted non-financial assistance powers by the Banking Act and the Finance Company Act. Bailing out, purchase and assumption and payoff to depositors are among enacted financial assistance power by FIDF Act.

counter the economic downturn, but not in a systemic banking crisis. Since risk premium is based only on the total volume of the assets, not on the risk-taking activities of the bank, healthy institutions provide a sizable subsidy for unhealthy ones. Thus, we are still in favor of existing fixed premium rates, especially during this ongoing crisis. Due to space limitation, more discussion on TDIC is available in other papers by Walker and Hoontrakul (2001).

Conclusion

Transitioning from a dysfunctional to a normal banking system after the Thai 1997 crisis is fundamentally a *dynamic trust building, process-oriented management problem*. It is not a static goal-oriented process with closed-end solution because of multi-dimensions and the dynamic complexity nature of the problem. The critical factor for success is to have adequate understanding and prudent addressing of all the bank stakeholders' interests - foreign and domestic, private and government, lenders and borrowers. It is very important that banks should be restored its normal function as '*bridge of trust*' for fund users and fund providers to nurture a recreation of innovative SMEs entrepreneurs. The objective is to stimulate new value-added private investment for sustainable growth and *wealth creation*.

To mitigate the principle and the agent problem in this process, the process must be dynamically understood, monitored and administrated well. Good theoretical knowledge and practical experience on banking operations in an incomplete and imperfect market are also required. The proposal for a stage-by-stage transition process on Schumpeterian grounds is designed to *facilitate* environment for incentive compatibility among stakeholders in a cooperative competition setting. Government as a principle first endows all agents with *trust capital* in the form of limiting banking competition, partial credit guarantee schemes and demand side intervention. State banks eventually abstain from all credit extension business to reduce dead weight loss and distortion in the market place. '*Narrow state-banks*' are designed to minimize multiple principle problems and to restore funding-related *reputation benefits* as liquidity providers for the government and partial banks' borrowings. In essence, the narrow banks would be restricted to hold on liquid and 'safe assets' with the proceeds of the insured depositors. 'Narrow' state-banks would provide both financial and non-financial services for the SMEs and the community to strengthen their competitiveness. Private banks

would enjoy a clear *commitment* from government of no new entry for the next four years minimum. Foreign-owned bank equity holders would ease their fear of the *winner curse*. All private-owned bank equity holders would gain *temporary oligopolistic rent and policy induced rent* to strengthen their financial position and to rebuild their reputation and information capital. Wealth creation for banks' equity holders and wealth effects on the real sector are anticipated in perceived future profitability. A two-tier private banking system is foreseen in a concentrated, but contestable, banking system. Private foreign-owned banks specialize in corporate and personal lendings; private and semi-private Thai-owned banks would be in relationship-based banking.

A limited credit guarantee scheme for all banks' new SME loan portfolios with limited time at fixed underpriced premium has potential rewards for bank stakeholders in the first year. In subsequent years, the scheme would be offered according to the government policy and risk exposures in tranches with a variety of size, duration and covenant to be auctioned off to all qualified banks. All agents would compete with one and another to build *rents on information capital and reputation capital* over time before further banking liberalization in the fourth year. Agency problems would be alleviated by the reputation building, efficient self-revealing, self-sorting tournaments and third party monitoring. The main focus would be to jump start the economy by fostering the SMEs through the provision of partial loan guarantees with limited time and low premiums among other incentive measures.

REFERENCES

- Allen, F. (1993), "Stock Markets and Resource Allocation," in *Capital Market and Financial Intermediation*, C. Mayer and X. Vives, eds. New York: Cambridge University Press.
- and D. Gale (1994), *Financial Innovation and Risk Sharing*. Cambridge: MIT Press.
- and — (1997), "Financial Markets, Intermediaries and Intertemporal Smoothing," *Journal of Political Economy*, 105, 523-546.
- and — (2000), *Comparing Financial System*. Cambridge: MIT Press.
- Aoki, M. (2000), "Toward a Comparative Institutional Analysis," mimeo, July 30.

Bank of International Settlements (2001), "Consultative Document: Overview of the New Basel Capital Accord : Issued for Comment by 31 May 2001," Basel.

Bernanke, B. and M. Gertler (1990), "Financial Fragility and Economic Performance," *Quarterly Journal of Economics*, 105 (1), 87-114.

