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Thailand: Selected Issues

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THAILAND

Selected Issues

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Approved by the Asia and Pacific Department

August 11, 2003

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I. OVERVIEW

1. **Thailand has made significant progress in strengthening the economy since the crisis.** As a final closure on the crisis, Thailand paid off all remaining obligations related to the Fund-supported program in mid-2003, some two years ahead of schedule. Although the progress is encouraging and economic prospects brighter than a few years ago, there is scope to reduce vulnerabilities further and enhance medium-term growth prospects. The papers in this Selected Issues volume examine the key sectors of the economy in this context.

2. **The first paper, *Thailand: An Aggregate Balance-Sheet Analysis*, describes the improvement in Thailand's overall balance sheet since the crisis.** It provides aggregate balance sheets for each of the main sectors in the standard taxonomy (the general government and the Bank of Thailand, non-financial public enterprises, the financial sector, and the non-bank private sector) at end-2002 and compares them to the pre-crisis position: The focus is on highlighting potential vulnerabilities.

3. **The analysis reveals that Thailand has made significant progress in reducing balance-sheet mismatches since the crisis.** Nevertheless, individual sectors still exhibit weaknesses—with high debts in the corporate sector and substantial non-performing loans (NPLs) still on banks' balance sheets—which require close monitoring. In addition to the sector specific conclusions, the paper argues that the government should strive to improve data collection to enable more frequent assessments of on- and off-balance sheet exposures.

4. **The second paper is on *Public Debt and Contingent Liabilities*.** Thailand's fiscal position deteriorated rapidly as a result the 1997 crisis. The still moderately high debt-to-GDP ratio is sometimes singled out by observers as a source of fiscal risks. Consolidation has begun with the current fiscal year. At the same time, however, there has been increasing concern that the government is using state-owned specialized financial institutions (SFIs) outside the budgetary process to pump-prime the economy. Against this background, this paper presents medium-term debt projections and attempts to assess contingent liabilities, especially those from public enterprises.

5. **The paper finds that public debt dynamics are expected to remain manageable in a baseline case and contingent liabilities from public enterprises are not that large.** The debt-to-GDP ratio is expected to decline over the next eight years except for a two-year period where FIDF off-balance sheet liabilities are expected to be realized. Various sensitivity analyses are considered, highlighting in particular that mismanagement of the fiscal devolution process could lead to public debt about 5 percent of GDP above baseline by 2005/06. An analysis of contingent liabilities shows that potential liabilities in SFIs are not that large and have actually fallen somewhat over the last few years, largely on account of improvements in the structure of balance sheets. The potential liability to the government from non-financial public enterprises (NFPEs) is limited by the fact that most of the NFPEs' debt belongs to profitable NFPEs. The sector as a whole is estimated to have positive net worth and is a net contributor to the budget. The most substantial contingent liability is the blanked guarantee on bank deposits and selected bank creditors.

6. **An analysis of *Recent Developments in the Banking Sector, including Specialized Financial Institutions (SFIs)*, is the focus of the third paper.** The paper starts with a description of the structure of the banking system. It then details the state of banks and their remaining balance sheet vulnerabilities. The paper also includes a discussion of the operations of SFIs, and related regulatory issues.

7. **The paper notes that Thailand's banking sector has continued to recover in the current environment of low interest rates and strong growth.** However, progress has been uneven and capital adequacy remains a concern for some banks. Restructured loans are still a risk: their reentry as NPLs remains high and erratic and banks have limited capital cushions against a further deterioration in asset quality. The paper notes that if the recent pickup in lending activities by state-owned financial institutions is inconsistent with prudent risk management practices, it raises concerns about the level playing field and fiscal implications. The paper also documents that banks have become increasingly exposed to interest rate risk.

8. **The fourth paper, *Financial and Corporate Sector Restructuring*, discusses the progress in cleaning up the balance sheets in the financial and corporate sectors.** It presents an overview of developments in non-performing loans and assets, together with the results of panel regressions to identify how NPLs have affected performance of corporates and banks. The paper also documents the progress made by the government's asset management company, the TAMC, and provides a discussion of some strategies to reduce impaired assets further.

9. **The paper emphasizes that, although progress has been made in restructuring the financial and corporate sectors, further advances are needed to lift long-term growth prospects.** Panel regressions show a robust correlation between NPLs and sectoral share prices and credit growth, as well as credit growth in banks. This suggests that reducing the level of distressed assets would improve the prospects for bank intermediation and activity. The paper argues that given the slow progress in private sector restructuring, this may motivate a more active role for the government in reducing distressed assets still in the system.

10. **The final paper looks at *Growth Without Credit in Post-Crisis Thailand*.** A striking feature of the post-crisis Thai economy has been that while the economy has grown a cumulative 20 percent since bottoming out during the crisis, real credit to the private sector has declined by nearly a corresponding amount. This paper puts Thailand's experience in an international perspective and provides evidence on non-bank sources of financing.

11. The main finding is that Thailand's experience is not unique from an international perspective and firms have resorted to a number of non-bank financing sources. A comparison with 13 other recent crisis cases suggests that the boom-bust credit cycle in Thailand, while more pronounced, was not unique, nor the most severe in the sample. In the recovery, firms have relied on internal financing, trade credits, direct finance in the capital markets, and loans from SFIs. Thailand's experience in fact shows that corporate deleveraging need not jeopardize growth prospects.

II. THAILAND: AN AGGREGATE BALANCE-SHEET ANALYSIS¹

A. Introduction

1. **The financial structure of an economy—that is, the composition and size of the assets and liabilities of its main sectors—provide important information about its vulnerability to crisis.** Indeed, Thailand's own experience in 1997 is a vivid example of how a vulnerable balance sheet in one sector (the corporate sector, in this case) can deteriorate dramatically in the event of changing asset prices (real estate prices and, subsequently, the exchange rate) and can spill rapidly into other sectors of the economy (the banking and the public sector) via balance-sheet linkages.

2. **More generally, the analysis of stock variables that defines the balance-sheet approach forms an important complement to the more standard flow analysis of macroeconomic variables, such as current account and fiscal deficits.** It permits a point-in-time assessment of the existing mismatches in a country's main balance sheets: namely, currency, maturity, and capital structure mismatches. These mismatches, in turn, define individual sectors' exposures to liquidity and solvency risks, and more generally, an economy's vulnerability to shocks transmitted through movements in exchange rates, interest rates, and other asset prices. If this vulnerability is perceived to be high, balance-sheet mismatches can in themselves trigger the sharp movements in asset prices that are typically associated with a loss of confidence, thereby generating insolvencies and sowing the seeds for a full-blown crisis with potential spillovers (through balance-sheet linkages) into all sectors of the economy. Indeed, balance-sheet mismatches in one or more sectors have been at play in all major capital account crises of recent years.

3. **At the same time, balance-sheet analyses are subject to limitations.** First, they capture assets and liabilities at a specific point in time, which has only limited value from a forward-looking perspective, particularly in the presence of sizeable flow imbalances (e.g., budget or current account deficits) that generate a rapid increase in liabilities (public or external debt) from one period to the next. Second, data limitations typically pose a constraint on drawing reliable conclusions. Third, even if sufficient data were available to construct aggregate balance sheets at the sectoral levels, these fail to signal potential problems in individual institutions or segments of a sector, which can snowball into a wider problem, just as sectoral difficulties can trigger an economy-wide crisis.

4. **With these caveats in mind, this chapter analyzes the aggregate balance sheets of Thailand's main sectors at end-2002 and compares them with the situation prior to the 1997 crisis.** It applies the framework proposed in Allen et al. (2002). While data limitations preclude an in-depth analysis of each sector's exposure to the various risks, the available information provides nevertheless evidence that Thailand has come a considerable way in

¹ Prepared by Christina Daseking.

reducing balance-sheet mismatches. Although weaknesses remain in terms of individual sectors' risk exposures—with the corporate sector still being highly leveraged and banks burdened by nonperforming loans—the economy's large potential financing gap that existed prior to the crisis as a result of currency and maturity mismatches has disappeared. Adequate monitoring of balance-sheet exposures, nevertheless, remains important to detect potential mismatches early on. This calls for improvements in the collection of data to allow for a more complete analysis of on- and off-balance sheet exposures on a regular basis.

B. The Overall Picture: 2002 Versus 1997

5. **Information on Thailand's aggregate balance sheet matrix—while patchy—suggests a considerable reduction in vulnerabilities since the crisis.** Based on the partial information shown in Table 1, gathered predominantly from public sources, it is possible to derive a number of important conclusions about the evolution of Thailand's aggregate balance-sheet vulnerabilities since June-1997, when the crisis erupted:

- **Thailand's aggregate balance-sheet position at end-2002 marks a sharp turnaround from the fundamental mismatches that defined the dawn of the crisis** (Table 2). In June 1997, Thailand had a potential aggregate financing gap (that is, total maturing foreign-currency liabilities in excess of liquid foreign assets) of about \$12 billion—not including off-balance sheet obligations.² The vulnerabilities were buried in the sectoral balance sheets (banks and non-banks), while the government's (on-balance) reserve position appeared sound. However, the Bank of Thailand's (BOT's) large negative net forward position—i.e., its future obligation to sell foreign against domestic currency which had been built up to stem depreciation pressures—presented an additional drain on the country's foreign assets, raising the potential financing gap to \$41 billion. At end-2002, in contrast, Thailand's liquid foreign assets exceeded its short-term liabilities by an estimated \$22 billion, and the BOT's negative net forward position had virtually disappeared (and has recently turned positive in response to forward interventions aimed at stemming a baht appreciation).
- **The maturity and currency mismatch in commercial banks vis-à-vis nonresidents, which was at the heart of Thailand's 1997 crisis, has practically disappeared.** In June 1997, about one-quarter of commercial banks' liabilities, i.e., some \$49 billion were foreign liabilities, of which \$29 billion fell due in the short term. With liquid foreign assets (cash and deposits at foreign banks) of only \$3 billion, the sector's potential short-term foreign financing gap (assuming no rollover) was enormous. In contrast, at end-

² The calculations of the potential gap assume that (i) in addition to official reserves, only banks' deposits with foreign institutions are liquid assets; and (ii) none of the short-term liabilities are rolled over.

Table II.1. Thailand: Intersectoral Asset and Liability Position, End-December 2002
(In billions of U.S. dollars, with 1 US\$ = 43.3 baht)

Holder of liability (creditor)	General government and BOT	Nonfinancial public enterprises	Financial sector 1/	Non-bank private sector	Rest of the world	Total
Issuer of liability (debtor)						
General government and Bank of Thailand						
Domestic currency			1.6	11.3 2/		12.9
Total other liabilities			21.0	16.3 2/	13.0	50.4
in foreign currency						14.4
in domestic currency						36.0
Short term (original maturity)					0.6	
o/w in foreign currency						
Medium and long term					12.4	
Nonfinancial public enterprises						
Total liabilities	0.7		7.4	3.3	9.4	20.8
in foreign currency					9.4	9.7
in domestic currency					0.0	11.1
Short-term (original maturity)					0.0	0.4
o/w in foreign currency						
Medium and long term					9.4	19.1
Equity (capital)						20.1
Financial sector 1/						
Total liabilities	20.9	3.9		132.4	11.2	168.4
in foreign currency						12.2 3/
in domestic currency						156.2
Deposits and other short-term					4.2	
o/w in foreign currency						
Medium and long term					7.0	
Equity (capital) 5/						27.3
Non-bank private sector						
Total liabilities	0.0	0.0	129.4		25.6	154.9
in foreign currency			8.4		21.4	29.9
in domestic currency					4.1	125.1
Short-term (original maturity)					8.9	
o/w in foreign currency					8.4	
Medium and long term					16.7	
Equity (capital)						
Rest of the world						
Total liabilities	38.9		15.0	4.0 2/		58.0
Currency and short term 4/	38.9		9.4			48.3
Medium and long term	0.0		5.6	4.0		9.7
Equity						2.3

Sources: Bank of Thailand website; Ministry of Finance; and staff estimates.

1/ Includes commercial banks, BIBFs, SFIs, and finance companies.

2/ Residual, including respective assets of non-financial public enterprises, as breakdown is not available.

3/ Includes foreign exchange liabilities of commercial banks, IBF, EXIM bank, IFCT, and Asia Credit Finance Company transactions.

4/ Official reserves (including gold) and total currency and deposits, according to international investment position.

Table 2. External Foreign Currency Financing Gaps, June 1997 and December 2002 (In billions of U.S. dollars)						
	Government sector	Financial sector	Non-bank sector			Country Aggregate
			NFPEs	Private	Total	
Position in December 2002						
Liquid assets 1/	39	9	...	...	...	48
Short-term liabilities	1	4	0	9	9	14
Projected maturing long-term obligations	6 2/	2	1	4	5	12
Net liquid assets (financing gap)	33	3	-1	-12	-14	22
Net liquid assets, incl. BOT's net forward position	32	3	-1	-12	-14	22
Memorandum item: net forward position of BOT 3/	0	...	...	...	...	0
Position in June 1997 4/						
Liquid assets 1/	32	3	...	...	...	36
Short-term liabilities	0	29	...	...	19	48
Net liquid assets (financing gap)	32	-26	...	...	-19	-12
Net liquid assets, incl. BOT's net forward position	4	-26	...	...	-19	-41
Memorandum item: net forward position of BOT 3/	-29	...	...	...	...	-29

Sources: Bank of Thailand website; Ministry of Finance; and staff estimates.

1/ Assuming that, aside from official reserves, only foreign currency and deposits with nonresident banks are liquid

2/ Includes early repayment of the official financing package of \$4.9 billion, of which only \$2 billion was due in 2003.

3/ Obligation to buy (+) or sell (-) foreign currency against Thai baht.

4/ See Allen et al. (2002)

2002, banks' liquid foreign assets exceeded their short-term foreign liabilities (including projected amortization of long-term debt) by \$3 billion.

- The corporate sector—while still exposed to currency risk—is also in much better shape than it was prior to the crisis.** Although the non-bank sector's maturity and currency mismatches with regard to *nonresidents* were not much lower at end-2002 than they were prior to the crisis (with maturing debt having fallen from \$19 to \$14 billion), its exposure to exchange-rate risk has decreased considerably. The reason is that, in 1997, banks had hedged their currency mismatch by onlending domestically in foreign currency, thereby effectively transferring the currency risk to the domestic corporate sector. Commercial banks held foreign-currency claims against the domestic non-bank sector of about \$32 billion (not shown in Table 2), bringing the latter's total foreign-exchange exposure (including external debt) to \$94 billion. The maturing part of these claims added to the non-bank sector's already high short-term liabilities to nonresidents. At end-2002, banks' foreign-currency onlending amounted to an estimated \$8 billion (derived as total foreign-currency loans to non-banks minus loans provided to nonresidents), implying a drop in the non-bank sector's overall foreign-exchange exposure to \$40 billion—only 40 percent of its pre-crisis level, but still equivalent to one-third of GDP.
- The corporate sector's exposure to exchange-rate risk is further mitigated by natural and financial hedges.** The "true" currency mismatch, while difficult to assess, is

smaller than implied by the above calculations, as a potentially sizeable share of foreign-exchange liabilities is owed by export-oriented firms. In addition, about 20 percent of corporates' total foreign-currency debt is reportedly hedged financially with domestic banks as counterparties. This activity partly explains commercial banks' sizeable forward exposure in the foreign-exchange market of about \$10 billion.³ In compliance with prudential regulations, however, banks' overall net foreign-exchange position is considerably smaller—and indeed positive—reflecting their large net asset position of \$11 billion in the spot market.⁴

6. **While these considerations provide comfort about Thailand's present external position, particularly in light of its sizeable current account surpluses, weaknesses remain at the sectoral levels.** Both banks and corporates are exposed to risks as a result of balance-sheet mismatches. The apparent currency mismatch in the corporate sector, which translates into credit risk to banks in the event of a sharp depreciation, is only one example. These and other balance-sheet weaknesses represent possible contingent liabilities to the public sector that could potentially raise the already sizeable public debt burden. Vulnerabilities within the individual sectors are discussed in the subsequent three chapters of this paper—going beyond an examination of aggregate balance sheets. The following sectoral analysis sets the stage for those more in-depth discussions, while at the same time comparing the sectoral exposures at end-2002 with those at the onset of the 1997 crisis.

C. Sectoral Analysis

The Government Sector

7. **The balance sheet of the government sector, while in many respects weaker now than prior to the crisis, is considerably more resilient to currency risks (Table 3).**⁵ On the

³ Banks' negative forward exposure is not included in Table 2, as it is unclear how much of it is to foreign counterparties. If the counterparties were exclusively residents the exposure for the country as a whole would be unaffected (which is implicitly assumed in Table 2).

⁴ Banks' total foreign-exchange position (spot plus forward) is limited to 20 percent of their capital (15 percent for any individual currency). Thus, a large net foreign asset position in the spot market needs to be financially hedged, at least up to this limit, in the forward market.

⁵ The coverage used here for the government sector, which includes the BOT, is unconventional for Thailand. For a detailed discussion of public debt and contingent liabilities using the conventional coverage (i.e., general government, non-financial public enterprises, and FIDF) see Chapter III.

negative side, the liabilities of the government sector have tripled since 1997—a legacy of the crisis, notably the heavy cost of financial sector restructuring—and are now equivalent to 40 percent of GDP. Clearly, a high debt level—besides implying budgetary costs in terms of interest payments—reduces a government’s room for maneuver, and makes it, in general, more susceptible to adverse shifts in market sentiment. In the case of Thailand, however, the perception of sovereign risk is currently low, as reflected in its investment grade ratings and low sovereign spreads. Currency risk, in particular, which was central to the crisis—and marked the weak spot in the government’s balance sheet once the BOT’s forward position was included—was low at end-2002. Indeed, the public sector, as defined here, had a sizeable net foreign asset position, which has risen further over the first half of 2003.

