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Thailand: crisis, reform and recovery

> During the period of economic growth, we were too complacent. In good times we forgot many important truths and neglected many important tasks; we opened up our economy, but our stated plans to pursue discipline were not followed up; we attracted massive flows of cheap foreign capital, which we did not always spend or invest with enough prudence . . . we did not examine the fundamentals of our politics and governance or tackle issues such as bureaucratic inefficiency, lack of transparency and lack of accountability . . . naturally we were quickly and severely disciplined by the market (Chuan Leekpai, Prime Minister of Thailand, in a speech on March 11, 1998).[1]

When Thailand, the paradigmatic economic success story, fell victim to the crisis, many analysts were dumbfounded – instinctively blaming the pervasive cronyism and corruption for the country's troubles. However, as it turned out, cronyism, corruption, clientelism and weak corporate governance were only part of the problem. After all, these problems existed while Thailand notched up impressive growth rates for more than a quarter-century before the financial meltdown in July 1997. Rather, this chapter argues that it was the volatile convergence of a mounting current account deficit, a sharp export slowdown, currency and maturity mismatches among Thai commercial banks, the maintenance of a rigid exchange rate, a rapid build-up of private short-term foreign-debt liabilities, an overheated investment bubble in real estate and stock markets, and an external environment that unexpectedly turned sour in 1996–97, that led to the crisis. All that this convergence needed was a trigger. The trigger was provided by a loss of confidence on the part of the owners of short-term capital in the Bank of Thailand's capacity to maintain its fixed exchange rate. Most tragically, this convergence was neither foreordained nor sudden – but had been building up since mid-1996, roughly one year before the baht's devaluation.

Why was this explosive convergence allowed to persist for so long? The answer lies in the political economy of Thailand in the 1990s. Specifically, it is well known that the governments of Chuan Leekpai (September 1992–June 1995), and especially, those of Banharn Silpa-archa (July 1995–November 1996) and Chavalit Yongchaiyudh (November 1996–November 1997) were notoriously unstable multi-party coalitions and unable to formulate (let alone implement) a coherent macroeconomic policy. Lauridsen (1998, 157) notes that when the Banharn and Chavalit governments intervened, "it was in a too-little-too-late fashion, with strong policy formulation usually followed by weak policy implementation."[2] Yet what about the role of Thailand's highly influential and respected technocrats in the finance ministry and at the Bank of Thailand (BOT), the country's central bank?[3] As Siamwalla (1998, 9) states, "in a country in which corruption is rife, the Bank of Thailand is considered to be the only institution where it was unthinkable that any corrupt practices could be found. This reputation of incorruptibility gave it considerable moral authority and prestige and allowed it to enjoy *de facto* autonomy, overriding its *de jure* subservience to the Minister of Finance." Moreover, the BOT had a well-earned reputation for prudent macroeconomic management. Throughout the 1980s and early 1990s, the BOT conducted extremely cautious monetary policies (running a small surplus almost every year), a non-inflationary monetary policy, and a fixed exchange rate that was quickly adjusted whenever necessary.[4] Finally, the governments of successive prime ministers since the mid-1980s, including those at the helm in the years just before the crisis, were dominated by ministers, advisers and consultants from the financial and the business world. Given this, the Thai crisis has generated an interesting debate as to whether it was the technocrats or the politicians who should be held responsible for the policy failure?

Obviously, the answer is that both are responsible – albeit the wrongs of the politicians have received much more attention in the literature.[5] Analysts have raised questions regarding how much real autonomy the BOT really enjoyed in policy formulation and implementation. There is little doubt that the autonomy of the BOT as well as that of the Ministry of Finance (and related agencies) had gradually declined since the early 1990s. As Christensen and Siamwalla (1993, 7) note, during the many years of military rule, "the technocrats would not encroach on the sectoral and microeconomic mismanagement which benefits the political masters, while the latter would allow the technocrats to keep control over the macro economy." However, under both the Banharn and Chavalit administrations, the BOT and the finance ministry were "pushed and pulled by politicians" with increasing interference in the workings of these institutions from the prime minister's office (Lauridsen 1998, 157). During the sixteen-months-long Banharn administration, the heads of the BOT, the Ministry of Finance and Securities and Exchange Commission were summarily dismissed. In fact, there were three different finance ministers during this period. Such actions greatly undermined the autonomy and oversight capacity of the central bank and severely disrupted the formulation and implementation of prudent macroeconomic policy.

Yet, once one has noted this, the BOT must also take its share of the blame. Indeed, the Nukul Commission, a blue-ribbon panel consisting of prominent economists, financiers and civil servants and headed by a former central bank governor, Nukul Prachuabmoh, has shed disturbing light on those entrusted with regulating the country's financial system.[6] In fact, the 205-page Nukul Report has pinned the greatest blame for the mismanagement of macroeconomic policy squarely on the shoulders of Rerngchai Marakanond, the central bank governor from July 1996 to July 1997. Likewise, a recent World Bank study notes that "the Bank of Thailand, once considered a pillar of strength, no longer deserved its old reputation as a monitor of the economy and enforcer of financial discipline. The regulations and supervision practices the bank followed to ensure the soundness and safety of the financial sector had not kept pace with the rapid growth of financial institutions. The bank's staff was poorly trained and stretched thin" (Nabi and Shivakumar 2001, 11). What were the bank's policy errors? This chapter will argue that the BOT made two egregious policy blunders. First was the futile and costly defense of the baht during late 1996 and the first half of 1997, and second the bleeding of the Thai government's Financial Institutions Development Fund (FIDF) to prop up failing financial institutions, while neglecting to take actions to remedy the underlying structural problems in the financial and banking sector. The puzzling question is why Thailand's well-trained and highly professional technocrats made such serious policy errors. Drawing on the Bank of Thailand's published materials, this chapter suggests that Thailand's long period of economic boom had lulled the technocrats into complacency. Thinking that the sun would never set on the good times, they threw caution to the winds, becoming prisoners of what Charles Kindleberger (1978) long ago termed "disaster myopia" – a mindset whereby policy-makers and investors suffer from an inability to imagine any fiscal contraction, let alone a financial crisis. The policy prescriptions Thailand's technocrats enunciated to correct the macroeconomic misalignment under conditions of free capital mobility and fixed exchange rates can only politely be termed "inappropriate." Indeed, Thailand's economic technocrats as well as many observers remained unduly sanguine about the Thai economy despite mounting evidence of macroeconomic disequilibrium. In their "irrational exuberance" they erred in failing to read and correct the tell-tale signs of an impending economic slowdown.[7] This chapter illustrates the fact that such irrational exuberance suited the weak Thai coalition governments and politicians and an array of business constituents who had their own reasons for preserving the status quo.

The emergence of the "fifth tiger"[8]

For a country that in the 1950s was ranked as one of the world's poorest, with an unpromising future, Thailand's economic performance has been nothing short of miraculous. In a pattern almost unique among oil-importing countries, Thailand's real output per head of population had not experienced a single year of negative growth since 1958. Between 1965 and 1996, the average annual growth rate of Thailand's real GNP per person was well over 5 per cent, as against an average of 2.4 per cent for low- and middle-income countries. Between 1986 and 1996, the Thai economy was the fastest-growing in the world, notching up an unprecedented real GDP growth of 10.4 per cent per annum (Warr and Nidhiprabha 1996, 1–3). Even more remarkable was the stability of this growth. Between 1988 and 1996, the growth rate of real exports was 14.5 per cent, inflation averaged a low 5.3 per cent and gross domestic savings as a percentage of GNP rose from 17 per cent in the early 1980s to over 30 per cent in the late 1980s. The growth in GNP per capita rose to about 8 per cent per annum in the first half of the 1990s. On the eve of the crisis in 1997, Thai GNP per capita had reached US$2,740 compared to the GNP per capita of US$220 in 1972 and US$870 in 1987 (Jomo 1997, 56–7). The rapid economic growth not only reduced poverty levels from over 57 per cent in the mid-1960s to 30 per cent in the mid-1970s and to about 13 per cent by 1996, but basic social indicators in terms of life expectancy, infant mortality, literacy and human resource development all also showed significant improvements (World Bank 1997, 1–4). The surge in growth also transformed the composition of production as Thailand moved from a predominantly agrarian to an industrialized economy. From 1980 to 1996, agriculture's share in GDP fell from 23 per cent to 11 per cent, while manufacturing's share increased from 22 per cent to 28 per cent. These changes also transformed Thailand financial system. By the mid-1980s, the Thai economy had become highly monetized, and the financial system was disproportionately deep compared to those of other emerging markets with similar per capita income. As of 1987, Thailand's formal financial system consisted of commercial banks, finance companies, *crédit foncier* companies, Government Savings Banks, private and government insurance companies and a number of sectorally specialized financial institutions. However, commercial banks were the central players in the system, absorbing 80.9 per cent of deposits and accounting for 73.1 per cent of total financial system assets, followed by the finance companies, which provided about 20 per cent of all the credit in the country (Alba *et al.* 1999, 8). With such impressive economic achievements, Thailand soon became the developmental showcase, the so-called "fifth Asian tiger" and the model for other emerging nations to emulate. What explains Thailand's phenomenal economic growth? What explains the economy's precipitous collapse in July 1997? What lessons does Thailand provide?

The investment and export-led boom

If large and sustained rates of economic growth, to quote Paul Krugman (1994), are usually the result of both "inspiration" and "perspiration," in Thailand's case they took a lot of perspiration from both the civil society and the state.[9] The Thai government has long used policy instruments to influence the direction of economic activity. For example, the Board of Investment (BOI), created in 1959, used a combination of various investment-promotion schemes, tariff policies, tax regimes, and trade and price controls to direct the pattern of private investment, besides supporting extensive public investment in infrastructure. During the 1960s and early 1970s, industrial policies strongly supported capital-intensive import-substitution industrialization (ISI). Import tariffs were sharply raised to protect local industries, with special incentives for the production of final goods based on imported intermediate and capital goods. Indeed, as Christensen *et al.* (1997, 354) note, "the BOI's most significant power was over imports. It could exempt particular firms or industries from import duties on machinery, components, and raw materials, as well as imposing bans and surcharges on competing imports."

The officially stated emphasis on ISI was shifted towards the promotion of exports with the passage of the Investment Promotion Act of 1972. Local businesses responded eagerly to these opportunities, both on their own and through joint ventures with foreign firms – investing in agro-processing industries, trade, banking and other activities centered on the domestic market. In the late 1970s, the Thai government introduced a further series of measures designed to speed up the growth of manufactured exports. These included industrial export incentives, such as tax and tariff rebates and preferential interest rates on short-term loans. In the early 1980s, the Thai government implemented another round of export incentives, including tax incentives and currency devaluations in 1981 and 1984. For example, the BOI gave priority to export projects, granting numerous exemptions to export-oriented projects, including duties and business taxes on imported raw materials or components, business taxes on domestic input, export duties, and certain deductions from taxable corporate income.[10] The government also reformed the customs procedures and removed cumbersome regulations to help exporters expedite their processing and shipments. In addition, it established export processing zones (EPZs) – where businesses enjoyed exemption from import/export duties and business taxes. EPZ firms and factories also benefited from good infrastructure, and were entitled to get a 20 per cent reduction in their energy bills. All domestic exporters received concessionary credits and marketing assistance.[11]

Finally, a major incentive to export came from the changes in the real exchange rate. Specifically, throughout the 1960s and 1970s, the baht was tied to the US dollar, with occasional minor adjustments. While this policy served Thailand well during the era of fixed exchange rates, it became problematic once the major currencies began to float following the collapse of the Bretton Woods system. Linking the baht to the dollar led to an increase in the real effective exchange rate in the early 1980s, despite the 8.7 per cent devaluation against the dollar in 1981. In response, the Thai government changed the real exchange rate in 1984 by tying the baht to a basket of major currencies – albeit the US dollar weighed heavily in the basket. The aim of the new managed float was to maintain the baht–dollar parity within a somewhat wider band. The new exchange rate resulted in an immediate 15 per cent devaluation of the nominal exchange rate against the dollar – providing Thai firms with a real incentive to export.[12]

Nevertheless, a prolonged slump in world commodity prices saw overall export growth, especially exports of natural resources and some semi-manufactures, decline during the period 1980–86. Export growth recovered after 1986, but this recovery was not led by either exports of natural resources or semi-manufactures, but by a rapid growth of manufactured goods, such as clothing, textiles, office machinery, integrated circuits, and telecommunications and computer components. Indeed, Lall (1999) notes that this high export growth was based on a shift in the structure of the export sector – where complex activities began to replace simple production. The sector encompassed four types of technologies: resource-based (food processing), low (textiles, footwear, leather and plastics), medium (the automotive industry), and high (complex electronic and electrical products). Between 1985 and 1996, the share in exports of products manufactured using medium and high technology rose from among the lowest in the region (20 per cent) to the highest (50 per cent). Thailand's medium- and high-technology product export shares exceeded those of China, Hong Kong and Indonesia.

What explains the change in the pattern of exports? Generally, the production of manufactured exports requires higher levels of worker skills. Yet human resource development, particularly education levels and worker skills development (as measured by average years of adult schooling), remained weak in Thailand. In fact, although Thailand's investment in physical capital as a ratio of GDP has long been one of the highest in the world, not enough resources have been devoted to human capital or skill formation. Thus Thailand's secondary and tertiary school enrollment as a percentage of population have consistently been much lower than those of other high-growth Asian economies, including Indonesia and Malaysia, and have also lagged behind low-income countries such as India.[13] Rather, the impetus for the expansion of manufactured exports in Thailand came from outside – in the form of foreign capital. Indeed, in the 1980s capital inflows doubled, rising to US$4.5 billion per year, and between 1990 and 1996 they tripled to US$14 billion per year (Mahmood and Aryah 2001, 256). First, Thailand needed foreign capital, since its domestic savings were not high enough to finance the high level of investments necessary for rapid growth. Second, there was the appreciation of the yen *vis-à-vis* the weakening US dollar after the 1985 Plaza Accord, during which time the baht was effectively pegged to the dollar at a rate of roughly 25 baht per US dollar.[14] Third, as Japan, South Korea, Hong Kong and Taiwan faced sharply rising labor costs and protectionist barriers, this increased the cost advantage of exports from Thailand, Malaysia and Indonesia. Fourth, and most importantly, export expansion was fueled by massive inflows of foreign capital from Japan and the other newly industrializing countries, searching for lower labor costs and lower protectionist barriers in importing countries. For example, Taiwanese investors saw Thailand as "a key linkage between Asia and Europe, comprising abundant raw materials as well as good quality staff, reasonable land prices and wages, together with accommodative government policies" (Mahmood and Aryah 2001, 257). Similarly, for the Japanese, Thailand offered all the above, in addition to fulfilling their need to spread production bases overseas and to take advantage of Thailand's unfulfilled quotas under the Multi-fibre Arrangement (MFA), as well as to utilize the privileges under the Generalized System of Preferences (GSP) to which Thailand was entitled as a developing country.[15] Indeed, by the late 1980s, Thailand was one of the chief recipients of Japanese FDI, and by 1988 Thailand attracted more FDI than the four Asian newly industrialized countries combined.

As Tables 2.1 and 2.2 show, by the late 1980s capital flows (mostly in the form of private sector borrowing) increased dramatically, fueling a rapid expansion of exports of labor-intensive manufactured goods. Indeed, the two were intimately related, as much of the foreign investment was in the labor-intensive manufacturing sector – producing everything from textiles (in particular, garments), to wood products, rubber products, processed foods, canned goods, plastic goods, toys, shoes, leather products and confectionery, as well as medium and high-tech products such as computer components, electronics, automobile parts, telecommunications and sound equipment, machinery and electrical goods.[16] By the end of 1996, the manufacturing sector employed more than 4 million workers, accounted for 29 per cent of GDP and more than 70 per cent of export earnings (OECD 1999a, 22). In terms of export growth, between 1988 and the end of 1995 export growth averaged an extraordinary 28 per cent per annum, and as a share of GDP exports increased from 23 per cent in 1988 to 34 per cent in 1995 (Warr and Nidhiprabha 1996). Leading the expansion were technology-intensive exports:

> High-technology industry has grown rapidly in Thailand during the 1990s. Technology-intensive exports increased on average by 31% per year between 1992 and 1995, accounting for 54% of the total manufactured exports in 1996, up from 42% in 1992. The development of high-technology industry in Thailand was built on foreign capital, foreign technology and foreign product designs; final products, moreover, relied significantly on foreign markets. For

Table 2.1 *Capital inflows (% of GDP, period averages)*

	1980–86	*1987–92*	*1993–96*
Public sector	2.4	–0.3	0.4
Private sector	2.6	8.1	9.7
Total	5.0	7.8	10.1

Source: BOT (1998).

Table 2.2 *Structure of Thai exports, 1981–93 (percentage of total exports)*

	1981	*1985*	*1988*	*1990*	*1993*
Agriculture					
Rice	17	12	9	5	4
Tapioca	11	9	5	4	2
Total	48	38	26	17	12
Labor-intensive manufactures[a]					
Textiles and garments	10	14	16	16	14
Jewelry	3	4	6	6	4
Footwear	0	1	2	3	3
Total	15	21	29	31	27
Medium/High technology manufactures					
Machinery and appliances[b]	0	1	4	8	10
Electrical	0	1	2	6	7
Electrical circuitry[c]	4	4	7	6	8
Vehicles and parts	0	0	1	1	2
Total	5	7	15	22	30
Manufactures as percentage of total exports	36	49	66	75	80

Notes: [a]Agriculture has been omitted. [b]Mainly computers and parts. [c]Mainly integrated circuits.
Source: Jomo (1997, 69).

example, the electronics sector absorbed nearly 40% of foreign direct investment in manufacturing in Thailand between 1995 and 1997. On average, imported contents accounted for 80% of the value of high technology exports (OECD 1999a, 23).