Bertrand, J. (1883), "Theorie des Richesses," *Journal des Savant*, 499-508. Published in English in *Cournot Oligopoly: Characterization and Application*, A. Daughety ed. Cambridge: Cambridge Press.

Bossone, B. (2000), "The Role of Trust in Financial Sector Development," World Bank working paper no. 2200.

Boot, W. A. and S. Greenbaum (1993), "Bank Regulation, Reputation and Rents," in *Capital Markets and Financial Intermediation*, C. Mayer and X. Vives, eds. New York: Cambridge University Press.

Burgess, S. and P. Metcafe (1999), "Incentives in Organizations : A Selective Overview of the Literature with Application to the Public Sector," CMPO working paper no. 00/16, University of Bristol, UK.

Caprio, G. et al. (1998), *Preventing Bank Crises: Lessons from Recent Global Bank Failures*. Washington, D.C.: World Bank.

Coase, R. H. (1937), "The Nature of the Firm," *Economica*, 4(November), 386-405.

— (1960), "The Problem of Social Cost," *Journal of Law and Economics*, 3(October), 1-44.

Chaipravat, O. and P. Hoontrakul (2000), "Thai Credit Market Failure : the 1997 Aftermath," *TDRI Quarterly Review*, 15, 4(December), 16-28.

Claessens, S. and D. Klingebiel (1999), "Alternative Frameworks for the Provision of Financial Services - Economic Analysis and Country Experiences," World Bank paper.

Cournot, A. (1838), *Recherches Sur les Principes Mathematiques de la Theories des Richesses*. Published in English as *Mathematical Principles of the Theory of Wealth*, James and Gordon, San Diego, Calif., 1995.

Dekle, R. and K. Kletzer (2001), "Domestic Bank Regulation and Financial Crises : Theory and Empirical Evidence from East Asia," NBER working paper, available at www.nber.org/books/ccprevent/domestic-2-15-01.pdf.

Dewatripont, M. and J. Tirole (1993), *The Prudential Regulation of Banks*. Cambridge: MIT Press.

—, — and I. Jewitt (1999a), "The Economics of Career Concern, Part 1: Comparing Information Structures," *Review of Economic Studies*, 66.

—, —, and — (1999b), "The Economics of Career Concern, Part 2: Application to Missions and Accountability of Government Agencies," *Review of Economic Studies*, 66.

Dixit, A. (1997), "Power of Incentives in Private vs Public Organizations," *American Economic Review*, 87(2), 378-82.

Ferranti, D. et al. (1999), "Resolving Bank Failures in Argentina - Recent Development and Issues," World Bank policy research working paper no. 2295.

Friedman, M. and A. Schwartz (1963), *A Monetary History of the United States, 1867-1960*. Princeton: Princeton University Press.

Freixas, X. and J. C. Rochet (1997), *Micro-economics of Banking*. Cambridge: MIT Press.

Gambetta, D. (1988), "Can We Trust?," in *Trust: Making or Breaking Cooperative Relations*, D. Gambetta, ed. Oxford: Basil Blackwell.

Gallardo, J. (1997), "Leasing to Support Micro and Small Enterprises," World Bank working paper.

Gardener, E. P. M. et al. (1999), "Regional Approaches: The EU," The Impact of the Single Market Program on EU Banking. Institute of European Finance.

Greuning, H., J. Gallardo and B. Randhawa (1998), "A Regional Approaches: The EU," World Bank policy research working paper no. 2061.

Hallberg, K. (1999), "A Market-oriented Strategy for Small and Medium-scale Enterprises," International Finance Corporation discussion paper no. 40.

