Thailand's Perspective on Foreign Loans

Charl Kengchon

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International Economic Relations Program
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Executive Summary

This study assesses the structure of Thailand's foreign loans from both a regional and global viewpoint. The study covers the loans made by the public sector, the non-financial private sector, and the Thai commercial banks. The study also examines the factors determining the disbursement and impact of foreign loan flows on some of Thailand's macroeconomic variables.

The study reviews the Thai authorities' policy measures regarding foreign loan and external debt management. It was found that the Thai authorities have been careful about controlling the public sector's foreign loan creation and debt servicing. Laws, regulations, and measures have been introduced to ensure that external borrowing is never excessive and that the Thai public sector is able to meet its debt obligations. As a result, Thailand has not encountered difficulties in servicing her external debt obligations, while other developing countries have experienced major debt crises.

The following policy recommendations have been reached. First, the Thai government should maintain sound fiscal discipline and reduce the country's chronic current account deficit or restrict it to a more reasonable level. Second, if there exists an economy of scale of foreign borrowing activities, the domestic financial markets would be encouraged to function as an intermediary between domestic borrowers and foreign creditors. The economy of scale may arise as the domestic banks improve their efficiency in managing foreign loan portfolios and in coordinating simultaneous debt obligation schedules. Finally, there should be direct cooperation among regional debtor countries to facilitate their external debt restructuring programs. For example, currency/interest rate swap programs that are formed by regional debtor countries might save fees that would otherwise be paid to middlemen.

บทสรุป

งานวิจัยนี้ ผู้วิจัยได้ศึกษาลักษณะและโครงสร้างของหนี้ต่างประเทศของประเทศไทยภายใต้ภาพรวมของระบบเศรษฐกิจโลกและเศรษฐกิจในภูมิภาคเอเชียแปซิฟิค การศึกษานี้ครอบคลุมถึงเรื่องการก่อหนี้ ทั้งของภาครัฐบาล และภาคภาคเอกชน รวมทั้งระบบธนาคารพาณิชย์ โดยได้ระบุถึงปัจจัยต่างๆ ที่มีอิทธิพลต่อการก่อหนี้ต่างประเทศดังกล่าว ตลอดจนได้วิเคราะห์ถึงผลกระทบของหนี้ต่างประเทศต่อปริมาณเงิน ระดับราคา และระบบเศรษฐกิจมหภาคของประเทศไทย

งานวิจัยนี้ยังได้ศึกษาถึงการดำเนินนโยบายบริหารหนี้ต่างประเทศของรัฐบาลไทย ซึ่งครอบคลุมถึงกฎ ระเบียบ และข้อบังคับต่างๆ ที่รัฐบาลใช้ในการบริหารหนี้ต่างประเทศ จากผลการศึกษาพบว่า รัฐบาลไทยได้ใช้ความระมัดระวังอย่างมากในการบริหารหนี้ต่าง-ประเทศ ซึ่งยังผลให้ประเทศไทยสามารถหลีกเลี่ยงปัญหาการชำระภาระหนี้ต่างประเทศมาได้ แม้กระทั่งในยามที่เกิดวิกฤติการณ์ในระดับโลก

ข้อเสนอแนะทางนโยบายหลักๆ ของงานวิจัยนี้คือ ประเทศไทยจำเป็นที่จะต้องเพิ่มการออม และลดการขาดดุลการค้าลง ทั้งนี้เพื่อมิให้ประเทศจำเป็นต้องอาศัยเงินทุนภายนอกในระดับที่สูงเกินไป เพราะเงินทุนภายนอกนั้นย่อมมีความเสี่ยงที่เกี่ยวกับปัจจัยภายนอกประเทศ เช่น ระดับราคาสินค้า อัตราดอกเบี้ย และอัตราแลกเปลี่ยน นอกจากนี้การลดภาระหนี้ต่างประเทศลงยังคงเป็นประโยชน์ต่อประเทศ ซึ่งอาจจะทำได้โดยอาศัยเครื่องมือทางการเงินสมัยใหม่ต่างๆ รวมทั้งการส่งเสริมให้สถาบันการเงินบริหารภาระหนี้ต่างประเทศนี้อย่างมีประสิทธิภาพ นอกจากนี้ ความร่วมมือระหว่างประเทศลูกหนี้ในภูมิภาค อาจจะเป็นประโยชน์ต่อการทำธุรกรรมบางประเภท เช่น SWAP ซึ่งอาจจะมีผลในการลดภาระหนี้ต่างประเทศลงได้

Chapter 1

Introduction

BASIC CONCEPTS

From a basic economic point of view, foreign loans (FLs) are simply a form of foreign capital. They are, however, different from other forms of capital, such as foreign portfolio and foreign direct investment, because they are borrowed from foreign lenders to be used in a debtor country. Through a specific contract between domestic borrowers and their foreign lenders, the loans explicitly impose a commitment or obligation on the part of debtors to service their debts for a specific period of time. Unlike foreign direct and portfolio investment, the lenders of FLs do not have direct ownership privileges over the domestic borrowers' economic or business activities.

From a balance-of-payments point of view, FLs are a part of current-account deficit financing. The deficit in the current account consists mainly of:

- the private investment-savings gap
- the central government deficit or the public spending-revenue gap

These two gaps determine the amount of foreign capital that a deficit economy needs to maintain a stable foreign reserve position. In general, foreign capital is allocated through the mechanism of international capital and financial markets. Agents involved in the international financial markets include the public and private sectors of debtor countries, transnational commercial banks, governments of surplus economies, and multilateral organizations.

THE LESS DEVELOPED COUNTRIES' EXTERNAL DEBT CRISIS: A BRIEF HISTORY

In the 1970s there was a rapid increase in the participation of less developed countries (LDCs) in the international financial markets. This phenomenon commenced during the late 1960s and expanded after the 1973 quadrupling of oil prices. Two groups of LDCs were involved: the major oil-exporting countries and the middle-income developing countries. Major oil-exporting countries, such as Saudi Arabia and Kuwait, became prominent lenders at the time because of their huge revenues from oil exports. On the other hand,

middle-income developing countries, such as Argentina, Mexico, Brazil, South Korea, and the Philippines, borrowed heavily in international financial markets. The sharp increase in borrowing from international financial markets by the non-oil developing countries was accompanied by rapid rises in their external debt (see Rivera-Batiz & Rivera-Batiz, 1985). The growth of the LDC's external debts should have raised concern about the possibility of default on these debts, and the ability of these LDCs to finance even the interest payments on their debts. The reason for such caution should have been obvious: a default on these huge external debts could easily trigger a financial and economic disaster worldwide.