Table 3. Aggregate Balance Sheet of the Government Sector, June 1997 and December 2002 1/ (In billions of U.S. dollars)

	Financial sector	NFPE's	Private non-banks	Rest of the world	Total
Position in December 2002					
Assets	20.9	0.7	0.0	38.9	60.5
o/w in foreign currency	...	...	0.0	38.1	38.1
Liquid	9.4 2/	...	0.0	38.9	48.3
Liabilities (excluding currency)	21.0	...	16.3	13.0	50.4
o/w in foreign currency	...	...	...	...	14.4
Short-term (estimate)	11.6 3/	...	...	5.5	17.1 4/
Net assets	-0.2	0.7	-16.3	25.9	10.1
Net liquid assets	-2.3	...	...	33.4	31.2
Net foreign-currency assets	...	...	...	...	23.6
Including net forward position	...	...	...	...	23.2
Position in June 1997 5/					
Assets	10.3	...	...	32.3	42.6
o/w in foreign currency	0.0	...	...	32.3	32.3
Liquid	9.2	...	...	32.3	41.5
Liabilities (excluding currency)	10.5	...	...	5.7	16.2
o/w in foreign currency	0.0	...	...	5.7	5.7
Short-term	8.7	...	...	0.0	8.7
Net assets	-0.2	...	...	26.6	26.4
Net liquid assets	0.5	...	...	32.3	32.3
Net foreign-currency assets	0.0	...	...	26.6	26.6
Including net forward position	...	...	...	...	-2.0

Sources: Bank of Thailand website, and staff estimates.

1/ Includes general government, Bank of Thailand, and FIDF.

2/ Includes government deposits at banks and other claims of the general government on the financial sector.

3/ Residual, assuming that banks hold all maturing government securities held by residents (see footnote 4).

4/ Includes short-term government securities in domestic currency (remaining maturity), ECPs, financial sector claims on the BOT, and outstanding amount under official financing package, which has subsequently been repaid.

5/ Based on Allen et al. (2002).

8. **The government sector’s balance sheet is currently not an obvious source of vulnerability, though further consolidation would create more room for maneuver.** The public debt ratio is sensitive to various shocks that directly affect revenues and financing needs of the public sector. With lower debt at the outset, the government would have more room for pursuing countercyclical fiscal policies in the event of economic downturns. This is particularly important in the presence of remaining weaknesses in corporates’ and banks’ balance sheets. Finally, risks may also arise from a future buildup of contingent liabilities in the context of increased reliance on quasi-fiscal activities—such as lending by specialized financial institutions (SFIs).

Non-Financial Public Enterprises

9. Based on the partial information available, non-financial public enterprises are currently not displaying major balance-sheet mismatches (Table 4).⁶ NFPEs have liabilities of \$21 billion (some 16 percent of GDP), and more than 80 percent of their debt is government-guaranteed. Thus, NFPEs could potentially present sizeable contingent liabilities to the government.

That said, the sector as a whole has positive net worth, and most NFPEs are profitable, providing net contributions to the budget. Moreover, with a debt-to-equity ratio of about 1, and

	Government sector	Financial sector	Private non-banks	Rest of the world	Total
Financial assets	...	3.9
o/w in foreign currency	...	0.0
Liquid	...	3.9
Liabilities	0.7	7.4	3.3 1/	9.4	20.8
o/w in foreign currency	9.4	9.7
Short-term (estimate) 2/	...	1.7	...	1.1	2.8
Equity					20.1

Sources: Bank of Thailand website, and staff estimates.
1/ Residual.
2/ Remaining maturity basis, in contrast to Table 1, which is on original-maturity basis.

moderate short-term obligations, NFPEs aggregate position appears at present fairly sound and resilient to plausible shocks. Although nearly half of their debt is in foreign currency, most of NFPEs' external obligations are contracted on a long-term basis, and with anticipated net debt repayments of around \$0.7 billion annually, the sector is expected to reduce its foreign exposure over the coming years.

The Financial Sector⁷

10. The aggregate balance sheet of the financial sector does not reveal particular weaknesses (Table 5).⁸ As symptomatic for banks, the aggregate balance sheet shows a considerable potential financing gap, with deposits and other short-term liabilities exceeding liquid assets by a substantial amount. That said, the ratio of liquid-to-total assets of about one-quarter—compared with less than 10 percent prior to the crisis—defines a relatively liquid financial system by international standards. Also, in terms of sectoral exposures, the financial sector's balance sheet at end-2002 shows a fairly even distribution, marked by small net asset positions vis-à-vis the other three sectors (i.e., the government sector, including the BOT, the non-bank sector, and the rest of the world). This is in sharp contrast to the situation at end-1997, when the banking sector had a large net liability position vis-à-vis the rest of the

⁶ See Chapter III for a more in-depth analysis of NFPEs.

⁷ For a more in-depth analysis of financial sector issues, see Chapter IV.

⁸ The financial sector, as defined here, includes commercial banks, specialized financial institutions, and finance companies.

world. Finally, the ratio of capital (excluding loan-loss provisions) to total assets of about 8 percent suggests an, in aggregate, adequately capitalized system—while an almost identical ratio at end-June 1997 signifies the limitations of such a point-in-time assessment.⁹

11. The financial sector is exposed to market risk in the event of rising interest rates. This results from the fact that

most security investments (some 70 percent in commercial banks) are in long-term paper and that loans are typically contracted on fixed rates for the first few years. In contrast, only one-quarter of deposits are time deposits beyond one year, implying a considerable maturity mismatch. Notwithstanding this assessment, the adverse impact of rising interest rates on banks' financial position is mitigated, to some extent, by the use of swaps and the practice of transforming loan contracts from fixed to flexible rates after the first few years.

12. The main weaknesses in banks' balance sheets, however, are not apparent from the aggregate presentation in Table 5. Banks remain highly exposed to credit risk, and the adequacy of their capital position has to be viewed in light of the relatively poor quality of loan portfolios. Nearly 17 percent of commercial banks' loans are nonperforming (more than one-fifth in private banks) and almost one-third of performing loans has been restructured

	Government sector	Non-bank sector		Rest of the world	Total	
		NFPEs	Private			
Position in December 2002 1/						
Assets	22.6	7.4	129.4	136.8	15.0	174.5
Liquid (estimate) 2/	20.3	5.8	7.2	13.0	9.4	42.7
Liabilities	20.9 3/	3.9	132.4	136.3	11.2	168.4
Deposits and other short-term (estimate) 4/	9.4	3.9	128.5	132.4	6.2	148.0
Net assets (including currency)	1.8	3.5	-3.0	0.5	3.8	6.1
Net liquid assets (including currency)	10.9	1.9	-121.3	-119.4	3.2	-105.3
Capital						27.3
Excluding loan loss provisions						13.7
<i>in percent of total assets</i>						7.9
Net open foreign exchange position 5/						1.1
Position in June 1997 6/						
Assets	12.3	...	...	217.5	7.7	237.5
Liquid (estimate) 2/	10.7	...	...	7.8	3.2	21.7
Liabilities	10.3	...	...	149.7	52.2	212.1
Deposits and other short-term (estimate)	9.1	...	...	140.4	30.1	179.6
Net assets (including currency)	2.1	...	...	67.8	-44.5	25.4
Net liquid assets (including currency)	1.6	...	...	-132.6	-26.9	-157.9
Capital						23.2
Excluding loan loss provisions						18.6
<i>in percent of total assets</i>						7.8
Net open foreign exchange position (end-1996)						1.2
Sources: Bank of Thailand website, and staff estimates.						
1/ Includes commercial banks, BIBFs, SFIs, and finance companies.						
2/ Includes cash, balances at BOT, lending under repurchase agreement, deposits at foreign institutions, and securities.						
3/ Total liabilities to the government plus BOT claims on financial institutions.						
4/ Includes demand, saving, and time deposits of the domestic non-government sector, banks total liabilities to the government, and short-term external debt (estimate on remaining maturity basis).						
5/ Reflects a spot position of \$11 billion and a negative forward position of \$10 billion.						
6/ Commercial banks only. See Allen et al. (2002).						

⁹ The derived capital-asset ratio is not directly comparable with the BIS minimum of 8.5 percent, as it does not weigh the assets by risk. The ratio on a risk-weighted basis has been considerably higher than 8.5 percent, as discussed in Chapter IV.

with considerable risk of becoming nonperforming again.¹⁰ Although, the largest private banks have built cushions for shocks, some institutions may be underprovisioned—particularly in light of a possible overvaluation of collateral. Finally, the aggressive lending by state-owned banks in the recent past and the various government-mandated initiatives that are being pursued by SFIs signal a greater exposure to credit risk at these institutions, representing potential future liabilities to the government.

The Non-Bank Sector

13. **The non-bank sector—while considerably less exposed than prior to the crisis—remains nevertheless vulnerable** (Table 6). Foreign-currency debt of Thailand’s corporate

sector (including NFPEs) has fallen from more than \$90 billion prior to the crisis to \$40 billion at end-2002—with \$30 billion owed by private companies. Moreover, as discussed earlier, a sizeable share of the private sector’s short-term external debt obligations is financially hedged—though

	Government sector	Financial sector	NFPEs	Rest of the world	Total private	Total plus NFPEs
Position in December 2002						
Financial assets	27.7 1/	132.4	3.3	4.0 1/	167.4 1/	168.0
o/w in foreign currency	...	...	...	...	...	...
Liquid	27.7 1/	111.2 2/	...	...	138.9 1/	142.8
Liabilities	0.0	129.4	0.0	25.6	154.9	172.4
o/w in foreign currency	0.0	8.4	0.0	21.4	29.9	39.5
Short-term (estimate)	0.0	...	0.0	12.4 3/	...	...
Debt-to-equity ratio for SET-listed companies 4/					1.6	1.8
Position in June 1997, including NFPEs 5/						
Financial assets	10.9	149.7	...	...	...	160.6
o/w in foreign currency	...	...	...	...	...	...
Liquid	10.9	140.4	...	...	...	151.3
Liabilities	0.0	217.5	...	61.8	...	279.3
o/w in foreign currency	0.0	32.1	...	61.8	...	93.9
Short-term (estimate)	0.0	...	...	18.8	...	...
Debt-to-equity ratio for SET-listed companies (end-1996)					...	1.6
Sources: Bank of Thailand website, and staff estimates.						
1/ Derived as residual, inclusive of NFPEs claims on the government and nonresidents, respectively.						
2/ Estimated by applying the share of demand, savings, and time deposits up to one year in total deposits of commercial banks.						
3/ Remaining maturity basis, in contrast to Table 1, which is on original-maturity basis.						
4/ Represents only about one-quarter of companies, in terms of total liabilities.						
5/ See Allen et al. (2002).						

hedging beyond one year is largely absent. Thus, indebted firms are still exposed to currency risks—but aggregate exposure is much lower than in 1997 and is likely to decline further over the coming years in the presence of sizeable current account surpluses. In addition, domestic-currency liabilities of the non-bank sector have also fallen by an equivalent of \$50 billion since June 1997. However, data for listed companies (covering about one-quarter of corporate liabilities) suggest ongoing weaknesses in firms’ capital structure—measured by the aggregate debt-to-equity ratio—at a time when excess capacity is still high.

14. **A reliable assessment of the corporate sector’s balance-sheet vulnerabilities is hampered by data limitations as well as considerable variation across firms.** First, as

¹⁰ Chapter V discusses progress in financial and corporate restructuring and analyzes the economic costs associated with high levels of nonperforming loans.

indicated above, debt-to-equity ratios are only available for a relatively small subset of Thai companies, measured by total liabilities. Second, important information on off-balance sheet positions is not available on a systematic basis. Third, the aggregate positions in Table 6, which are incomplete in themselves (regarding short-term liabilities, for example) consolidate across households and businesses, with earlier analysis using firm-level data for listed companies suggesting considerable variation across firms.¹¹ To the extent that liquidity or solvency problems in specific segments of the non-bank sector cannot be offset by net (liquid) asset positions in others, the aggregate position tends to hide potential risks that could spill over to other parts of the economy.¹²

D. Conclusions

15. **Thailand has come a long way since the crisis in reducing its external vulnerabilities.** The large potential financing gap with the rest of the world, that lay at the root of the 1997 crisis, has turned into a surplus, as large official reserves—uncompromised by forward exposures—exceed the country's short-term financing needs. Similarly, banks' onlending in foreign currency to domestic firms, which transferred the currency risk to the corporate sector but spilled back into the banking sector via large-scale defaults, has shrunk to one-quarter of its pre-crisis level.

16. **Nevertheless, weaknesses in balance sheets remain.** Public debt is much higher now than it was prior to the crisis, reflecting mainly the costs of financial sector restructuring, and the recent recourse to quasi-fiscal activities, if expanded, is creating new potential risks. The financial sector, which is still burdened by non-performing and restructured loans, is exposed, in particular, to credit risk in the event of an economic slowdown as well as market risk arising from higher interest rates. Finally, corporates still have a sizeable level of foreign debt—even though their exposure to currency risk is reduced in the short term by financial hedges—and seemingly high debt-to-equity ratios. However, data limitations restrict an analysis of the capital structure to listed firms, which display considerable variation across companies, revealing the limitations of an aggregate analysis.

¹¹ See International Monetary Fund (2002), and Haksar and Kongsamut (forthcoming).

¹² Indeed, this is the same logic that calls for an analysis of sectoral balance sheets, in the first place.

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III. PUBLIC DEBT AND CONTINGENT LIABILITIES¹

A. Introduction and Conclusions

1. **Public debt is a key indicator for assessing economic vulnerabilities.** Projections of public debt, and the sensitivity of these projections to different assumptions, are key inputs for formulating a prudent and proactive fiscal policy. Contingent liabilities could pose additional fiscal risks that may not be captured in a conventional assessment of debt dynamics. The following, therefore, in subsequent sections looks at both the conventional debt dynamics and contingent liabilities.

2. **Public debt in Thailand is manageable.** The baseline projection shows a declining debt ratio, except for a two-year (2004/05-2005/06) hump related to the expected realization of FIDF off-balance sheet liabilities.² The alternative scenarios considered do not put debt on an explosive path although mismanagement of the ongoing fiscal devolution process could erode the improvements in the debt ratio in the baseline scenario.

3. **The assessment of contingent liabilities focuses on state owned enterprises.** Technically, contingent liabilities are obligations to make future payments if a certain event occurs.³ The likely cost to the government, thus, depends on both the value of the liability and the probability of the contingency occurring. The focus here is largely on assessing and quantifying potential liabilities—distinct from contingent liabilities in that there may not be a contractual obligation—in nonfinancial public enterprises (NFPEs) and specialized financial institutions (SFIs). This is related to, but by no means the same as, assessing the extent of quasi-fiscal activity. Quasi-fiscal activity, for example, could manifest as lower profits in an enterprise rather than higher potential liabilities—implying that quasi-fiscal activity need not imply an increase in potential liabilities.

4. **The main findings regarding potential liabilities are:**

- Potential liabilities in the SFIs are not that large and have actually fallen somewhat over the past few years. This holds, notwithstanding the expansion in lending by SFIs, largely because of improvements in the structure of the SFI balance sheets.

¹ Prepared by Reza Baqir and Steven Barnett.

² The FIDF was established in 1985 during the previous financial crisis to provide public support to the financial system. It is an independent body within the Bank of Thailand (BOT) which maintains separate financial accounts and is overseen jointly by the BOT and the Ministry of Finance.

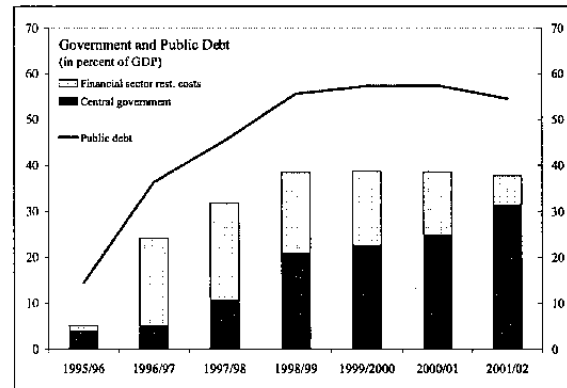
³ International Monetary Fund, Fiscal Affairs Department, *Manual on Fiscal Transparency*, (Washington: International Monetary Fund), 2001 has a more thorough discussion of contingent liabilities.

- NFPE debt, most of which is guaranteed by the government, has been falling over the past few years, but still stands at around 16 percent of GDP. The potential liability is smaller, however, as most of the debt belongs to profitable NFPEs. Moreover, the sector as a whole has positive net worth and is a net contributor to the budget.
- The most substantial contingent liability is the blanket guarantee on deposits and select bank creditors, amounting to around 100 percent of GDP.

B. Government Debt

Background and recent debt developments

5. **After falling for several years, government debt rose rapidly during the crisis but has recently stabilized.**⁴ In the decade preceding the crisis, government debt fell by over 25 percentage points of GDP on account of sizable primary surpluses and high economic growth in excess of real interest rates. After the onset of the crisis, the debt ratio rose rapidly as public funds had to be used for liquidity injections in crumbling financial institutions. Accommodative fiscal policy in the wake of the crisis to support the recovery also contributed to the rising debt ratio but to a lesser extent. In three years the debt ratio had risen more than seven fold. Public debt, a broader aggregate which also includes the debt of non-financial public enterprises (discussed in detail in the next section) also rose from 15 percent before the crisis to about 55 percent by 1998/99.