- Hart (1982), "A Model of Imperfect Competition with Keynesian Features," *Quarterly Journal of Economics*, 97(February), 109-38.
- Herring, R. J. and N. Chatusripitak (2000), "The Case of the Missing Market: The Bond Market and Why It Matters for Financial Development," Wharton and ADBI working paper no 11.
- Hoontrakul, P. (1996), "Should Thailand Have a Bank-based or Stock Market-based Financial System?," *Journal of Business Administration*, 19, 70(Jan.-Mar.), 55-81.
- (1997), "Are Financially Distressed Companies Worth More Dead Than Alive?," *Journal of Business Administration*, 20, 76(Oct.-Dec.).
- (1999), "Globalization and Trilemma," *Review of Pacific Basin Financial Markets and Policies*, 2, 4(December).
- Holmstrom, B. and J. Tirole (1998), "The Theory of the Firm," in *Handbook of Industrial Organization*, R. Schmalensee and R. Willig, eds. Amsterdam: North Holland.
- Jantaraprapavech, S. (2001), "The Bond Market in Thailand," paper presented at the Second Brainstorming Workshop on Developing Corporate Bond Market, Asian Development Bank Institute, Tokyo.
- Jensen, M and W. Meckling (1976), "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, 3(4), 305-360.
- Kane, E. (2001a), "Designing Financial Safety Nets for Countries in Different Circumstances," discussion paper presented at the 8th Asia Pacific Finance Association Conference, Bangkok, Thailand.
- (2001b), "Using Disaster Planning to Optimize Expenditures on Financial Safety Nets," discussion paper presented at the 8th Asia Pacific Finance Association Conference, Bangkok, Thailand.
- Klingebiel, D. (2000), "The Use of Asset Management Companies in the Resolution of Banking Crises Cross-country Experiences," World Bank policy research working paper no. 2284.
- Krugman, P. (1999), *The Return of Depression Economics*. New York: W. W. Norton.
- Lastra, R. M. (1996), *Central Banking and Bank Regulation*. London: London School of Economics.
- Lazear, E and S. Rosen (1981), "Rank-order Tournament as Optimum Labour Contracts," *Journal of Political Economy*, 89(October), 841-64.
- Luan-Martinez, J. (2000), "Management and Resolution of Banking Crises: Lessons from the Republic of Korea and Mexico," World Bank discussion paper no. 413.
- Mayer, C and X. Vives (1993), *Capital Markets and Financial Intermediation*. Cambridge: Cambridge University Press.
- Merton, R. C. (1977), "An Analytic Derivation of the Cost of Deposit Insurance and Loan Guarantees," *Journal of Banking and Finance*, 1(1), 3-11.
- Nalebuff, B. and J. Stiglitz (1983), "Prizes and Incentives: Towards a General Theory of Compensation and Competition," *Bell Journal of Economics*, 14 (1), 21-34
- Peare, P. (1999), "Illiquid Banking vs Narrow Banking," discussion paper presented at the 8th Asia Pacific Finance Association Conference, Bangkok, Thailand.
- Pomerleano and Vojta (2001), "What Do Foreign Banks Do in Emerging Markets? An Institutional Study," World Bank discussion paper.
- Phongpaichit, Pasuk and Chris Banker (2000), *Thailand's Crisis*. Chiang Mai: Silkworm Books.
- Prajuabmoeb, Nukul (1998), "Nukul Commission Report: Facts behind Thailand's Economic Crisis," Thailand, Ministry of Finance, official committee order 376/2540, Dec 16, 1999.
- Rasmusen, E. (1993), *Game and Information*. Oxford: Blackwell Publishers.
- Salanie, B. (2000), *Microeconomics of Market Failure*. Cambridge: MIT Press.
- Schumpeter, J. (1942), *Capitalism, Socialism and Democracy*. New York: Harper and Brothers.

- Shin, H. and R. M. Stulz (1998), "Are Internal Capital Market Efficient?," *Quarterly Journal of Economics*, 113(May), 531-552.
- Stiglitz, J. (2000), "The Contributions of the Economics of Information to Twentieth Century Economics," *Quarterly Journal of Economics*, 115(Nov.), 1441-1478.
- Vives, X. (1998), "Competition and Regulation in European Banking," *Institut d' Analisis Economica* (CSIC, Barcelona), September.
- Walker, D. and P. Hoontrakul (2001), "Transiting from Blanket to Limited Deposit Insurance Guarantee in Asia: Issue for Thailand," discussion paper, the 8th Asia Pacific Finance Association Conference, Bangkok, Thailand.
- Yoshitomi, M. and S. Shirai (2001), "Designing a Financial Market Structure in Post-crisis Asia - How to Develop Corporate Bond Market," Asian Development Bank Institute working paper no. 15. ♦