It appears, however, that neither borrowers nor lenders understood soon enough that the early success of oil-dollar "recycling" during the 1970s was built on a rather temporary condition in which low interest rates were accompanied by high growth of the debtor countries' export earnings. Few lenders could have expected the sudden and dramatic turnaround in interest rates and the LDCs' export earnings after 1980.

The debt crisis started in 1982, when Mexico announced that it could no longer service its external debts. The Mexican announcement caused great panic and turmoil in international financial markets and within the bilateral and multilateral agencies involved. In fact, almost every party agreed that the debt crisis could not solve itself through the classical "market mechanism." There was indeed a real need for intervention by, and coordination from, bilateral and multilateral authorities. We may conclude that fundamentally the LDC debt crisis followed from the rise in interest rates and the collapse in LDCs' export earnings (for more detail see Sachs, 1988). Since 1982, the governments of both debtor and lender countries, plus all the multilateral agencies involved, paid close attention to the LDCs' external debt positions. External debt was undoubtedly an important economic issue in the 1980s.

THAILAND'S FOREIGN LOANS AND EXTERNAL DEBT

In Thailand, FLs have played an important role in financing the country's current account deficit, even though the share of loans in total capital inflows has begun to decline. This has been due to the recent dramatic rise in foreign direct and portfolio investment. According to the Bank of Thailand, FLs from 1986 to 1988 amounted to roughly 34 percent of total capital movements. From 1980 to 1982, the share reached as high as 89 percent.

The following data, however, clearly reveals that Thailand's external debt and its burdens have grown at a rapid rate and thus deserve the full attention of the authorities:

- The ratio of the total outstanding long-term debt to Gross National Product (GNP) rose rapidly from 4.6 percent (1972-1976) to 34 percent (1986-1988).
- The ratio of total interest payments to GNP rose from 0.23 percent (1972-1976) to 3 percent (1986-1988).
- The total debt-service ratio soared from a modest 2.3 percent (1972-1976) to 25.8 percent (1986-1988).

(*Source:* World Debt Tables, the World Bank).

Although FLs have been a key factor in the country's growth process, there are other macroeconomic implications of these debts. The borrowing country, naturally, has to bear the debt-service obligations caused by FLs. And because of uncertainty in key economic variables, both domestic and global, the debt burden might trigger stability problems in the borrowing country. If the problems are severe, the crisis may rapidly spread to other countries and the mechanisms of international financial markets may even be disrupted. Therefore, as long as the country needs foreign capital, especially in the form of debt, to sustain its growth, the authorities should ensure that Thailand does not find itself in the unpleasant situation experienced by Mexico and other heavily indebted developing countries in the early 1980s.

REVIEW OF LITERATURE

In this section, we survey some recent literature and research on Thailand's FLs and external debt. This survey gives us some idea of the extent of research and studies that have so far been carried out on FL issues.

Studies on Public and Private External Debt

Pranee and Direk (1985) presented a broad view of the Thai government's external debt. They gave time-series statistics (from 1961-1983) on the amount of debt, its distribution within the various sectors of the economy, the sources of funds; the terms of the loan contracts; and the country's debt burden. As to methodology, the data was discussed in a descriptive manner. Their main conclusions were as follows: The rapid growth of the government's external debt was due to the growth in public enterprise borrowing. They also suggested that the government should be more careful about borrowing from private sources, since these were more costly and less concessional. Finally, they argued that the government should encourage other forms of capital inflows besides loans, such as equity investment.

Duangmanee (1989) presented a more recent, if brief, view of Thailand's FLs. Her study also covered various fundamental issues of FLs. The statistics covered the period 1980-1988, and the main conclusions were:

- The share of FLs in total capital movement declined significantly as the share of foreign direct and foreign portfolio investment increased rapidly.
- The public sector share in net FLs decreased while that of the private sector increased.
- Private creditors became more important as a source of loans.
- The current account deficit and the premium on the discount on sales of US$ in the forward exchange markets were found to be statistically significant in explaining the net flows of the loans.

Pranee (1988) examined the Thai government's borrowing from Japan. She concluded that the new loan commitments from Japan showed a rapidly rising trend, because the Japanese terms (i.e. interest rates, grace periods, maturity) were far more attractive than those of other sources. Because of these attractive terms, the

Thai public sector also borrowed from Japan to refinance other high-interest rate loans.

Pisit (1985) examined the Thai private sector's external debt. He found that the private sector's debt burden was much larger than that of the public sector. The reason for this was that the private sector's debt had higher interest rates and shorter maturity than that of the public sector. Pisit further argued that uncontrolled external borrowing by the Thai private sector could destabilize the economy and was an inefficient way of financing domestic investment. He suggested that the government should monitor and increase its control of the private sector's external borrowing, especially over the uses of the loans.

Studies on External Debt Management

Chongrak (1984) built a simple dynamic debt-burden model and showed that the correct debt-service ratio for the Thai economy at that time should be 6 and not the 9 percent that the government actually set. Pranee (1984) questioned the main assumptions used by Chongrak, but agreed that the government did not seem to have sound reasons for setting the standard debt-service ratio at 9 percent. She further argued that the government had violated the debt-service ceilings many times before, so an announcement on the debt-service ceiling was not exactly credible. Thanasak and Nitaya (1989) optimistically reviewed the debt management strategies of various Thai governments. They found that during the early 1980s, when the Thai economy faced various economic problems, the government did use a variety of stabilization and structural adjustment policies—such as restrictive fiscal and monetary polices, exchange rate devaluations, and prudent external debt management—to maintain the external stability of the country. As for debt management, the government finally put a ceiling on the public sector's external borrowing and also set guidelines for the creation of public external debt. The Thai authorities also pursued a refinancing and prepayment program of the external debt to reduce the cost of interest payments and to spread the maturity. Thanasak and Nitaya concluded that the debt management programs were quite successful in the amount in interest saved.

THE SCOPE OF THE STUDY

This study differs from the research and studies reviewed in the previous section in the following ways: First, the study presents Thailand as a country within the Asia-Pacific region; its perspective is, therefore, contextual. Second, unlike prior studies, it includes an assessment of commercial banks as borrowers of FLs. Third, the study employs more recent data than that used by the studies reviewed earlier and, as a result, we hope to assess more recent developments concerning Thailand's FLs and external debt. This section aims to clarify the scope and guidelines of our research.