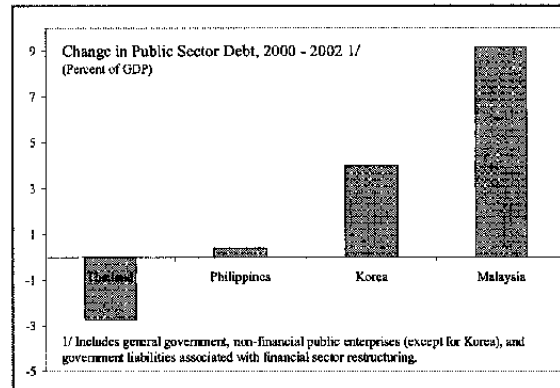


6. **The costs of the crisis were initially borne by the FIDF which is still carrying sizable liabilities.** The FIDF initially provided liquidity support to 56 finance companies but as the crisis spread it provided additional support to a number of weak banks and state-owned financial institutions. In the immediate aftermath of the crisis, the FIDF funded itself primarily in the repurchase market where it effectively recycled liquidity from the stronger financial institutions as depositors moved funds from the collapsed institutions to strong institutions. By the end of 1996/97 FIDF liabilities (as percent of GDP) had risen by slightly less than 20 percentage points. Over time the government has issued government bonds to fiscalize FIDF's losses. The first issue of B 500 billion took place in May 1998 and then in October 2000 the government guaranteed another 112 billion of FIDF bonds. In June 2002

⁴ In this paper government debt is defined as the sum of central government debt and liabilities of the Financial Institutions Development Fund (FIDF). Debt ratio is defined to mean the ratio of debt to nominal GDP.

the government announced a transparent plan to fiscalize the remaining losses of the FIDF—estimated by the government at B 780 billion. Of this amount B 305 billion were fiscalized in the form of government savings bonds to retail investors in September. The issue was over-subscribed and the Bank of Thailand smoothly managed liquidity in the financial system during the transition.

7. **Government and public debt ratios have stabilized in recent years and the change in public debt compares favorably with regional countries.** Government debt stabilized beginning 1999/00 as primary deficits shrank (to less than 2 percent of GDP), the recovery took hold, and short-term interest rates declined. Moreover, the fiscal expansion in 2001/02, which was expected to raise the debt ratio, was considerably less than planned. A comparison of public debt with other regional countries shows Thailand was the only country where public debt as a share of GDP has declined in the last two years.



Debt Projections

8. **The baseline debt projection incorporates an improving central government fiscal position (Table III.1).** Given strong growth in revenues in the current fiscal year and slower expenditure disbursement in the first half of the current fiscal year, consolidation is proceeding faster than planned.⁵ On current trends the budgetary central government balance is expected to improve by 2 percent of GDP over last year, giving a slight surplus for the consolidated central government for the year and for the first time since the crisis.⁶ The medium-term projections are based on modest revenue buoyancy with the revenue-to-GDP expected to rise from the estimated 16.3 percent in the current fiscal year to 16.6 percent by 2007/08. The baseline projections do not assume a reversion in the VAT rate to 10 percent.

⁵ The on-budget consolidation has been offset by increased quasi-fiscal activities, in particular through policy related expansion in the credit extended by government-owned specialized financial institutions. The size of the fiscal stimulus provided by these institutions is difficult to estimate. As an upper-bound, total credit provided by SFIs in 2001/02 increased by 1.8 percent of GDP (measured as increase in credit in the fiscal year divided by fiscal year GDP). Through the first half of the current fiscal year, SFI credit has risen by about B 43 billion, or approximately 0.8 percent of estimated current fiscal year GDP.

⁶ Consolidated central government includes budget operations and the extrabudgetary funds balance. For the purposes of the debt projections, the surpluses of the latter are not included as the surpluses of these funds—primarily the social security fund—are for servicing future obligations.

Table III.1. Medium-Term Fiscal Projections 1/

	2000/01	Prel.	Projections							
		2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
(In percent of fiscal year GDP, unless otherwise stated)										
Total revenue and grants	15.0	15.8	16.3	16.3	16.4	16.4	16.5	16.6	16.5	16.5
Expenditure and net lending	17.9	18.6	17.0	16.7	16.2	16.1	16.0	15.8	15.3	15.1
Non-interest	16.7	17.3	15.6	15.0	14.5	14.4	14.3	14.1	13.8	13.7
Interest	1.3	1.3	1.5	1.7	1.7	1.6	1.8	1.6	1.5	1.4
1. Budgetary central government balance	-2.9	-2.8	-0.8	-0.5	0.2	0.4	0.5	0.8	1.1	1.4
2. Extrabudgetary funds balance 2/	1.3	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
3. Central government balance (1+2)	-1.6	-2.1	0.1	0.5	1.1	1.3	1.4	1.7	2.0	2.3
4. Local government balance	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1
Total revenue and grants	3.1	3.3	3.6	3.7	4.9	5.8	5.8	5.8	5.8	5.8
Total expenditure	2.8	2.9	3.3	3.4	4.7	5.6	5.6	5.7	5.7	5.7
5. General government balance (3+4)	-1.3	-1.7	0.4	0.8	1.3	1.5	1.5	1.8	2.1	2.4
6. Non-financial Public Enterprises Balance	0.3	0.8	0.1	0.4	0.6	0.5	0.5	0.5	0.3	0.3
Retained income	3.3	3.0	2.4	2.7	2.9	2.8	2.8	2.8	2.6	2.6
Capital expenditure	3.0	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
7. FIDF interest	0.9	0.9	1.1	0.7	0.6	0.6	0.6	0.6	0.6	0.6
8. Identified off-budget activities	-0.1	-1.2	0.1	-0.2	0.4	0.4	0.3	0.2	0.2	0.0
9. Comprehensive public sector balance (5+6-7+8)	-2.0	-3.0	-0.5	0.3	1.7	1.7	1.9	2.0	2.0	2.1
Public debt	57.4	54.5	54.1	52.4	55.0	54.1	50.0	45.6	41.6	37.5
Government	38.5	37.8	38.3	38.0	42.0	42.4	39.7	36.6	33.5	30.3
Central government	24.8	31.4	30.4	32.4	30.5	32.2	29.6	26.7	23.7	20.6
FIDF	13.7	6.3	7.9	5.6	11.5	10.2	10.1	9.9	9.8	9.6
NFPE	18.9	16.7	15.8	14.5	13.0	11.7	10.3	9.0	8.1	7.2
Memorandum items:										
Fiscal year GDP (billions baht)	5,090	5,329	5,692	6,023	6,359	6,768	7,254	7,801	8,390	9,024
Nominal GDP growth (percent)	5.0	4.7	6.8	5.8	5.6	6.4	7.2	7.5	7.5	7.5
Assumed average interest rate (percent)	...	...	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1
Inflation (GDP deflator, percent)	2.7	0.4	1.3	0.8	0.7	1.4	1.9	2.0	2.0	2.0
Projected FIDF principal costs	...	...	0.0	1.4	6.3	3.4	0.6	0.6	0.6	0.6
New issuance of FIDF3 bonds	...	5.7	0.0	3.3	0.0	4.1	0.0	0.0	0.0	0.0

Source: IMF staff estimates based on authorities' data

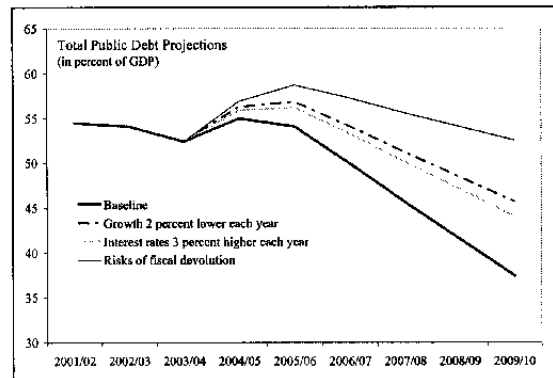
1/ On a cash and fiscal year basis. Fiscal year ends on September 30. Differs from GFS in the treatment of financial sector restructuring in that government principal costs are excluded from the fiscal balance measures.

2/ Excluded from debt projections.

Wage expenditure is expected to grow at 5 percent annually and the other categories of primary expenditure are assumed to grow in line with nominal GDP. The projections also include preliminary estimates for the direct government costs in the recently announced government initiative for housing for the poor.⁷

9. **The projected debt trajectory is downward sloping except for two years of maturing FIDF off-balance sheet liabilities.** The bulk of these obligations under yield maintenance and gain/loss sharing and liquidity support to financial institutions are to fall due in 2004/05–2005/06 for a total amount of some B 550 billion. A recognition of these in the FIDF balance sheet accounts for the “hump”

in the debt trajectory. In addition, the projections also build in remaining issues of government bonds for fiscalization of the remaining liabilities of FIDF (assumed at B 200 billion in 2003/04 and B 275 billion in 2005/06). These only change the composition of government debt between central government and FIDF and do not affect the level of government debt. The expected increase in the debt-ratio notwithstanding the baseline



projection is for a manageable path of debt. Government debt is expected to rise only slightly above 40 percent of GDP at its peak, and public debt is expected to remain below 55 percent.

10. **The main risks to the debt trajectory include mismanagement of the ongoing fiscal devolution process and a sustained low growth shock.** The decentralization law governing the ongoing devolution process calls for local revenues to rise to 35 percent of total revenues by 2005/06.⁸ At the same time, the total transfer of VAT revenues to local governments cannot exceed 30 percent of gross VAT collections.⁹ Given the weak

⁷ Initial estimates of the government subsidy for the construction of 600,000 low-cost units are about 55 billion baht (or roughly one percent of GDP) which are uniformly distributed over 2004/05–2007/08. The total cost to the National Housing Authority (NHA) for building these units is estimated at about 5 percent of GDP and contingent liabilities could arise if NHA cannot sell these units, or borrowers default.

⁸ The revenue ratio is calculated as total local government revenues (inclusive of transfers from the central government) divided by central government revenues (net of VAT transfers to local governments mandated under the Decentralization Act).

⁹ VAT revenues which are passed down to local governments consist of three parts: 10 percent of total VAT collections as the sharing part of local government; 5 percent of VAT from provinces (other than Bangkok) to Provincial Administrative Organizations; and additional VAT transfers under the Decentralization Act. The 30 percent constraint is expected to be reached in the current fiscal year.

administrative capacity to raise local taxes, this requires substantially increased intergovernmental transfers from the central government, to the tune of 3.7 percent of GDP in 2005/06 (from an estimated 1.4 percent of GDP in 2000/01). If these transfers are not offset by reduced central government expenditure, the debt ratio is expected to rise to about 60 percent by 2005/06 before beginning to decline. The growth shock assumed in the sensitivity analysis is 2 percent lower growth each year. Given the proximity to the assumed real interest rate of 4.2 percent this delays the consolidation in the debt position but does not seriously threaten it. The other shocks also appear to be likely manageable.

C. Contingent Liabilities

State Financial Institutions

11. **Potential government liabilities from the SFIs are estimated by calculating the cost of liquidating them.** In particular, the five largest SFIs are examined (BAAC, EXIM, GHB, GSB, and SME), with the IFCT excluded because the government is not the majority owner.¹⁰ The premise is that the potential liability is tied to the cost of settling with all of the SFI's depositors and creditors. The cost to the government would be the additional funds needed to do this after all the capital and proceeds from asset sales were exhausted; the value of asset sales is approximated by using different assumptions on loan recovery rates.¹¹

12. **Even under highly conservative assumptions, the potential liability posed by SFIs is quite small.** Specifically, as of March 2003, it stood at around 3½ percent of GDP (text table). This figure is based on a loan recovery rate of 50 percent, which in many respects is quite low under normal circumstances. It is equivalent, for example, to assuming that ½ of the loan book becomes NPLs, and that the recovery rate is zero. Moreover, this figure includes loans to NFPEs of around 3 percent of GDP, which should be netted out if the NFPE debt is incorporated into the analysis. As an upper-bound, assuming a zero recovery rate on all loans yields a potential liability of 13½ percent of GDP.

¹⁰ These are: the Government Savings Bank (GSB), Bank for Agriculture and Agricultural Cooperatives (BAAC), Government Housing Bank (GHB), and the privately-owned Industrial Finance Corporation of Thailand (IFCT)), which account for 95 percent of SFIs assets. The EXIM (Export-Import Bank of Thailand) and the SME Bank specialize in lending to small and medium-sized enterprises and trade financing.

¹¹ More specifically, the liquidation cost is calculated by first looking at the total liabilities on the balance sheet, less capital accounts and deposits from government. The potential liability is calculated by then subtracting the value of assets, which are split into those that would be recovered fully (such as claims on the BOT, other financial institutions, or the government) and those where losses could occur, basically loans (but technically defined in what follows to include claims on the private sector and NFPEs, and other assets).

SFI Potential Liabilities 1/										
	Stock			Increase		Stock			Increase	
	Dec-01	Dec-02	Mar-03	2001	2002	Dec-01	Dec-02	Mar-03	2001	2002
	(Baht billions)					(Percent of GDP)				
I. Zero recovery	709	746	748	32	37	13.8	13.7	13.5	0.6	0.7
II. 50 percent recovery	212	201	195	-6	-11	4.1	3.7	3.5	-0.1	-0.2
GSB	79	85	85	8	6	1.5	1.6	1.5	0.2	0.1
BAAC	34	9	6	-7	-25	0.7	0.2	0.1	-0.1	-0.5
GHB	88	95	90	-2	7	1.7	1.8	1.6	0.0	0.1
EXIM	13	10	12	-5	-3	0.2	0.2	0.2	-0.1	0.0
SME	-2	1	2	0	3	0.0	0.0	0.0	0.0	0.1
III. Variable recovery 2/	45	27	22	-12	-17	0.9	0.5	0.4	-0.2	-0.3
Sources: BOT; and staff calculations										
1/ See text for description of methodology.										
2/ Assumes 50 percent of loans go bad, with a recovery rate of 60 percent for mortgages and 30 percent for all others.										

13. **Under more reasonable assumptions about recovery rates, the SFIs pose virtually no potential liability.** The assumption here is that 50 percent of the loan book goes bad, but that the recovery rate depends on the type of loan. In particular, for mortgage loans the recovery rate is assumed to be 60 percent, given the collateral backing, and for other loans just 30 percent. These are still fairly severe assumptions about loss rates. Nonetheless, the potential liability under this scenario is less than ½ percent of GDP.

14. **The potential liability in SFIs has actually fallen over the last two years, due in part to increases in their capital and deposits from government.** This holds for the two scenarios where there is some recovery rate on outstanding loans. The decline is small, around ¼ percent of GDP in 2002 and somewhat less in 2001, depending on the assumptions. Nonetheless, this stands in sharp contrast to the growth in credit (see Chapter IV) in SFIs and the government's increased use of SFIs to carry out policy. The decline, for example, in the potential liabilities in 2002 is related primarily to changes in the composition of liabilities, and in particular increased capital accounts in some SFIs.¹²

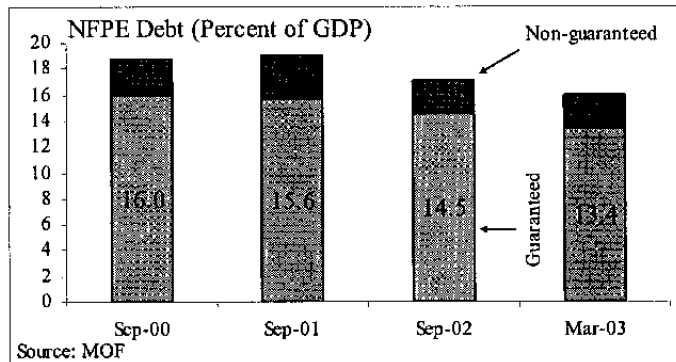
15. **The change in potential liabilities may not be a good proxy for measuring the extent of quasi-fiscal activity.** A loan, for example, under a government quasi-fiscal program would have the same impact on measured potential liabilities as a regular loan by the SFIs. Thus a switch in the composition of the loan book, but not the total amount of loans, would leave potential liabilities unchanged even though there was an increase in quasi-

¹² In 2002, the increase in balance sheet liabilities is B 103 billion, of which B 33 billion is capital and B 26 billion government deposits, implying an increase of B 43 billion in liabilities that would need to be settled in case of liquidation. However, assets that are fully recoverable increased by B 7 billion, implying (with rounding) the increase in potential liabilities of B 37 billion under the zero recovery scenario. Adding the increase in loans of B 96 billion, which at a 50 percent recovery rate implies a value of B 48 billion, yields the decline of B 11 billion in potential liabilities.

fiscal activity. In addition, as noted above, quasi-fiscal activity financed for example through retained earnings would actually show up as decrease in potential liabilities.

Nonfinancial Public Enterprises

16. **It is difficult to assess the implications of NFPE debt on debt sustainability or government net worth.** As providers (usually) of market services, NFPEs perform a fundamentally different role than government. This distinction depends in part on the degree that NFPEs are driven by market considerations as opposed to government policy objectives. Moreover, debt is just one component of the balance sheet, and is unlikely to reflect the value of the government's ownership. Finally, privatization can complicate the analysis to the extent that it could lead to a sharp fall in NFPE debt, as well as possibly government debt depending on how the proceeds are used.



17. **The NFPE sector in Thailand includes firms that differ dramatically across many dimensions.** A sample of the larger NFPEs, out of 51 that the MOF publishes data on, is in Table III.2. The firms range from large and profitable enterprises engaging primarily in commercial activities, such as PTT (a petroleum company) and Thai Airways (the national airline), to NFPEs that have a stronger policy bent to them, such as the NHA. The NFPEs also differ in terms of employees, with the sector as a whole employing around 230,000 people, which is less than one percent of the labor force (and slightly more than 1 percent of non-agricultural employment). NFPEs also come under different laws, as some are corporatized, traded on the SET, and have some private ownership, whereas others are completely government owned and covered by special legislation.

18. **The NFPE sector as a whole has substantial positive net worth, is generally profitable, and is a net contributor to the budget.** The net worth of the sector at end 2001/02, using total capital as a proxy (that is assets less liabilities), stood at B 843 billion or 16 percent of GDP. A more accurate measure, however, would make adjustment for the market value of the equity as well as allowances for the equity held by private investors. The sector has also been profitable in 5 of the last 6 years, with profits in 2001/02 of about 2 percent of GDP. NFPEs have also been net contributors to the budget in each of the past 6 years (defined as remittances to the budget less subsidies), including B 26 billion (½ percent of GDP) in 2001/02.