Table 1: Major Economic Indicators

Items	Unit	1998	1999-P Total	2000-P Total	2001-F Q1	2001-F Q2	2001-F Q3
GDP Growth Rate(1988 prices)	%yoy	-10.8	4.2	4.3	2.5	4.6	0.8
Per capita GDP	Baht	75,660	74,708	78,374	19,608	20,045	19,767
	US\$	1,830	1,974	1,952	453	441	434
GNP Growth Rate(1988 prices)	%yoy	-11.3	4.9	6.1	1.2	4.4	0.4
Consumption (1988 prices)	%yoy	-9.5	3.5	4.8	1.1	3.6	0.1
- Private Sector	%yoy	-11.5	4.0	4.5	0.4	2.8	0.9
- Public Sector	%yoy	3.6	0.9	6.5	5.8	8.3	-3.5
Investment(1988 prices)	%yoy	-45.1	-4.0	5.7	-4.6	1.5	5.0
-Private Sector	%yoy	-53.2	-5.0	14.2	0.0	-3.0	-3.0
-Public Sector	%yoy	-29.4	-2.8	-5.0	-10.5	9.9	14.5
International Trade							
-Merchandise Exports	Bil.US\$	52.9	56.8	67.9	16.0	15.9	17.2
% Change	%yoy	-6.8	7.4	19.6	-1.3	1.0	-4.7
-Merchandise Imports	Bil.US\$	40.6	47.5	62.4	16.0	15.4	16.3
% Change	%yoy	-33.8	16.9	31.3	11.6	4.2	-1.4
-Trade Balance	Bil.US\$	12.2	9.3	5.5	0.1	0.5	0.9
-Current Account	Bil.US\$	14.3	12.5	9.2	1.1	1.7	1.9
as% of GDP	%	12.8	10.2	7.6	3.8	5.9	6.9
Capital Account	Bil.US\$	-10.1	-8.0	-9.6	-0.8	-1.2	-1.5
Balance of Payments	Bil.US\$	1.7	4.6	-2.0	0.3	0.4	0.4
Total External Debt	Bil.US\$	105.1	95.6	80.3	78.7	77.0	75.2
- Public Sector	Bil.US\$	19.9	23.2	21.8	21.7	21.7	21.6
- Private Sector	Bil.US\$	74.0	59.6	46.4	44.5	43.3	42.2
-Monetary Authorities	Bil.US\$	11.2	12.8	12.0	12.4	12.0	11.3
International Reserves	Bil.US\$	29.5	34.8	32.8	33.0	33.5	33.9
Core Inflation Rate	%yoy	7.2	1.8	0.8	0.9	1.1	1.5
Exchange Rate	Baht/us\$	41.4	37.9	40.2	43.3	45.5	45.5
14-day R/P Rate(end of period)	%	12.1	1.9	1.5	1.5	1.5	1.5

Note: Italics are forecasts*including write offs and transfers to AMGBIBF (exchange rate=Baht25.97 per US\$)

by their shares in Thailand 's export markets

Source : SCB Research Institute , Thailand (May 2001)

Table 2 : Assets and Liabilities of Commercial Banks from 1997-2000

Million baht

	June 1997	December 2000
<u>ASSETS</u>		
1. Cash	65,005	64,569.3
2. Due from financial institutions and money market	503,859	1,243,897.6
3. Securities purchased under resale agreements	67,145	156,018.3
4. Investment in securities(net of allowance for securities revaluation)	330,220	696,636.8
5. Credits (net of allowance for possible loan losses)	4,981,191	3,724,827.8
6. Accrued interest receivable	74,072	65,491.8
7. Property foreclosed	17,718	104,464.4
8. Customers' liabilities under acceptances	48,212	10,108.8
9. Premises and equipment	135,948	144,038.0
10. Other assets	83,059	54,771.0
<u>LIABILITIES & EQUITIES</u>		
11. Deposits	3,868,577	4,863,988.7
12. Due to financial institutions and money market	1,187,289	348,014.2
13. Other demand liabilities	19,090	18,417.8
14. Securities sold under resale agreements	18,421	17,289.0
15. Borrowings	111,603	283,380.6
16. Banks' liabilities under acceptances	48,212	10,108.8
17. Other liabilities	141,194	148,429.3
18. Stockholders' equity/ Equity of H/O and other branches of the same legal equity	912,041	575,195.4
Total Assets, Liabilities and Equities	6,306,428	6,264,823.8