The Scope

This study focuses on Thailand's FLs and external debt as a country within the Asia-Pacific region. FLs and external debt are divided into two categories—FLs for the public sector and FLs for the private sector, including commercial banks.

Although most of the loans and external debt discussed are long-term, short-term FLs are also studied when data permits. The main topics covered are:

- the pattern of FLs
- the factors determining FLs
- the policies and management of FLs
- the impact of FLs on the Thai economy
- policy recommendations

Although Thailand is naturally the focus of the analysis, we look at the role of other countries, both inside and outside the Asia-Pacific region, in influencing the flow of Thailand's FLs. Data permitting[1] the study covers the period from 1965 to 1989.

The Guidelines

The Pattern of FLs The pattern of FLs serve as the beginning chapter, in which we present an extensive view of Thailand's FL flow and its relation to countries inside and outside the Asia-Pacific region. To do so, we will need to first identify which countries are "surplus" economies and which are "deficit" ones. Identifying Who's Who in the international financial markets gives an idea of the direction of the capital loans flow. Moreover, we expect to see that the direction of these flows may change over time as some countries switch their resource statuses. We also take an in-depth look at the flow and structure of Thailand's FLs and external debt. Finally, we present some comparative pictures of Thailand's FLs and external debt structure and those of other countries in the Asia-Pacific region.

Factors Determining Thailand's Foreign Loans To discuss the pattern of Thailand's FLs, it is necessary to identify the fundamental factors determining the country's FL position. For example, if we view FLs as a form of capital input, a neoclassical investment model may be used as a framework to explain the country's demand for FLs. The economic factors that determine the demand for FLs are as follows:

- expected value of the country's future output
- expected future exchange rate
- world and domestic interest rates and the spread which represents international and domestic capital market imperfection
- amount of domestic capital resource (i.e. internal liquidity) that the country possesses
- direct policies and regulations concerning the country's external debt

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[1] In some cases the period might be extended to 1990. At the time this research was conducted, 1990 was the most current available year. Unfortunately, we were not able to cover more recent developments after 1990; for example, the operation of off-shore banking facilities in Thailand, credit rating of Thai firms and public enterprises, and the emergence of new financial products and derivatives.

On the other hand, the supply of FLs will depend on:

- the liquidity situation between both the lender countries and the world financial markets
- the debt-service reputation or the repudiation history of the borrowing country (i.e. the country's credit rating)

Finally, the equilibrium of the FL position will depend on all of these supply-demand factors. We use a closed-form of equilibrium relation and some empirical analysis in this section.

It should be noted that any government policy or regulation that affects the above economic factors may also have an impact on the country's FL position. A prime example is the government's fiscal position. Government budget deficits or surpluses affect the country's liquidity situation and its domestic financial markets. Consequently, the government's budget position should affect the country's demand for foreign capital. The country's private savings-investment gap and related government measures are other factors that affect the country's domestic liquidity and its demand for FLs. Moreover, the domestic interest rate policy, the country's exchange rate, external trade policies, debt management and debt-service policies are also relevant so far as the country's FL equilibrium position is concerned. We should, therefore, observe some statistical correlation between these policies and measures (or their proxies) and the FL pattern of the country.

The Impact of Foreign Loans on the Thai Economy As capital input, FLs should have clear positive effects on the investment, production, and growth of debtor countries. In the spirit of a neoclassical analysis, FLs should definitely improve the welfare and sustain the growth of deficit economies. There are, however, also debt-service obligations on the loans. These obligations, if too heavy, can bring about serious macroeconomic implications. Significant public debt obligations may force the governments of debtor countries to change or revise their tax and expenditure policies and this may result in domestic resource reallocation and capital flight problems. Moreover, fiscal policies that are constrained or distorted usually lose their freedom in stabilizing domestic macroeconomic variables, e.g. inflation and unemployment. On the monetary side, foreign capital flow may have a direct impact on the monetary base of the commercial banking system and, as a consequence, influence the monetary policies of debtor countries.

In this section, we aim to determine whether the debt obligations and burdens of the Thai economy have caused any stability and resource reallocation problems. We also aim to determine whether their debt obligations and burdens have influenced the Thai authorities' use of fiscal or monetary policies. In evaluating the borrowing economy's domestic macroeconomic stability, the key macro variables that we review are:

- the domestic inflation rate
- the growth rate of real output
- the stability of the exchange rate

The Policies and Management of Foreign Loans In this section, we identify government policies and measures that are likely to directly affect the country's FL and external debt position. In particular, we examine the Thai authorities' debt management policies and strategies. We also discuss these mechanisms' effectiveness and credibility.

Policy Recommendations Based on the analysis of each of the main topics in the previous sections, we hope to arrive at some concrete policy recommendations. In forming these recommendations, we have kept in mind that long-term growth and the country's domestic macroeconomic stability is the ultimate goal. In particular, our recommendations cover the following issues:

- whether or not the domestic fiscal position and the domestic monetary and financial policies of the Thai authorities have contributed to the stability of the country's external debt position. If not, what should be done?
- whether the current debt management strategies and regulations used by the authorities, both for the public and private sector's external debt, need adjustment
- the issue of FL liberalization by trying to answer the question: Should there be more or less control on the FL flow and their uses, in both the public and private sector?
- the feasibility of a cooperation plan among countries in the Asia-Pacific region

Data

Detailed data on Thailand's FLs and external debt is from the Ministry of Finance and the Bank of Thailand. The Ministry of Finance provided data on the public sector's external debt, while the Bank of Thailand supplied us with data on the private sector's external debt. We still need the following information about the FLs:

- the commitments, disbursements, debt services, lenders, interest rates, and other terms of the FLs
- the regulations and policy measures used by the Thai authorities in controlling the flow of FLs and external debt (both the public and the private sector's external debt) provided by the Ministry of Finance and the Bank of Thailand
- data on the external debt and capital flows of other Asia-Pacific countries that may be found in authoritative documents such as the World Debt Tables and other multilateral agencies' reports
- macroeconomic data (e.g. output, monetary base, money supply, government deficits, savings, investment, domestic interest rates, commercial bank liquidity, etc.) for Thailand and other countries in the Asia-Pacific region that may found in reports of authoritative agencies, such as the IMF's International Financial Statistics Yearbook

Chapter 2

Pattern of Foreign Loans

This chapter aims to provide an extensive overview of Thailand's FLs and external debt and compare them with those of other countries, especially those in the Asia-Pacific region. The chapter is organized into two main parts. The first part presents a global-regional view of FL flows. The second gives a more focused view of Thailand's FLs and its external debt.