The massive surges of capital inflows fueling export-promotion found a hospitable environment in Thailand. Long before it was fashionable (in the early 1980s), Thailand, in sharp contrast to most developing economies, already had relatively open current and capital accounts – although exchange controls still applied to the repatriation of interest, dividends and the principal of portfolio investment. In 1984, the government embarked on an ambitious stabilization program, including measures to liberalize further both the current and capital account transactions. As was noted earlier, the baht, which had been pegged to the dollar since the mid-1950s, was devalued by 15 per cent in nominal effective terms and then pegged against a basket of currencies that were weighted heavily (about 80 per cent) towards the US dollar.[17] The Exchange Equalization Fund, chaired by the deputy governor of the Bank of Thailand, determined the exchange value of the baht each working day in accordance with fluctuations of major currencies. With regard to portfolio investment, in 1986 the authorities reduced tax impediments to portfolio flows, in particular, for purchasing Thai mutual funds.

The acceptance of Article 8 of the International Monetary Fund (IMF) Agreement by the Bank of Thailand on May 20, 1990 served as a catalyst to further financial liberalization. The acceptance required Thailand to observe three conditions: (1) to allow unrestricted payments and transfers with respect to international current transactions; (2) to refrain from preferential treatment regarding international payments, including the use of a multiple exchange rate system; and (3) to accept local currencies of other member countries through current transactions. The period 1991–92 saw the liberalization of financial controls, the lifting of ceilings on interest rates, substantial relaxation of exchange controls, and major improvements in the tax treatment of dividends, royalty payments, capital gains and interest payments on foreign debentures.[18] By the end of 1992, the repatriation of investment funds, interest and loan repayments by foreign investors was fully liberalized. With regard to foreign direct investment, in addition to amendments in the Investment Promotion Act to promote more foreign investment, the government authorized (in 1991) 100 per cent foreign ownership of firms that exported all their output, while direct investment by Thai residents was gradually liberalized between 1991 and 1994. In April 1991, most controls related to capital account transactions were lifted. This meant that for the first time unincorporated Thai entities could open foreign-currency accounts, provided that the funds originated offshore. With the establishment of the Export–Import Bank of Thailand (EXIM Bank) in 1993, exporters not only had access to direct loans, loan guarantees and export insurance, but were also allowed to accept baht payments from non-resident baht accounts without prior approval from the central bank and to use their export proceeds to service external obligations. By early November 1994 all foreign-exchange restrictions on current account transactions were eliminated.[19] Now, commercial banks were able to freely extend credits and accept deposits in foreign exchange to and from foreigners, and foreign nationals could hold and operate non-resident baht accounts to facilitate international trade and investment. Thai citizens were now allowed to transfer up to US$5 million abroad for direct foreign investment purposes.

The passage of the Securities and Exchange Act in May 1992 marked a major step towards the establishment of a unified legal and institutional framework for the development of the capital market. The Act established the Securities and Exchange Commission (SEC) as an independent agency responsible for supervising capital market activities, including equities, bonds and derivatives, and permitted, for the first time, companies access to direct finance by issuing common stock and debt instruments.[20] The Securities and Exchange Act was a driving force for issuance for common stocks and debt instruments, and resulted in the rapid expansion of the Thai capital market. For example, new capital raised in the Stock Exchange of Thailand (SET) surged from 17.5 billion baht in 1990 to 55 billion baht per year between 1991 and 1993 and to approximately 130 billion baht per year during 1994–95. Market capitalization expanded rapidly, from 29.4 per cent of GDP in 1990 to 85.9 per cent in 1995. The SET index rose from 612.9 in 1990 to a peak of 1,682.9 in 1993 (Vajragupta and Vichyanond 1999, 44). Also, in keeping with the advances in information technologies, the Bank of Thailand (BOT) instituted improved clearing and settlement systems such as the BAHTNET and THAICLEAR (established in 1993), which greatly reduced transaction costs and facilitated business expansion. Also in 1993, the government established Thailand's first credit-rating agency, the Thailand Rating and Information Service (TRIS). This agency helped to promote the issuing of bonds and other debt instruments of private companies and public enterprises to private and institutional investors.

Finally, liberalization also allowed Thai banks and non-banks greater access to international financial markets for funds. In March 1993, an offshore banking center, the Bangkok International Banking Facilities (BIBF) was established, (1) to facilitate the growth of international banking business in Thailand by encouraging foreign-currency denominated bank loans into Thailand (out–in loans) to meet the funding needs of Thai firms and to finance domestic infrastructure development, and (2) to attract foreign banks with international reputation, technology and know-how to Bangkok in order to introduce more competition into the banking system and to transform Bangkok into a major financial center that could rival Hong Kong and Singapore. In February 1994, all foreign exchange restrictions related to outward direct investment and travel expenditures were removed. Given the fact that Thailand's capital account was fully open on the inflow side and there were no restrictions on foreign borrowing by the private sector, the creation of the BIBF led to rapid expansion in the number of financial institutions that could borrow and lend in foreign currencies, both on- and offshore. The government granted generous incentives to BIBF operations.

These included reduction in corporate income taxes from 30 per cent to 10 per cent, exemptions from specific sales taxes, exemptions from special business tax (including municipal tax), exemptions from stamp duties, reduction of withholding tax on interest on foreign loans for countries without double-taxation agreements with Thailand from 15 to 10 per cent, and exemptions from taxation on the permanent establishment of offices in Thailand (BOT 1998, 18). On top of all this, the facility enabled Thai investors to borrow in foreign currency at rates lower than the domestic interest rate.[21] Thai businesses shifted their foreign borrowing from loans to BIBF, and some capital inflows, particulary from Japan, were rebooked under the BIBF category so as to gain access to tax privileges, and then lend at low rates to Thai institutions through the BIBF. Overall, the establishment of the BIBF greatly helped to expand the volume of foreign bank loans into Thailand.

Initially, 46 BIBF licences were granted to 15 Thai banks, 11 foreign banks that already had branches in Thailand and 20 new banks from overseas. By December 1996, 49 banks had been granted BIBF licenses, including Thai commercial banks and foreign banks with and without local branches in Thailand (BOT 1998, 18). While BIBF banks were allowed foreign investment in Thai securities markets, and permitted to engage in other standard offshore banking activities such as loan syndication and foreign-exchange transactions in third-country currencies, the Thai authorities would have liked the BIBF to generate a balance between out–out and out–in activities. However, as it turned out, a large part of the BIBF activities was in "out–in" transactions – or borrowing from abroad and lending domestically. As Blustein (2001, 59–60) notes, "the officials who concocted the BIBFs evidently assumed that much of the money would be relent outside of the country; instead, most of it ended up being lent to Thai businesses and converted into baht."

Predictably, the BIBF's out–in transactions doubled in the first year of its operation, from 197 billion baht in 1993 to 456.6 billion baht in 1994 to 1.4 trillion baht in 1997 (BOT 1998a, 12). Initially, this expansion in part reflected a shift in FDI to BIBF lending as intra-company loans (a component of FDI) were replaced by BIBF loans, thus indicating a rebooking of FDI through BIBF. However, as BIBFs were permitted to lend in virtually unlimited amounts to residents, their lending exposures grew rapidly. This was especially the case with the new BIBFs, which believed that volume growth would qualify them for an upgrade to a full-branch status. In January 1995, the authorities further expanded the offshore banking business by granting 37 licences for the Provincial International Banking Facilities (PIBF) to 22 commercial banks in order for them to operate outside the greater Bangkok area. Just prior to the crisis, 30 PIBF offices were already in operation in the 5 provinces: Chiang Mai in the Northern region, Chonburi and Rayong in the Eastern region, Ayutthaya in the Central region and Songkhla in the Southern region. It should be noted that while the PIBF's and the BIBF's funding had to be from overseas, the PIBF could extend credit in both baht and in foreign currencies, but the BIBF could only extend credit in foreign currencies (BOT 1998, 18–19).

As was noted earlier, all these changes helped to deepen significantly Thailand's financial system (given the country's level of income), besides causing a rapid growth in the domestic money supply. The ratio of M2 to GDP increased from 62.2 per cent in 1987 to 74.7 per cent in 1992 to 79.5 per cent in 1996.[22] Even more impressive, the ratio of M3 to GDP rose from 73.2 per cent in 1987 to 107.6 per cent in 1996 – reflecting a more active role of finance companies and *crédit fonciers* in tapping domestic savings.[23] Moreover, the liberalization of the capital account coupled with the liberalization of interest rates in 1992 led to a lending boom. Total credit outstanding grew on average 22 per cent per annum in real terms over 1985 to 1996. The loan portfolio of finance companies grew at an even faster pace – on average 30 per cent in real terms per annum (Alba *et al.* 1999, 26).

Thailand's adoption of such market-friendly measures promoted massive capital inflows. Domestic borrowers were only too eager to borrow offshore, because the lower interest rates made such borrowing cheaper. Domestic corporate borrowers discovered that they could borrow at an interest rate of 5 per cent to 8 per cent instead of paying more than 13 per cent when borrowing domestically.[24] They could earn money simply by borrowing from abroad and depositing baht in Thailand. Domestic borrowers saw none of the problems that a strategy such as Thailand's fixed exchange-rate policy (which encouraged foreign borrowing denominated in US dollars) carried, as it gave the impression of carrying little or no exchange risk. In the absence of a well-developed domestic debt market, the stability of the baht exchange rate together with lower interest rates abroad encouraged Thai investors to tap foreign funds aggressively and without hedging, and then to speculate in local real estate, securities and other baht-denominated assets. For external investors, Thailand's exchange-rate stability (given the fact that the baht was pegged to the dollar) and booming growth rates offered a profitable venue for interest arbitrage and speculation. As Gilpin (2000, 145) notes, "anticipating strong economic growth and believing that their investments were secure, foreign banks, hedge funds, and other financial institutions were only too delighted to flood Thailand and other emerging markets with money."

Beginning in the late 1980s, foreign direct investment increased dramatically. From annual rates of inflow varying between US$100 and US$400 million over the previous fifteen years, the annual rate of inflow rose more than fivefold, to over US$2 billion per year, and remained at roughly these levels over the next eight years. In fact, between 1988 and 1996 Thailand was the recipient of the largest capital inflows relative to GDP in the world. According to the Bank of Thailand, between 1988 and 1996 Thailand received a staggering cumulative amount of US$100.3 billion, about 55 per cent of

1996 GDP, or 9.4 per cent of GDP on average per annum. Between 1987 and 1990, inflows increased to some US$11.1 billion. In 1994, but especially in 1995, capital inflows surged to over US$21 billion, but declined sharply in 1996 (Alba *et al.* 1999, 21). Banks and finance companies not only played the key role in intermediating the capital inflows, they also borrowed heavily (in US dollars and yen) in the world interbank market, to a total of some US$69 billion by June 1997.[25] Of this, about US$46 billion was in maturities of between 30 days and one year, although the reported official foreign exchange reserves stood at US$31 billion – of which (as we now know) a substantial fraction had already been committed to the forward market (Cooper 1999, 19). Also, many Thai firms who could not directly access overseas capital markets were now able to borrow from BIBF Thai banks. As a result, foreign bank loans through the BIBF soared from US$8 billion in 1993 (its first year of operation) to US$50 billion in 1996 (Alba *et al.* 1999, 23). Indeed, according to the World Bank, the Thai economy was transformed from one that was "partially integrated" in 1985–87 to one of the most integrated emerging market economies by 1994 (Alba *et al.* 1999, 3).

Capital inflows and policy responses

Such massive inflows of foreign capital carry important macroeconomic implications. Under fixed exchange-rate regimes rapid capital inflows can be inflationary, as prices of domestic tradeables are bid up in the wake of capital surges. Emerging economies may have difficulty allocating the capital to productive uses. Massive surges of inflows may quickly enlarge the current account deficit and aggravate the balance-of-payments problem. As economic theory maintains, financial liberalization means more competition, and ideally a more efficient use of funds; but it also reduces the ability of monetary authorities to adjust interest rates. Domestic interest rates become subject to international market fluctuations, while new financial instruments mean that monetary aggregates such as M2 reflect the actual state of the economy less accurately.

In the case of Thailand in 1994, M2 growth fell to 12.9 per cent per year from its previous rate of 18.4 per cent – although both inflation and the current account deficit were on the rise, from 5.6 per cent of GDP in 1994 to 8.0 per cent in 1995 and 8.5 per cent in 1996 (Vajragupta and Vichyanond 1999, 52). Indeed, the Thai monetary authorities were aware of the growing problem. For instance, the Bank of Thailand in its 1993 Annual Report noted that "with increased capital flows and the resulting volatility in the financial markets caused by monetary conditions abroad, it is important that the authorities maintain a cautious approach in their formulation of monetary policy" (BOT 1994, 8). Again, the 1994 Annual Report (BOT

1995a, 7) noted that "high credit growth was recorded in 1994, made possible by the increased use of foreign capital by the banking system. Therefore, to ensure that domestic demand does not rise too rapidly, commercial bank credit should grow at a more moderate pace in 1995. At the same time, commercial banks and finance companies should ensure that credit is channeled to productive uses and not to luxury consumption or speculative ventures." Moreover, as the Mexican peso crisis in 1994 had illustrated, maintaining a fixed exchange-rate policy once the capital account is opened is imprudent, since the reserves of foreign exchange are finite. In fact, in their comprehensive study, Warr and Nidhiprabha (1996) warned of the dangers inherent in Thailand's program of capital market liberalization in combination with a fixed exchange rate. They explicitly warned that, if capital market liberalization was to be maintained, Thailand would require a more flexible-exchange rate system. Of course, there was a failure to respond effectively to such warnings.

The sheer magnitude of capital inflow exceeded all expectations, forcing Thailand's monetary authorities to respond quickly to too much of a good thing. Cognizant of the fact that massive inflows of short-term capital or hot money have destabilizing side-effects, such as rapid monetary expansion, an excessive rise in aggregate demand, inflationary pressures, an appreciation of the real exchange rate (which can result in the loss of export competitiveness and give rise to inflation), and a widening current account, the Thai monetary authorities introduced a number of measures aimed at discouraging such inflows and influencing the maturity structure of banks' foreign borrowing.[26] Specifically, given the limited policy options, the authorities attempted to cope with capital inflows through a combination of monetary, prudential and market-based capital control measures.

To slow credit growth, restrict short-term capital inflows and reduce the inflationary impact of the inflows, the Bank of Thailand raised the policy rate in March 1995 and extended the coverage of the credit plan to include larger finance companies and the BIBF banks. A maximum credit-to-deposit ratio was also introduced to restrict banks from extending loans requiring foreign borrowing. In August 1995 the authorities began to introduce restrictions on capital inflows. Effective from August 8, 1995 the minimum amount on foreign borrowing on the BIBF was increased from 500,000 baht to 2 million baht to shake out small borrowers. Commercial banks were required to deposit at the Bank of Thailand (with no interest) 7 per cent of their non-resident baht deposits with a maturity of under one year. Also, reporting requirements were imposed for short foreign-currency positions. This measure, aimed explicitly at increasing the cost of raising short-term deposits from abroad, led to lower rates for short-term non-resident deposits. On April 4, 1996 the measure was extended to finance companies. In a measure effective from June 23, 1996 non-resident baht accounts with less than a one-year maturity and all commercial banks, BIBF, and finance companies were required to deposit (with no interest), at the Bank of Thailand 7 per cent of their new short-term external borrowing or deposits from abroad, both in baht and in foreign currencies. This measure was aimed at influencing the maturity structure of foreign borrowing by banks to shift it from short- to longer-term maturities (BOT 1998a, 24–6). In terms of the BOT's prudential measures, supervision of financial institutions was progressively strengthened to guard against systemic risk. For example, the capital-to-risk asset ratio of commercial banks was raised from 8 per cent to 8.5 per cent in October 1996, while that of finance companies was raised from 7 per cent to 7.5 per cent in January 1997 (BOT 1998b, 17). The authorities even resorted to moral suasion by seeking cooperation from commercial banks, and licensed the BIBF to lengthen the maturity of their borrowing, especially through the BIBF.

Yet these measures were not very effective. Although they somewhat reduced the profitability of the BIBF transactions, they did not reduce the size of the capital inflows. As BIBF loans became more expansive, large corporations shifted to direct foreign borrowing. Also, as the BOT (1998) observed in hindsight, while the measures succeeded in somewhat slowing the relative share of short-term capital inflows, they could not take care of the misallocation of resources – in particular, the lending to unproductive sectors and sectors with no foreign-exchange earnings potential to service the foreign currency loans.[27] Part of the problem stemmed from the fact that, despite a widening current account deficit, the Bank of Thailand repeatedly stated its commitment to the official rate of exchange. This exchange-rate policy had two primary effects. The first was a loss in international competitiveness that stemmed from the choice of the peg. The second was heightened borrowing from abroad, which was encouraged by the implicit guarantee of an exchange-rate parity. With the exchange rate assumed to be fixed (after all, the rate had been tied for so long to the US dollar), many market participants ignored the exchange-rate risk and took advantage of the lower interest rates on offshore loans and significantly increased their borrowing from such sources. As was noted earlier, this option was greatly helped by the establishment of the BIBF – which loosened regulations on foreign borrowing by Thai banks. Assuming that the exchange-rate regime would be maintained, firms undertook large, unhedged positions. Finally, as Nidhiprabha and Warr (2000, 106) note, "these measures [BOT's response] were not quantity restrictions. They simply imposed higher costs on foreign borrowing. But these policy responses to capital inflows were too lenient and too late to stop huge inflows to the private sector. Both banks and non-bank corporations were already highly leveraged with unhedged short-term foreign liabilities."