Source : Bank of Thailand, Available at www.bot.or.th

Table 3 : Credit Extension Classified by Types of Business in 1997 and 2000

Million baht

Types of businesses	Year 1997	December 2000	% Change
1. Agriculture and forestry	160,716	120,524	-25.01
2. Mining and Quarrying	35,764	21,931	-38.68
3. Manufacturing	1,768,901	1,279,613	-27.66
4. Construction	265,274	160,877	-39.35
5. Commerce	1,411,106	919,222	-34.86
5.1 Wholesale and retail	1,020,406	650,220	-36.28
5.2 Exports	217,718	126,915	-41.71
5.3 Imports	172,982	142,087	-17.86
6. Banking and Financial Businesses	432,722	663,157	53.25
7. Real Estate Businesses	485,761	338,880	-30.24
8. Public Utilities	187,976	207,016	10.13
9. Services	452,161	311,501	-31.11
10. Personal consumption	652,517	511,572	-21.60
10.1 Housing	455,409	361,172	-20.69
10.2 Travelling	587	2,120	261.16
10.3 Others	196,521	148,280	-24.55
Total	5,852,898	4,534,293	-22.53

Source : Bank of Thailand, Available at www.bot.or.th

Table 4 : Non-Performing Loans to Related Parties, In Thai Commercial Bank

At the end of March 2001

Click on a financial institution's name for more detail

Financial Institutions' Name	NPLs		Loans to Related Parties ^{1/}		AMC		% Total Loans ^{3/}	Owner Ship
	Amount	% Total Loans	Amount	% Total Loans ^{2/}	Amount			
PRIVATE BANKS								
BANGKOK BANK	144,903.92	18.55	34,836.63	4.46	0.00	0.00	Private Owner	
BANK OF AYUDHYA	74,447.49	22.56	3,983.66	1.21	0.00	0.00	Private Owner	
THAI FARMERS BANK	65,625.60	13.32	7,157.27	1.45	40,516.00	8.22	Private Owner	
DBS THAI BANGKOK BANK	5,132.79	7.40	347.28	0.50	0.00	0.00	Singaporean	
THE THAI MILITARY BANK	63,187.45	23.33	18,362.87	6.78	3,500.00	1.29	Semi-Gov't	
THE SIAM COMMERCIAL BANK	100,900.24	20.54	27,362.52	5.57	0.00	0.00	Semi-Gov't	
UOB RADHANASIN BANK	289.55	0.58	0.55	0.00	0.00	0.00	Singaporean	
STANDARD CHARTERED NAKORNTHON BANK	1,069.11	1.83	758.38	1.30	0.00	0.00	English	
BANK OF ASIA	25,820.33	23.08	3,437.22	3.07	0.00	0.00	Dutch	
TOTAL PRIVATE BANKS	481,376.48	18.13	96,246.38	3.62	44,016.00	1.66		
STATE-OWNED BANKS								
KRUNG THAI BANK	68,006.81	8.43	11,843.95	1.47	399,932.60	49.57		
BANK THAI	7,263.58	3.22	1,129.24	0.50	0.00	0.00		
SLAM CITY BANK	129,638.18	58.00	14,823.21	6.63	0.00	0.00		
BANGKOK METROPOLITAN BANK	99,915.12	54.27	2,922.07	1.59	0.00	0.00		
TOTAL STATE-OWNED BANKS	304,823.69	21.17	30,718.47	2.13	399,932.60	27.77		
TOTAL THAI COMMERCIAL BANKS^{3/}	786,200.17	19.20	126,964.85	3.10	443,948.60	10.84		

Sources : C.B. 1.1, C.B. 1.2, Wor.Tor. 1.2, F.C. 1.2, F.S. 1.2 and C.F. 1.2

1/ Loans to related parties : The credits / loans which the financial institutions grant to their related persons or enterprises, as determined by the International Accounting Standard 47.

2/ Fine : The amount of money paid by the financial institutions for violation of the prescriptions set forth by the Bank of Thailand under the Commercial Banking Act, or the Act on the Undertaking of Finance Business, Securities Business & Credit Foncier Business

3/ Total Loans are calculated by percentage of NPLs to total loans disclosed by financial institutions