A GLOBAL-REGIONAL VIEW OF FOREIGN LOANS

This part is divided into three sections. The first section, identifies the suppliers and demanders of foreign capital. The second section examines the share of long-term FLs among geographic regions and among Asia-Pacific countries. Comparisons between the structure of the loans are given in the third section.

Identifying Foreign Capital Suppliers and Demanders

To identify the suppliers (or exporters) and demanders (or importers) of foreign capital we will examine the current accounts, the capital accounts, and the long-term capital (i.e. long-term loans) accounts of various countries. (In fact, one may also wish to consider the foreign direct investment and the portfolio investment of the capital account. Since FLs are our main focus, however, we will examine only the long-term capital part of the capital account.)

Tables 1, 2, and 3 present the external accounts of most of the countries in the Asia-Pacific region from 1960 to 1990, as well as those of some major European countries. The following conclusions are drawn from the tables:

From 1960 to 1969, the countries that, on average, had surpluses in their current accounts (i.e. they were net exporters of goods and services to the rest of the world) were: Malaysia, Japan, the United States, and Germany. From 1970 to 1979, Malaysia, Japan, France and Germany had surpluses. From 1980 to 1989, Korea, Taiwan, Japan, and Germany were in surplus. Moreover, from 1970 to 1979 and 1980 to 1989, both Middle East countries and oil-exporting countries had current account surpluses. It is interesting to note that, on average, the U.S. has not achieved a current account surplus since the 1970s.

Table 1 Current Account Classified by Regions (US$ millions)

Region	1960	1961	1962	1963	1964	1965
Industrial Countries	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Middle East	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Oil Exporting	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Non-oil Exporting	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Region	**1970**	**1971**	**1972**	**1973**	**1974**	**1975**
Industrial Countries	6,937	10,228	8,212	12,755	-23,178	8,349
Middle East	-822	1,269	3,775	5,400	52,820	28,972
Oil Exporting	-985	1,235	3,427	6,136	66,784	33,032
Non-oil Exporting	-10,028	-12,186	-5,910	-6,123	-28,957	-39,681
Region	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**
Industrial Countries	-62,678	-23,225	-24,359	-22,538	-56,430	-49,822
Middle East	89,357	44,829	4,120	-19,387	-14,549	-4,653
Oil Exporting	103,626	46,683	-9,297	-20,412	-5,792	3,799
Non-oil Exporting	-72,419	-93,869	-69,071	-35,280	-19,822	-22,875

N.A. = Not available
D = Deficit Countries
S = Surplus Countries

Source: International Financial Statistics Yearbook 1985, 1990, 1991.

From the capital account, we found that, on average, the countries that had capital account deficits (i.e. they had net capital outflows to the rest of the world) from 1970 to 1979 were Japan, the U.S., and the United Kingdom. From 1980 to 1989, Korea, Japan, New Zealand, Germany, and the U.K. had deficits in this account. Also, from 1970 to 1979, and 1980 to 1989, Middle East countries and oil-exporting countries had deficits in their capital accounts.

From the long-term capital part of the capital account which includes long-term loans, we found that from 1960 to 1969 the countries that, on average, had deficits in this account (i.e. they had net outflows of long-term capital to other countries) were: Japan, New Zealand, the U.S., France, Germany, and the U.K. From 1970 to 1979, Japan, New Zealand, Canada, the U.S., France, Germany, and the U.K. had deficits in this account. From 1980 to 1989, Korea, Taiwan, Japan, New Zealand, the U.S., France, and Germany each had a deficit in this long-term capital account. It is noteworthy that the U.S., Japan, Germany, France and New Zealand have consistently had long-term capital account deficits.

Table 1

1966	1967	1968	1969	Average	Status	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
1976	**1977**	**1978**	**1979**	**Average**	**Status**	
-10,812	-15,616	15,897	-26,569	-1,380	D	
34,846	29,992	11,071	54,567	22,189	S	
35,586	25,185	-566	58,392	22,823	S	
-24,560	-21,835	-31,539	-48,364	-22,918	D	
1986	**1987**	**1988**	**1989**	**Average**	**Status**	**1990**
-16,269	-39,508	-50,452	-84,351	-42,963	D	-96,177
-17,061	-3,642	-7,173	6,002	7,784	S	14,752
-22,967	-4,206	-12,980	6,124	8,458	S	18,824
-12,134	11,616	5,414	-17,744	-32,618	D	-22,503

The countries that consistently have had both a current account surplus and net capital outflows to the rest of the world (i.e. with capital account deficits) are: Japan, Germany, Middle East countries, and oil-exporting countries. Also, the U.S., Japan, Germany, France and New Zealand have consistently had net capital outflows in the form of long-term loans (i.e. from the other long-term capital account). The U.S., on average, had current account deficits, however, from 1970 to 1990 and capital account surpluses from 1980 to 1990. During the 1980s, therefore, the U.S. was a net importer of both goods and capital from the rest of the world. Also, as we shall see later, Japan's role as a consistent net exporter of both goods and capital, to the rest of the world, complements the fact that Japan has in recent years become a very important lender to both the Thai public and private sectors. The role of the U.S. as a lender, on the other hand, has significantly declined. Another interesting fact is that from 1980 to 1989, Korea and Taiwan became net exporters of both goods and capital to the rest of the world. Korea and Taiwan both had current account surpluses and other long-term capital deficits during this period. Korea, in fact, had an overall capital account deficit in this period. Aggregate data on the capital account of Taiwan, however, is not available. Whether Korea and Taiwan's new status as net exporters of goods and capital is transitory is yet to be seen. If their current accounts remain in the black, it is certain that Korea and Taiwan should gradually have increasingly important roles as suppliers of capital to the world financial markets.

Table 2 Capital Account Classified by Regions (US$ millions)

Region	1960	1961	1962	1963	1964	1965
Industrial Countries	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Middle East	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Oil Exporting	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Non-oil Exporting	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Region	**1970**	**1971**	**1972**	**1973**	**1974**	**1975**
Industrial Countries	-1,245	-10,101	-6,247	-20,156	-2,415	-15,313
Middle East	473	828	333	-3,167	-25,049	-23,250
Oil Exporting	374	781	925	-2,907	-27,162	-24,384
Non-oil Exporting	11,521	13,252	13,748	14,612	26,091	29,753
Region	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**
Industrial Countries	47,132	12,537	19,757	22,610	51,708	39,151
Middle East	-69,582	-48,465	-19,471	10,347	6,175	10,033
Oil Exporting	-73,407	-56,326	-23,961	9,988	678	2,530
Non-oil Exporting	67,824	80,673	30,243	-2,335	1,830	419

N.A. = Not available
D = Deficit Countries
S = Surplus Countries

Source: International Financial Statistics Yearbook 1985, 1990, 1991.