It is important to note that the BOT, by indirectly encouraging short-term borrowing by non-bank financial institutions, greatly exacerbated the macroeconomic imbalance. First, the entry of foreign banks with the establishment of the BIBF increased competition for prime customers such as multinationals – who were attracted by the lower cost of funds on the BIBF. This increased competition squeezed the lending margins of the domestic banks, forcing them to move into more lucrative, but also more risky activities – a shift that was facilitated by the relaxation of the regulations governing the permissible activities of banks. Second, for many years before the crisis, banking licences in Thailand had been a highly profitable business. Since the issuance of new licences was tightly controlled by the BOT, Thai finance companies competed aggressively with one another to be selected. They were impelled to engage in this activity because, compared to commercial banks, finance companies had a greater incentive to lend, because to do so would send a signal to the Bank of Thailand that their credit portfolios were large enough to be awarded the much-coveted banking license. Hence, in order to project themselves as important players in the domestic financial market, many finance companies were willing to borrow large sums abroad and lend domestically at low margins – thereby taking risks they would not ordinarily take. By the end of 1996, Thai banks and finance companies had become gravely exposed to credit risk and maturity mismatches. In time, such risks would cost them dearly.

One common policy measure that a central bank can use to cope with excessive inflows of foreign capital is *sterilization.* In a successful sterilization operation, the domestic component of the monetary base (bank reserves plus currency) is reduced to offset the reserve inflow, at least temporarily. In theory, this can be achieved in several ways: by encouraging private investment overseas and by allowing foreign investors to borrow from the local market. However, the conventional form of sterilization has been through the use of open-market operations via the selling of Treasury Bills and other such instruments to reduce the domestic component of the monetary base. In practice, however, such operations can be self-defeating, as they may raise domestic interest rates and stimulate even greater capital inflows. In Thailand (and other crisis-hit Asian countries), the monetary authorities made some attempt to sterilize capital inflows as a means of limiting the growth of domestic credit. In particular, the monetary measures included the conventional form of sterilized intervention (designed to offset the effect of reserve inflows on the monetary base by open market sales of domestic securities), increases in reserve requirements (designed to limit the impact of reserve inflows on the growth of monetary aggregates by reducing the money multiplier), shifting of government deposits from commercial banks to the central bank, and an increase in the discount rate, or otherwise a greater limit on the discount window, moral suasion and credit controls. Indeed, during the period of heavy capital outflows during late 1996 to May 1997, foreign-exchange market intervention was carried out by the Bank of Thailand to defend the currency peg. The BOT intervened not only to manipulate the local exchange market, but also offshore spot and forward exchanges markets, including those in Singapore and Hong Kong.

However, lacking the depth of markets in government securities, Thailand (and other crisis-hit Asian central banks) supplemented operations in government securities by issuing their own debt instruments. In 1987, the BOT began to issue short-term BOT bonds with maturities of 6 months to one year. But, given the fact that the BOT's main goal was to sterilize the inflows effects on the domestic money supply, domestic interest rates were increased, despite the fixed exchange rate and the increased openness of the capital market. However, as has been noted, such operations typically entail costs to the central bank, owing to differentials between the cost of issuing securities and the return on foreign assets, not to mention the fact that sterilization operations tend to attract further inflows, as they tend to keep interest rates high. Indeed, in Thailand, where sterilization took place amidst a liberalized environment, there was very little to prevent capital inflows, including short-term foreign investment – which entered the country in surges in response to the increased rate of return. Thus, in raising interest rates Thailand was simply providing an impetus for further capital flows, since the latter were very responsive to interest arbitrage opportunities. Moreover (as was noted earlier), the high domestic interest rates, together with the commitment of the baht–dollar exchange rate, made it much cheaper for Thai businesses to borrow foreign loans at lower costs than they could borrow domestically. The BIBF license-holders could borrow dollars and still make a tidy profit re-lending the dollars to local borrowers at lower rates than those of baht loans. As Boskin (1998, 3) notes, "Thai bankers were borrowing at 6 per cent in dollars and lending at 12 per cent in baht . . . what a moneymaking machine, so long as the value of the baht relative to the dollar stayed constant." As investor perceptions regarding Thailand strengthened during this period, capital inflows became more sensitive to the measured interest-rate differential. For example, the BOT's efforts to slow an overheated economy by raising interest rates in 1995 caused foreign borrowing to grow even more rapidly.

The high rate of capital flows was reflected in Thailand's skyrocketing external debt, which more than tripled from US$29 billion in 1990 to US$94 billion by mid-1997. In relative terms, total debt outstanding jumped from 34 per cent of GDP in 1990 to 59 per cent of GDP by mid-1997. This rapidly increasing debt not only distorted the current savings–investment gap, but also increased future debt-service obligations. Indeed, the debt-service proportion of Thailand's current account deficit grew from 37 per cent in 1990 to 50 per cent in 1996. Moreover, the bulk of the debt was private – which can negatively impact on the current account, because private debts are generally charged at higher interest rates and have shorter maturities. Also, much of the private debt was incurred by the non-bank sector, because Thai commercial banks were subject to limitations on their net foreign-exchange positions.[28] Non-bank private external debt was not only large, but also rapidly growing, from 51 per cent of external debt outstanding in 1990 to 72 per cent in mid-1997. Likewise, the *short-term* portion of the debt jumped from 22 per cent in 1990 to 50 per cent in 1995–96 – that is, the outstanding short-term Thai debt totaled US$45 billion out of the US$90 billion of total external debt in 1995–96. This put both individual borrowers and the country at risk of a liquidity shortage should creditors (mostly foreign) decide not to roll over maturing debt (Vajragupta and Vichyanond 1999, 56–7).

Export slowdown and risky investments

There were also growing problems in the tradeables sector. Export manufacturers faced increasing bottlenecks in the availability of complementary domestic inputs, especially with respect to skilled labor and transportation facilities. This contributed to the growing problem of inflation. In both Thailand and Malaysia, the worsening transportation and communication bottlenecks added to the growing production costs, while the tightening labor markets and the resultant rise in real wages led to a decline in the countries' competitiveness in labor-intensive export industries. By the early 1990s, the era of cheap labor was over. As the supply of surplus agricultural labor ran out, the tighter labor market pushed up wages, without commensurate increases in labor productivity.[29] In Thailand, for example, "over the thirteen years from 1982 to 1994, real wages increased by 70%, but this increase was heavily concentrated in the years after 1990. Over the years 1982 to 1990 the compound average annual rate of increase was 2%, but over the following four years to 1994 the real wage increased at an average rate of over 9%" (Warr 1998, 57). This, coupled with rapid growth in demand for imported inputs in both the tradeables and non-tradeables sectors, led to a growing current account deficit.

These input-related production problems were compounded by the financial sector problems rooted in the effective pegging of the baht (and other regional currencies) to the strengthening US dollar. The 1987 Plaza Accord brought down the value of the US dollar and ushered in a new era of the appreciating yen. Between 1985 and 1988, the yen almost doubled in value *vis-à-vis* the dollar and other Asian currencies tied to the dollar. More broadly, by 1988, the yen was almost 30 per cent above its average for the 1980–85 period on an inflation-adjusted, trade-weighted basis. By the mid-1990s, the era of the strong yen was over, with the sharp appreciation of the dollar in 1995, and especially its appreciation *vis-à-vis* the yen. As the dollar rose relative to the yen, the currencies of the countries tied to the dollar (like Thailand) rose in comparison with the yen also.[30] In the case of Thailand, since the US dollar carried the greatest weight in the basket, the movement of the baht–dollar rate was negatively related to the strength of the dollar against other major currencies. The appreciation of the yen against the dollar in early 1995 caused appreciation of the baht against the dollar. In fact, the process of real appreciation that was set in motion in the early 1990s gained renewed momentum in 1995 with the depreciation of the yen relative to the US dollar – meaning that any currency pegged to the dollar would suffer a real appreciation. Although the baht had edged down by about 4 per cent against the dollar in the two years leading up to the July 2, 1997 devaluation, its real effective exchange rate (trade-weighted) had appreciated by about 15 per cent over the same period. This largely reflected its sharp appreciation of approximately 35 per cent against the yen. As a result, Asian countries that had pegged their currencies loosely to the dollar suffered a sharp slowdown in exports on the back of the weakening yen. With higher yen (and deutsche mark) weights on Thai imports than exports, the April 1995 fall in the US dollar (which accounted for the largest weighting in the baht peg) induced import prices to rise faster than export prices. As Tan (2000, 62) notes, "by 1996, the baht was about 10 per cent above its 1990 value relative to the US dollar. This made Thai exports increasingly uncompetitive in world markets." Thus, as the dollar rebounded in mid-1995, Thailand's fixed-rate system started to work inexorably against the country's exports.

Specifically, Thailand, which had seen its exports soar to the unprecedented rate of 22.2 per cent in dollar terms in 1994, followed by an even higher growth rate of 24.7 per cent in 1995, saw its export growth decelerate sharply to 1.9 per cent and 0.2 per cent in dollar and baht terms respectively in 1996 (Nidhiprabha 1999, 70). During 1997–98, Thailand's average export unit value fell by about 17 per cent – significantly more than the 11 per cent decline in world average prices of manufactures and non-fuel commodities (weighted by Thailand's exports). Prices of agricultural products fell by 34 per cent during the same two-year period, largely reflecting the decline in world commodity prices. Since Thailand has been more of an "Asian-centric" exporter, the depressed Asian markets greatly affected its export earnings (IMF 2000, 75). The appreciation of the real exchange rate not only resulted in Thai exports losing their competitiveness, but also meant that direct investments from Japan slowed down, depriving Thailand of the long-term investments that were crucial sources of innovation and productivity growth. Also, as was noted earlier, the exchange-rate policy of pegging to a basket of currencies in which the dollar was weighted heavily heldback the government from allowing the baht to depreciate against the dollar at a faster rate to stimulate exports. In fact, by preventing the nominal exchange rate from departing significantly from the central peg (in particular, by preventing the exchange rate from appreciating), the policy resulted in a fairly predictable nominal exchange rate, which reduced the foreign-exchange risk faced by investors and increased the incentives for domestic residents to incur unhedged, short-term foreign debt.[31]

Since the net inflows of capital greatly increased the supply of money in circulation, Thai financial institutions (flush with capital) engaged in an orgy of lending. According to an IMF study, total credit outstanding grew on average 22 per cent per annum in real terms between 1988 and 1995. The loan portfolio of finance companies grew at an even faster rate – on average 30 per cent in real terms per annum, as against 20 per cent for commercial banks over the same period. This is hardly surprising, since finance companies specialized in lending to Thai consumers and businesses on easy terms (with low interest rates and little money down), in some of the economy's hottest areas, such as real estate and purchases of stock on margin.[32] Under such circumstances, loan growth outpaced the growth of GDP 1.8 times on average and 2.3 times in the case of finance companies (Alba *et al.* 1999, 26). In the immediate period before the crisis, from 1995 through to the end of 1996, the growth rate of real private credit averaged above 15 per cent, or twice the rate of real GDP growth. In their competition for clients, commercial banks and finance companies extended credit at a rapid pace, averaging above 10 per cent and 20 per cent respectively on an annual basis (IMF 2000, 47). Much of the credit was extended imprudently – without proper review of the client's creditworthiness or the soundness of the proposed investments. Jeffrey Sachs (1997) notes that:

> Banks and near-banks – such as Thailand's now notorious financial trusts – became intermediaries for channeling foreign capital into the domestic economy. The trouble is that the newly liberalized banks and near-banks often operate under highly distorted incentives. Under-capitalized banks have incentives to borrow abroad and invest domestically with reckless abandon. If the lending works out, the bankers make money. If the lending fails, the depositors and creditors stand to lose money, but the bank's owners bear little risk themselves because they have little capital tied up in the bank.

The BIBFs, whose "out–in" lending was entirely foreign-currency denominated, expanded credit at the fastest pace, recording average annual growth rates of over 35 per cent (IMF 2000, 47). This outcome was quite different from the original intent of the BIBF – to establish Thailand as a regional banking center and serve as an intermediary between offshore lenders and borrowers. On the contrary, the BIBF ended up unintentionally serving as a conduit for local firms vastly to expand their loans from foreign banks. However, borrowing via BIBF considerably enlarged the short-term portion of Thailand's external debts, as most BIBF credits were on a short-term basis. Not surprisingly, short-term debt liabilities rapidly outgrew the country's foreign-exchange reserves. Worse still, corporations invested these funds in risky ventures with inflated project costs and optimistic revenue projections. In many sectors, growth in assets outstripped sales and profit growth. For example, while some of the foreign loans were invested in a wide range of manufacturing industries (for example, steel and petrochemicals), in which there was a growing world over-supply, much of this money went into the unproductive non-tradeable sector, in particular, into property construction and real estate – commercial as well as residential property. Assets in the property sector grew by 115 per cent during 1993–96 as profits declined by 69 per cent (Nabi and Shivakumar 2001, 14). Greatly compounding the problem was the fact that such investments were not generating the foreign-exchange earnings to service the foreign borrowing.[33] Rather, "greater access to funding prompted many real estate companies to enlarge their land banks, invest in speculative and unproductive purchases such as vacant land, initiate projects without seeking adequate information on market conditions and demand, and subsequently become highly engaged in projects with inferior risk-return trade off" (BOT 1998b, 8). On the demand side, the facts that interest payments on housing loans were tax-deductible up to 7,000 baht per year; that commercial banks were encouraged to extend more housing loans to middle- and low-income earners; and that the limit of foreign ownership in condominiums was raised from 25 per cent to 40 per cent fueled investments in property and real estate (BOT 1998b, 90). Inevitably, "as a result of the rapid buildup of assets, Thailand had one of the highest ratios of capital to output among the middle-income countries" (Nabi and Shivakumar 2001, 14).

Between 1986 and 1990, the construction sector expanded on average by 14.9 per cent per annum, and land prices soared 3–4 times within 7–8 years (BOT 1998b, 15). At the end of 1997, real-estate related wealth in Bangkok stood at 2.2 trillion baht, equivalent to about 45 per cent of GDP and greater than the total capitalization of the country's stock exchange of an estimated 1.1 trillion baht. In the residential sector, the number of housing units in greater Bangkok increased by some 1.25 million between 1988 to 1997 – raising the vacancy rate to around 14 per cent in 1997. At the height of the recession in 1998, the number of new vacant housing units stood at 350,000, a vacancy rate of 28 per cent (Nabi and Shivakumar 2001, 13). In the commercial sector rapid increases in office space construction (even though the price of office space had peaked in 1991), led to an increase in the vacancy rate to around 20 per cent before the crisis (IMF 2000, 5). According to one account, in the Bangkok CBD (Central Business District), completed first-grade office space "was less than 1.5 million square meters in 1991. By the end of 1997, total supply had quadrupled to 6 million square meters, with nearly 2 million of those located in the CBD. Around 900,000 square meters of office space were added to the stock each year for three consecutive years up to 1995 . . . Between 1991 and 1997, an average of 360,000 square meters of shopping area were added to the city [Bangkok] every year" (Renaud 2000, 189). Similarly, Blustein (2001, 57) notes that "the most spectacular real estate boondoggle was a $1 billion-plus development on the city's [Bangkok's] outskirts called Maung Thong Thani Estate, which was designed to house hundreds of thousands of people and included high-rise condominium buildings, townhouses, retail shops, and a sports complex. Sales were abysmal, and with weeds growing high amid the unoccupied buildings, the desperate developer – allegedly a major contributor to the ruling party – furiously lobbied for government deals to move Parliament and part of the Defense Ministry onto the property." In fact, over-expansion resulted in over-supply, creating a classic "bubble economy" – where real-estate prices continued to rise well beyond levels justified by the productivity of the assets. As Lester Thurow (1998, 22) notes, "Bangkok, a city whose per capita productivity is about one twelfth that of San Francisco, should not have land values that are much higher than those of San Francisco. But it did – as did other Southeast Asian cities. Grossly inflated property values had to come down." However, as long as the prices continued to rise existing investors were rewarded and collateral was created for new loans to finance further investment – until the inevitable bursting of the bubble. Indeed, when the investments went sour, bad loans proliferated as interest rates on debt rose sharply, while occupancy rates and rental fees fell rapidly. The worst part was that most of these loans were denominated in foreign currency (about US$49 billion at the end of 1997 – equivalent to 33 per cent of GDP), with usually no hedging against currency depreciation. The bursting of the bubble destroyed many of the companies that had undertaken real-estate construction, and others who had provided the finance.

According to one study, in spring 1996 approximately 54 per cent of the outstanding property credit originated from banks and 46 per cent from finance companies. To put it bluntly, the Thai banking and financial sector now faced the problem of both exchange-rate risk and domestic default. Specifically, the increased level of bank's foreign indebtedness relative to the lending base of the banks increased their exposure to exchange-rate risk, and the increased level of bank credit to GDP increased their exposure to domestic contraction. While weak domestic financial intermediation and poor corporate governance of Thai banks have been widely blamed for their difficulties, it was the increased exposure of the Thai banks that was primarily the reason behind their problems – something that could not have been corrected by tighter supervision alone.