19. **NFPE debt has been falling over the past few years, while the composition has been broadly unchanged.** It declined from a peak of 19 percent of GDP at end-1999/2000,

Table III.2. Summary Information on NFPEs, 1997-2002
(Baht billions)

Enterprise	2002				Debt (as of March 2003)			Profits					
	Assets	Liabilities	Capital	Staff (1000s)	Total	Guaranteed	Non- guaranteed	2002	2001	2000	1999	1998	1997
The Electricity Generating Authority of Thailand	382.1	236.0	0.1	28.0	169.9	155.6	14.3	27.35	16.22	20.18	(24.26)	20.31	12.83
PTT Public Co.,Ltd.	234.5	153.3	0.1	4.3	98.4	83.9	14.5	24.51	18.66	12.70	5.64	11.74	2.21
Expressway and Rapid Transit Authority of Thailand	156.9	121.2	0.0	3.9	93.9	93.9	0.0	0.83	0.21	(0.65)	(4.16)	(0.07)	0.44
Mass Rapid Transit Authority of Thailand	4.8	0.3	0.0	1.1	93.3	93.3	0.0	0.66	0.54	0.45	0.47	0.60	1.10
Thai Airway International Public Co.,Ltd.	178.2	150.0	0.0	25.5	63.5	5.2	58.3	10.18	1.93	4.72	4.71	3.70	2.76
The Provincial Electricity Authority	175.5	115.0	0.1	28.0	60.0	55.8	4.3	5.49	5.72	6.70	(7.38)	10.47	9.07
The State Railway of Thailand	70.3	48.9	0.0	16.5	47.0	47.0	0.0	(4.24)	(4.83)	(4.69)	(7.06)	(3.06)	(2.41)
Telephone Organization of Thailand	284.1	90.1	0.2	22.0	25.3	25.3	0.0	21.48	13.23	4.03	1.94	13.63	23.78
The Metropolitan Waterworks Authority	50.8	28.9	0.0	5.1	24.4	24.4	0.0	3.67	2.66	2.59	(0.62)	1.20	1.58
The Metropolitan Electricity Authority	94.3	61.7	0.0	10.4	19.4	16.9	2.5	4.68	4.77	2.16	(0.94)	2.73	4.14
National Housing Authority	36.3	32.5	0.0	1.9	21.0	15.7	5.3	(0.98)	(0.88)	(0.68)	(0.12)	(0.08)	0.15
The Bangchak Petroleum Public Co.,Ltd.	28.9	24.3	0.0	0.8	18.1	6.6	11.5	0.53	(2.99)	(1.56)	(1.78)	0.06	(3.78)
The Bangkok Mass Transit Authority	6.5	27.0	0.0	19.8	15.7	15.7	0.0	(3.27)	(3.45)	(3.13)	(2.69)	(2.73)	(2.47)
Rubber Estate Organization	0.6	0.3	0.0	0.5	10.6	10.6	0.0	0.05	0.08	(0.02)	(0.02)	(0.04)	(0.06)
The Provincial Waterworks Authority	41.1	15.7	0.0	6.0	11.9	9.4	2.5	0.28	0.05	(0.49)	(0.68)	(0.29)	0.08
The Communications Authority of Thailand	95.5	10.7	0.1	20.6	2.0	0.0	2.0	5.69	7.15	5.69	3.71	7.37	9.24
Metropolitan Rapid Transit Authority	99.9	93.9	0.0	0.2	0.0	0.0	0.0	2.35	1.80	(1.88)	(5.91)	0.07	0.08
The Airport Authority of Thailand	41.1	11.5	0.0	2.8	0.0	0.0	0.0	1.69	7.44	6.87	4.90	5.09	4.32
New Bangkok International Airport Co.,Ltd.	23.5	9.2	0.0	0.2	13.4	13.4	0.0	(0.37)	(0.06)	(0.15)	(0.09)	0.23	(0.01)
The Industrial Estate Authority of Thailand	12.8	7.3	0.0	0.6	3.6	3.6	0.0	1.00	0.54	0.29	(1.02)	0.58	0.53
Port Authority of Thailand	24.8	6.0	0.0	4.2	3.6	3.6	0.0	1.71	1.43	0.98	(0.08)	1.68	2.28
Other	82.6	38.2	0.0	27.0	25.7	1.6	24.0	6.24	6.76	6.70	6.26	5.75	7.24
Total	2125.1	1281.9	0.8	229.3	820.6	681.4	139.2	109.53	76.98	60.80	(29.18)	78.93	73.10
The National Village and Urban Community Fund	...	...	...	...	60.3	60.3	0.0	...	...	...	...	...	...
Total + National Village and Urban Community Fund	...	...	...	...	880.9	741.7	139.2	...	...	...	...	...	...

Sources: MOF; and staff calculations.

to 16 percent of GDP as of March 2003; indeed, there was even a nominal decline over this period, from B 971 billion to B 881 billion (see text chart).¹³ The majority of NFPE debt is guaranteed by the government, and the share has been roughly constant at around 85 percent. Around half of the debt is in foreign currency, a ratio that has also been fairly constant over this period. As of March 2003, total foreign currency debt was around US\$10 billion.¹⁴

20. The potential burden to the government is probably substantially lower than the stock of NFPE debt. The narrowly interpreted contingent liability would be 13.4 percent of GDP, or the portion of government guaranteed debt—more broadly, the total NFPE debt of 16 percent of GDP could be viewed as the potential liability. However, for the reasons cited above, the NFPE sector in balance sheet terms would actually be a net asset to the government and not a liability. Nonetheless, there could be some firms that represent potential liabilities to the government, and particularly those firms that regularly make losses.

21. The debt of loss-making firms, however, is fairly small. It is around 4 percent of GDP, and amounts to roughly a ¼ of outstanding NFPE debt. A firm is defined as loss-making if it made losses in 2 of the last 6 fiscal years (1997/98-2001/02). Nine of the 21 larger NFPEs meet this criterion. The largest debtor of these, the Expressway and Rapid Transit Authority of Thailand (11 percent of NFPE debt) actually made a profit the last two years. The next largest is the State Railway of Thailand (6 percent of NFPE debt), who regularly makes losses but has recently come under government pressure to improve performance. Finally, the NHA, which is one of the bodies that will help implement the government's housing initiatives, also typically makes losses but is fairly small in terms of debt (3 percent of NFPE debt).

Other Contingent Liabilities

22. By far the largest contingent liability is the blanket guarantee of depositors and creditors of financial institutions. As of end-2002, the guarantee covered deposits and credits slightly in excess of 100 percent of GDP. Specifically, deposits worth B 5,343 billion (98 percent of GDP) and other credits to financial institutions of B 193 billion (4 percent of GDP). The blanket guarantee was issued in 1997 to boost confidence in the financial system,

¹³ The MOF debt data only covers slightly more than ½ of the NFPEs (information on the others is not readily available), but the excluded firms are unlikely to have substantial debt. For example, based on 2001/02 balance sheet data, the firms included in the MOF debt data account for more than 97 percent of total liabilities.

¹⁴ The MOF debt data includes the National Village Fund in the NFPE sector, but this debt (just over 1 percent of GDP) is excluded from the subsequent analysis. The National Village Fund is an intermediary that helps implement the government's Village Fund policy, and as such is not really a NFPE. Moreover, the activities of the Village Fund are incorporated into the authorities GFS data as an extrabudgetary fund.

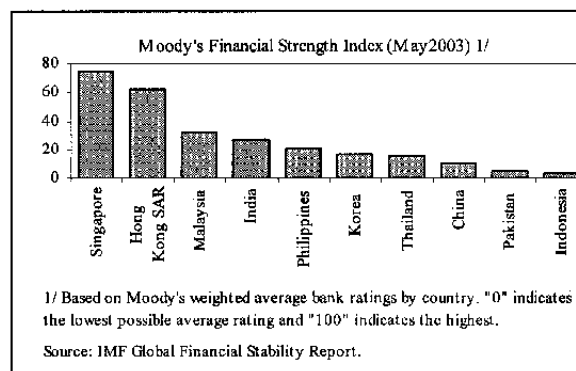
and covers depositors and most creditors of banks, finance companies, and credit fonciers; the guarantor is technically the FIDF. Although the contingent liability is potentially massive, the likelihood that the guarantee would be called in total is remote. Ultimately, the potential cost to the government depends on the health of the financial sector (see Chapter IV).

23. **The government ownership in financial enterprises could in principle also generate contingent liabilities, but most of these are already addressed above.** The blanket guarantee of deposits and creditors would cover the potential liability in government owned commercial banks, the SFI sector is addressed above, and most other financial institutions (asset management companies in particular) would be directly or indirectly included in the FIDF numbers. However, to the extent that government owned financial or nonfinancial institutions have off-balance sheets items, such as guarantees, then there could be additional potential government liabilities.

IV. RECENT DEVELOPMENTS IN THE BANKING SECTOR¹

A. Overview

1. **Thai banks' financial positions have improved but remain weak.** Banks posted profits in 2002 for the first time since the crisis and continued to strengthen their balance sheets. However, progress has been uneven and capital adequacy remains a concern for some banks, since some have delayed the full realization of losses and the necessary increase of capital. In addition to the risks from the poor quality of loans (about one third of loans have been restructured), banks are also exposed to interest rate risk given the rising share of securities investments in their portfolio. The recent pickup in lending activities has been mainly driven by state-owned financial institutions, including Specialized Financial Institutions (SFIs), raising concerns about the fairness of competition and prudence in lending practices. Despite those risks rating agencies share a positive outlook for Thai banks and have upgraded some banks to low investment grades from speculative grades. Nevertheless, Moody's Financial Strength Index remains low but comparable to Korea and the Philippines.



B. Banking System Structure

2. **Recapitalization, consolidation, and new ownership have shaped the current structure of the Thai banking system.** At present, 13 commercial banks, compared to 15 banks pre-crisis, and 18 foreign branches² operate in Thailand (Table 1) following the merger of two state-owned banks and the opening of one new bank (established by a merger of five finance companies and a credit foncier) in 2002. Three banks are classified as state-owned, but government ownership has fallen to 49 percent in one of them after a public offering in September 2002.³ During and after the crisis foreign banks acquired majority ownership in four small banks, accounting for 7 percent of assets.

¹ Prepared by Andrea Schaechter.

² There is a single branch limit for foreign branches.

³ The Ministry of Finance also has a 49.8 percent stake in Thai Military Bank with the Thai military as the other big shareholder. Nevertheless, this bank is classified by the BOT as a private bank, a classification that is followed in this paper.

3. **The degree of concentration in the Thai banking sector is moderate.** The four largest banks (three privately owned) account for about half of banking sector assets and deposits and somewhat less of loans.⁴ The share of state-owned banks is around one third and, in addition, SFIs conduct about 18 percent of lending operations. Activities of non-bank financial institutions, namely finance and securities companies, credit fonciers and International Banking Facilities (IBFs) (or “offshore banking activities”) have continuously fallen since the crisis. Loans of B 418 billion compare with B 2,592 billion pre-crisis (Table 1).

Table 1. Thailand: Banking System Structure, 1997–2002

	Jun-97		Dec-98		Dec-00		Dec-02					
	Number	Loans (B billions)	Assets (B billions)	Number	Loans (B billions)	Assets (B billions)	Number	Loans (B billions)	Assets (B billions)			
Commercial banks	15	4,399	5,344	14	4,622	5,588	13	3,603	5,497	13	4,131	5,770
Foreign branches	19	705	962	21	695	894	21	511	767	18	449	686
Specialized Financial Institutions	7	667	930	7	821	1,266	8	883	1,411	9	1,070	1,629
Finance and Securities Companies 2/ 3/	91	1,340	1,639	36 5/	448	502	21	134	253	19	170	254
Credit Foncier Companies 2/	12	6	8	12	6	7	10	3	5	6	5	6
International banking facilities (IBFs) 4/	45	1,247	1,273	46	912	915	41	431	401	31	243	216
<i>Memorandum item:</i>												
Nominal GDP (In B billions)			4,733			4,627			4,917			5,433

Sources: Bank of Thailand, V. Santiprabhob (2002).

1/ Classified by 50 percent ownership or more.

2/ The main differences between these institutions and commercial banks are that these companies obtain their funding by issuing promissory notes, and they cannot conduct trade financing nor foreign exchange services.

3/ Includes one superfinance company which is allowed to accept fixed and savings deposits and may provide foreign exchange related services.

4/ IBFs conduct operations in foreign currency with resident and non-resident customers. All domestic banks and foreign branches, as well as a number of stand-alone branches of foreign banks have been licensed to operate IBFs.

5/ Operations of 56 finance companies were already suspended with liquidation beginning in early 1999.

4. **A plan to shape the future structure of Thailand’s financial landscape is currently being developed by the government and BOT.** The Thai banking system might be opened further to foreign participation by increasing foreign ownership limits to 49 percent from currently 25 percent⁵ and relax the single branch limit for foreign branches operating in Thailand. The concept of universal banking could be institutionalized and the consolidation of finance and securities companies, and credit fonciers fostered.

⁴ The Herfindahl-Hirschmann Index (HHI), a measure for market concentration, which is calculated as the sum of squares of each bank’s market shares, is 1.3 for the locally incorporated banks. An HHI of less than 1 indicates a market with no concentration, between 1 and 1.8 moderately concentration, and above 1.8 high concentration.

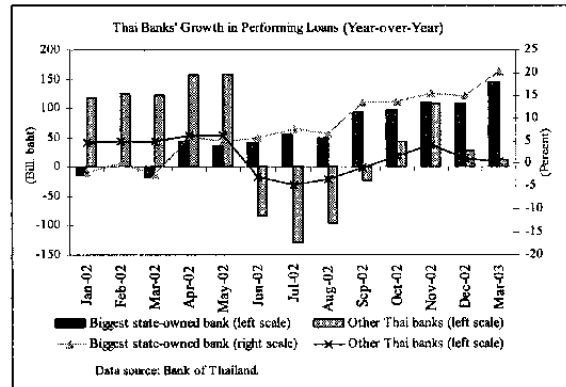
⁵ The current majority foreign ownership of four banks is a result of Emergency Decrees and limited to a 10-year period.

C. Commercial Banks⁶

Credit growth

5. **The gradual pickup in lending activity, which bottomed out in 2001, has been carried mainly by state-owned banks and SFIs.** By expanding its performing loans by 15 percent in 2002, the biggest state-owned bank accounted for nearly 80 percent of the total credit growth of 4 percent. In the first quarter of 2003, its loan expansion has accelerated further to 20 percent or 92 percent of total lending growth. Private banks have seen less appetite for business loans since corporates are still in the process of deleveraging, rely to a large extent on retained earnings as a source of finance, and some high-quality borrowers have turned to the capital market to raise funds (B 180 billion new private securities were issued in 2002 equivalent to 4 percent of bank loans).⁷ Banks also view remaining bottlenecks in the legal and institutional framework as impediments to faster expansion of credit. The reopening of the two credit bureaus should help banks to assess credit risk.

6. **Consumer credit, in particular mortgage loans, enjoyed the strongest increase, but its share in total loans (excluding interbank loans) remains low at 14.5 percent at end-March 2003.** Housing loans from financial institutions have increased by 12.4 percent over the past year; other consumer loans by nearly 17.9 percent. Anecdotal evidence indicates that most loans are to home owners who occupy their units and are not used for speculative purposes.



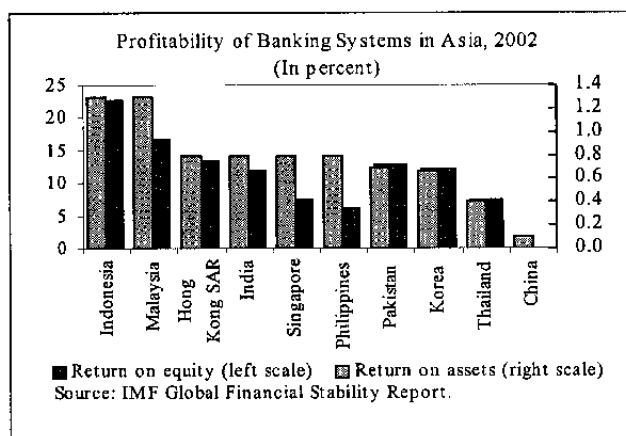
⁶ The following sections deal with locally incorporated banks only.

⁷ For more details on credit and real growth see Chapter VI.

Profitability

7. **The banking sector posted profits in 2002 for the first time since the crisis due mostly to wider net interest rate margins, lower operating expenses and provisioning costs, and higher non-interest**

income (Table 2). When compared to other countries in the region, Thai banks' profitability is still low. Private banks' profitability displayed strong variations. One large bank registered losses as a result of stepped up provisioning to address risks from its loan portfolio, and three of the seven medium and small-sized private banks also still made losses. State-owned banks' profitability benefited from the transfer of NPLs to the Thai Asset



Management Corporation (TAMC). In 2002, they outperformed private banks with an average ROA of 0.7 percent compared to 0.004 percent for private banks. They operated with lower interest margins, but, in addition to lower provisioning costs, also had significantly lower operating costs, despite higher personnel costs, than private banks. This competitive advantage, however, might be short-lived if state-owned banks need to make additional investments by upgrading their technology, temporarily increasing their costs.