Regional and Country Shares of Long-term Foreign Loans

Regional Shares Tables 4 and 5 present the share of long-term FLs that developing countries in each geographic region received from 1972 to 1989. Table 4 presents the share (% of the Total for All Countries) of commitments of public/publicly-guaranteed debt that each geographic region received, and Table 5 presents the share (% of the Total for All Countries) of disbursements of private non-guaranteed debt that each region received. (Private loan commitment data is not available). Data is calculated from the World Bank's World Debt Tables. The main conclusions are as follows:

From 1972-1989, Africa's share of public/publicly guaranteed loan commitments of between 10 and 11 percent was quite stable. Its share of private non-guaranteed loan disbursements, however, increased significantly from 3.16 percent (1972-1976) to 14.23 percent (1987-1989).

Table 2

1966	1967	1968	1969	Average	Status	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
1976	**1977**	**1978**	**1979**	**Average**	**Status**	
1,370	7,122	-15,925	-4,419	-6,733	D	
-24,814	-15,323	-13,646	-27,217	-13,083	D	
-21,528	-9,460	-5,444	-22,317	-11,112	D	
28,762	26,900	42,978	54,865	26,248	S	
1986	**1987**	**1988**	**1989**	**Average**	**Status**	**1990**
-2,997	64,929	39,353	60,094	35,427	S	119,324
7,166	9,748	9	-2,335	-9,638	D	-9,817
5,847	4,311	-2,789	-6,040	-13,917	D	-10,086
8,007	3,049	-21,540	-5,045	16,313	S	16,703

East Asia and the Pacific's share of public/publicly guaranteed loan commitments rose rapidly from 15.87 percent (1972-1976) to 23.56 percent (1982-1986) to 24.46 percent (1987-1989) and 27.58 percent in 1990. Its share of private non-guaranteed loan disbursements also rose dramatically from 17.66 percent (1972-1976) to 52.14 percent (1987-1989) and 55 percent in 1990.

Latin America's share of public/publicly guaranteed loan commitments dropped significantly from 37.73 percent (1972-1976) to 29.08 percent (1982-1986) and to 22.27 percent (1987-1989). Also, its share of private non-guaranteed loan disbursements dropped sharply from 57.43 percent (1972-1976) to 18.09 percent (1987-1989).

The Middle East's share of public/publicly guaranteed loan commitments was quite stable at around 13-14 percent from 1972 to 1989, while its share of private non-guaranteed loan disbursements rose substantially from 0.38 percent (1972-1976) to 2.7 percent (1987-1989).

South Asia's share of public/publicly guaranteed loan commitments increased from 9.36 percent (1972-1976) to 9.96 percent (1982-1986) and to 13.57 percent (1987-1989). Its share of private non-guaranteed loan disbursements also increased significantly from 0.28 percent (1972-1976) to 3.27 percent (1987-1989).

Table 3 Other Long-term Capital (US$ millions)

Country	1960	1961	1962	1963	1964
Brunei	N.A.	N.A.	N.A.	N.A.	N.A.
China	N.A.	N.A.	N.A.	N.A.	N.A.
Hong Kong	N.A.	N.A.	N.A.	N.A.	N.A.
Indonesia	118	335	75	87	N.A.
Korea	0	0	17	81	35
Malaysia	N.A.	64	99	86	1
Philippines	38	46	75	26	103
Singapore	N.A.	N.A.	N.A.	N.A.	N.A.
Taiwan*	N.A.	N.A.	N.A.	N.A.	N.A.
Thailand	14	31	65	67	59
Japan	40	110	210	120	(70)
Australia	113	(32)	34	(60)	19
New Zealand	N.A.	N.A.	N.A.	N.A.	N.A.
Canada	174	0	0	0	0
U.S.	(1,430)	(940)	(1,200)	(1,810)	(2,780)
France	N.A.	N.A.	N.A.	N.A.	N.A.
Germany	(170)	(490)	80	(140)	(790)
U.K.	(704)	(31)	(606)	(139)	(435)

Country	1970	1971	1972	1973	1974
Brunei	N.A.	N.A.	N.A.	N.A.	N.A.
China	N.A.	N.A.	N.A.	N.A.	N.A.
Hong Kong	N.A.	N.A.	N.A.	N.A.	N.A.
Indonesia	207	238	293	505	541
Korea	492	602	438	432	786
Malaysia	30	45	115	72	85
Philippines	156	(5)	137	68	267
Singapore	47	42	9	74	58
Taiwan*	N.A.	N.A.	N.A.	N.A.	N.A.
Thailand	54	33	74	(11)	188
Japan	(1,450)	(160)	(2,570)	(4,710)	(1,050)
Australia	(66)	76	40	(64)	384
New Zealand	83	103	20	34	295
Canada	(401)	(364)	(134)	(164)	(896)
U.S.	(1,460)	(3,030)	(2,970)	(1,600)	(1,830)
France	(422)	(346)	(892)	(1,992)	(1,390)
Germany	210	(290)	(60)	2,500	(1,570)
U.K.	(758)	(1,079)	(671)	(155)	(942)

Table 3

1965	1966	1967	1968	1969	Average	Status
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
228	150	257	231	235	215	S
21	195	246	404	578	158	S
(63)	(56)	(44)	22	29	14	S
36	(7)	15	230	155	72	S
2	10	9	88	35	29	S
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
29	16	62	49	72	46	S
(440)	(670)	(720)	(390)	(980)	(279)	D
101	(214)	207	86	(184)	7	S
N.A.	N.A.	1	3	(15)	(4)	D
0	0	0	0	0	17	S
(1,560)	(590)	(2,350)	(1,460)	(1,230)	(1,535)	D
N.A.	N.A.	(58)	(854)	(504)	(472)	D
(600)	(790)	(740)	(1,460)	(3,020)	(812)	D
(225)	(386)	(102)	178	(317)	(277)	D
1975	**1976**	**1977**	**1978**	**1979**	**Average**	**Status**
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
567	1,640	1,256	1,214	1,034	750	S
1,297	1,183	1,257	2,008	3,047	1,154	S
105	174	184	111	158	108	S
393	995	644	784	1,086	453	S
21	69	103	239	226	89	S
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
167	240	322	520	1,246	283	S
(1,190)	(1,650)	(2,170)	(7,220)	(8,730)	(3,090)	D
111	862	1,358	1,803	1,011	552	S
89	(154)	(298)	(291)	(228)	(35)	D
(488)	264	(836)	149	(484)	(335)	D
(4,700)	(2,920)	(3,670)	(3,210)	(8,080)	(3,347)	D
(2,836)	(2,849)	(966)	(3,911)	(4,201)	(1,981)	D
(5,250)	(3,000)	(2,740)	(2,870)	2,280	(1,079)	D
(1,435)	(1,325)	524	(787)	(1,381)	(801)	D