The gradual meltdown

The continually rising value of the baht created major problems. By mid-1996, Thailand's current-account deficit had reached 8.5 per cent of GDP – much of which was financed by large inflows of short-term portfolio investment and foreign loans. In fact, Thailand's current account deficit was at the same level that was responsible for the Mexican peso crisis in 1994.

Also, as was noted earlier, the export growth-rate had plummeted to virtually zero in 1996. This combination of widening current account deficit, export slowdown (while imports continued to grow), the worsening debt situation and currency appreciation caused widespread expectation that the central bank could not defend the baht much longer. As foreign investors became concerned over Thailand's ability to repay its huge foreign debt, they began to move their money out of the country. By the second quarter of 1996 the considerable appreciation of the baht against non-US currencies induced active speculation, as the non-resident baht account (NRB) became heavily used by foreigners as a means of speculative transactions. It was now a matter of time before more sustained speculative attacks would begin.

The attack came in several waves: first on May 10, 1996, when the country's ninth-largest commercial bank, the Bangkok Bank of Commerce (BBC) collapsed (despite the massive injections of liquidity by the BOT), under the weight of non-performing property loans that totaled nearly half its US$7.2 billion of assets (*Economist* 1996, 77). Though the BBC was run by a well-connected former central bank official, Krikkiat Jalichandra, it came to public light "that the central bank knew in 1993 that nearly 40 per cent of BBC's total assets consisted of nonperforming loans, many of which consisted of loans to Krikkiat's associates, other bank insiders, and influential politicians to finance speculation in real estate and corporate takeovers. Yet the central bank had refrained from taking any serious enforcement actions" (Blustein 2001, 57–8). While the collapse of the Bangkok Bank of Commerce was the result of gross mismanagement and fraud, the government's decision to bail out depositors, creditors and shareholders of the failed bank, and its reluctance to prosecute those responsible, sent a bad signal to the financial community. Compounding this, rumors in Hong Kong about an imminent baht devaluation in response to the large debt, mounting current account deficit and poor export performance only served to further fuel the attack. Foreign investors began by selling baht for dollars, causing a serious liquidity shortage in the domestic money market. Speculation against the baht took the form of direct position-taking in the forward market, which created downward pressure on the forward rate, and use of explicit baht credits, which, when converted into foreign currency, created a short position on the baht. Foreign speculators sold baht for dollars in the Hong Kong market, while many Thai banks borrowed heavily from money markets to purchase dollars, sending the interbank rate up to 25 per cent. Thus, the conversion of baht credit into foreign currency represented a capital outflow, placing downward pressure on the spot exchange rate.

To defend the baht, besides periodically denying devaluation rumors and making written commitments not to devalue the baht, the BOT also raised short-term interest rates and intervened heavily in the market, bringing billions of baht forward. In particular, the BOT took the unprecedented step of intervening in Singapore and Hong Kong by selling dollars in the forward markets, where some commercial banks were speculating on the baht/dollar exchange rate by dumping baht for dollars. On August 1, 1996 alone, the BOT spent some half a billion US dollars from its international reserves to defend the baht. Of course, *ipso facto*, this resulted in a decline in reserves and/or increase in the central bank's forward commitment. Moreover, commercial banks were advised to refrain from accommodating foreign speculators' demand for foreign exchange, and the onshore and offshore foreign-exchange markets were split, with credit restrictions imposed upon non-residents. The resultant domestic credit squeeze reduced asset prices and collateral values and increased the levels of non-performing loans. This only served to put additional pressure on the already weak financial institutions, and several more finance companies collapsed. Nevertheless, the BOT's intervention pacified the market as "market participants perceived that if the BOT were planning to devalue the baht it would not favor speculators by cheapening the cost of speculation. Confidence in the baht was restored because of the swift and massive intervention in offshore markets where daily transactions tripled the size of domestic foreign transactions" (Nidhiprabha 1998, 207).

However, this was just a lull. With large and rapidly increasing short-term debts, shrinking foreign reserves, and an exchange rate that was pegged within a narrow range of around 25 baht to the US dollar, the baht remained a prime target for currency speculators. Indeed, the second wave of attack occurred in December 1996, as more than half the 500 companies on the stock exchange reported declining earnings, and rumors of a currency devaluation spread. This prompted withdrawal of investments out of Thailand. However, quick stabilization of the baht through direct market intervention, coupled with announcement of a substantial budget cut, helped to restore foreign investor confidence – as reflected in the renewal of inflows in early January 1997. However, this was short-lived. In February 1997, one of Thailand's largest finance companies, Finance One, found itself in deep trouble.[34] Burdened with a huge debt (Finance One had borrowed about US$600 million from abroad), excess exposure to sectors sensitive to the asset-price inflation of the 1990s, and weak underlying capitalization made Finance One (and other finance companies) particularly vulnerable to the slow-down in economic activity and asset-price decline that began in mid-1996. By early 1997, "Finance companies were saddled with $4.8 billion in margin loans to stock investors, many of which couldn't be repaid" (Blustein 2001, 57). To save it from collapse, the Finance Institutions Development Fund (FIDF) was forced to inject 40 billion baht into Finance One, besides ordering it to merge with Thailand's twelfth largest commercial bank, Thai Danu Bank, to overcome the sharp liquidity crunch.[35] On March 3, 1997, Finance One was dissolved and merged into Thai Danu. The BOT also made public the names of nine finance and one *crédit foncier* company (or housing loans broker) facing similar difficulties with high exposure to property loans, and ordered these companies to raise their registered capital. All this seemed to further aggravate market instability.

However, the attacks, the most intense yet, started again in mid-February 1997, when the Somprasong Land Company failed to make a US$3.1 million interest payment on its Euro-convertible debentures owing to cash-flow constraints caused by conditions in the Thai property market.[36] The market appeared to be convinced that a depreciation of the baht was imminent. To fight off the speculative pressure and to preserve the integrity of the exchange rate system (and thereby maintain investors confidence), the BOT had to intervene heavily to keep the baht exchange rate within the EEF's band. Moreover, domestic liquidity was tightened, sending overnight inter-bank rates to as high as 30 per cent from the 9–15 per cent at the beginning of the year. Yet, the pressure on the baht continued unabated. Foreign exchange reserves which stood at roughly US$40 billion in the third quarter of 1996 had fallen to US$38 billion at the end of February 1997. However, the government had also incurred forward obligations amounting to over US$12 billion. This meant that the net foreign exchange reserves had fallen from US$40 billion to US$26 billion (BOT 1998a, 26–8).

With the bursting of the property bubble following the Somprasong Land Company's dramatic default, excess capacity was prominently visible in the real estate markets, especially in Bangkok. This was followed by the rapid decline of the SET index. On March 3, 1997, the Thai government, for the first time in the SET's 20-year history, suspended trading on the stock exchange for all banking and finance companies' shares. To reassure jittery investors, the Finance Minister Amnuay Viravan and the BOT governor Rerngchai Marakanond and deputy governor Chaiyawat Wibulswasdi went on national television to announce a series of measures to shore up banks and finance companies. Measures included higher reserve requirements for all financial institutions, capital mobilization for finance companies, and an increase in the liquidity of finance companies. They also permitted ten under-capitalized finance companies 60 days to increase their capital reserves.

In early April 1997, the government established the Property Loan Management Organization (PLMO) to deal with the property sector crisis by purchasing and managing property loans from financial institutions, thereby helping to ease pressure on their balance sheets. The funds for the PLMO were to be raised by issuing seven-year zero-coupon bonds guaranteed by the government.[37] However, this failed to prevent a further loss of confidence. Rather, as Arphasil (2001, 183) notes, it "translated into an increase in withdrawal of funds from other finance companies as well as smaller banks and deposit of them into larger domestic and foreign banks. This flight resulted in the build-up of excess liquidity in some institutions. Larger banks were reluctant to lend their liquidity to other financial institutions." Furthermore, the PLMO's limited funds and the fact that property loans eligible for purchase by the PLMO had to possess collateral and be able to repay the debt within 5 years made the PLMO operation limited, and as Lauridsen (1998, 148) notes, "ultimately a failure."[38] The final nail in the PLMO's coffin was the failure of the merger between Finance One and the Thai Danu Bank. As this merger, considered a "model for further mergers, collapsed in May, the strategy collapsed with it" (Lauridsen 1998, 148). Indeed, it can be argued that the government's weak response only served to increase investor anxiety. Not surprisingly, in late April and early May 1997 there was a run on deposits of finance companies. Domestically, the deposit withdrawal represented more a flight to quality, as households and businesses moved their savings out of finance companies and into the larger commercial banks. However, foreign investors now sensed that the government could not effectively deal with the property sector problems – not to mention their recognition that the exchange rate was misaligned and that a correction was overdue. It seemed that, at long last, investments and expectations that had been based on extrapolations of past performance were now being based on a realistic assessments of actual demand and supply in goods and asset markets.

On May 7, 1997, Finance Minister Amnuay announced that Thailand would not be able to achieve a balanced budget for the year – as had been earlier promised. As DeRosa (2001, 93) notes, "the market took the news hard. The bank was immediately confronted with ferocious selling of the baht and their stocks." In response, the BOT decided to switch its intervention from spot foreign-exchange transactions to forward transactions, buying baht against dollars for value in three and six months. In hindsight, this was a fatal error, as the BOT was now exposed to the fate of its own currency. Since, the bank negotiated these forward contracts at off-market forward exchange rates (fearing that its presence in the foreign-exchange market would drive up Thai baht interest rates), speculators "thereby effectively received a subsidy from the bank to take short positions in the baht. Thanks to its own central bank, the baht turned into a true one-way bet for short sellers" (DeRosa 2001, 97).

During the second week of May 1997, in an all-out attack, international hedge funds, including Soros's Quantum Fund and traders at US financial institutions such as J. P. Morgan and Goldman-Sachs, took short positions in spot, forward and options markets, betting as much as US$10 billion on Thailand devaluing.[39] In return, on three different days, May 8, 13, and 14, the BOT used or committed US$6.1 billion, US$9.7 billion and US$10 billion respectively defending the baht's dollar peg – considered key to maintaining the confidence of foreign investors. However, this was to no avail. Blustein (2001, 70–71) notes that "May 14, 1997 was an unforgettable day for the top management of the Bank of Thailand . . . everyone panicked, and some even cried. On that day, the central bank threw $10 billion into the fray, using various markets, without beating back the speculators." Now having almost exhausted its reserves, the BOT desperately imposed selective capital controls (on May 15, 1997), prohibiting commercial bank lending on bahts to non-residents, and segmented the onshore and offshore foreign-exchange markets in order to make it more costly for offshore speculators to borrow the baht. More specifically, the BOT ordered all twenty-nine local and foreign banks in Thailand to refrain from and then altogether suspend (in early June 1997), transactions with non-residents that could facilitate a build-up of baht positions in the offshore market (including baht lending through swaps, outright forward transactions in baht and sales of baht against foreign currencies). Second, any purchase before maturity of baht-denominated bills of exchange and other debt instruments required payment in US dollars. Third, foreign equity investors were prohibited from repatriating funds in baht (but were free to repatriate funds in foreign currencies). Finally, non-residents were required to use the onshore exchange rate to convert baht proceeds from sales of stocks. All this meant that the baht would cease to flow outside Thailand, unless there was a genuine, trade-related reason such as payment for imports.

These measures effectively created a two-tier foreign exchange market: the onshore market, where there was normal supply of baht, and the offshore, where the baht was scarce. No doubt, these measures were clearly targeted at decoupling the onshore and offshore markets. The two-tier system attempted to deny non-residents without valid commercial or investment transactions in Thailand access to domestic credit needed to establish a net short domestic currency position, and to inflict punitive costs on speculators – while allowing non-speculative credit demand to be satisfied at normal market rates.[40] These measures reduced the volume of trading in Thailand's swap market, where foreign investors often buy and sell to hedge currency risks for investments in Thailand. It also temporarily ended speculative attacks on the baht by causing losses for speculators, as both onshore and offshore banks (in response to official pressure) segmented the two markets by refusing to provide short-term credit to speculators.[41] In particular, the banks' refusal to provide baht credit imposed a severe squeeze on offshore players who had acquired short baht positions during the speculative attacks and had to close their forward positions. As a result of the squeeze, offshore swap interest rates rose sharply relative to onshore rates. In fact, the offshore baht overnight interest rates rose to over 1,000 per cent (BOT 1998a, 25). This forced investors who had taken positions against the baht in expectation of a devaluation to unwind their forward positions at a loss. Thus, in the absence of extensive liquidation by domestic holders of baht positions, the authorities were able to withstand the pressures on the baht by relying on extensive application of the selective capital controls until early June.

However, as DeRosa (2001, 94) notes, while "the Bank of Thailand had won the battle, it was soon going to lose the war." After the initial shock about what the Bank had done faded, attention began to turn to whether the new two-tier market was stable. The major concern was the prospect of a baht devaluation. Now hedge funds were no longer the problem. Rather, it was the domestic borrowers, namely, Thai banks and corporations, that needed to acquire billions of dollars to pay their short-term debts that were falling due soon. Compounding the problem was the fact that foreign creditors (who had earlier lent willingly) were now demanding immediate repayment, besides refusing to extend further loans. By mid-June the pressures regained momentum as panicked local corporations continued to buy US dollars to hedge their foreign-exchange exposure. This resulted in a heavy loss of reserves through the EEF window. Concerns about the stability of the baht reached fever pitch on June 19 when the Finance Minister, Amnuay Viravan, resigned in a dispute over tax policy.[42] His replacement, the unknown Thanong Bidaya, who took up office on June 21, did not inspire confidence. This caused another wave of speculative activity, and the stock market suffered a large 11 per cent decline. By the end of June, Thailand's net foreign-exchange reserves stood at only US$2.8 billion – just 7 per cent of their late 1996 value (BOT 1998a).

On June 26, 1997, in an effort to stop further liquidity drain, the Bank of Thailand suspended for 30 days the operations of 16 finance companies (including Finance One) on the basis of their capital inadequacy and the need for liquidity. These 16 companies were required to submit rehabilitation plans to the Bank of Thailand by July 11. Companies that failed to submit plans, or whose plans were rejected by the BOT/Ministry of Finance, would have their licences revoked and be absorbed by Krung Thai Thanakit, a majority-government-owned finance company. Further, to reassure creditors and depositors and to avoid financial panic, the government stated that the remaining banks and finance companies were financially sound and all their credits and deposits would be guaranteed by the government. However, these measures failed to calm the markets, largely because there was increasing uncertainty over the exact extent of the guarantees, owing to inconsistencies in official statements. With inconsistencies among the various announcements unresolved, official assurances only heightened market apprehension. As rumors of an anticipated baht devaluation grew, this triggered a wave of capital outflows, as investors sought to liquidate short-term foreign debts or to speculate against the baht. The capital outflows resulted in a sharp drop in the Bank of Thailand's foreign-exchange reserves, in large part because more than US$23.4 billion out of almost US$39 billion of total international reserves was used to defend the baht. Moreover, it was disclosed that the BOT through the FIDF had extended more than 430 billion baht (or 10 per cent of GDP) to rescue debt-ridden finance companies (Lauridsen 1998, 148).

In the face of serious difficulties in rolling over short-term debt and a rapid depletion of net foreign-exchange reserves, it was only a matter of time before Thailand would be forced to float the baht. Yet "on July 1, 1997

Prime Minister Chavalit Yongchaiyudh announced that the baht would never be allowed to devalue" (Tan 2000, 66). Yet, in the face of a serious liquidity crisis, such claims could not be honored. In the early hours of July 2, 1997 "Bangkok's top bankers were awakened before dawn and summoned to a 6.30 a.m. meeting . . . the nervous group was told that the government was abandoning the baht's peg to the US dollar" (Chanda 1998, 8). When the markets eventually opened on the morning of July 2, 1997, the baht immediately depreciated by 18 per cent from Bt 24.5 to Bt 28.8 per US dollar, plunging the country into a serious recession.[43] In desperation, Prime Minister Chavalit secretly sent emissaries to Japan and China to request bilateral loans of hard currency – without success. In late July, the Thai authorities finally requested the IMF for assistance. As Phongpaichit and Baker (2001, 85) observe, "there was no significant voice raised in opposition. The IMF was tacitly welcomed as savior."

On August 14, 1997, after Thailand signed its first letter of intent with the IMF, the Thai government (now led by Chaiyawat Wibulswasdi, who was installed as BOT governor after Rerngchai resigned on July 29), and the IMF announced mutually agreed economic adjustment programs, which included tight monetary and fiscal policies and financial sector restructuring.[44] On August 20, 1997 the IMF's Executive Board approved a 3-year stand-by arrangement totaling US$17.2 billion with Thailand. Of the total, US$1.6 billion was made available immediately, and a further US$810 million was to be available after November 30, 1997 – provided that end-September performance targets were met and the first review of the program completed. The IMF also made it clear that subsequent disbursements were to be made on a quarterly basis, again subject to the attainment of performance targets and program reviews (IMF 1997a).