Assets quality and capital adequacy

8. **Levels of NPLs are still high but most banks have raised provisioning ratios significantly** (Table 2). As a consequence of the transfer of NPLs to the TAMC, state-owned banks' NPLs have dropped to 8.3 percent of total loans, while NPLs in private banks continue to be much higher at

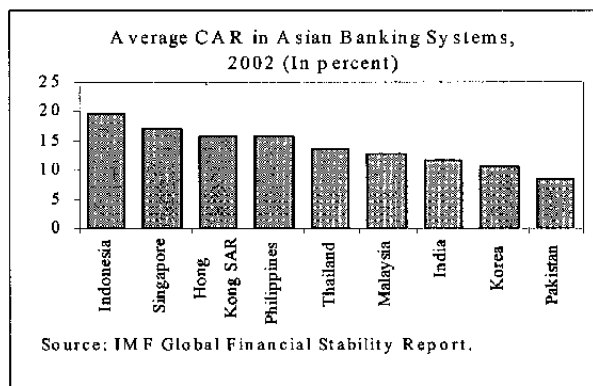
21.0 percent (23.8 percent if NPLs from banks' Asset Management Companies are included). At end-March 2003, banks covered on average 63 percent of their NPLs through provisions, which implies recovery values that are similar to those seen in practice. Nevertheless, some banks may be under provisioned and could face substantial additional provisioning needs, unless real estate prices continue to rise and raise the chances for higher recovery values.

	Dec-98	Dec-99	Dec-00	Dec-01	Dec-02	Mar-03
Regulatory capital to risk-weighted assets	10.4	12.0	11.3	13.3	12.9	12.5
NPLs to gross loans 2/	48.2	42.4	19.3	11.5	16.5	16.9
Private banks	40.5	30.6	18.0	14.4	20.6	21.0
State-owned banks	62.4	62.8	21.6	5.6	8.3	8.3
Loan loss provisions to NPLs	27.7	37.5	44.1	47.6	64.9	62.7
NPLs net of provisions to capital	370.8	252.0	109.9	53.0	54.8	60.9
ROAA (after tax)	(6.1)	(6.2)	(2.2)	(0.2)	0.2	0.9
ROEA (after tax)	(92.6)	(91.9)	(45.7)	(4.9)	3.9	16.8
Interest margin to total assets	0.5	0.6	1.4	1.7	1.8	2.0
Noninterest income to total assets	0.9	0.8	0.9	0.9	1.1	1.1
Operating costs to total assets	2.7	2.5	2.3	2.2	1.9	1.9
Provisioning costs to total assets	4.9	5.1	2.2	0.6	0.7	0.3
Liquid assets to total assets	12.4	13.1	20.6	23.4	24.2	23.3
Customer deposits to total loans	95.1	99.7	128.5	140.3	119.0	119.0
Loans in foreign currency to total loans 3/	16.5	11.3	10.9	8.8	7.6	7.2
Net open positions in FX to capital 3/	11.8	12.1	12.3	8.2	8.8	9.7

Sources: Bank of Thailand and staff estimates.
 1/ Excluding foreign branches.
 2/ The definition of NPLs was changed in December 2002. NPLs now also include doubtful of loss loans that had been written off earlier.
 3/ Return = net profit before extraordinary item and after tax domestic loans.
 4/ Including foreign branches.

9. Capital adequacy ratios are above the required 8.5 percent for all Thai banks, but additional provisions and capital may be needed by some banks.

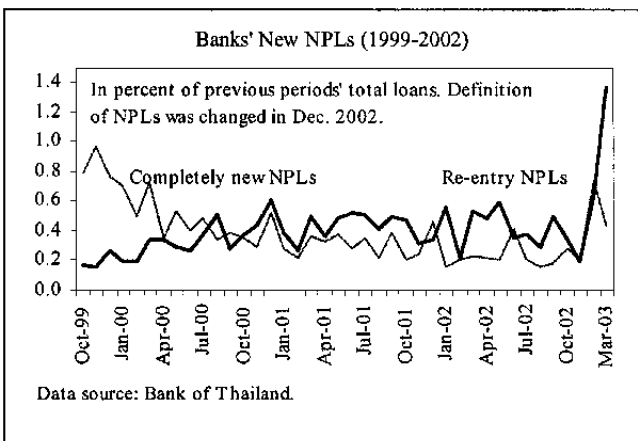
In 2002, only two small banks raised additional capital of B 7.8 billion compared to more than B 850 billion capital injections after the crisis. While the average CAR of 12.9 percent is comparable to other countries in the region, it has to be viewed against the backdrop of the poor loan



portfolio quality and practices in the areas of provisioning, loan classification, and collateral evaluation that could be further strengthened. The recently added choices on the use of discount rates to calculate the net present value of restructured loans have given banks the option to shift provisions into the future. Banks can also move restructured loans immediately from the doubtful of loss to the pass category, if certain conditions are in place, or to the substandard category before a track record of payments has been established. Safeguards for collateral do not seem to be stringent enough in practice since a few banks show considerably lower required provisions (after factoring in collateral) than their peers.

10. The large share of restructured loans continues to be a risk.

About thirty percent of performing loans have been restructured. Reentry of restructured NPLs continues to be erratic and high at 0.4 percent of gross loans per month, and banks could be in trouble if there was a further deterioration of asset quality.⁸ Should one third of restructured loans become nonperforming again and be recovered at the average values assumed for current NPLs, losses would amount to



B 224 billion, equivalent to 50 percent of regulatory capital or 4 percent of GDP. With capital adequacy ratios (CAR) at 12.9 at end-2002, some banks have built cushions for some shocks, but CAR tends to be low for banks that have low provisioning ratios, and five banks hold hybrid capital which they intend to replace over the coming years.

11. Banks can redeem their hybrid capital instruments starting from 2004 which could reduce their funding costs.⁹

Market analysts expect that banks will try to avoid

⁸ For more details on progress in debt process see Chapter V.

⁹ To raise capital in the aftermath of the crisis without diluting ownership five banks issued hybrid capital instruments, so-called SLIPS (Stapled Limited Interest Preferred Securities)

(continued)

diluting ownership and therefore generate internal capital to replace the hybrids. They predict redemption to take place in 2004 or 2005 for the large two banks and one small bank, while their outlook for the two medium-sized banks is much more uncertain given their weaker balance sheets.

Market risk

12. **The rising share of bank assets invested in securities has exposed a number of banks to interest rate risk should interest rates rise.** At end-March 2003, 13 percent of banks' earning assets were invested in long-term securities predominately at fixed rates. Since loans are also typically at fixed rates for the first couple of years while deposits have much shorter repricing maturities, banks are liability sensitive over a short to medium-term horizon.¹⁰ Not all banks seem to be hedged against this risk. Interest rates swaps, for example, are still relatively low at US\$3.5 billion per year. To provide banks with more variety of hedging instruments, the BOT issued a regulation permitting banks to enter into selected derivatives contracts in April 2003. The BOT also plans to introduce interest rate futures once the new futures market is established, for which the law has just been passed.

13. **Foreign exchange rate risk appears to be manageable.** At end-March 2003, banks had a positive net open position of US\$1.2 billion or 10 percent of capital; thus, they would benefit from a Thai baht depreciation.¹¹ The risk for banks from lending in foreign currency has also been contained with foreign currency loans (excluding interbank loans) shrinking to US\$8 billion (8 percent of their loan portfolio), but an indirect risk remains since corporates are still highly leveraged and have foreign currency exposure of US\$29.2 billion (23 percent of GDP).

Liquidity

14. **Banks continue to be relatively liquid.** About a quarter of the banking system's total assets are held in liquid assets and customer deposits still exceed bank loans (Table 2). To further strengthen banks' liquidity risk management, the BOT issued a guideline in 2002, requiring banks to have action plans on liquidity management in place, monitor and report their exposures, and conduct regular scenario analyses. An indicator of the current situation of excess liquidity is also the BOT's net debtor position to the banking system (excluding the

and CAPS (Capital Augmented Preferred Securities). The ratio of those instruments to tier I capital is on average more than 50 percent.

¹⁰ Rising interest rates would also raise the funding costs for the unprovisioned part of NPLs that banks continue to carry on their books.

¹¹ In 2002, the BOT revised the regulation on net foreign exchange position in line with BIS standards. Banks must not maintain a net foreign exchange position of an individual currency exceeding 15 percent of total capital, and the aggregate position must not exceed 20 percent of total capital.

claims by the Financial Institutions Development Fund (FIDF)). To mop-up the structural excess liquidity in the interbank money market, the BOT has begun to issue its own papers.

D. The Role of Specialized Financial Institutions

Mandates and Operations

15. SFIs, which have operated in Thailand for many years under specific development mandates, have recently gained importance, serving as vehicles for a number of the government's fiscal initiatives (Box). Eight of the nine SFIs are fully or largely government-owned (see Table 3 for an overview of the SFIs). The four biggest institutions (Government Savings Bank (GSB), Bank for Agriculture and Agricultural Cooperatives (BAAC), Government Housing Bank (GHB), and the privately-owned Industrial Finance Corporation of Thailand (IFCT)), which account for 95 percent of SFIs assets, have a long history of operations in the areas of deposit mobilization and consumer, agricultural, housing, SME, and project financing. Some of them also provide technical and advisory services to their customers. The other five institutions were

	Assets	Loans	Deposits	Debt issued	Capital
	(In billions of baht)				
GSB	622	269	538	0	60
GHB	374	312	209	47	17
BAAC	403	289	284	0	28
IFCT	205	155	0	137	7
EXIM	53	40	0	24	9
SME Bank	15	13	0	9	3
SMC	2	0	0	0	1
SICGC	5	0	0	0	4
Islamic Bank	1	0	Na	Na	Na
Total	1,680	1,078	1,031	217	130

Data sources: Bank of Thailand, Ministry of Finance, and SFIs.

The Role of SFIs in the Government's Credit-Based Policy

Since taking office in February 2001, the government has embarked on a number of initiatives to boost domestic demand as a complement to export-led growth. The main initiatives that involve intermediation through SFIs are listed below.

- **Credit for small- and medium-sized enterprises.** SFIs and state-owned banks were encouraged to extend new loans of up to B 225 billion (4 percent of GDP) between January 2002 and June 2003. However, actual credit extension on record has been considerably less—about B 95 billion by February 2003 of which about half provided by SFIs.
- **Subsidized mortgages for public sector employees.** Employees of the government and public enterprises have been offered cheap mortgages. At of February 2003, the credit extended under this program is estimated at ½ percent of GDP.
- **Retired civil servant benefits.** Civil servant retirees are being offered an opportunity to take a lump-sum advance against future benefits.
- **Housing for the poor.** This program aims at providing 1 million homes for the poor over several years. About 600,000 homes will be built by the National Housing Authority (an SOE) and sold at subsidized prices to low income people. SFIs will finance both the construction and the purchase of these homes. For the remaining 400,000 homes, SFIs will provide affordable financing.
- **The Village Fund.** This program established a revolving credit facility in all villages. The total cost of around B 75 billion (roughly 1½ percent of GDP) was originally financed by the GSB, with budget reimbursement over eight years. **Debt suspension for farmers.** This program granted one-time relief to farmers on loans from the BAAC. The program is over, and the costs—originally borne by the SFI—are being reimbursed by the budget.

Table IV.3: Thailand. Specialized Financial Institutions (March 2003)

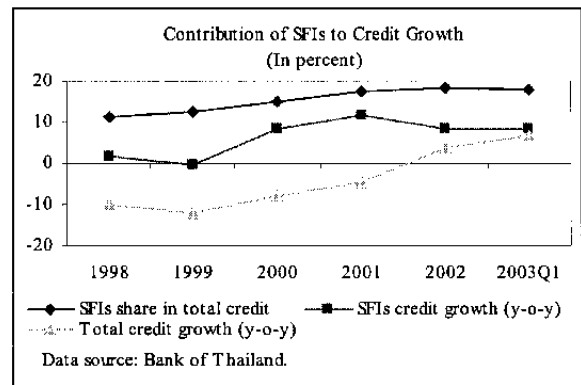
	GSB	BAAC	GHB	IFCT	EXIM	SME Bank	SICGC	SMC	Islamic Bank
	Government Savings Bank www.gsb.or.th	Bank for Agriculture and Agricultural Cooperatives www.baac.or.th	Government Housing Bank www.ghb.co.th	The Industrial Finance Corporation of Thailand www.ifct.co.th	Export-Import Bank of Thailand www.exim.go.th	Small and Medium Enterprise Development Bank of Thailand (changed from SIFC) www.smebank.co.th	The Small Industry Credit Guarantee Corporation (SICGC)	Secondary Mortgage Corporation	
Year established	1946	1966	1953	1959	1993	2002	1992	1997	2002
Shareholder	State (100 percent)	State (100 percent)	State (100 percent)	State (incl. SOEs) 30 percent, Thailand Securities Depository Company Limited for Depositors (Foreign) 18.84 percent; others.	State (100 percent)	State (92 percent)	State (96 percent)	State (100 percent)	State (incl. state banks) 35.73 percent; private companies and institutions in which the state holds shares 41.55 percent; private 7.72 percent; foreign (Brunei) 15 percent.
Regulator	Ministry of Finance, Bank of Thailand	Ministry of Finance, Bank of Thailand	Ministry of Finance, Bank of Thailand	Ministry of Finance, Bank of Thailand	Ministry of Finance, Bank of Thailand	Ministry of Finance, Bank of Thailand, Ministry of Industry	Ministry of Finance, Ministry of Industry	Ministry of Finance, Bank of Thailand	Ministry of Finance
Law related	Government Savings Bank Act, B.E. 2489	The Bank for Agriculture and Agricultural Cooperatives Act, B.E.2509	Government Housing Bank Act, B.E. 2496	The Industrial Finance Corporation of Thailand, B.E. 2502	The Export-Import Bank of Thailand Act, B.E. 2536	Small and Medium Enterprise Development Bank of Thailand Act, B.E. 2545	The Small Industry Credit Guarantee Corporation Act (SICGC)	Emergency Decree on Secondary Mortgage Corporation, B.E. 2540	The Islamic Bank of Thailand Act, B.E. 2545
Total assets (in billions of baht) (March 2003)	622	403	374	205	53	15	5	2	0.7
Total loans (in billions of baht) (March 2003)	269	289	312	155	40	13	0	0	0.9 million
Mandate/objectives	Encourage savings, provide safe depository for funds, mobilize funds to finance national economic and social development projects.	Provide farmers with financial assistance.	Provide finance for homeownership.	Support industrial and capital market development by supporting private industrial entrepreneurs in terms of finance and administration.	Promote exports and business contributing to foreign exchange earnings.	Provide financing for small enterprises.	Provide credit guarantees to promote lending to small to medium-sized enterprises.	Promote and develop a secondary mortgage market.	Provide banking services to Islamic customers.
Main instruments/activities	Deposit and loan services; administering of government funds; policy loans.	Various types of loans to finance agricultural production; project financing; policy loans.	Mortgage and construction loans; program to assist borrowers under economic hardship; policy loans.	Loans for SMEs, large-scale industries, and export-oriented industries; credit guarantees; financial advice; trade financing	Various types of export and import loans; export credit insurance; credit facility offered through commercial banks.	Loans to SMEs.	Credit guarantees to financial institutions that lend to manufacturing SMEs.	Purchases of residential mortgage loans and issue of debt to fund the purchases.	Following Islamic law: deposit services; loans services; bank guarantees; foreign exchange services.
Funding	Mainly through deposits, including from the government and SOEs.	Mainly through deposits, including from the government and SOEs.	Through deposits, issuance of bonds, and long-term borrowing.	Issue of debt and borrowing. No deposit taking.	Issue of debt and borrowing. No deposit taking.	Issue of debt and borrowing. No deposit taking.	Mostly issue of debt.	Mostly issue of debt.	Mostly through deposits.
Number of branches	588	1,578	110	36	8	64	7	1	1
Number of staff	9,600	13,144	2,030	1,000	565	799	142	46	50

Sources: SPIs Annual Reports and websites, BOT website.

established over the past ten years with specific development purposes in terms of trade financing (Export-Import Bank of Thailand (EXIM)), lending to small and medium-sized enterprises (Small and Medium Enterprise Development Bank of Thailand (SME Bank), The Small Industry Credit Guarantee Corporation (SICGC), promoting the development of a secondary mortgage market (Secondary Mortgage Corporation (SMC)), and servicing Islamic customers (Islamic Bank). Regulatory and supervisory responsibility for SFIs lies with the respective Ministries, but annual inspections are conducted by the BOT.

16. **The SFIs' strong credit expansion also went along with a diffusion of SFI mandates and created some competition with commercial banks.** SFIs' market share in lending activities has increased to 18 percent in the first quarter of 2003 compared to

12½ percent at end-1999. The share in deposits is somewhat lower at 15 percent, since only the biggest three SFIs (GSB, BAAC, GHB) are permitted to take deposits, including from the government and state-owned enterprises, while the other SFIs relying mostly on the issuance of debt. In particular, the GSB has become more active in mortgage lending, including higher value mortgages, and increased its market share from 3 percent at end-1999 to 8 percent in the first quarter of 2003 at the expense of the GHB, whose market share fell from 40 percent to 38 percent, and commercial banks. Competition among SFIs and, to some extent with banks, occurs also in the area of SME lending which is pursued by three SFIs, namely the SME Bank, GSB, and the IFCT.



Financial Conditions, Supervision, and Transparency

17. **The government support to SFIs is generally not through subsidies, except for specific policy loans, but through other channels.** SFIs are exempt from the profit and other taxes, hold more than a third of government deposits (including state-owned enterprises), and receive government guarantees on their debt instruments and customer deposits. To what extent this support is also used by SFIs to cross-subsidize their commercial operations, in which they compete with other financial institutions, rather than just their social and development activities is unclear. The government has also made various capital injections into SFIs over time, either to address capital shortfalls from loss-making activities or to foster expansion of SFIs' business operations.¹²

¹² An attempt to quantify contingent liabilities is undertaken in Chapter III.