(Continued on page 16)

Table 3 (Continued)

Country	1980	1981	1982	1983	1984
Brunei	N.A.	N.A.	N.A.	N.A.	N.A.
China	N.A.	N.A.	(18)	609	401
Hong Kong	N.A.	N.A.	N.A.	N.A.	N.A.
Indonesia	1,927	1,971	4,556	4,663	2,769
Korea	1,954	3,517	1,858	1,660	2,606
Malaysia	98	178	404	1,296	1,343
Philippines	979	1,131	1,549	1,049	301
Singapore	312	84	565	(252)	(286)
Taiwan*	N.A.	N.A.	N.A.	N.A.	N.A.
Thailand	1,824	1,553	978	848	1,245
Japan	(4,930)	(9,410)	(12,990)	(12,630)	(20,080)
Australia	1,108	4,856	7,985	3,850	6,820
New Zealand	(599)	(834)	88	(550)	(1,306)
Canada	(1,231)	501	(980)	363	(1,253)
U.S.	(9,030)	(18,970)	(22,680)	(17,970)	(12,790)
France	(8,976)	(6,478)	(4,693)	3,531	(2,048)
Germany	(2,600)	(1,080)	(3,870)	(5,120)	(4,300)
U.K.	(1,400)	(2,365)	(2,206)	(4,519)	(3,387)

* Financial Statistics, Taiwan District, The Republic of China, April 1991.
N.A. = Not available
D = Deficit Countries
S = Surplus Countries

Source: International Financial Statistics, Yearbook 1990.

Europe and the Mediterranean's share of public/publicly guaranteed loan commitments increased from 10.68 percent (1972-1976) to 13.24 percent (1987-1989). Its share of private non-guaranteed loan disbursements, however, dropped substantially from 21.1 percent (1972-1976) to 9.57 percent (1987-1989).

The most dramatic changes in the share of long-term FLs took place in two regions, Latin America and East Asia and the Pacific. First, Latin America's rapidly diminishing long-term FL share is probably due to the LDC debt crisis that took place in this particular region during the 1980s. It seems that in the process, funds were reallocated from Latin America to East Asia and the Pacific, South Asia, Africa, and the Middle East, because these regions' shares of private non-guaranteed loan disbursements rose while Latin America's share dropped sharply over time. Also from 1987 to 1990 East Asia and the Pacific obtained the largest average share of both public/publicly guaranteed loan commitments and private non-guaranteed loan disbursements. Dramatic increases in East Asia and the Pacific's long-term FL share during this period suggest that in the eyes of foreign lenders and transnational bankers, the Asia-Pacific region had a comparatively lower default risk, higher economic growth potential, and greater political stability, all of which contributed positively to its servicing of new debt.

Table 3

1985	1986	1987	1988	1989	Average	Status
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
2,644	4,552	3,042	3,980	N.A.	2,173	S
N.A.	N.A.	N.A.	N.A.	N.A.	-	-
1,605	2,356	2,152	1,352	2,224	2,558	S
1,113	(3,197)	(8,777)	(3,645)	N.A.	(323)	D
552	32	(5)	(958)	(862)	208	S
3,077	1,109	275	(381)	609	970	S
34	(61)	(47)	610	N.A.	107	S
(1,234)	(1,912)	(2,225)	(1,402)	(1,512)	(1,657)	D
580	(144)	72	(255)	N.A.	745	S
(15,700)	(15,790)	(24,300)	(29,610)	(14,830)	(16,027)	D
5,263	8,627	5,227	8,556	9,144	6,144	S
(1,545)	(2,644)	(2,508)	(2,719)	(2,423)	(1,504)	D
(511)	(582)	872	1,494	4,704	338	S
8,030	(5,130)	(780)	10,820	2,580	(6,592)	D
(2,985)	(7,198)	840	(1,513)	(7,159)	(3,668)	D
(1,950)	50	(3,590)	3,990	(280)	(1,875)	D
1,208	5,355	1,132	4,643	6,260	472	S

East Asia and the Pacific Countries' Shares Tables 6 and 7 present the shares of the long-term FLs that developing countries in the East Asia and the Pacific region received from 1972 to 1989. Table 6 presents the share (% of the Total for All Countries) of the commitments of public/publicly guaranteed debt that each country in this region received, while Table 7 gives the share (% of the Total for All Countries) of the disbursements of private non-guaranteed debt that each country in the region received. Data is calculated from the World Bank's World Debt Tables, and the main conclusions are as follows:

- Thailand's share of public/publicly guaranteed loan commitments increased rapidly from 0.7 percent (1972-1976) to 2.05 percent (1982-1986), but decreased slightly to 1.54 percent from 1987 to 1989. Thailand's share of private non-guaranteed loan disbursements also rose sharply from 2.6 percent (1972-1976) to 12.92 percent (1987-1989).
- Indonesia's share of public/publicly guaranteed loan commitments was quite stable at around 5-6 percent from 1972 to 1990. Its share of private non-guaranteed loan disbursements, however, increased from 3.3 percent (1977-1981) to 10.64 percent (1987-1989) and 32.35 percent in 1990.

Table 4 Public/Publicly-guaranteed Debt: Long-term Foreign Loan Commitments as Percentages of the Total for All Countries

Year	1972	1973	1974	1975	1976
Total for All Countries	100	100	100	100	100
Africa, South Sahara	10.76	14.03	11.17	10.88	10.11
East Asia and the Pacific	15.68	12.59	17.21	15.51	18.35
Latin America	40.22	37.08	36.61	33.42	41.33
Middle East	8.99	13.98	13.29	22.64	15.97
South Asia	8.94	9.88	12.37	9.59	5.99
Europe and the Mediterranean	15.42	12.43	9.35	7.97	8.24

Year	1984	1985	1986	1987	1988
Total for All Countries	100	100	100	100	100
Africa, South of Sahara	9.04	7.81	10.15	10.17	11.08
East Asia and the Pacific	22.92	28.67	26.75	22.90	24.23
Latin America	30.27	23.12	19.06	27.23	21.22
Middle East	12.10	11.94	9.49	13.07	17.61
South Asia	9.71	10.60	13.28	13.77	12.64
Europe and the Mediterranean	15.96	17.87	21.27	12.86	13.22

Source: World Debt Tables, World Bank.