The BOT: the price of irrational exuberance

Unlike earlier financial crises in the developing world, where governments over-borrowed until they were forced to seek a bailout from the IMF, or a multilateral debt rescheduling from externally-based creditors, the Thai crisis was rooted in the private sector. That is, it was based entirely on excessive private rather than public debt. Therefore, when Thai policymakers tried to assure the markets that Thailand's economic fundamentals were sound, it sounded rather hollow, because they conveniently forgot to add that the fundamentals could be considered sound only if one ignored the private-sector component of the current account. Moreover, it is now a matter of public record that as early as November 1996 the IMF warned the Thai government about the vulnerability of its large current account deficit, particularly given the stagnant export growth (Blustein 2001, 51–83). In addition, the IMF urged the Thai government to adjust its exchange-rate system by lowering the weight of the US dollar in the fixed-rate currency basket and widening the intervention bands (Cooper 1999, 19). Surely the Thai monetary authorities must have been aware of the growing economic disequilibrium. Even if they ignored the IMF's warnings, they could hardly ignore the downward pressure on the exchange market. The question that is begging to be asked is: why was the exchange rate so badly mismanaged, in the sense it did not reflect Thailand's patterns of international transactions or the relative prices of the major trading nations. For example, the weight the baht assigned to the yen was only 13 per cent compared to 80 per cent to the US dollar, despite the fact that Japan had become Thailand's principal trading partner. Moreover, why did the Thai policy-makers fail to respond quickly and decisively to these mounting financial disintermediation? Why did they chose to continue to support the dollar value of the baht by significantly drawing down central bank foreign-exchange reserves? A large part of the blame must go to the overly sanguine assessments of the Thai monetary authorities.

From the Bank of Thailand's own published reports, we can extrapolate the thinking at the BOT at the time (1998; 1998a; 1996a; 1996b; 1996c; 1995; 1992). First, why did the BOT tolerate such high current-account deficits for so long? In the inaugural Fall 1995 issue of the Bank of Thailand's *Economic Focus*, the Bank's Economic Research Department outlined what it considered to be the key factors behind the high deficit and why it believed the deficit to be sustainable both in the short and the long term. The BOT argued that with exports rising rapidly by 25.3 per cent (1995 figures), the rise in the trade deficit did not reflect a change in Thailand's international competitiveness. On the contrary, it reflected the strength of domestic demand. It also noted that *private investment* was the most important factor behind the growth in imports and the deficit, while private consumption and government imports were only secondary factors. Finally, external factors, namely, higher import prices and the appreciation of the yen and the deutsche mark during the first half of 1995 had contributed significantly to the deficit. On the basis of these findings, the BOT concluded that Thailand's current-account deficit was sustainable because the deficit reflected the strengthening of investment, rather than increases in consumption. Moreover, the BOT argued that the deficit occurred in the context of strong GDP growth and export performance, and that Thailand had sufficient international reserves with low external debt. Hence, the BOT claimed that the current-account deficit should not be allowed to mask the strong economic fundamentals of the Thai economy. Indeed, so confident was the BOT that Bandid Nijathaworn, then the deputy director of the Bank of Thailand's economic research department, dismissed Thailand's 10 billion-baht balance of payments deficit in the first quarter of 1995, when he stated that the current-account deficit would shrink rapidly as investment reached its cyclical peak and started to slow down.[45]

Of course, the BOT was cognizant of the fact that the country's fixed exchange-rate regime (designed to remove short-term uncertainty in transactions) had allowed inefficient investments to be masked. They were also aware of the fact that the increased short-term capital mobility arising from the BIBF made the maintenance of the fixed rate increasingly problematic. Thus, another question begging to be asked: since, under a pegged exchange-rate regime, the implementation of monetary policy is undermined by an implicit guarantee of currency value – why did the BOT resist the adoption of a more flexible exchange-rate policy? Such a policy would have allowed capital flows to be regulated through the market mechanism, and eliminated the moral hazard – the direct result of the fixed exchange-rate system, which provided predictability to domestic borrowers who saw no need to hedge against exchange-rate risk. There were six reasons for this: (1) There was a belief that the economy would stabilize in the medium term through export growth, and that a stable baht was indispensable for achieving this growth. (2) The BOT questioned whether a devaluation would hold for long. This was because hedge funds and other speculators would view the move as a sign of weakness – evidence that the government lacked the resolve to keep the baht from falling even further. (3) The authorities feared that a more flexible exchange-rate policy would lead to an exchange-rate appreciation, a deterioration in the current account and a weakening of the banking system, which had large unhedged foreign exchange exposure. Policy-makers were concerned that, since the corporate liabilities were so large, any adjustment in the exchange rate would cause substantial damage to balance sheets. In particular, there was concern that large losses on unhedged foreign-currency debt would result in a large number of corporate bankruptcies, resulting in massive unemployment and related social problems. By early 1997 it was also felt that tampering with the exchange-rate system under the prevailing conditions of intense speculative pressure and eroding domestic confidence would have resulted in a run on the baht and ignited an immediate currency crisis. The BOT recognized that, even with substantial foreign reserves, it would not be able to stabilize the exchange rate given the much larger unhedged foreign-currency debt of Thai corporations – who would have rushed to close their exposure on the first signs of weakening commitment of the BOT to a stable exchange rate. (4) There was a pervasive belief that devaluation would do more harm than good, because the baht was not fundamentally misaligned. (5) The Thai government had long declared that the value of the baht would remain unchanged, and gave the explicit impression that the country's external reserves would be "used as ammunition to defend the baht" (Nabi and Shivakumar 2001, 17). And (6), as Blustein (2001, 66) notes, the BOT's "strategy was to hold the line on the exchange rate and buy time in the hopes that the government could fix the country's underlying problems."

Beyond these immediate concerns, the BOT viewed the increases in the inflation rate and the current account deficit as merely “cyclical” – the result of short-term effects due to large imports of capital equipment for infrastructure and industrial investment and upgrading. While the BOT believed that the economic situation was bound to improve in 1996, it took “appropriate precautionary measures” (which were far too timid) such as the imposition of reserve requirements and other controls to reduce speculative short-term financial flows through the BIBF. Second, the BOT argued that, while the BIBF loans did lead to an observed shortening of the average maturity of Thai foreign debt, “this was partly a statistical illusion caused by the diversion of borrowing source to the participant bank, which if foreign, used revolving funds (appearing as short-term inflow in the Thai balance of payments) to finance their long-term loans to local companies” (BOT 1996b, 8–9). Third, the BOT argued that the large short-term debt posed little risk to the Thai economy, as it was backed by more than adequate foreign-exchange reserves, and also because Thailand’s strong economic fundamentals ruled out the possibility of a large capital outflow. Fourth, export stagnation in the second half of 1996 was dismissed as temporary, the result of a general decline in world trade growth, and due “to the lessening competitiveness of the more labor-intensive sectors”; it was expected to recover to a growth of 7.7 per cent in 1997, on account of the resurgence of demand from trading partner countries, as well as the impact from export promotion measures (BOT 1996c, 11–12). Suffice it to note that the BOT’s unduly optimistic assessments turned out to be wishful thinking. Finally, how did the BOT defended its practice of foreign-exchange swapping during the severe speculative attack on the baht in 1996 and 1997? It has argued that, since sterilization was not feasible, owing to a shortage of bond issues, capital outflows resulting from speculative activities could be partially neutralized by a swap arrangement – whereby the bank buys local currency using its foreign reserves, with the intention of selling it later. In this way the pressure on domestic liquidity and interest rates associated with capital outflows would not occur with this buy/sell swap. However, while this is true in normal foreign-exchange transactions, under abnormal and repeated speculative attacks, the bank must have large enough foreign reserves not only to sell foreign currency in the spot market, but also to inject local currency back into the market by drawing down its foreign reserves position. Indeed, the Nukul Commission is of the opinion that the BOT should not have artificially created a balanced position through swap arrangements, but should have assessed the threat to its reserves squarely and retreated when the loss of reserves became intolerable.

Beyond the BOT accounts, it is clear that when the domestic financial institutions became swamped with funds, neither Thai firms nor banks had the capability of intermediating such volumes of capital effectively. Consequently, much of the funds was channeled into risky projects and highly cyclical sectors. Thailand's experience vividly illustrates the fact that high rates of investment are not sufficient to sustain a large current-account deficit and an expansion of domestic credit. Although, (unlike what happened in Mexico), many of the funds were invested rather than consumed, the investment was often misdirected into the non-traded goods sectors, especially construction and real estate. Most importantly, few investments were directed to activities that would earn foreign exchange. Thus the shift in the destination of the capital inflow reflected the very significant real appreciation (rise in non-traded goods prices relative to those of traded goods) that occurred over the period of the boom, itself a "Dutch disease" outcome of the high levels of capital inflow.

The politics behind the crisis

The preceding discussion has shown that, despite the mounting evidence to the contrary, the Thai monetary authorities stubbornly resisted market sentiment for several months. In the process they rapidly ran down the nation's international reserves, and precipitated, on July 2, 1997, a bigger meltdown than would otherwise have been the case – if they had accepted the inevitable reality sooner. Some analysts have argued that, even if the technocrats wanted to devalue the currency and try to resolve the problem of the growing current-account deficits, they could not because they (1) remained overly sanguine in their assessments and (2) they were caught up in the gradual erosion of technocratic influence because of growing political constraints. Phongpaichit and Baker (1998, 15) observe:

> Partly the macro-managers had tried to have the best of both worlds – the pegged exchange rate which facilitated trade, and the liberalization of finance which stimulated investment. Partly the macro-managers had come to believe the praise accorded them. They refused to heed the advice that this combination would not work. Partly they seemed dazzled by the glamorous financial world which developed in Bangkok in the early 1990s. The regulators seemed reluctant to impose the constraints which would slow it down. But partly this reluctance has a murkier side. Powerful people could make easy money because of lax control. The two heads of the economic technocracy, the finance minister and the central bank governor, came under intense political pressure. From 1995 onwards, these posts offered only temporary employment. Many good candidates were not keen to apply. Politicians and other powerful people resisted closer supervision of the finance industry, argued against unpegging the currency and undermined the tradition of fiscal discipline. Up to and beyond the IMF bailout, policies were delayed or distorted at the behest of particular interests.

There is little doubt that certain aspects of democratic politics in Thailand were a source of systemic political weakness, and greatly reduced the capacity of the government to respond effectively to the growing economic disequilibrium. The new constitution, drawn up in 1978, reintroduced democratic institutions under carefully circumscribed conditions. While the Assembly was elected, the Senate was appointed (dominated equally by senior military and civilian bureaucrats), and unelected officials (military and civilian) were allowed to hold cabinet posts. Some government ministries were literally given over as patronage to politicians, and corruption became rife. Moreover, Thailand's multi-member electoral and party systems combined to make it virtually certain that governments would consist of shaky multi-party coalitions. Large electoral districts and proportional representation created an environment where numerous parties and candidates competed for limited posts. This combined with weak party discipline made parties and governments highly sensitive to demands from influential business constituents. As Haggard and MacIntyre (1998, 336) note, "electoral rules discouraged politicians from identifying with their parties, and instead pushed them to pursue individualized campaign strategies, often featuring tactics such as vote buying . . . this created a high demand for cash, thereby rendering politicians beholden to large economic interests." Similarly, Bunbongkarn (1999, 56) notes that "the excessive use of money and an increase in vote-buying were evident in elections in the 1990s. In 1996, for example, it was estimated that around 10 billion baht (US$800 million) had been spent legally on the election, and another 30 billion baht had been spent on buying votes."

The fundamental problem lay in the fact that Thailand had moved towards democratic politics with fragmented political parties heavily dependent upon rural votes to win office. Since provincial constituencies supply over 80 per cent of seats in the lower house of parliament, to get elected in these constituencies politicians depend heavily upon the support of networks of local *chao pho* (political middle-men and businesspeople), who can get the vote out on election day. As the power of provincial leaders increased, it made them formidable competitors with the traditional elites (military, urban-based politicians and business people) for rents and other privileges. Among the main prizes in this intense competition is control of key cabinet seats and the power to allocate quotas, licenses and contracts. Thus, Laothamatas (1996) explains that "two distinct notions of democracy" characterized Thailand in the 1980s and 1990s. A rural version more oriented to concrete material benefits and an urban middle-class version offended by rampant vote-buying, corruption and the rise of violence prone bosses in the countryside. Those who were able to buy votes in the countryside were able to consolidate their control over parliament – and through parliament the cabinet. Laothamatas (1996) adds that, by the mid-1980s, even the supervisory capacity of the BOT was no longer immune from the "incompetence and corruption that had long pervaded other agencies."

One of the major consequences of this kind of politics is a lack of cohesive governance. Indeed, all Thailand's democratically elected governments prior to the crisis rested on highly factionalized multi-party coalitions. The governments were composed of internally weak and fragmented parties that allowed narrow particularistic interests to gain access to the policy process. In this environment, party leaders hastily constructed parliamentary majorities from a pool of approximately a dozen parties, and coalitions typically consisted of six or more parties. For example, elected in July 1995 after the fall of the Chuan Leekpai government, the seven-party coalition government headed by Prime Minister Banharn was viewed as a "lame-duck administration" from the very beginning. Banharn's Chart Thai Party, widely seen as the chief culprit in Thailand's complex vote-buying system, was too preoccupied with domestic issues to pay much attention to the economy. As King (1999, 207) notes, "the Banharn government ignored the economic warning signs and did little to stop Thailand's economic decline." The fact that Banharn appointed as finance minister an individual with no experience in a major financial post and as vice-ministers two individuals accused of malfeasance did not inspire much confidence in his administration. Moreover, in this environment, not only was cabinet instability a chronic problem; prime ministers were vulnerable to policy blackmail by coalition partners threatening to defect. In fact, in September 1996, Banharn's government collapsed after key coalition partners deserted him. Indeed, so deep-rooted was this problem that even the government of the former army commander, Chavalit Yongchaiyuth, failed to produce effective governance. While Chavalit's New Aspiration Party narrowly emerged as the largest party in parliament with 125 seats (following the collapse of the Banharn administration), Chavalit nevertheless needed the six political parties of the previous government to form his government. Preoccupied with his political survival, he ignored "repeated warnings from the IMF – Thailand's new leader did little to guard against the growing mountain of bad debt piling up in the financial system" (King 1999, 207). Chavalit eventually met the same fate as Banharn. Except for the government of Chatichai Choonavan (1988–91), which was ousted in a military coup, all democratically elected governments in Thailand since democratization in the mid-1980s met their demise in this manner.

While indecisiveness and bureaucratic log-rolling on the part of governments played a major role in generating market uncertainty (thus contributing to both the onset and the depth of the crisis), such benign neglect was not the only problem. Phongpaichit and Baker (1999, 202–3) argue that since most of the Thai business and financial conglomerates had become heavily involved in the domestic market – in particular, in the finance and property bubble as well as the dollar-denominated offshore loans – they steadfastly opposed any devaluation. Rather, they were content "to smother the gathering bad news by extending ineffective bailouts, first to the stock market, then to the finance companies and then to the property sector." The central bank's policy to defend the baht was politically supported by financial institutions and firms who feared the impact of currency depreciation on their highly leveraged balance sheets. Similarly, the nexus between politicians and business interests was simply too lucrative to pass by. An example illustrates this dynamic well: It was subsequently learned that the Bangkok Bank of Commerce had accumulated non-performing loans totaling some 50 per cent of its assets. Its former president, Kirkkiat Jalichandra, and the bank adviser, Rakesh Saxena had falsified the accounting, granting large loans to themselves, and to politicians and business people against little or no collateral. Roughly 7 billion baht were lent to politicians to finance mergers and acquisitions and to play the stock market (Sender 1997, 53–4). It was subsequently revealed that the BOT had injected 16 billion baht for a 32 per cent stake in the bank, and 1 trillion baht (US$25 billion) into "ailing but politically connected finance companies" to keep them afloat (Sender and Lee 1998, 15).

The IMF-led rescue program: phase one

After squandering much of its foreign-exchange reserves, the Thai government turned to the IMF for assistance. On August 20, 1997, Thailand entered into a three-year Stand-By Arrangement with the IMF. This enabled the Thai government to obtain a rescue package worth US$17.2 billion – to be disbursed in quarterly installments over three years provided Thailand met the IMF's performance requirements. The principal objectives of the IMF-led program (developed in collaboration with the Thai government, the World Bank, the Asian Development Bank and bilateral donors) were rapidly to achieve effective management of the exchange rate by stemming the free fall of the baht, and restoration of financial market stability.

To achieve its goals, the IMF called for fiscal tightening. The primary aim of monetary policy in the immediate period was to stabilize the baht and prices through a high interest-rate policy. Specifically, the aim was to achieve an "orderly adjustment of the domestic economy to the sharp, forced reduction in the current account deficit to about 5 per cent of GDP in 1997 and 3 per cent of GDP in 1998 [as compared to the 8.2 per cent deficit in 1996]; a 1 per cent surplus in the public budget to cover restructuring costs; ensuring positive growth of 2.5 per cent in 1997 and 3.5 per cent in 1998; maintaining gross official reserves at the equivalent of 4.2 months of imports in 1997 and 4.4 months in 1998; limiting the end-period rate of inflation to 9.5 per cent in 1997 and 5 per cent in 1998; and initiating a credible and up-front restructuring of the financial sector" (IMF 1997a, 2). Further, the program also required an increase in capital requirements from 8.5 per cent to 12 per cent for all financial institutions, while the Bank of Thailand was required to suspend the infusion of liquidity to ailing financial institutions and to disclose the size of the reserves every two weeks.