18. **The lack of clear separations between policy and commercial operations and less stringent regulatory requirements than for commercial banks make it difficult to assess the SFIs' financial conditions.** At end-2002, all SFIs had CARs above 8.5 percent but not all of them follow loan classification and accounting rules that apply to commercial banks. For example, most SFIs classify loans only by past due criteria, in some cases far less strict than those for banks, and not by risk criteria. That SFIs' NPL ratios are lower and provisioning rates higher than those of commercial banks has to be seen against this background.¹³ SFIs' interest margins were slightly higher than those of banks, particularly for SFIs that conduct relatively high risk lending, such as agricultural loans, and receive funding through government deposits. Personnel expenses as a share of operating expenses are much higher than for banks, given the SFIs' target group of small and medium-sized customers and their advisory mandates. Overall operating expenses were at similar levels to those of commercial banks.

	GSB	BAAC	GHB	EXIM	IFCT	SME Bank
Regulatory capital to risk-weighted assets	37.6	9.0	9.2	20.2	6.8	25.8
Equity to assets	9.5	7.0	4.6	19.5	3.4	23.4
Credit growth (y-o-y)	14.1	4.6	11.4	1.9	-0.2	111.6
NPLs to gross loan 1/	3.2	10.1	16.2	11.7	10.8	19.3
Total provisions to NPLs	88.2	153.5	58.2	47.1	75.2	16.1
ROAA 2/	1.9	0.2	0.5	0.5	-0.2	Na
ROEA 2/	24.1	2.4	10.6	3.1	-4.5	Na
Interest margin to total assets 2/	2.5	4.1	1.5	2.4	0.5	Na
Noninterest income to total assets 2/	0.5	-0.1	0.1	1.5	0.3	Na
Operating costs to total assets 2/	1.1	1.9	0.5	1.1	0.4	Na
Provisioning costs to total assets 2/	0.0	2.0	0.6	2.3	0.5	Na
Personnel expenses to operating expenses 2/	72.9	74.4	45.5	46.0	57.2	Na
Customer deposits to total loans (incl. govt., and	205.9	103.9	84.3	0.0	0.0	0.0

Data sources: Bank of Thailand, Ministry of Finance, and SFIs.
1/ Definition of NPLs varies among SFIs.
2/ From 2001 profit and loss statements, except for BAAC and IFCT (2002). For BAAC the financial year is from April 1-March 31.

19. **The sophistication in terms of risk management varies widely among SFIs but has generally been strengthened, including through external advisors.** Some risk management tools such as interest rate swaps are not accessible for SFIs, but changes in regulations are being discussed.

20. **The expanding role of SFIs calls for greater prudential oversight and increased transparency of their operations.** Moving the supervisory responsibility for SFIs from the Ministry of Finance to the BOT, as currently discussed, would be welcome. Such a shift is expected to establish closer and more regular monitoring and quicker adjustments to discovered shortcomings, and should go along with applying the same regulatory requirements and accounting rules as for banks. To enhance transparency of SFI operations the application of a Public Service Account, which distinguishes between commercial and policy operations, is in the pipeline. It would help (i) the government to estimate the policy costs and budget them accordingly, (ii) SFIs to price their commercial operations appropriately and avoid unfair competition with banks in areas where cross-subsidies has taken place, and (iii) the supervisor to assess SFIs' financial conditions.

¹³ The SME Bank's high level of NPLs is a legacy of its predecessor, the SIFC, which had a disappointing history of performances. The bank has since been recapitalized, risk management and corporate governance have been strengthened, and business activities have more than doubled.

Summary and Outlook

21. **The extension of SFIs' operations in areas beyond well-defined mandates raises concerns about contingent liabilities and fairness of competition.** A strategy that clearly defines the mandate and objectives of each SFI (typically as specific niches of operations), and possibly areas and means of cooperations, would help to avoid inefficiencies that have arisen from overlaps and competition among SFIs and with commercial banks. The introduction of the Public Service Account is a desirable attempt to make fiscal costs more transparent and help to separate policy from commercial activities so that they can be put on an equal footing with those of commercial banks if combined with an enhanced regulatory and supervisory framework. The intrinsic difficulties in truly separating both activities, however calls for SFIs to focus on their development mandates, in particular since the rehabilitated banking system is in a position to competitively provide banking services.

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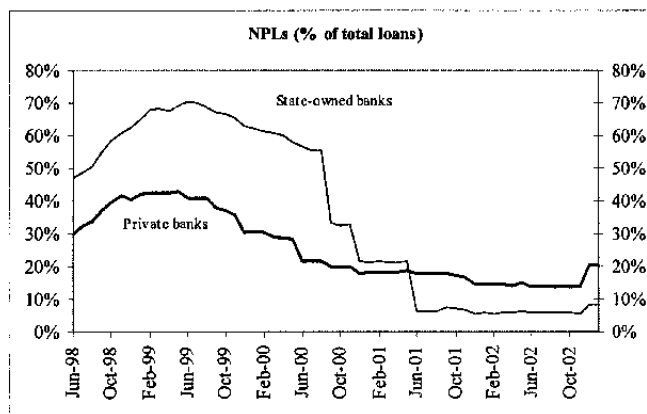
V. FINANCIAL AND CORPORATE SECTOR RESTRUCTURING¹

A. Introduction

1. **Thailand has made substantial progress in restructuring the financial sector and resolving non-performing loans (NPLs).**² Some progress has also been made in strengthening the balance sheets of the corporate sector, and recent improvements in profitability and balance sheet ratios are encouraging signs.³ However, despite the earlier progress private banks still have substantial amounts of NPLs on their books that limit their operations. The corporate sector is further burdened by the large amounts of NPLs transferred to asset management companies (AMCs), now part of the pool of non-performing assets (NPAs)⁴. The progress in reducing non-performing assets is hampered by a weak legal framework and the sheer number of cases that imposes large administrative burdens on both the financial and the legal system. This chapter presents an overview of the flows and stocks of NPLs and a discussion of how resolution of NPLs and NPAs may affect growth prospects. It then details some of the progress made by the Thai Asset Management Corporation (TAMC) before concluding with a section on recent and potential future initiatives to deal with financial and corporate sector restructuring.

B. A History of Non-performing Loans and Assets

2. **Although non-performing loans have declined substantially since the peak in 1999, NPL levels remain high, especially for private banks (Chart).** Initially, the NPL problem was much more severe at state-owned banks but, as they have benefited from larger transfers of NPLs to AMCs, the situation is now reversed. At the beginning of 2003, NPLs at private banks were over



¹ Prepared by Torbjörn Becker.

² For earlier treatments of financial and corporate sector restructuring, see Chapters II and III in Thailand: Selected Issues, IMF Staff Country Report No. 00/21 and Chapter II in Thailand: Selected Issues, IMF Country Report No. 01/147.

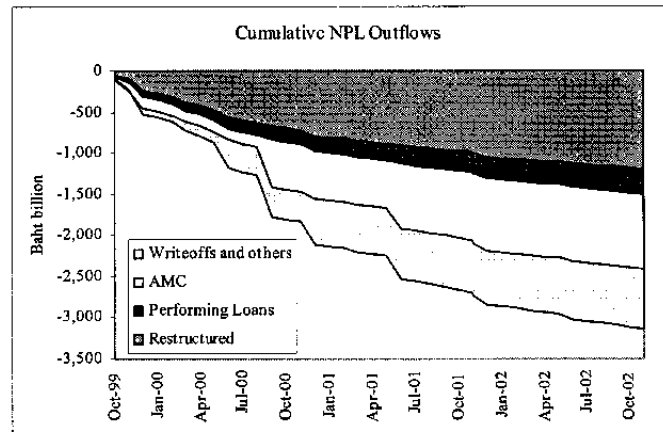
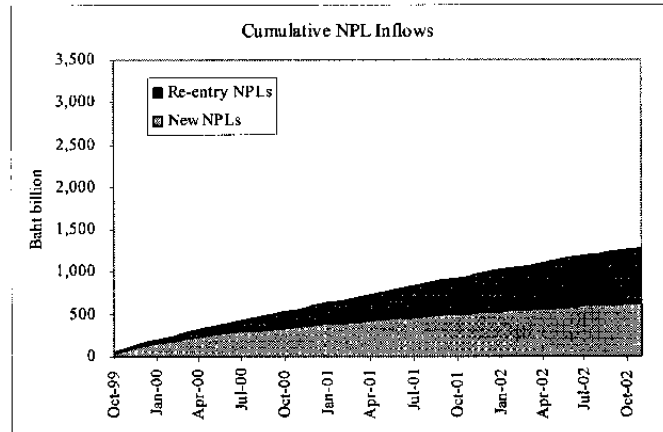
³ For details on corporate sector performance, see Haksar and Kongsamut, 2003, "Dynamics of Corporate Performance in Thailand," forthcoming IMF Working Paper.

⁴ The definition of NPAs that is used includes NPLs at banks as well as the impaired assets transferred to AMCs. In other words, an NPL that is no longer with a bank is not called an NPL, but is still part of the pool of distressed assets until it is resolved.

20 percent of the total loan portfolio, while state-owned banks had NPLs on average of around 8 percent of total loans, down from the peak of around 70 percent.⁵

3. Although outflows from the pool of NPLs have exceeded inflows and reduced the stock of NPLs substantially, new and re-entry NPL flows have been significant. Since the

last quarter of 1999, outflows from the pool of NPLs have amounted to a total of B 3.1 trillion (or two thirds of the initial loan portfolio). Restructured NPLs account for close to 40 percent of the decline, transfers to AMCs another 30 percent, loan reclassification for close to 10 percent, and write-offs and other for the remaining 20 percent. However, there have also been substantial inflows to the pool of NPLs (on the order of 27 percent of the initial loan portfolio), with new and re-entry NPLs contributing almost equal amounts (Charts). The large share of re-entry NPLs has raised questions about the quality of restructuring deals. Cumulative over the period, re-entry NPLs are over 40 percent of restructured and reclassified loans, or in other words, 4 out of 10 “resolved” NPLs have re-entered the pool of NPLs. More recently, the rate of new NPLs has declined, while re-entry NPLs remain relatively high and volatile, which raises concerns about the quality of past restructurings. In 2002, the inflows to the pool of NPLs were around B 300 billion (or almost 8 percent of the total loan portfolio in 2002) despite the pick-up in economic activity.



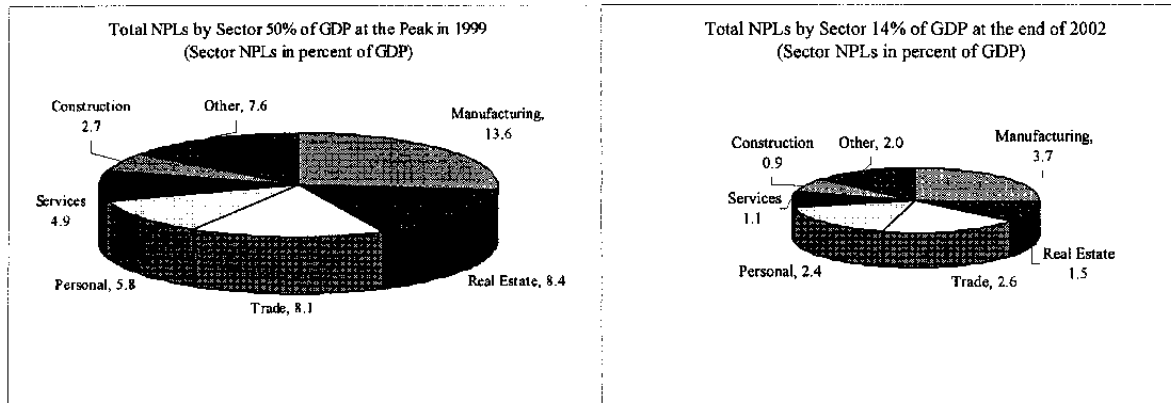
4. With easy access to credit prior to the crisis, many sectors of the economy contributed to the build-up of NPLs at banks. Manufacturing accounted for around a quarter of peak level NPLs, while real estate and wholesale trade each accounted for around a sixth.⁶

⁵ The Bank of Thailand’s definition of NPLs changed in December 2002. The earlier definition included loans that were more than 3-month overdue and excluded doubtful of loss loans with full provisioning, whereas the new definition includes loans classified as substandard, doubtful, doubtful of loss and loss.

⁶ The sectoral breakdown of NPLs include loans at foreign branches and finance companies, and the total level of NPLs will therefore differ from the previous chart that focuses on Thai commercial banks. Also, the “other” sector includes in order of importance, import businesses,

(continued)

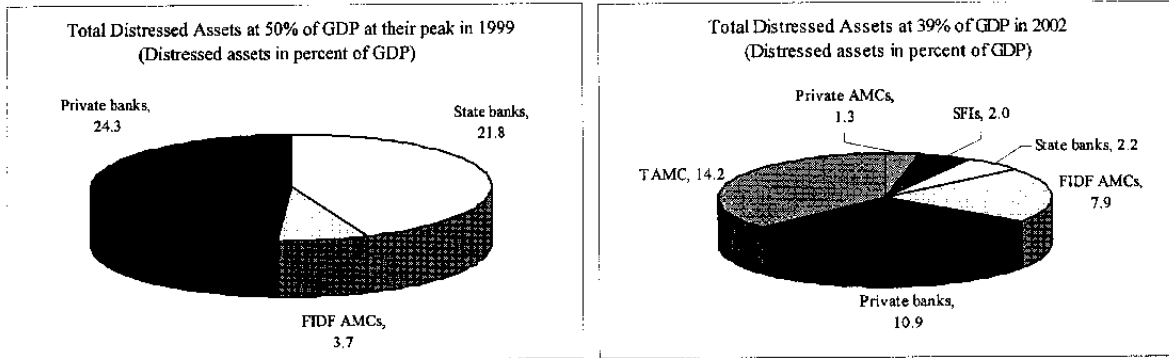
Somewhat more surprising is perhaps that personal credits accounted for a non-trivial amount of NPLs (10 percent of peak levels). Their share has increased over time to 15 percent as such credits have been resolved at a slower rate than NPLs in other sectors. The recent increase in credit to households (albeit from low levels) is a development that should be closely monitored to avoid a further build up of households' NPLs. This sectoral picture is somewhat misleading in terms of actual resolution of distressed assets, since manufacturing and real estate loans now constitute a relatively large share of distressed assets with the TAMC. However, the prominence of these sectors on banks' balance sheets has diminished.



5. **Because much of the reduction in banks' NPLs has been achieved by transfers to AMCs, system-wide non-performing assets (NPAs) remain high.** Distressed assets in financial institutions and AMCs are around B 2 trillion, or almost 40 percent of GDP.⁷ The TAMC has become the largest holder of NPAs, with the book value of impaired assets close to 15 percent of GDP. Almost two thirds of system-wide NPAs is accounted for by AMCs, and of this, only a small fraction is in private AMCs. A successful restructuring of NPAs in the AMCs

banking and financial services, export businesses, agriculture, public utilities, mining and hire-purchase businesses.

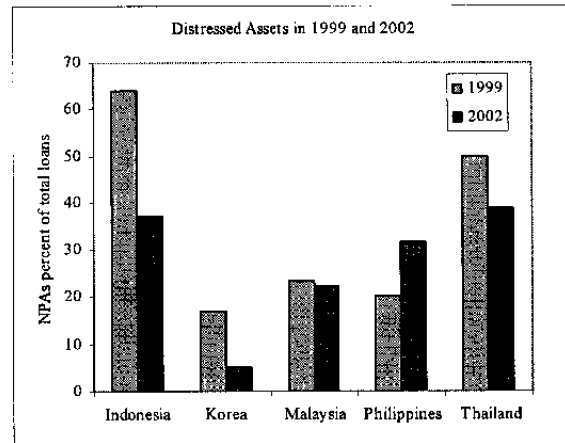
⁷ Views may differ on what to include in the measure of distressed assets. Here we use a rather conservative measure in that restructuring deals that have been reached at the TAMC are not subtracted from the pool of NPAs. Once progress on restructuring is more verifiable, for example by cash recoveries, part of the impaired assets at the TAMC and other AMCs could be taken out of the measure of NPAs. On the other hand, loans restructured and reclassified by banks immediately leave the pool of NPLs at banks. This may be overly optimistic in this measure of the overall level of distressed assets given the high rate of re-entry NPLs.



is therefore key to ensure that taxpayers are not unduly burdened by the financial crisis. NPLs in private banks are also substantial (at around 11 percent of GDP), and resolution of these would significantly improve the financial position of banks and most likely improve the prospects for new credits.

6. Thailand is lagging regional peers in terms of outstanding amounts of distressed assets.

Korea enjoys the lowest levels of NPAs at 7 percent of total loans, while currently, only Indonesia has distressed assets to total loans at a comparable level with Thailand's 37 percent. To a large extent, Korea's favorable position today reflects better initial conditions, but in addition, restructuring has reduced the NPA ratio by two thirds, compared to Thailand where the progress has been significantly slower. Contributing to the relatively speedy asset resolution in Korea is the work of KAMCO, which purchased a large share of problem loans early on and used market mechanisms to dispose of them. Thailand relied on a more private sector-based resolution strategy initially and the TAMC was not set up until 2001.⁸



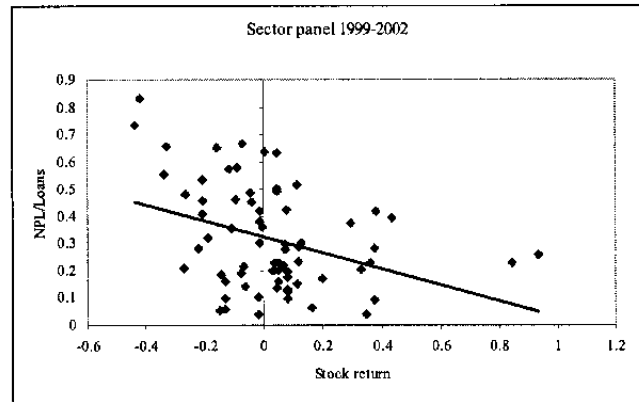
C. Potential Gains from Restructuring

7. The benefits from resolving NPLs and NPAs can be substantial over the medium term as both the financial and corporate sectors will be strengthened. Policy recommendations on speeding up financial and corporate sector restructuring are based on arguments that the level of distressed assets bears heavily on the financial sector and the Thai economy. Those arguments include: (i) Corporates' investment decisions and financing options as well as consumer demand are hampered by uncertainties about the conditions for their debt that still needs to be restructured. (ii) NPLs contribute to risk aversion that reduce banks' willingness to lend, which may restrict the scope for real sector growth. (iii) The high level of

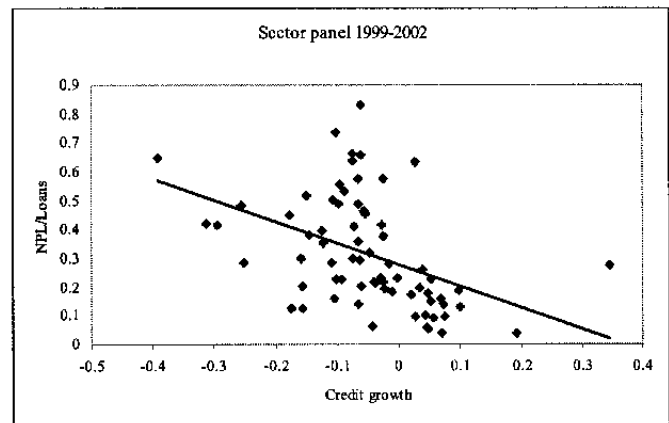
⁸ For a comparison of centralized AMCs, see Chapter III in Thailand: Selected Issues, IMF Country Report No. 01/147.