- Korea's share of public/publicly guaranteed loan commitments dropped from 4.8 percent (1972-1976) to 1.58 percent (1987-1989). Its share of private non-guaranteed loan disbursements, however, increased rapidly from 0.8 percent (1972-1976) to 19.23 percent (1987- 1989).
- China's share of public/publicly guaranteed loan commitments increased sharply from 2.81 percent (1977-1981) to 9.89 percent (1987-1989) and 10.55 percent in 1990. The country's share of private non-guaranteed loan disbursements, however, is virtually nil. Thus there was no external borrowing by China's private sector.

Table 4

(Percent)

1977	1978	1979	1980	1981	1982	1983
100	100	100	100	100	100	100
10.24	11.76	13.45	12.33	12.76	12.79	12.42
12.84	17.53	14.19	17.04	17.20	19.49	19.95
42.70	42.06	44.31	35.41	43.01	40.61	32.34
19.70	14.77	12.79	11.21	9.00	9.07	14.68
6.69	5.95	4.78	11.31	7.28	8.68	7.518
7.83	7.92	10.47	12.69	10.76	9.37	13.09

1989	1990	Average 72-76	Average 77-81	Average 82-86	Average 87-89
100	100	100	100	100	100
11.96	10.33	11.39	12.11	10.44	11.07
26.26	27.58	15.87	15.76	23.56	24.46
18.37	21.02	37.73	41.50	29.08	22.27
15.47	12.32	14.97	13.49	11.45	15.38
14.31	13.18	9.36	7.20	9.96	13.57
13.63	15.57	10.68	9.94	15.51	13.24

- Hong Kong's share of public/publicly guaranteed loan commitments decreased from 0.22 percent (1972-1976) to a statistically negligible 0.0007 percent (1982-1986). Data on the country's private non-guaranteed loan disbursements, however, was not available.
- Malaysia's share of public/publicly guaranteed loan commitments was quite stable at around 1.5 percent from 1972 to 1989. The country's share of private non-guaranteed loan disbursements, however, increased quite rapidly from 1.96 percent (1977-1981) to 6.5 percent (1987-1989).

Table 5 Private Non-guaranteed Debt: Long-term Foreign Loan Disbursements as Percentages of the Total for All Countries

Year	1972	1973	1974	1975	1976
Total for All Countries	100	100	100	100	100
Africa, South Sahara	2.296191	4.377906	3.328357	2.945703	2.834393
East Asia and the Pacific	15.02502	17.72845	17.63503	20.17947	17.7494
Latin America	60.23309	52.51776	63.39756	57.87538	53.12612
Middle East	0.127245	0.213974	0.151014	0.242007	1.166898
South Asia	0.425114	0.136943	0.189847	0.323321	0.310475
Europe and the Mediterranean	21.89335	25.02496	15.29819	18.43412	24.81271

Year	1984	1985	1986	1987	1988
Total for All Countries	100	100	100	100	100
Africa, South Sahara	11.18074	11.97984	11.64669	16.63327	16.59335
East Asia and the Pacific	37.77761	48.43897	42.24214	53.80172	51.58847
Latin America	27.71487	13.18136	22.91592	12.01226	17.33871
Middle East	1.24726	3.323177	3.397188	3.795827	2.956989
South Asia	6.383702	10.38644	8.264603	4.59743	2.956989
Europe and the Mediterranean	15.69582	12.68936	11.5344	9.171284	8.577713

Source: World Debt Tables.

- Singapore's share of public/publicly guaranteed loan commitments was quite stable at around 0.4 percent (1972-1986). Data on the country's private non-guaranteed loan disbursements, however, was not available.
- The Philippines' share of the public/publicly guaranteed loan commitments was quite stable at around 2 percent (1972-1989), while its share of private non-guaranteed loan disbursements dropped dramatically, from 3.2 percent (1972-1976) to only 0.61 percent (1987-1989).

From 1972 to 1989, Thailand, Indonesia, Korea, and Malaysia all increased their share of private non-guaranteed loan disbursements, while the Philippines' share clearly diminished. A debt crisis and other economic problems are likely causes of the country's smaller FL share. According to the World Bank, the Philippines rescheduled its external debt, both the principal and the interest, every year from 1985 to 1990, indicating its severe internal and economic difficulties during this period.

Table 5

(Percent)

1977	1978	1979	1980	1981	1982	1983
100	100	100	100	100	100	100
3.053255	4.186937	4.735468	5.074653	3.487833	5.123643	9.997421
16.69133	16.9323	15.52596	16.61911	12.95288	21.28645	40.84775
52.31166	50.33489	50.81151	57.48394	69.77113	57.1782	16.60793
1.058481	0.682967	0.175042	0.564884	0.501693	1.813206	2.32958
0.222296	0.324535	0.074056	0.156395	0.324702	0.487572	5.058493
26.66299	27.53837	28.67796	20.10101	12.96176	14.11092	25.15805

1989	1990	Average 72-76	Average 77-81	Average 82-86	Average 87-89
100	100	100	100	100	100
9.465799	6.968723	3.15651	4.107629	9.985667	14.23081
51.02149	54.99562	17.66347	15.74431	38.11858	52.13723
24.91677	24.46068	57.42998	56.14263	27.51966	18.08925
1.361985	0.818474	0.380227	0.596613	2.422082	2.704934
2.269976	1.397252	0.27714	0.220397	6.116162	3.274798
10.95642	11.35925	21.09267	23.18842	15.83771	9.568471

For Thailand, Indonesia, Korea, and Malaysia, the increase in their share of private non-guaranteed loan disbursements is due to at least two factors: first, these countries' relatively swift increase in their private sectors' external borrowing—in particular, the rapidly increasing demand for long-term external funds; second, the confidence and trust that foreign lenders and transnational bankers had in the economic performance of these countries' private sectors.

It should be noted that from 1987 to 1989 Thailand's share of private non-guaranteed loan disbursements was second only to Korea's while the country's share of public/publicly guaranteed loan commitments was fifth, after China, Indonesia, the Philippines, and Korea, respectively. In fact, China has become a prominent new borrower in the Asia-Pacific region and in recent years its share of public/publicly guaranteed loan commitments has risen dramatically. How the rapid growth in China's public external borrowing (and its increasing debt burdens) will affect the domestic and external sectors of the country's economy has yet to be seen. To be able to maintain reasonable debt servicing, the Chinese economy will have to generate substantial growth in real output accompanied by both external and domestic order over a prolonged period of time.