To achieve these ambitious targets the managed-float exchange-rate regime adopted on July 2, 1997 was maintained. Indeed, with Thailand's foreign-exchange reserves almost completely exhausted, there was no alternative to floating the baht.[46] The balanced budget was to be achieved through a combination of public expenditure or spending cuts by an amount equal to 3 per cent of GDP and tax increases – primarily an increase in the rate of the value-added tax (similar to a national sales tax) from 7 per cent to 10 per cent – while exchange-rate stabilization was to be achieved through tight money and high interest rates. Financial sector restructuring included plans to close insolvent financial institutions, and a temporary guarantee to protect remaining financial institutions. The plan also took steps to minimize the moral hazard risks of the guarantee, while ensuring the viability of those remaining institutions through early recapitalization and more transparent regulatory and supervisory requirements. The Bank of Thailand was given authority to order a commercial bank or finance company to write down its capital below the value stipulated by law, to allocate share increases without a shareholders' meeting and to remove directors or executives and appoint replacements – subject to approval by the Minister of Finance. This authority allowed for timely intervention in inefficient financial intermediaries that experienced large losses, endangering the public interest. In addition, the Bank of Thailand Act was amended to reaffirm the government's commitment to have the Financial Institutions Development Fund (FIDF) guarantee depositors and creditors with full financial support from the government. In fact, the adoption of international standards for asset classification, loan-loss provisions, capital adequacy, bankruptcy and deposit insurance were to receive priority under the plan (IMF 1997a).

After much foot-dragging the Chavalit administration temporarily suspended the operation of a total of 58 (out of 91) debt-ridden finance companies, 16 of them on June 27, 1997 and an additional 42 on August 5, 1997 – after a comprehensive guarantee was issued on deposits and liabilities of financial institutions.[47] Blustein (2001, 77) notes that the idea of a guarantee on deposits and liabilities "triggered another battle – this one within the Fund itself, pitting the mission in Bangkok against much of the top brass at headquarters." The mission preferred having a guarantee to prevent a financial panic, while the headquarters saw a guarantee as a classic case of moral hazard, a giveaway to investors who had gambled on high-yielding deposits in shaky financial institutions. However, under the compromise, the Financial Institutions Development Fund (FIDF) was entrusted with the task of providing a guarantee of the deposits and liabilities of the financial institutions (with full financial support from the government), preventing further bank runs, and restoring market confidence. Yet the guarantee came with conditions. The holders of promissory notes were not fully bailed out, and only a general guarantee was issued to depositors and other creditors in all financial institutions. Overall, the FIDF provided nearly 400 billion baht in liquidity support to troubled financial institutions in the months preceding the suspension of 58 finance companies in June and August of 1997. Rapid and credible resolution of the position of the 58 suspended finance companies was critical to restoring confidence.

In order to create the legal and institutional framework for this resolution, the government issued six emergency decrees in October 1997. The decrees established two new institutions, the Financial Sector Restructuring Authority (FRA) and the Asset Management Corporation (AMC), to serve as the focal points for resolving the position of the suspended companies. Not unlike the approach adopted in the United States by the Resolution Trust Corporation to deal with the assets of the failed Savings and Loans Associations, FRA's task was: (1) to review the rehabilitation proposals of the 58 suspended finance companies; (2) to assist *bona fide* depositors and creditors of the suspended companies; (3) and to administer the liquidation of companies whose proposals were rejected by FRA – hopefully, by returning the non-performing assets to the marketplace at market-determined valuations and prices. FRA was given one month to assess the plans submitted and to make a recommendation to the ministry of finance on how many finance companies should be allowed to resume their operations. Thus Thailand opted for a strategy of virtually closing the non-bank financial sector, but letting banks deal with problem loans on a decentralized basis. This meant that commercial banks had to meet Bank for International Settlements (BIS) capital adequacy ratios through raising additional capital, from foreign investors among others. To facilitate this, the Thai government also increased the limit of foreign ownership from 25 per cent to 100 per cent of total equity.

The AMC was established to bid for the purchase of the impaired assets of finance companies that the FRA deemed no longer viable. In effect, the AMC became the buyer of last resort for impaired assets, as its major task was to buy the bad assets and then manage, restructure and sell them under the direction of FRA. The AMC was also entrusted with the responsibility of bidding for the lowest-quality assets as a buyer of last resort, to prevent fire sales of assets of the closed finance companies – which in turn could undermine underlying collateral values.[48] The government authorized 1 billion baht in capital for the new corporation, of which 250 million baht was approved immediately (Nabi and Shivakumar 2001, 32).

While there is general consensus that the financial restructuring was necessary, opinion remains deeply divided on the efficacy of the IMF's fiscal and monetary policies. From the IMF's perspective, high interest rates were required to stabilize the value of the currency, and budget cuts were necessary to make room in the budget for the interest costs of financial restructuring. It is difficult to quibble with the fact that, in the case of Thailand, high interest rates were probably unavoidable, because of its large current-account deficit caused by excessive private investment over saving. Indeed, macroeconomic theory teaches us that, with a current-account deficit that is fundamentally caused by an excess of a country's domestic demand over its output, the necessary prescription would have to be a restrictive monetary policy, since the imbalance is caused mainly by excessive private investment. Thus, when a currency suddenly loses half its value amidst massive capital outflows and collapsing confidence (as was the case in Thailand, Indonesia and South Korea), easing is not a prudent policy. The negative effects of high interest rates on a weak economy and a fragile financial system must be carefully weighed against the probable consequences of a large depreciation on the burden of foreign-currency indebtedness. Moreover, the appropriate extent and duration of monetary tightening is very difficult to assess. For Thailand, which entered the crisis with a current-account deficit of 8 per cent (much larger than the current-account imbalances of Indonesia and Korea), a larger fiscal effort seemed appropriate.

Yet the critics also raise some valid points. For the critics, the IMF's orthodox fiscal and monetary policies worsened the crisis (Radelet and Sachs 1998; Nidhiprabha 1999). As prerequisite conditions for the loan package, the IMF attached: (1) a tight monetary policy and correspondingly high interest rates, to stabilize the baht and rein in the inflationary pressures; and (2) a restrictive fiscal policy aimed at restoring a budget surplus. This tight monetary policy was continued for the next several months, only to be relaxed gradually between May and August 1998 in the face of a severe economic recession. Critics argue that the IMF's monetary and fiscal policies were typical of the program devised earlier for Latin American countries burdened with external imbalances associated with massive public-sector debt, hyperinflation and low rates of private savings. However, they correctly point out that the external imbalance in Thailand (as with most of its neighbors) lacked any of these features. That is, the Thai crisis arose from a build-up of short-term private debt, rather than profligate government spending and lack of monetary control, as in Latin America. This misguided policy, it is argued, only propelled the economy toward a low-level equilibrium. Tight monetary policy reduced credit for the private sector and raised interest rates, which reduced output. Tight fiscal policy reduced incomes, and therefore lowered total demand. With weak exports, the lowering of output and income trapped the economy in a new low equilibrium – which produced a massive contraction in private spending and literally choked the Thai economy. Hence, instead of restoring confidence, the resultant credit crunch paralyzed the corporate sector. Warr (1998, 59) notes:

> The IMF package added a public sector contraction, by requiring a budget surplus equivalent to 1% of GDP. Moreover, at a time when confidence in the financial sector was essential, the IMF required the problem institutions be

> closed. Given the circumstances of the time, this requirement seemed to many observers to be as irresponsible as crying "Fire" in a crowded theater.

No doubt, these are valid criticisms. First, it is hard to distinguish the IMF's initial policy prescriptions for Thailand from those applied to Latin American countries in the 1980s. Second, there is some agreement that the recession in Thailand would have been less severe had the IMF not imposed such tough fiscal restraint. It is clear that the old-fashioned contractionary policy to accompany devaluation is inappropriate. And, third, since the underlying assumption of the tight fiscal stance had been that the foreign-exchange correction would stimulate external demand and get recovery going, with the benefit of hindsight it is clear that the IMF program did not correctly anticipate the region-wide recession. Nor did it anticipate the weakening of the country's terms of trade, or the collapse in domestic private consumption. It is hard to disagree with the view that instead of contraction, a fiscal expansion was needed to stimulate aggregate demand.

Yet, having noted this, it is important to recognize that only detailed empirical studies will shed further light on these complex questions, the case in point being a recent study by Dollar and Hallward-Driemeier (2000). The authors conducted a detailed survey of some 1,200 manufacturing firms in Thailand between the last quarter of 1997 and the first quarter of 1998. Asked to rank the causes of the current output decline (out of four possibilities), the most important factor cited by both exporters and non-exporters was the effect of the exchange-rate depreciation on input costs, followed by lack of domestic (or foreign) demand. The high cost of capital was ranked third, and lack of access to credit was ranked last. Finally, why did the US$17.2 billion IMF package failed to restore market confidence? Obviously, the market deemed the IMF package to be inadequate – in large part because it did not cover the risk of private capital outflow. It seems that what the IMF did was to provide Thailand with financing just enough to keep the public sector liquid and just enough for it to have a bare minimum international reserve. This obviously failed to generate market confidence. On the other hand, since the baht defense was conducted largely through forward swap transactions, Thailand's true foreign-exchange reserve position was not apparent from official figures – the IMF may have thought that the liquidity it was providing was enough.

The IMF and the Chuan government: phase two

Despite the comprehensive and ambitious nature of the restructuring plans, the economic decline continued unabated. It seemed that neither the IMF program nor the political gridlock and bickering amongst the six-party coalition partners that made up the Chavalit administration failed to inspire market confidence. As the power struggle between Chavalit's New Aspiration Party and its main coalition partner, Chart Pattana, intensified, "economic policy-making by mid-October was in complete disarray" (Haggard 2000, 94). Not surprisingly, on October 31, the baht passed the US one dollar to 40 baht psychological threshold. In fact, the spot exchange rate was 41 baht per one US dollar, as compared to 26.5 baht during the middle of July 1997. As domestic and international pressure against the Chavalit government mounted, the besieged Chavalit on November 3 announced his resignation – ignominiously leaving office on November 6.

As Chavalit left office without dissolving the House and setting the date for new elections, both the existing government coalition and the opposition parties tried to form a new governing coalition. In fact, for several days it was not clear which group of parties would form the next government. Indeed, two competing coalitions even held separate news conferences within hours of each other suggesting that they would form the next government. Eventually, it was Chuan Leekpai's Democrat Party that formed the government. However, Chuan required the support of five other political parties to form his coalition government – which took office on November 15 with a slim majority of 208 seats in a 393-seat parliament. Despite such inauspicious beginnings, Chuan's administration, in sharp contrast to its predecessors, was able to provide a far more effective leadership in the macroeconomic arena.[49] Even before assuming office Chuan send the right signals to the IMF and the international financial markets by appointing two highly respected technocrats to head his government's economic team: Tarrin Nimmanahaeminda (a professional banker and former finance minister) as finance minister, and a former central bank governor, Supachai Panitchpakdi, as deputy prime minister and minister of commerce.[50]

On November 25, 1997, the Chuan administration sent the Thai government's second "letter of intent" (GoT 1997), signed jointly by finance minister Tarrin and BOT governor, Chaiyawat Wibulswasdi, to Michel Camdessus, managing director of the IMF. The primary objective was to signal to the market that the government was again firmly in charge and that the days of indecision were over. Although, the letter noted the "slower return of confidence" and a "much sharper decline" in private investment and consumption than originally anticipated, it nevertheless clearly stated the Thai government's full commitment to the earlier IMF conditions as specified in the first letter of intent of August 14, 1997 (GoT 1997, 1). Indeed, not only did the Chuan government pledge to follow the IMF orthodoxy very closely (tight monetary and fiscal policies and strict enforcement of high standards of financial sector governance), the second letter also noted that "the new economic team is determined to take a number of additional measures to strengthen the policy package and reinforce public confidence in the program . . . and is determined to proceed rapidly with implementation" (GoT 1997, 1).

The second letter outlined in some detail the economic plans and goals. It stated that the government planned to work towards a 1 per cent surplus in the 1997–98 budget, because "this will ensure an orderly offset to the anticipated costs of the financial sector restructuring, while also providing a clear signal of the government's intent to implement the economic program" (GoT 1997, 2). The 1 per cent surplus was to be achieved by increasing taxes, cutting the funding of state enterprises, raising utility prices, and lowering real wages in the public sector. In the area of monetary policy, the letter stated that "within the framework of our flexible exchange rate policy, monetary policy will need to play a greater role in stabilizing conditions in the foreign exchange market and containing the inflationary impact of the exchange rate depreciation . . . As part of the BOT's resolve to maintain such a tight monetary stance, interest rates will principally be set with the objective of helping to stabilize the exchange rate and restore confidence in domestic financial assets" (GoT 1997, 3). With regard to external sector policies, the letter noted that the BOT planned to maintain gross international reserves of at least US$23 billion (equivalent to about four months of imports), and "remove as quickly as possible the restrictions on purchases and sales of baht by non-residents as well as the restrictions on baht denominated borrowing by non-residents and on the sale of debt instruments and equities for baht" (GoT 1997, 3–4). In the area of financial sector restructuring the government stated its objective to "move ahead as expeditiously as possible with the restructuring of the 58 suspended finance companies," and elaborated a strategy to recapitalize and strengthen the remainder of the financial system "so that its regulatory framework can be brought fully in line with international best practices by the year 2000." In addition, the letter explicitly noted that "the BOT will have a clear mandate to carry out the necessary restructuring of the sector, including (i) the tightening of loan classification rules, (ii) timetables for the recapitalization of all undercapitalized financial institutions during 1998, (iii) streamlining of bankruptcy procedures, (iv) reaffirmation of disclosure and auditing requirements for all financial institutions, and (v) the expeditious disposal of assets of closed companies and reorganization of good and bad assets of remaining firms" (GoT 1997, 4–5). With these commitments, Thailand became a cooperative partner of the IMF, and soon, as Flatters (2000) notes, the IMF's "star pupil."

The Chuan administration began to implement these measures aggressively, despite the fact that "opposing groups came out of the woodwork to block its passage" (Bunbongkarn 1999, 63). On December 8, 1997, the Thai authorities announced that only two of the 38 rehabilitation plans submitted to the FRA had been approved; the other 36 had been rejected. Thus FRA and the ministry of finance announced the permanent closure of 56 out of the 58 finance companies (with a book value of 600 billion baht) that had failed to meet the tough new loan classification provisions.[51] Eligible claimants were given the option of exchanging their bahts for notes issued by two publicly controlled financial institutions, the Krung Thai Thanakit (KTT) and the Krung Thai Bank (KTB), under two distinct note-exchange schemes.[52] In early February 1998, with the assistance of international firms, FRA began the liquidation of finance company assets through public auction, in which the AMC participated as the bidder of last resort. The auction of assets began with automobiles, followed by bonds, securities and other collectable items. In fact, to encourage investors to participate in the auction, the FRA organized road-shows in the major world financial centers (BOT 1998, 12). In early 1998, twelve additional finance companies that were deemed insolvent were merged with a state-owned finance company into a new state-owned commercial "good bank" named Radanasin – set up to purchase and manage the good assets of the suspended finance companies (BOT 1998, 13). In mid-January 1998, the authorities nationalized four insolvent medium-sized banks (Bangkok Metropolitan Bank, First City Bank, Siam City Bank and Bangkok Bank of Commerce), in order to prepare them for sale to foreign financial institutions – despite the fact that their owners vociferously accused the government of selling Thailand to foreigners.

Finally, cognizant of the fact that even the country's banks and finance companies that had not been suspended faced significant risks, the Bank of Thailand tried to shore up confidence through strengthening prudential regulations and supervision. On March 31, 1998, in order to bring Thai practices up to international standards by the end of 2000, the Bank of Thailand made rules governing loan classification, provisioning and reporting more stringent.[53] For example, the definition of non-performing assets was changed to cover loans three or more months in arrears, instead of, as earlier, 6–12 months. Loan classification was tightened by requiring provisioning for, and prohibiting accrual of interest on, all loans more than six months overdue. Moreover, commercial banks and finance companies were required to increase provisions for sub-standard loans from 15 per cent to 20 per cent. Doubtful loans now required a 50 per cent provision, while local banks had to increase their capital by as much as 80 billion baht by the end of 1998, on top of the 129 billion baht previously added. Finance companies were required to add 42 billion baht of new capital in addition to the 20 billion already mandated. Also, banks had to set aside roughly 100 billion baht in new provisions for loan losses, and finance companies 43 billion baht, and all financial institutions were now required to submit quarterly (instead of annual) audits and credit reports to the central bank. The new rules also included guidelines for restructuring corporate debt – with special emphasis placed on financial institutions tightening their lending practices and credit analysis procedures. New prudential regulatory and accounting standards for specialized banks were quickly developed – paralleling those for commercial banks. The new standards addressed loan classification, provisioning, and interest accrual requirements.

The IMF had forecast that, if its conditions were followed, Thailand would experience a speedy V-shaped recovery (IMF 2000). However, the IMF had obviously underestimated the depth of the recession or the ferocity of the contagions spread in the region. Despite the Thai government's faithful adherence to strict monetary and fiscal discipline – as the finance minister and BOT governor noted in the third letter of intent to the IMF: "we have adhered strictly to the program ensuring that all performance criteria for December 31, 1997 related to monetary, fiscal and external policies as well as financial restructuring have been observed," the much predicted quick recovery did not materialize.[54] In fact, market confidence, instead of bouncing back, continued to erode. The baht continued its precipitous fall, hitting an all-time low of 56 to the dollar in mid-January 1998 (losing 55 per cent of its value since being floated on July 2, 1997) – despite a rapid rise in short-term interest rates.[55] Given the fact that many of the domestic debts were denominated in foreign currency, the rising interest rates and the collapsing baht savaged debtors' balance sheets and aggravated the already serious non-performing loan problems in the banking and financial system. This resulted in the banks and the remaining finance companies accumulating substantial losses. The resultant credit crunch made the cost of bank credit extremely high, while the near collapse of the baht made the cost of foreign loans simply unbearable. With the steep declines in manufacturing, exports, imports and investment (indeed, the overall deterioration of the real sector of the economy), the GDP, which started its decline in the second half of 1997, continued its downward spiral through the first half of 1998 – constantly outpacing the official projections. It was clear that Thailand was in a much deeper recession than had been anticipated in August 1997, when the IMF rescue package was put in place.