NPLs is costly for banks and reduces profits in banks. (iv) The stock of distressed assets locks up resources from a productive use in the economy.

8. **As an indication of the link between NPLs and the future earnings prospects of corporates, sectors with relatively low NPL ratios have seen more favorable developments in share prices** (Chart). If banks are less willing to lend to companies in sectors that account for large amounts of NPLs, this may lead to reduced earning potentials for the sector. Using the Bank of Thailand's (BOT) data on NPLs by sector since 1999 to end-2002 and SET's sector indices in panel regressions reveal a statistically significant relationship between NPL ratios and share prices. Although the estimates do not reveal what the impact on macroeconomic growth is from resolving NPLs, it clearly shows that sectors with low NPL ratios enjoy higher valuations than those with high NPLs. To the extent improvements in stock prices are correlated with improved earnings potentials that generate economic growth, this is another indication of the benefits of NPL resolution.

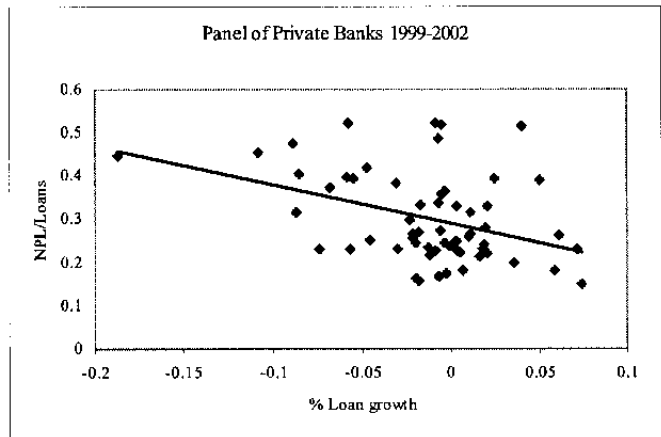


9. **The low-NPL sectors have indeed benefited from greater access to bank credit, which may be a partial explanation of the correlation between sectoral NPLs and share prices.** Using the same data, but looking at sectoral credit growth, there is a statistically significant relationship between low NPL ratios and access to credit (Chart). These results are obtained in simple panel regressions, and are robust to specification changes that vary between a common intercept and fixed effects and to the inclusion of time dummies. Firms may be able to finance investments and operations from alternative sources, such as retained earnings or by issuing debt, during some periods. However, bank credit is an important part of a well-functioning financial system and could facilitate growth in the corporate sector. The link between economic growth and access to credit is discussed in more detail in Chapter VI.



10. **Due to uncertainties about recovery rates, NPLs on banks balance sheet may affect their willingness to extend credit even if provisioning is adequate in a regulatory sense.** If banks provision according to prudential regulations and provisioning requirements are expected to meet future losses, banks should in principle not worry about NPLs, but would base their lending decisions on their capital ratios and lending opportunities. If banks are assumed to be fully provisioned against future losses, the existence of a relationship between NPLs and credit

growth suggest that uncertainty surrounding the resolution of NPLs is sufficient to discourage banks from extending credit. Using a panel data set covering 1999-2002 of individual banks' NPLs, credit growth and capital ratios, the estimates suggest that there is a statistically significant relationship between NPLs and credit growth, even after controlling for the capital position of banks. The relationship seems to be stronger for private banks than for state-owned banks, which could reflect different lending policies and attitudes towards risk, or perhaps less likely, different perceptions of the credit-worthiness of borrowers (Chart).



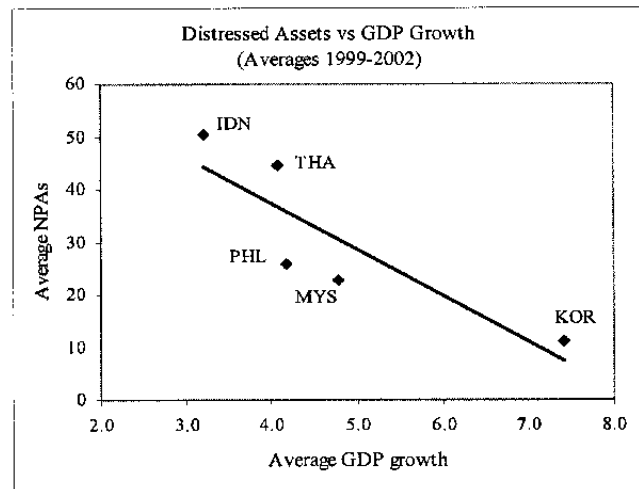
11. **It is argued that the lack of good borrowers rather than banks' willingness to lend is the factor constraining currently lending.** The argument is based on the observation that there is excess liquidity in the system, and that banks thus would extend loans if they could find good borrowers. However, if risk aversion makes bank charge borrowers a higher interest rate than they otherwise would, lowering risk aversion and thus lending rates would in most circumstances increase the profitability of firms and improve the borrowers' credit worthiness. The volume of good credits is therefore a function of lending rates and not a static concept, and restructuring banks' balance sheets may help increase the pool of credit-worthy borrowers. Finally, a more practical reason for a link between large NPL portfolios and slow credit growth may be that bank managers are so busy dealing with NPL-customers that there is not enough time to spend to evaluate new projects. These additional arguments suggest that resolving NPLs would increase banks ability and willingness to extend credit.

12. **Current and future costs associated with the stock of NPLs in Thai banks are mostly caused by uncertain recovery values and to a lesser extent by funding costs.** Once NPLs are provisioned 100 percent, i.e. the losses from NPLs have been fully recognized, the carrying cost is zero even if the assets remain on banks' balance sheets. However, a large share of NPLs are only partially provisioned since some recovery from these loans is expected. These NPLs affect banks' profitability in two ways. First, there is a funding cost associated with the non-provisioned part of the loan. In the current low interest rate environment, with deposit rates around 1 percent, this cost is limited (see Chapter IV for more details on banks' balance sheets). The second cost is related to potentially insufficient provisioning of current NPLs, which would lead to additional provisionings in the future that reduce profits. The large share of NPLs and the great dispersion in provisioning rates suggests that additional provisioning may be a substantially greater burden on the banking system than the direct funding costs. Estimates of these costs naturally depend on assumptions on the adequacy of current provisioning and future economic developments, but in adverse scenarios, these costs could be more than ten times the current carrying cost of NPLs. In other words, the level and variance of banks' profits will be impacted more by changes in loan valuations than by carrying costs, again suggesting that resolving NPLs would reduce uncertainties and may increase banks' risk appetite.

13. **Returning assets that are currently tied up in the restructuring process to more productive uses can have a significant impact on growth.** With NPAs on the order of 40 percent of GDP, this effect in itself could be of the order of half of a percent of GDP per year if it is assumed that the market value of the NPAs is on average 50 percent of book value and the assets return around 2.5 percent additionally per year once they are out of the pool of NPAs. The impact on GDP growth is clearly dependent on the assumptions, and a more detailed analysis of the underlying assets would be needed to produce a reliable number. Quantifying the macroeconomic impact of a healthier banking system on growth is even more difficult, but overall, it is clear that the potential benefits are substantial over the medium term, and suggests that NPA resolution should be a priority area for enhancing future growth prospects.

14. **A cross-country comparison between GDP growth rates and NPA ratios provide some macroeconomic evidence that further supports the case for rapid NPA resolution.**

For the Asian countries compared above, there has been a remarkably strong correlation between average NPAs and growth rates between 1999 and 2002. If the simple regression line is taken as a measure of how reduced NPAs affect growth rates, this would suggest that growth picks up by almost one percentage point for every ten percentage point reduction of NPAs. This chart is based on five data points and obviously does not address issues of simultaneity or control for other important variables that affect growth, so the quantification of the effect is only suggestive. The strong relationship is nonetheless noteworthy and consistent with the microeconomic stories discussed above.



D. Restructuring by the TAMC⁹

15. **Taken at face value, the restructuring progress by the TAMC has been impressive.** Of the B 761 billion transferred to the TAMC, resolution of B 535 billion worth of assets (or 70 percent of total) have been approved by the Executive Committee. Around half of the progress comes from debt and business restructuring, and rehabilitation in the central bankruptcy court. Foreclosure accounts for most of the remaining 50 percent of assets approved for resolution.

⁹ For an introduction to the TAMC, see Chapter III in Thailand: Selected Issues, IMF Country Report No. 01/147.

16. **The initial picture of substantial progress is less clear once more detailed information about the resolution process is analyzed.** Of the 795 debt restructuring cases, only 294 cases have been signed by the debtors, and almost two thirds of the cases under this heading still have some way to go before a final agreement can be reached. A similar qualification applies to the cases that are in the process of being foreclosed, since foreclosure is currently used as a way of bringing debtors to the negotiating table. If this strategy works, more cases will be restructured rather than foreclosed. It is also possible that some cases currently classified under debt restructuring will eventually move to the foreclosure procedure, given that many restructuring cases have to be finalized and signed by the debtor.

Restructuring Procedures	No. of Cases	Book value (baht million)
Debt restructuring	795	228,911
Signed cases	294	...
Awaiting signing	64	...
Drafting agreement	151	...
Others	286	...
Business restructuring	4	2,026
Bankruptcy court	65	49,782
Cases approved	52	43,124
Cases awaiting approval	13	6,658
Foreclosure	1,776	251,696
Did not contact TAMC	1,078	117,909
Non-cooperative	665	125,611
Did not sign agreement	8	820
Final receivership	25	7,356
Civil court	5	2,096
Total	2,645	534,511

17. **In order to evaluate the progress of the TAMC, more information will have to be disclosed on a frequent basis.** A key measure to the success of the TAMC is cash recoveries from all types of resolution procedures. So far, cash recoveries amount to around B 8 billion, or 1.5 percent of the B535 billion book value of all the “resolved” cases. The expected 45 percent recovery rate thus require substantial cash flows, going forward. To monitor the progress to achieve the target, cash flow projections should be published and compared with actual cash recoveries. Since a substantial share of cash recoveries will only be due many years from now, additional information on the progress should be made available to evaluate the progress in the near-term. For example, more details can be made public on where in the restructuring or foreclosure process cases are (e.g, deals signed or assets transferred to the TAMC). This type of information could then be published regularly as the IT system and back-office routines are developed.

E. Looking Ahead

18. **To speed up the restructuring process, the BOT is actively pursuing strategies to resolve NPLs in banks and the government is searching for new ways to reduce outstanding NPAs and tackle strategically important cases.** The BOT has recently presented new initiatives with ambitious timelines to restructure NPLs. The government is also pushing to make progress in restructuring impaired assets transferred to the TAMC, and is pursuing alternative strategies to reduce distressed assets.

19. **The progress of restructuring debt under the aegis of the Corporate Debt Restructuring Advisory Committee (CDRAC) seems to have slowed significantly in the last**

couple of years. Although substantial progress was made initially with the help of CDRAC (around B 2.5 trillion had been restructured this way by the end of 2001), the amounts restructured seem to have plateaued, and reached B 2.8 trillion at the end of 2002.¹⁰ One factor is that the more complicated cases are the ones remaining. Some cases have also become re-entry NPLs due to overly optimistic cash flow projections or creditors' unwillingness to take up-front hair-cuts. The BOT has recently introduced more ambitious timelines for cases in the restructuring process. However, so far the impact on the pace of restructuring has been limited.

20. **The CDRAC process will face an additional challenge at the end of the year, when the tax incentives granted to debtors that restructure debt under the BOT guidelines expire.** The CDRAC has pushed for an extension of the tax incentives, but so far this has not been approved. The reason for making the tax incentive expire at some date is to reinforce the urgency of reaching a restructuring agreement. However, once the tax incentives have expired, it is not clear what the benefits are for the debtor to take part in the BOT-sponsored negotiations. If the incentives indeed are removed and fewer debtors choose to restructure debt this way, this may be another argument for considering reopening the TAMC for additional transfers.

21. **The government has recently decided to set up mutual funds that could facilitate corporate sector restructuring.** The so-called Vayupak funds will be 10 year closed-end funds, include the government's holding of financial sector shares, and invest in shares and distressed loans in important financial institutions and corporates in need of capital. The private sector will also be invited to invest in the fund. The government views this as an additional tool to facilitate the needed restructuring of the financial and corporate sectors. However, some concerns have been voiced that if guarantees are attached to the fund, this would add to the contingent liabilities of the government, and perhaps more importantly, signals the intention of the government to intervene in a way that may distort incentives for private sector debt work-outs. Since the funds are not yet operational, it is too early to evaluate the merits and drawbacks of this approach to restructuring.

22. **There are a number of factors that will influence how willing and able both debtors and creditors are to restructure NPAs without the help of the government.** On the debtor side, a sustained economic recovery and a low interest rate environment will increase their ability to pay. However, their willingness to pay will depend on pressures from the legal system and other incentives to participate in the restructuring process (e.g., tax incentives or access to new loans). On the creditor side, the restructuring process depends, inter-alia, on the willingness and capacity of financial institutions to realize losses (by offering "hair-cuts") that may further affect their profits and balance sheets. If the restructuring process on the creditor side is held up by limited creditor rights in the legal system rather than to insufficient provisioning, this suggests that additional legal reforms would be needed to promote NPL resolution in the private sector.

¹⁰ For more details on the operation of CDRAC, see Chapter II in Thailand: Selected Issues, IMF Staff Country Report No. 00/21.

23. **The absence of reforms that create an enabling legal framework for debt workouts could strengthen the case for a new round of transfers of impaired loans to the TAMC.** A first-best solution of banks NPL problems is to create a legal environment that balances creditor and debtor rights and facilitates restructuring of loans within the private sector. However, changing the legal framework and behaviors may take too long and motivate a more centralized resolution of NPLs that utilizes the special legal powers of the TAMC. If banks have not fully provisioned against expected losses (compared to what is expected to be recovered by the TAMC rather than by the bank), pricing of NPLs transferred to the TAMC would be more complicated since the government will have to decide to what extent bank stakeholders or tax payers should bear the additional cost of restructuring.

24. **If risk aversion and uncertainty about the value of NPLs are key determinants of bank lending, this has implications for future initiatives to clean up banks' balance sheets.** In the case of further transfer of NPLs from private banks to the TAMC to help clean up banks balance sheets, the issue of gain/loss sharing arrangements will affect banks' risk perception of this type of restructuring. In turn, this may affect banks' willingness to make transfers to the state AMC, and perhaps more importantly, influence future lending behavior. Assuming that banks currently have provisioned for the expected value of future losses and that transfers occur at a price consistent with such provisioning, neither banks, nor the state AMC would expect to make further losses when the NPLs are resolved.

25. **It is conceivable that banks would be willing to pay the government an "insurance premium" for transferring loans without future gain/loss sharing arrangements by selling loans below current valuations.** This "insurance premium" would lead to an immediate loss for banks in exchange for reduced uncertainty. However, if the premium is too high, this could reduce CARs below regulatory or desired levels. The question of pricing is further complicated if estimated collateral values differ between banks and the government. If a bank is deemed to have overvalued collateral, it may need to raise capital even if NPLs are transferred at expected values, and without any discount to avoid future gain/loss sharing arrangements. The uncertainty associated with collateral valuations, potentially underprovisioned banks, and aversion to gain/loss sharing arrangements could make price determination rather complicated and slow down the resolution of NPLs on private banks' balance sheets.

26. **The pricing of NPLs and how to deal with gain/loss sharing is ultimately a political decision.** It has to weigh the benefits from cleaned up balance sheets of banks against the fiscal cost and possible redistribution of income between bank shareholders and tax payers. The benefit from relieving the banks from a gain/loss sharing arrangement is that banks may become less risk averse and extend more credit. However, transfers prices could also be viewed by debtors as setting benchmarks for "hair-cuts", and may affect borrowers willingness to service their debt. It may also have more long-term implications for the credit culture that has to be considered in resolving current NPLs. Finally, the government carries the risk of future losses if recoveries are realized below expectations, which would affect the fiscal position. Obviously, the government could also stand to benefit if economic and other conditions improve debtors ability and willingness to pay their debts.