4/ Under process of confirmation

Click on a financial institution's name for more detail

Source : Bank of Thailand, Available at www.bot.or.th

Table 5 : Income and Expense for Thai Commercial Bank as of March 2001

Million baht

Items	Total 1997	Total 2000	% Change
1. Interest income and dividend	678,502	314,279	-53.68
1.1 lendings	630,061	225,359	-64.23
1.2 Due from financial institutions and money market	N/A	50,590	N/A
1.3 securities investment	48,442	38,329	-20.88
2. Interest expenses	482,070	215,411	-55.32
2.1 deposits	377,218	151,450	-59.85
2.2 Due to financial institutions and money market	N/A	33,735	N/A
2.3 borrowings	104,852	30,228	-71.17
3. Net interest income	196,432	98,868	-49.67
4. Provision for possible loan losses	156,301	122,025	-21.93
5. Non-interest income	81,704	70,339	-13.91
5.1 Fees	37,577	36,378	-3.19
5.2 Gain (loss) on foreign exchanges	39,543	11,182	-71.72
5.3 Others	4,585	22,779	396.87
6. Operating expenses	141,239	147,486	4.42
6.1 Salaries and employee benefits	49,567	43,085	-13.08
6.2 Others	91,673	104,401	13.88
7. Profit (loss) before income tax and extraordinary items	-19,404	-100,307	-416.94
8. Income tax	17,818	4,655	-73.87
9. Profit (loss) before extraordinary items	N/A	-104,961	N/A
10. Extraordinary items	N/A	105,200	N/A
11. Net profit (loss)	-37,222	239	100.64

Source : Bank of Thailand, Available at www.bot.or.th

Table 6 : Thai Commercial Banks, 1997-2000

Bank	Controlling interest pre-crisis	Employees 1997	Deposits 1997 (bt bn)	Status , end 2000	Foreign share (%) 1999
Bangkok Bank	Sophonpanich Family	25,958	947		49
Thai Farmers Bank	Lamsani Family	19,158	588		49
Siam Commercial Bank	Crown Property Bureau	12,908	559		49
Bank of Ayudhya	Rattanak Family	11,530	389		40
Krung Thai Bank	Thai government	16,286	580		13
Thai Military Bank	Thai army	8,165	258		
Thai Danu Bank	Tuchinda Family	2,993	90	Acquired by DBS(Singapore)	51
Bank of Asia	Phatrapraisit Family	2,519	80	Acquired by ABN Amro (Netherland)	75
Nakhon Thon Bank	Wang Lee Family	2,162	47	Acquired by Standard Chartered(UK)	75
Bangkok Bank of Commerce	Jalichandra Family	5,391	110*	Closed down.Good assets to Krung Thai	
Siam City Bank	Mahadamrongkun Family	6,260	158	Taken over by BOT to be sold	
Bangkok Metropolitan Bank	Techaphaibun Family	5,916	80	Taken over by BOT to be sold	75
First Bangkok City Bank	Charoen Siriwattanaphakdi	3,765	132	Taken over by BOT.Merged to Krung Thai.	
Laemthong Bank	Chansrichawla Family	1,162	27	Taken over by BOT sold to UOB (Singapore)	75
Union Bank of Bangkok	Chonwichan Family	2,805	48	Taken over by BOT.Merged with 13 finance companies as Bank Thai.To be sold.	

Source: Bank of Thailand : www.bot.or.th

Table 7 : Deposits Classified by Amount, Size and Type

As at December 2000

Deposit accounts	<100,000 baht		100,000-500,000 baht		500,000-1m baht		1-10m baht		>10m baht		Total	
	No. of accounts	Million baht	No. of accounts	Million baht	No. of accounts	Million baht	No. of accounts	Million baht	No. of accounts	Million baht	No. of accounts	Million baht
Demand deposit accounts	1,592,193	9,838	65,371	14,634	13,619	9,458	14,452	37,549	1,233	46,663	1,686,868	118,142
Saving deposit accounts	31,938,645	192,029	1,119,221	226,641	149,416	101,909	127,117	312,733	11,119	521,332	33,345,518	1,354,644
Time deposit accounts	7,743,594	115,783	1,495,874	329,532	362,950	264,811	501,249	1,334,148	41,583	1,366,498	10,145,250	3,410,772
< 3 months	4,247,694	76,383	1,096,274	241,822	273,036	194,847	365,893	936,641	27,170	746,562	6,010,067	2,196,255
3 months or longer	3,495,900	39,400	399,600	87,710	89,914	69,964	135,356	397,507	14,413	619,936	4,135,183	1,214,517
Total	41,274,432	317,650	1,521,146	208,428	525,985	376,178	642,818	1,684,430	53,935	1,934,493	45,177,636	4,883,558

Source : Bank of Thailand, Available at www.bot.or.th

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