The socioeconomic distress caused by the continuing economic decline was devastating. Labor market adjustment took several forms. The number of those of working age shown as being "not in the labor force" increased by 600,000 between the February rounds of the labor-force surveys of 1997 and 1998. This was equivalent to a third of the numbers of unemployed in May 1998. There were also major reductions both in hours worked and in nominal wages. Mahmood and Aryah (2001, 246) note that "the crisis generated approximately 90,000 redundancies, raising the level of unemployment to 2.2 million as of June 1999. Real wages declined following the pre-crisis tightening of the labor market. Real wage growth, which stood at over 2 per cent per year in 1996, reversed itself. The real wage fell by more than 7 per cent in 1998 and by 1.5 per cent in 1999."[56] While the initial labor-force impacts were largely in urban areas, the effects were also felt in the countryside, through both return migration of urban workers and reduced remittances. Since Thailand does not have a well-developed formal social safety net (there is no unemployment insurance, and many social benefits such as health care are tied to employment), the vast majority of the displaced and unemployed workers were left to fend for themselves.[57] For those fortunate enough to be working, the rise in inflation in the context of a considerably weakened labor market exacted a further toll in terms of falling real wages and incomes. The combined effects of higher unemployment and inflation pushed large numbers of people into poverty. The most vulnerable in the workforce, including the country's 1.3 million foreign workers (mainly Burmese), were informed by the Labor Ministry that they would be forcibly repatriated. As Phongpaichit and Baker (2001, 93) note, "in March 1998, the ministry began rounding up Burmese and pushed over 200,000 across the border."

Not surprisingly, by the spring of 1998 public support for the Thai government's IMF program began to deteriorate. Business leaders "mounted a broad attack on the IMF program for concentrating too much on fiscal discipline, external stability, financial restructuring, while paying no attention to the real economy." Some even accused the IMF program of being "neo-colonial" and "imperialist" – designed to "decimate local firms and create fire-sale conditions for foreign purchasers." Rather, the critics proposed that "Thailand should declare a debt moratorium to give domestic firms a breathing space to recover" (Phongpaichit and Baker 2000, 46–7). In the countryside, farmers' organizations came together on a call for agricultural debt relief, and "then proposed to mount a massive demonstration in the capital if their demands were not met." Similarly, in the urban areas the hard-hit middle-classes and the growing ranks of the urban unemployed were quickly mobilized against the IMF program, widely perceived as "saving the rich at the expense of the poor" (Phongpaichit and Baker 2000, 47, 94).

It is clear that by the time the Thai government signed its fourth letter of intent to the IMF, on May 26, 1998, it was deeply concerned by the alarming contraction of the real sector of the economy, the rapid growth of non-performing loans, and the growing popular agitation against the IMF's allegedly harsh measures. The fourth letter of intent noted that "the conditions in the real economy are still deteriorating as the economic decline during the first half of 1998 is proving to be deeper than previously anticipated . . . thus the focus of policies will shift to adopting macroeconomic settings, strengthening structural policies and ensuring the adequacy of the social safety net" (GoT 1998a). It is important to reiterate that the initial IMF program in Thailand called for fiscal tightening that allowed little room for increased social expenditures. It was only the force of subsequent events – the deeper-than-anticipated recession, the rapidly mounting job losses, the accumulating indicators of widespread social distress and growing popular discontent – that forced the Thai government to shift the policy focus. Indeed, the Thai authorities increased the target *fiscal deficit* to 3 per cent of GDP in May 1998, a sharp contrast to the targets of a *fiscal surplus* of around 1 per cent of GDP when the IMF program was first agreed with

Thailand (GoT 1998a). It should be noted that this loosening of fiscal policy was not motivated solely by the need to increase social expenditures. Fiscal stimuli was also needed to moderate the unforeseen depth of the contraction in the real economy, especially since monetary policy could not be eased within the macroeconomic framework agreed with the IMF.

From June through to August 1998, while the Thai government began publicly (yet politely) to suggest that in the light of the huge negative aggregate demand shocks, the IMF's insistence on tight monetary and fiscal policies was misplaced, behind the scenes it "fought a pitched battle with the IMF over the crisis strategy." It seems that after much "hard bargaining" the Thai authorities were eventually able to persuade the IMF to "overturn its stringent macro conditions" (Phongpaichit and Baker 2000, 48). Indeed, in the summer of 1998, the strategy for economic recovery was broadened to halt the collapse of aggregate demand. This goal was to be met by relaxing contractionary fiscal policy, extending the ongoing reform of the financial sector, addressing the problems of Thai firms mired in debt, strengthening corporate governance, reforming state enterprises in preparation for privatization, and a major relaxation of the macroeconomic policy regime, especially on the revenue side.[58]

In keeping with the new policy thrust, the fiscal deficit targets were further reduced to −3.5 per cent on August 25 and −5 per cent on December 1, 1998. Monetary policy was switched from targeting the exchange rate to targeting money growth – with a view to producing sharp reductions in interest rates and increases in bank lending. Although the authorities realized that the fiscal deficit would increase, they felt that the overall goal was to assist the real sector through lower interest rates and to stimulate domestic demand. Also, lower interest rates were seen as a means of easing loan payments burdens on debtors. These new policy modifications were made explicit in the Thai government's fifth letter of intent, filed with the IMF on August 25, 1998 (GoT 1998b). The fifth letter of intent described in great detail the policies that Thailand intended to implement in the context of its request for financial support from the IMF. In addition to the reversal of monetary policies, the government announced additional initiatives intended to speed up the recapitalization of the banks, restructure corporate debts and increase bank lending. Also, the government's earlier commitments to providing liquidity support for troubled financial institutions and a comprehensive guarantee to depositors were clarified and reaffirmed. Without doubt, the most important new fiscal initiative was the allocation of funds for a "targeted social safety net," while avoiding entrenching new costly schemes that could introduce distortions into the labor market (GoT 1998b, 2). A significant part of the total social expenditure (roughly 12 billion baht or US$300 million) was allocated for employment creation through the Social Investment Program. The Social Security Fund, "as part of the broader effort to strengthen the social safety net" was also expanded (GoT 1998b, 4).

By the time the fifth letter of intent was signed, the Thai authorities were cognizant of the fact that they needed to find a way to deal quickly with the problems associated with the assets and liabilities of the closed financial institutions, and the enormous volume of bad debts in the financial system. As is stated in the fifth letter of intent, the Thai government committed itself to implementing (by the end of October 1998) some eleven basic economic laws related to bankruptcy, foreclosure, property rights, and restrictions on foreign investors, including the development of informal, voluntary processes (assisted by a variety of tax and other incentives) to encourage arbitration without having recourse to bankruptcy and foreclosure (GoT 1998b, 5–6). The eleven laws can be grouped into three categories: provisions for liberalizing the Alien Business Law "into a new and more liberal Foreign Investment Law," a bill to facilitate the privatization of state enterprises, and amendments to the bankruptcy and foreclosure laws and procedures. Without doubt, the most controversial were the bankruptcy and foreclosure laws. Specifically, although a new bankruptcy law had been passed in February 1998, subsequent legislative processes had rendered it weaker "to the point of almost complete ineffectiveness" (Flatters 2000, 265). The new laws had several objectives, including the introduction of a new bankruptcy court and correcting the imbalance of power of debtors over creditors with respect to foreclosure and in negotiating and enforcing debt-restructuring agreements. The second part of the new debt-restructuring strategy was to develop voluntary, out-of-court settlements (the so-called Bangkok approach) of reaching debt-restructuring agreements. Under BOT's supervision, a Corporate Debt Restructuring Advisory Committee (CDRAC) was set up in September 1998 to encourage major corporate debtors to come "to market-based debt workout agreements with their creditors" (GoT 1998b, 2). Chaired by the governor of the Bank of Thailand, and including representatives from the Federation of Thai Industries, the Thai Bankers Association, the Board of Trade, the Foreign Bankers Association, and the Association of Finance Companies, CDRAC's main task was to monitor progress on more than 700 high-priority cases (Nabi and Shivakumar 2001, 45). Finally, the government outlined incentives to encourage bank recapitalization and increased lending. The banks were offered (on a non-compulsory basis), the opportunity to receive government bonds that would be treated as tier 1 or tier 2 capital, and could be paid back at a later date when the banks were able to recapitalize from other sources. However, in return for the tier 1 capital, the banks needed to implement new loan-provisioning rules and match any government capital contributions with capital they raised on their own. To receive tier 2 support, banks would have to increase lending and debt-restructuring at a rate proportionate to the amount of new funding taken. That is, government put forward the option to financial institutions of increasing their second-tier capital by exchanging non-tradeable bonds with banks' newly issued debentures, equaling the losses suffered by financial institutions in their debt-restructuring.[59]

In 1999 the Thai government launched several new spending or fiscal stimulus initiatives. At the end of March, the authorities announced a number of major social spending programs funded with external loans provided by the Asian Development Bank, the IMF, the World Bank and Japan. By the time the seventh letter of intent was signed in March 1999, the 1998–99 fiscal deficit was targeted at 6 per cent of GDP, not including another 1 per cent in non-budgetary expenditures under the Miyazawa Plan to be disbursed in the final six months of the fiscal year ending in September. Overall, to create jobs and encourage reverse migration from urban to rural areas, the government (in March 1999) allocated 51 billion baht from its regular budget to provide direct and indirect employment in rural areas. Direct employment initiatives included some 68 rural job-creation projects involving public works, while indirect employment projects included vocational education. In addition, the government introduced income-support measures such as severance pay, tax and utility price-cuts, a price-support program for rice, and extension of health care and educational subsidies. For example, the value-added tax (VAT) was reduced from 10 per cent to 7 per cent for two years. Income tax was waived on the first 50,000 baht of income, as was a corporate tax of 1.5 per cent of sales levied on small-scale enterprises earning less than 1.2 million baht per year. In February 1999, to help rice farmers (affected by both the crisis and falling world paddy prices) the government introduced a price-support program for rice at a level above the prevailing market price. About 3,500 million baht was targeted to buy 250,000 tons of rice at fixed prices – albeit this rice was to be exported, in order not to affect domestic prices (Mahmood and Aryah 2001, 277).

By mid-1999, most indicators showed that the Thai economy had finally bottomed out, and that a modest recovery was beginning to take hold. Indeed, after seven consecutive quarters of contraction, the economy began to expand in the first quarter of 1999. Manufacturing has been the main engine of economic recovery, with a growth rate of around 15 per cent in 1999. Export volumes also turned positive. In contrast to the contraction of 7 per cent in 1998, exports in 1999 expanded by 6 per cent – benefiting from a cheaper baht (in real, trade-weighted terms) and strong external demand. In December 1999, the Thai government revised its GDP growth estimate for 1999 up to 3–4 per cent, mainly owing to the strong performance of manufacturing. However, the IMF-supported program also deserves some of the credit. The program had facilitated a rebuilding of Thailand's international reserves. External vulnerability had been substantially lowered with reductions in foreign debt – especially short-term – and the current-account surplus remained comfortable. Also, Thailand's balance of payments position became much stronger, and inflation under control.

Beyond the IMF programs and future challenges

Thailand successfully completed a 34-month Stand-By Arrangement with the IMF on June 19, 2000. In fact, given Thailand's improved balance of payments position, the Thai authorities have not had to draw any funds under the arrangement since June 1999. Over the course of the arrangement, a total of US$14.1 billion (including US$3.2 billion from the IMF), was drawn from bilateral and multilateral contributors to the US$17.2 billion official financing package. Thailand made its first scheduled repayment to the IMF in November 2000.

Yet formidable challenges to sustainable economic recovery remain. For example, between August 1998 and August 1999, the Thai government launched three fiscal stimulus packages, including tax and tariff reductions, to boost domestic demand. Consequently, it ran a large deficit, which, on a cash balance basis, reached a cumulative 79.4 billion baht in the first half of fiscal year 1999/2000 (ending 30 September). The overall public-sector deficit, including interest costs of financial-sector restructuring for fiscal year 1999/2000, was around 7 per cent of GDP. Total public debt was estimated at about 2.6 trillion baht (US$67.7 billion) in 1999, equivalent to around 56 per cent of GDP (ADB 2000c, 37–38). Thus rising deficits in combination with very substantial financial-sector restructuring costs have contributed to a rapid increase in public-sector debt since the onset of the crisis.

Since Thailand's crisis has been largely a financial crisis, a full and sustainable recovery will require resolution of the problems plaguing the financial sector – namely, bank recapitalization, corporate debt restructuring, and the resolution of the non-performing loans problem. However, slow progress has been made on all these fronts, owing to economic and political constraints. The volume of non-performing loans has continued to remain high, despite significant reductions in interest rates. Indeed, the huge non-performing loans problem continues to cripple the financial sector and cause weak credit expansion. If the non-performing loans problem is not expeditiously resolved, it is possible that viable companies that survived the crisis may eventually succumb to the pervasive liquidity problems. This could cause another wave of business closures.

Although four major banks, the Bank of Asia, Nakorthorn, Thai Danu and Radhanasin, were sold in 1998–99 to ABN Amro, Standard Chartered, Development Bank of Singapore and United Overseas Bank respectively, privatization has remained slow and hesitant. Given the lack of incentives, many commercial banks have been reluctant to restructure problem loans and accept actual losses (or "haircuts"). Instead, most have opted for less painful rescheduling, such as stretching out the amortization schedule. As Flatters (2000, 270) notes, "the August 1998 banking package had the potential to force more speedy adjustment on the banks, but participation was made voluntary. Instead, most banks took advantage of beneficial new capital definitions to convert deposits into capital and avoided debt write-offs by agreeing to debt rescheduling rather than restructuring." These actions have helped solve short-run balance sheet problems, while putting off necessary adjustments to the future. Similarly, corporate debt restructuring has been quite slow, and by the end of 2002 the proportion of the debts that had been successfully restructured had been much smaller than expected. More troubling, some of the supposedly restructured debts have returned to non-performing status – in large part because restructuring is still hampered by an ineffective legal framework for bankruptcy and insolvency, poor enforcement, and the bias that remains in favor of debtors.

Moreover, politically well-connected debtors have been successful in stalling and resisting creditors' claims, and "strategic defaulting" (where those who are able to service their debt choose not to), and "outright looting" of corporate and banking assets continue to plague the system. It is important to note that Thailand has not opted for commercial bank recapitalization and corporate restructuring financed by the government because of the belief that such a program would encourage moral hazard and put an excessively high burden on taxpayers. However, it is just as important to note that the benefits of the market-led approach will only follow where there are sanctions that can compel action on voluntary resolution, and where there is a framework that allows acquisitions and mergers to proceed expeditiously on market terms. Progress has also been slow on the FRA auctions of the assets of failed banks and finance companies. Finally, although the eleven economic laws were finally passed by the Thai Senate and Parliament in late 1999 (far behind the planned implementation date of October 31, 1998), the ineffectiveness of its implementation is now widely recognized.

This failure of implementation reflects a political failure. As a coalition government, the Chuan administration from its very inception was intensely pressured by competing, yet powerful vested interests. While it was able to force through some unpopular measures, the government's slim parliamentary majority made it difficult always to overcome the power of the entrenched vested interests. This was reflected in the weakness of its initial new bankruptcy law, difficulties in passing the eleven new economic laws, and its inability to make headway with financial sector restructuring and recapitalization. The government's inability to turn the economy around quickly, and the widely held perception that it was bailing out rich bankers by taking over bad debt, not to mention a number of embarrassing scandals involving senior ministers (especially Tarrin), further eroded the Chuan administration's popular support and legitimacy. In October 1998, the government was forced to admit another large and influential party into the ruling coalition. While this gave it a safer parliamentary majority, it also meant that the government now had to make concessions to an even larger array of vested interests. Although the Chuan government survived no-confidence votes in February and December 1999, it was increasingly viewed as a spent force, and a captive of big financial institutions and foreign investors.

More than anything else, it was this popular angst that led to the routing of the Chuan Leekpai coalition government in the January 6, 2001 general elections. In a landslide electoral victory, the telecommunications tycoon Thaksin Shinawatra's Thai Rak Thai (Thai love Thai) Party won 248 seats, while Chuan's Democrat Party won only 128 seats in the 500-seat House of Representatives.[60] The Thai Rak Thai contested the elections on a five-point program. These included: (1) grants of one million baht to each of Thailand's 70,000 administrative villages to promote economic diversification; (2) People's Bank extending loans of up to 15,000 baht collateral-free to farmers; (3) 30-baht visits to clinics and hospitals; (4) a three-year moratorium on farm debts for farmers unable to repay loans owing to the government-owned Bank for Agriculture and Agricultural Cooperatives; and (5) the creation of a national asset management company to assist commercial banks with their non-performing loans problem – an idea that the Chuan government had strongly resisted.