VI. GROWTH WITHOUT CREDIT IN POST-CRISIS THAILAND¹

A. Introduction

1. **A striking feature of the post-crisis Thai economy has been that while the economy has grown a cumulative 20 percent since bottoming out during the crisis, real credit to the private sector has declined by nearly a corresponding amount.** This paper puts Thailand's experience in an international perspective and explains how firms have financed their operations.
2. **The main findings of this paper are:**
 - Thailand's experience is not unique from an international perspective. A broad sample of crisis-hit countries shows a boom-and-bust trend in the credit-to-GDP ratio, although the experience of Thailand and few other countries is more pronounced.
 - The decline in bank credit has been offset by a combination of trade finance, increase in lending by specialized financial institutions, more recourse to capital markets, and greater reliance on internal savings.
 - At the same time, the demand for financing has been low as private investment and capacity utilization have remained below pre-crisis levels.
3. **Thailand's experience has successively demonstrated that corporate deleveraging need not jeopardize growth prospects.** Going forward, the demand for financing is likely to accelerate as the output gap closes and firms need to expand capacity. While a resumption of healthy credit growth will strengthen the banking sector, continued development of capital markets will build Thailand's resilience to shocks to the financial system.
4. **This paper is organized as follows.** The next section compares credit developments in Thailand to a sample of crisis countries. The following section provides details on the credit contraction in Thailand. Section D describes the other sources of financing which firms have tapped as credit contracted.

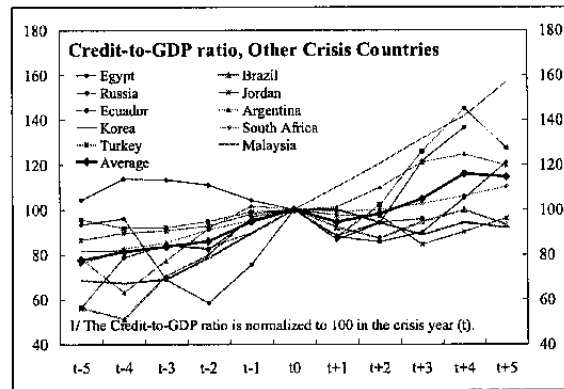
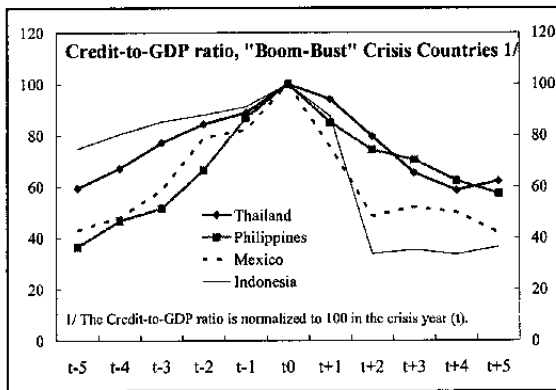
B. Credit Trends in Crisis Countries

5. **The accompanying two figures show the evolution of the credit-to-GDP ratio in a number of recent crisis countries.**² The first figure splits out credit developments in a

¹ Prepared by Reza Baqir.

² Crisis dates are from Tornell and Westermann (2002). Credit (and GDP) data are from IFS and correspond to the broadest available measure of claims on the private sector.

“boom-and-bust” group—defined as countries where the credit ratio is at least 25 percent less than its pre-crisis peak 3 years after the crisis. Thailand is not the only member of this group. Indeed, the fall in the credit ratio is more pronounced in Mexico and Indonesia. The other crisis countries show greater variance in the pre- and post-crisis evolution of credit but on average show a similar pattern, though much less pronounced—the overall trend in this sample for the 11 year period centered on the crisis is positive. The decline in real credit is more pronounced than indicated by the credit ratio as in nearly all countries growth of real output recovers 1–2 years after the crisis.



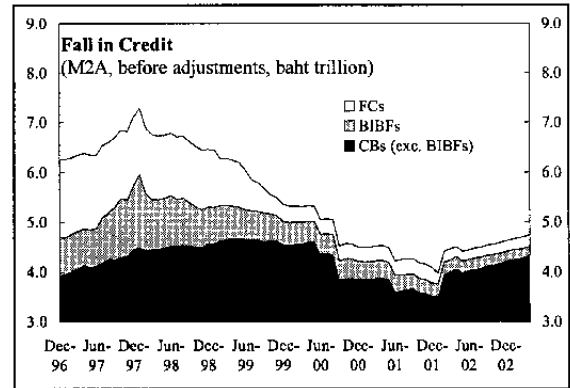
6. **Other studies shows a similar result.** From a sample of 39 middle-income countries, Tornell and Westermann (2002) report that, on average, growth recovers to its pre-crisis levels 2 years after a crisis but the slowdown in real bank credit continues well into the third post-crisis year. An explanation advanced is that the credit crunch is focused on the non-tradable sector because it is worse hit by a crisis. Meanwhile, output in the tradable sector, being driven in part by external demand, recovers faster and firms in this sector, because of their foreign currency denominated earnings and generally larger size, are able to get financing from non-bank as well as external sources.

C. The Credit Contraction in Thailand

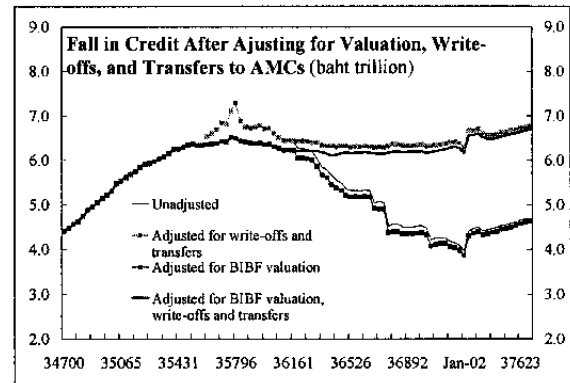
7. **Many papers have been written on the credit-crunch in Thailand.**³ Several argue that the credit contraction immediately following the crisis is consistent with a credit crunch (defined as banks not willing to or able to meet the demand for credit) but that the persistent decline in credit months after the crisis is more likely explained by contracting demand. For instance, Mody and Taylor (2002) find that an international capital crunch lasted only until mid-1998 in Thailand. These studies focus on separating demand from supply effects rather than on the issue of growth without credit.

³ See for instance Agenor *et. al.* (2000), Domac and Ferri (1999), Ghosh and Ghosh (1999), Greene (2002), Mody and Taylor (2002), Nakorthab (2002), and Schwartz (2000).

8. **The bulk of the credit decline in the aftermath of the crisis was due to finance companies and off-shore banks.** Credit extended by both these institutions grew rapidly the years preceding the crisis. Finance companies (FCs), which issued promissory notes, fueled the asset price boom by concentrating lending to real estate related activities and personal consumption (primarily mortgages and financing of consumer durables).⁴ At the same time off-shore banks, part of the Bangkok International Banking Facilities (BIBFs), channeled increasing large inflows of foreign capital. As activity slowed and asset prices began to decline in late 1996, the finance companies were the first to collapse. By end-1997 56 of the 91 finance companies were closed and a process of auctioning of their assets was started. The decline in BIBF lending occurred in large part as Japanese banks began to reduce their exposure to Thailand in light of growing problems at home.



9. **The decline in headline credit statistics does not correspond to contraction in availability of actual credit to borrowers.** The contraction for borrowers is less when the credit data are adjusted for valuation effects of foreign currency denominated BIBF lending and for write-offs and transfers of loans to asset management companies by commercial banks (CBs). When these adjustments are made, credit falls by 6 percent of its pre-crisis peak (as opposed to by 45 percent in the un-adjusted series).

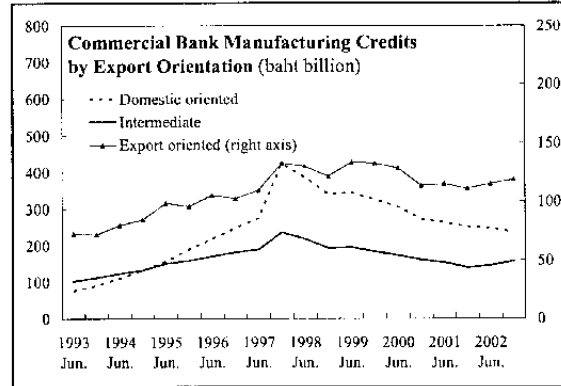
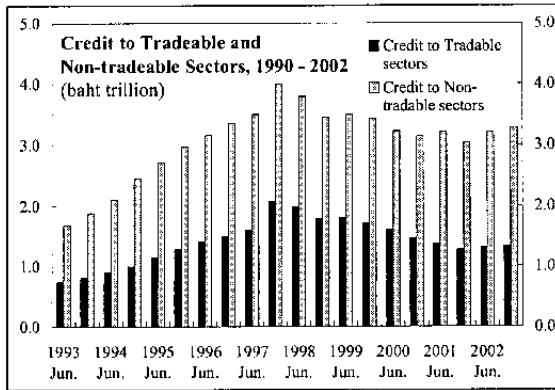


10. **A breakdown of credit between tradable and non-tradable sectors is difficult to interpret but suggests that export-oriented manufacturing sectors fared better.** In the aftermath of the crisis, credit fell in both tradable and non-tradable sectors.⁵ If loans by finance companies are also taken into account the relative decline in credit in non-tradables is even greater. A significant portion of the decline nevertheless took place in the manufacturing sector, some of which may be producing non-tradable products. The figure

⁴ See Haksar (2000) for more information on the role of finance companies in the crisis.

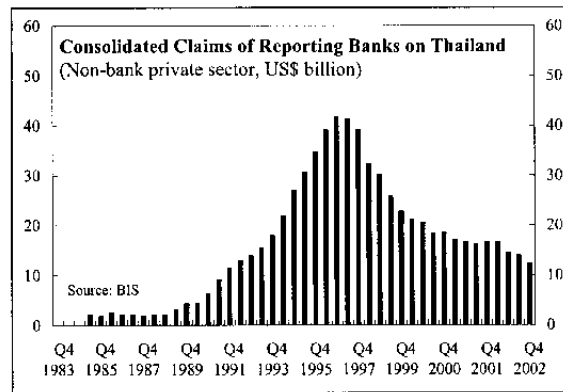
⁵ A sectoral breakdown for adjusted credit data is not available. Tradable sectors are taken to be agriculture, mining, and manufacturing and non-tradables construction, real estate business, services (including trade) and personal consumption.

breaks out manufacturing credit by export orientation of the industry. Export-oriented industries (defined as industries where exports account for over 60 percent of total production) experienced a smaller decline in credit and indeed had higher credit at end-2002 than just before the crisis.



11. Nevertheless there has been a significant decline in the availability of real credit.

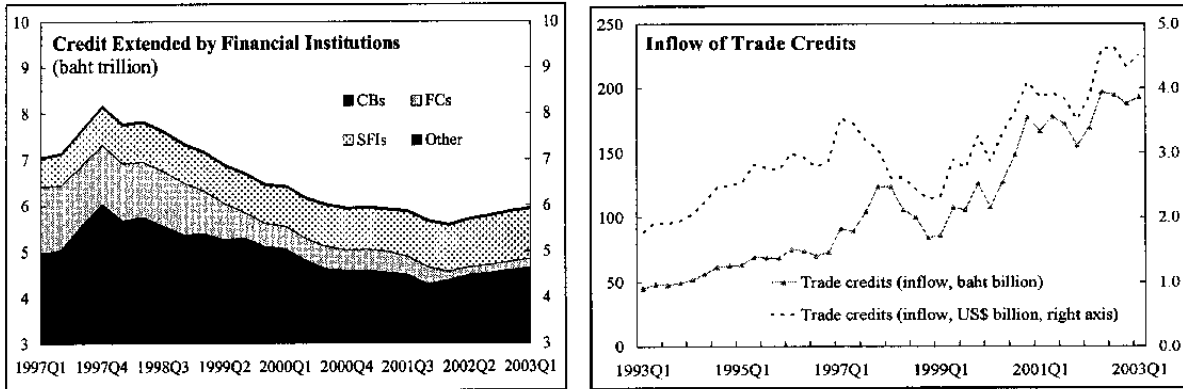
This is all the more so considering the expansion in the real economy and the decline in foreign credit. The credit data from the monetary survey do not include direct lending by foreign banks. Bank for International Settlements (BIS) data show that the consolidated claims of foreign banks on Thailand have fallen by \$30 billion since the pre-crisis peak. Aggregating the different sources of credit, the total estimated decline in available financing is slightly less than 1 trillion baht.



D. Post-Crisis Financing of Growth

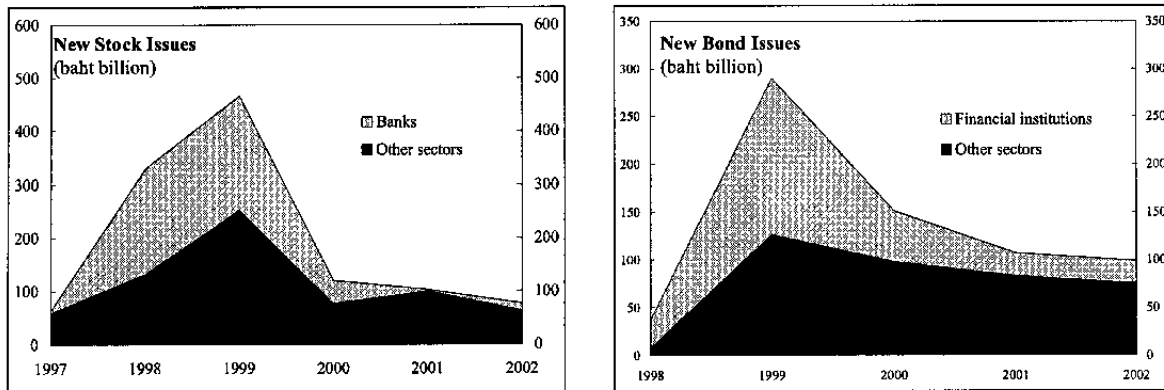
12. Historically, growth in real output and credit have moved in tandem. As such the recent slowdown in credit is in marked contrast to pre-crisis economic history. This section documents the non-bank sources of financing which have supported growth.

13. Lending by specialized financial institutions (SFIs) has picked up considerably since the crisis. Total credit extended by six SFIs grew by about 270 billion baht between the end of 1997 and the first quarter of 2003. However, a quarter of this increase was mortgages and hence the increase for other investment has been less.

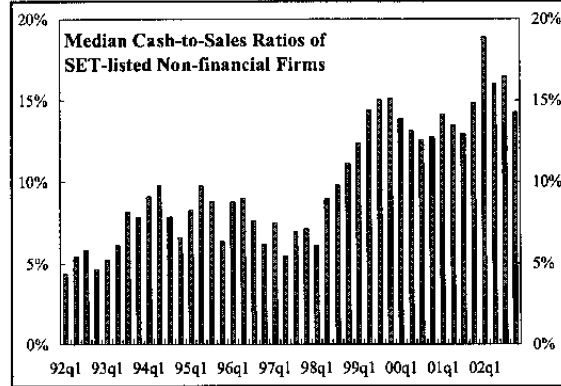
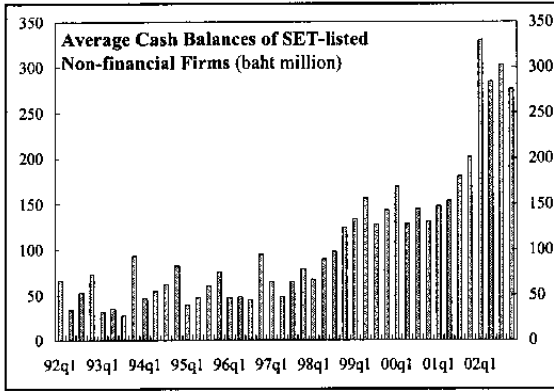


14. **Trade credit financing resumed quickly.** By beginning 1999 it had resumed its long run growth pattern. The timing of the revival in trade credit finance corresponds to the revival in the pick up of the manufacturing production geared towards export markets.

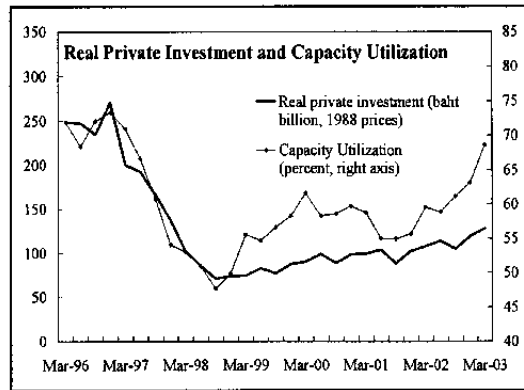
15. **Capital market financing has also risen though most issues have been by banks.** Historically banks have been the primary source of finance in Thailand. Although the bond market expanded after the crisis, it was mostly on account of government borrowing for the costs of financial sector restructuring. Of the private issues since the crisis, most of the increase in new issuance is due to financial firms. Similarly, new equity issues also rose but mostly on account of banks. However, this trend refers to gross issues and does not give information on redemptions. Using data on Stock Exchange of Thailand (SET) listed companies, there is evidence that there was net increase in equity capital raised (as measured by the paid-up capital).



16. **Firms have increasingly relied on internal finance.** The following two figures are based on the reported data of non-financial SET listed firms. Both measures of cash balances—average firm balances and median cash to sales ratio—begin to rise after the crisis and are now nearly twice their pre-crisis levels.



17. In addition to the above factors which point to a greater reliance on non-bank sources of finance, the demand for finance has also been depressed in the post crisis period. Although investment has begun to grow, the level of investment—and hence the demand for credit—remains well below pre-crisis highs. Capacity utilization also below pre-crisis levels suggesting that most demand has been for working capital rather than capacity expansion.



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E. Conclusion

18. This paper has shown that Thailand's pronounced boom-bust credit experience is not unique from an international perspective and has documented the non-bank sources firms have tapped to grow. A key encouraging policy implication is that the ongoing process of corporate deleveraging need not jeopardize growth prospects. Corporate financing needs are likely to increase in the future as investment and capacity utilization recover to their pre-crisis levels. Healthy credit growth together with greater development of capital markets will strengthen Thailand's financial system and allow for a solid foundation for growth.

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