In June 2001, the Thai Asset Management Corporation (TAMC) was established to help alleviate the weaknesses in the bank and corporate sectors. More specifically, the TAMC has been designed to consolidate the management of distressed assets in the public sector and provide an impetus to the restructuring of large multi-creditor corporate loans. TAMC is expected to purchase up to one-half of the financial sector's distressed assets – of which the large majority are expected to come from state-owned financial institutions. Overall, the TAMC goal is to acquire about half the financial system's non-performing loans, including almost all (1.1 trillion baht) of state banks' non-performing loans and about one-quarter (250 billion baht) of the private banks' non-performing loans. As of mid-2002, TAMC achievements have been modest. So far, the TAMC has been successful only in acquiring the non-performing loans of state-owned banks, although the non-performing loans of private banks account for the largest stock of such loans. In effect, the purchase of the non-performing loans of state-owned banks is a transfer from one government agency to another, and does little to change the lending behavior of the banks concerned. The lack of success with private banks is mainly due to the fact that the TAMC's offer price is generally below what is acceptable to private banks. Suffice it to note that resolving Thailand's notorious non-performing loans problem will depend as much on the fortunes of the country's real economy as on the success of Thaksin's TAMC.

Notes

1 Excerpts from the address by His Honor, Mr Chuan Leekpai, Prime Minister of Thailand, to the Council on Foreign Relations and Asia Society on March 11, 1998, New York. The full address is accessible via the internet: www.foreignrelations.org/studies/pubs.html.
2 Haggard and MacIntyre (1998) also highlight how the lack of political leadership and chronic political instability contributed to the Thai crisis.
3 Since the late 1950s, when Dr Puey Ungphakorn ran the central bank with a spirit of fierce integrity, the institution had been highly regarded for its competence and independence.
4 Warr (1998, 51) notes that "Thailand has a long and proud history of stable monetary policy and low inflation." The operations of the BOT have been seen as an important contribution to that record.
5 See the works of Haggard and MacIntyre (1998); Lauridsen (1998) and Phongpaichit and Baker (1998; 1999).
6 The Nukul Commission spend three months interviewing top central bankers and finance ministry officials, and pored over boxes of documents and memos in an effort to reconstruct the events leading up to the collapse of the baht. The commission was instructed to examine three crucial issues: May 1997's failed defense of the baht; the decision to lend massive financial assistance to ailing finance companies and banks by the Financial Institutions Development Fund; and the failed examination and supervision of the Bangkok Bank of Commerce. For details, see Prachuabmoh (1998).
7 The term "irrational exuberance" is owed to the US Fed chairman, Alan Greenspan.
8 The term "fifth tiger" is from Muscat (1994).
9 Krugman (1994), in a provocative article, argued that Asia's economic growth, impressive as it was, could be explained by basic economic factors such as a high savings rate, investment in education and job-creation. In other words, it was growth in output – the result of working harder not smarter – or what he calls "perspiration rather than inspiration." However, Krugman's model predicted "diminishing returns" or a gradual loss of economic momentum, not a sudden crash.
10 Christensen *et al.* (1997, 356) note that "even firms that were not promoted by BOI could claim similar tax refunds on their export activities . . . exporters were entitled to receive rebates on customs duties, business taxes, municipal taxes, excise taxes and other taxes previously collected on particular inputs."
11 As Christensen *et al.* (1997, 357) note, "typically, an eligible entrepreneur wishing to obtain a cheap loan can issue a promissory note to be discounted by his bank and rediscounted by the central bank, both at below-market rates."
12 As will be discussed later, as the US dollar appreciated, the baht got overvalued, exposing it to a potential currency attack. The high domestic interest rates helped to control the overgrowth of domestic credit, but the credit expansion in the external sector was inevitable. Of course, the main blow to Thailand's economy was the emergence of China as its main competitor in the export sector in the 1990s. As a result, Thailand's exports in 1996 recorded a 0 per cent growth rate, while the volume of foreign debt increased sharply.

13 See, for example, Lall (1990, 45–50). Tan (2000a, 166–67) also notes that "Thailand's secondary school enrolment ratio is very low (only 37 per cent in 1993) . . . in recent years rapid economic growth has led to acute shortages of skilled labor in Thailand. In 1991, there were about 3,800 engineers in Thailand, while the demand for engineers was about 6,200."

14 The dollar–baht rate, though fairly constant, was not rigid. Rather, it depended on a special formula that included a small weighting for the value of the yen, the mark and a few other currencies.

15 Taiwanese garment firms invested in Thailand, because, in part, Thailand had not used up its quotas under the MFA. See the quotations cited in Siamwalla, Vichyanond and Vajragupta (1999, 6).

16 Thailand's contribution to the production of such medium-tech products was largely assembly work. The design, complex manufacturing processes and international marketing were located elsewhere. Hence, unlike South Korea, Taiwan or Singapore, Thailand's limited technological capability meant that it lacked the "inspiration" so critical for industrial upgrading.

17 Exchange-rate policy since 1984 has been officially described as a "managed float." However, after the devaluation, the baht stabilized at around Bt 25 per dollar. Since 1984, the Exchange Equalization Fund (EEF) served as a mechanism through which the basket-peg exchange rate policy was implemented. The EEF daily announced the mid-rate for US$/Thai baht, and stood ready from 8.30 to 12.00 a.m. to buy and sell US dollars in any amount with banks at 0.02 from the mid-rate.

18 Under the first three-year financial reform plan, the Bank of Thailand fully liberalized the interest-rate structure, thereby enabling the domestic financial system to adjust interest-rate movements on the basis of supply and demand conditions. Ceilings on commercial bank deposit rates were removed during 1989–91. In June 1992, ceilings on finance and *crédit foncier* companies' deposits and lending rates and on commercial banks' lending rates were removed. Similarly, several foreign-exchange controls were relaxed. For example, residents could now open foreign-currency accounts in Thailand (Alba *et al.* 1999, 18).

19 Until 1990 Thai citizens were not permitted to hold foreign-exchange deposits or to purchase foreign currencies for investment overseas. Thus they were unable to take much advantage of differentials between domestic and foreign rates of interest. For details, see Wibulswasdi (1995).

20 The regulatory authority of the SEC covers all aspects of the capital market, including, (1) issuance of securities by means of public offering and private placement; (2) securities trading, both in the Stock Exchange of Thailand and in the over-the-counter market; (3) securities business, including securities companies and mutual fund management companies; and (4) information disclosure and prevention of unfair trading practices.

21 High domestic interest rates were the result of the Bank of Thailand's pursuing a tight monetary policy to keep inflation in check.

22 M1 is the measure of the US money stock that consists of currency held by the public, travelers' checks, demand deposits and other check-able deposits, including NOW (negotiable order of withdrawal) and ATS (automatic transfer service) account balances and share draft account balances at credit unions. M2 is the measure of the US money stock that consists of M1, certain overnight

repurchase agreements and certain overnight Eurodollars, savings deposits (including money-market deposit accounts), time deposits in amounts of less than US$100,000 and balances in money-market mutual funds (other than those restricted to institutional investors).

23 M3 is the measure of the US money stock that consists of M2, time deposits of US$100,000 or more at all depository institutions, term repurchase agreements in amounts of US$100,000 or more, certain-term Eurodollars, and balances in money-market mutual funds restricted to institutional investors.

24 The 7–8 per cent differentials were the result of weak competition in financial markets and a government policy of maintaining high domestic interest rates in order to control inflation and rising current-account deficits. The relatively high domestic interest rates, together with fixed foreign-exchange rates, attracted short-term foreign funds, especially in the form of non-resident baht accounts.

25 Thailand's organized financial markets are made up of eight main financial institutions: commercial banks; finance, securities and credit companies; specialized banks; development finance corporations; the stock exchange; insurance companies; saving cooperatives; and mortgage institutions. The commercial banks make up the largest component in terms of total assets, credit extended and savings mobilized. In 1990 they accounted for 71 per cent of total financial assets in the country. The second largest are the finance companies, which began operation in 1969 (Warr and Nidhiprabha 1996, 39).

26 The theoretical distinction between short-term and long-term capital flows is usually intended to differentiate between flows that are easily reversible and sensitive to fluctuations in expected risk-adjusted international yield differentials (flows that are sometimes referred to as speculative or hot money), and flows that are not easily reversible and that are determined more by longer-term fundamentals.

27 The BOT (1998b, 16) notes that while "for the year 1996 as a whole, monetary base growth slowed to 12 per cent compared with 22.6 per cent in 1995, indicating an adjustment in the desirable direction, the stock of private external debt had already accumulated to US$73.3 billion by end-1996, more than half of which was accounted for by 27 foreign banks, BIBFs and 15 Thai BIBFs."

28 Commercial banks were permitted to hold net foreign assets up to 25 per cent of their capital funds, while the maximum percentage of net foreign liabilities was raised to 20 per cent.

29 Why did wage increases outstrip productivity increases in Thailand? According to Warr (1998), in the 1980s agriculture had already experienced low labor productivity, and the labor surplus that could be transferred to manufacturing was. This raised average productivity without a proportional increase in the wage rate. As the supply of surplus agricultural labor ran out in the early 1990s, the tighter labor market pushed up wages. In addition, labor productivity was constrained by a relative lack of skilled workers in Thailand. In 1995, Thailand had the second-lowest secondary school enrollment ratios in the region (only Indonesia's were lower), and an almost total absence of vocational education and R&D. For details, see Mahmood and Aryah (2001).

30 After hitting a historical high of 80 yen to the dollar in June 1995, the yen experienced a downward trend, falling to 127 yen to the dollar in April 1997 – or just before the Asian crisis broke. The yen's sharp depreciation led to a marked

deterioration in East and Southeast Asia's export performance and current-account imbalances in 1996, paving the way for the currency crisis.

31 In hindsight, it can be said that if the baht exchange rate had been determined in such a way as to reflect Thai inflation relative to US and Japanese inflation, then the depreciation of the yen against the US dollar might not have caused the deep problems it did for Thai exports, and the current-account deficits might have been smaller than they were.

32 The finance companies raised huge sums of money by selling interest-bearing "promissory notes" to the public, besides borrowing large amounts from local banks and foreign investors – much of it in the form of short-term loans.

33 One measure of return on capital investment is the incremental capital output ratio (ICOR), which compares the increases in investment relative to the increases in GDP. A rising ratio implies that investment is becoming less productive, or of lower quality. The ICOR rose steadily in Thailand from 2.8 in 1988 to almost 5.0 in 1991, to 6.2 in 1996 (Alba *et al.* 1999, 27).

34 Founded in the mid-1980s, the assets of Finance One quickly grew to US$4 billion by the mid-1990s (Blustein 2001, 56).

35 The FIDF was established in 1985. It was set up as a separate juridical entity (but with its operation housed in the Bank of Thailand) to ensure proper co-ordination in policy implementation, especially during a financial crisis.

36 Somprasong was the first Thai Company to miss payments on its foreign debt. Why did such a premier company collapse so suddenly? In large part because property loans only appear "safe" since the values of the loan collateral keep rising. However, these property prices are rising only because of the reckless lending itself, creating an "asset bubble." When the bubble bursts, the loans cannot be repaid from selling the collateral, *C*, which already plummeting in value.

37 The operating fund of the PLMO came from three sources: an initial capital of 1 billion baht allocated from the government budget; contributions from the member financial institutions of 1 million baht each; and the issuance of PLMO bonds worth 1 billion baht and guaranteed by the government (BOT 1998, 10).

38 In the early months of its operation, the PLMO purchased three projects worth 500 million baht from three financial institutions (BOT 1998, 10).

39 Of course, it would have been practically impossible for the short-sellers to accumulate such an enormous short position in the baht had it not been for the sales that the Bank of Thailand made. Reminiscent of the "blunder" made by the Central Bank of Mexico in issuing the dollar-linked *tesobono* bonds, the Thai Bank's forward contracts constituted a financial bomb that the bank itself had planted underneath the state treasury (DeRosa 2001, 97).

40 The controls exempted genuine underlying business related to current international transactions, foreign direct investment flows and various portfolio investments. Banks were required, however, to maintain documentary evidence supporting such transactions for audit and inspection.

41 According to Blustein (2001, 71), Thailand's "move inflicted acute pain on the hedge funds, to the tune of $400 million to $500 million in losses." Thus DeRosa (2001, 94) cites Soros Quantum Fund portfolio manager Stanley Druckenmiller, who states, "they [the Bank of Thailand] kicked our butts and they've taken a lot of profit we might have had. They did a masterful job of squeezing us out."

42 Lauridsen (1998) mistakenly notes that Amnuay resigned after failing to persuade the cabinet to introduce a managed-float foreign-exchange system. The fact was that he was a vocal supporter of the fixed exchange rate.

43 On July 2, 1997, the baht depreciated by 18 per cent. By the end of July, the baht had fallen by 25 per cent (relative to January 1997); in August, the baht had dropped to 38 baht to the US dollar (a fall of 34 per cent); and by the end of September was 42 per cent below its 1997 start level. From July 2, 1997 to its most depreciated rate in January 1998, the baht went from 25 baht to 54 baht per US dollar. That is, over the course of the following six months, the baht depreciated by almost 100 per cent against the US dollar.

44 The fact that Wibulswasdi had to negotiate with the IMF's Stanley Fischer (Wibulswasdi's professor at MIT) raised questions as to whether the Thai authorities had to submit meekly to all the IMF's demands (Phongpaichit and Baker 2000, 37–8). Indeed, "the initial negotiations with the IMF in August 1997 were cloaked in secrecy, and the first letter of intent was never published in full . . . the Thai ministers and officials involved gave the impression that they simply acceded to all IMF demands" (Phongpaichit and Baker 2001, 85).

45 "Thailand," in *The Far Eastern Economic Review: Asia 1996 Yearbook*, pp. 217–18.

46 It is important to keep in mind that throughout the first half of 1997 the IMF urged a continuation of a pegged exchange rate – but with a widened band and less weight given to the American dollar. The big fear was that a floating rate could easily swing out of control. However, once it became known that Thailand's foreign-exchange reserves were almost gone, there was no choice but to float.

47 There was delay in implementation because one of the coalition partners in the Chavalit administration, the Chart Pattana, some of whose senior MPs had large interests in the financial sector, including some of the suspended finance companies, tried to derail the restructuring plan.

48 The AMC began with a total funding of 1 billion baht as a buyer of last resort, to focus on the lowest-quality assets in the liquidation process organized by the FRA.

49 What made the coalition administration of Chuan Leekpai more capable in dealing with the growing financial turmoil? There are several interrelated explanations. First, the likeable and urbane Chuan's reputation as a honest man and a consensus-builder served him well. Second, Chuan's Democrat Party, as the oldest and most institutionalized political party in the country, was not only free of the more egregious corruption, but also had a track record of championing prudent macroeconomic policies. Third, although in a coalition arrangement, "the Democrat Party was the largest and he [Chuan] was able to insist that it occupy all of the top economic positions as a precondition for forming government" (Haggard 2000, 94). Finally, there was popular expectation that the new government cooperate and move with dispatch to deal with the growing economic turmoil.

50 Phongpaichit and Baker (2000, 45) note that "Tarrin Nimmanhaeminda had been Thailand's leading professional banker . . . [and] was an open advocate of financial liberalization, and quickly established the personal confidence of the IMF, Washington, and the financial markets."

51 The new loan classification was tightened by lowering the period after which a loan is non-performing from 12 to 6 months and keeping a high capital-to-risk assets ratio of 12–15 per cent (compared to the international norm of 8.5 per cent) in order to bring the sector gradually into line with international standards by 2000. The two finance companies that were re-opened were Kiatnakin Finance and Securities Public Company and Bangkok Investment Public Company Limited. The 56 of the 58 companies that were closed down were required to sell their assets by the end of 1998.

52 When the 16 finance companies were suspended on June 27, 1997, the government announced that depositors' claims on the companies would receive priority, but that creditors' claims would not. However, when 42 more finance companies were suspended on August 5, 1997, both creditors and depositors received priority. Creditors of the first 16 suspended finance companies that did not have the option of exchanging their claims had to modify their claims under a shareholder rehabilitation program or try to collect from the proceeds of the FRA's liquidation of assets. And finally, although the KTT and the KTB were in charge of administering the note-exchange programs, the FIDF was made responsible for servicing payments of interests and principal on the notes.

53 Although, the rules were announced on 31 March 1998, they were effective as of the end of 1997.

54 The third letter of intent was signed on February 24, 1998. For details, see GoT 1998.

55 The overnight central bank repurchase rate reached 22 per cent (Nabi and Shivakumar 2001, 29).

56 Flatters (2000, 264) also notes that "significant decreases in wages and hours worked are widely acknowledged. Wage reductions of 20 to 30 per cent have been common in many sectors."

57 Tan (2000, 113) notes that "poor farmers in the drought stricken villages in the country's northeast were venturing into minefields on the Thai–Cambodian border in search of an edible root called *kloy*. Many Thais were resorting to selling their organs illegally in order to survive."

58 As Flatters (2000, 265), notes, "the relaxed fiscal targets, however, were more in the nature of a passive recognition of the devastating effects of the crisis on revenues than an active attempt to provide a fiscal stimulus."

59 It turned out that few banks resorted to the capital enlargement opportunities offered by the government, in particular, the tier 1 option. It seems that banks have been reluctant to write down their capital in return for public money and accept the resultant dilution of ownership. Rather, banks choose to raise capital through the issuance of preferred stocks linked with subordinated debentures – or the so-called SLIPS (Stapled Limited Preferred Shares) and CAPS (Capital Augmented Preferred Shares). Although these new instruments are appealing in the presence of low deposit interest rates, they still have risks, as they receive no government guarantee, and returns are mostly performance-based.

60 In coalition with Yongchaiyut's New Aspiration Party, and the Chat Thai Party of Banhan Sinlapa-acha, Thaksin controlled over 300 seats. The July 2001 merger with the small Seritham Party added 14 members to parliament, increasing the Thai Rak Thai seats in the house to 263.