Table 6 Public/Publicly guaranteed Debt: Long-term Foreign Loan Commitments

Year	1972	1973	1974	1975	1976
Thailand	0.76521	0.32190	1.14008	0.51846	0.75976
Indonesia	4.67674	5.49597	6.10256	7.35170	5.84188
Korea	5.13510	4.45820	4.39910	3.26598	6.74633
China	N.A.	N.A.	N.A.	N.A.	N.A.
Hong Kong	0.11635	0.00000	0.00000	0.18329	0.79910
Malaysia	1.28310	0.89031	2.88143	1.91252	0.73981
Singapore	0.90807	0.20290	0.37942	0.41974	0.36953
Philippines	2.51587	0.91433	2.19001	1.72676	2.94136
Total Share of 8 East Asia and Pacific Countries	15.40043	12.28361	17.09260	15.37845	18.19778

Year	1984	1985	1986	1987	1988
Thailand	1.61525	2.91922	2.39089	0.91323	2.04057
Indonesia	5.72052	5.73069	5.66674	6.35758	6.12680
Korea	5.85602	7.02125	3.99530	1.91673	1.09327
China	3.52763	7.70244	9.57177	10.90888	10.32941
Hong Kong	N.A.	N.A.	N.A.	N.A.	N.A.
Malaysia	3.84379	3.16693	3.62874	1.04278	1.66900
Singapore	N.A.	N.A.	N.A.	N.A.	N.A.
Philippines	1.93378	1.80207	1.15304	1.34224	2.50299
Total Share of 8 East Asia and Pacific Countries	22.49699	28.34260	26.40648	22.48144	23.76203

N.A. = Not available

Source: World Debt Tables.

Table 6

(Percentage of the Total for All Countries)

1977	1978	1979	1980	1981	1982	1983
1.32544	1.46272	1.96267	1.75996	1.53265	2.07538	1.22819
2.89173	4.11182	4.50905	3.83244	4.59066	5.72519	5.86414
4.71518	6.44707	4.03310	4.93988	4.81236	3.74525	4.49133
N.A.	N.A.	N.A.	3.50636	2.12173	2.29519	2.22914
0.08421	0.52867	0.41321	0.04747	0.00168	0.00069	N.A.
0.93147	1.39407	0.58253	0.72913	1.75276	2.83748	3.75069
0.37061	0.31860	0.37216	0.27851	0.17883	0.42782	N.A.
2.35524	3.08549	2.17980	1.70708	1.96512	2.09847	1.96263
12.67387	17.34845	14.05253	16.80084	16.95578	19.20548	19.52613

1989	1990	Average 72-76	Average 77-81	Average 82-86	Average 87-89
1.66403	1.85547	0.70108	1.60869	2.04579	1.53927
8.75099	6.54534	5.89377	3.98714	5.74146	7.07846
1.74450	2.18537	4.80094	4.98952	5.02183	1.58483
8.44022	10.55060	N.A.	2.81404	5.06523	9.89284
N.A.	N.A.	0.21975	0.21505	0.00069	N.A.
1.79650	2.44736	1.54143	1.07799	3.44553	1.50276
N.A.	N.A.	0.45593	0.30374	0.42782	N.A.
3.18443	3.50285	2.05767	2.25855	1.79000	2.34322
25.58068	27.08699	15.67058	15.56629	23.19554	23.94138

Table 7 Private Non-guaranteed Debt: Long-term Foreign Loan Disbursements as Percentages of the Total for All Countries

Year	1972	1973	1974	1975	1976
Thailand	2.83	1.99	2.80	2.94	2.42
Indonesia	N.A.	N.A.	N.A.	N.A.	N.A.
Korea	0.59	1.38	0.85	0.66	0.53
China	N.A.	N.A.	N.A.	N.A.	N.A.
Hong Kong	N.A.	N.A.	N.A.	N.A.	N.A.
Malaysia	N.A.	N.A.	N.A.	N.A.	N.A.
Singapore	N.A.	N.A.	N.A.	N.A.	N.A.
Philippines	2.61	2.72	3.02	2.97	4.69
Total Share of 8 East Asia and Pacific Countries	15.03	17.73	17.64	20.18	17.75
Year	**1984**	**1985**	**1986**	**1987**	**1988**
Thailand	11.64	8.64	5.18	7.07	12.60
Indonesia	8.87	8.48	4.86	11.49	10.37
Korea	9.05	17.64	20.63	25.62	18.46
China	0	0	0	0	0
Hong Kong	N.A.	N.A.	N.A.	N.A.	N.A.
Malaysia	5.63	7.14	7.96	6.90	7.51
Singapore	N.A.	N.A.	N.A.	N.A.	N.A.
Philippines	0.58	3.14	0.88	0.94	0.00000
Total Share of 8 East Asia and Pacific Countries	37.78	48.44	42.24	53.80	51.59

N.A. = Not available.

Source: World Debt Tables.

A Comparative Assessment of the Structure of Thailand's Long-term Foreign Loans

The Public Private Debt Disbursement Ratio First, let us examine the ratio between the disbursements of public/publicly guaranteed debt and that of private non- guaranteed debt. Table 8 presents this ratio from 1972 to 1990 for Thailand, the developing countries of East Asia and the Pacific, and the Total for All (developing) Countries. This data gives a comparative picture of the extent of the public and private sectors' participation in their countries' drawing of long-term FLs. Data is calculated from the World Bank's World Debt Tables. We can see from the table that, for the Total for All Countries, the ratio increased substantially from 2.74 (1972-1976) to 8.38 (1987-1989). For the developing countries in East Asia and the Pacific, the ratio steadily increased from 2.24 (1972-1976) to 4.22 (1987-1989). On average, therefore, the external borrowing (i.e. the drawing of long-term

Table 7

1977	1978	1979	1980	1981	1982	1983
2.57	3.60	4.14	6.18	2.15	3.31	7.95
N.A.	N.A.	N.A.	3.34	3.20	2.15	7.83
0.29	0.15	0.22	2.65	2.75	2.10	13.04
N.A.	N.A.	N.A.	0	0	0	0
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
N.A.	N.A.	N.A.	2.12	1.80	7.62	7.41
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
3.51	3.07	2.42	2.27	1.66	2.64	2.25
16.69	16.93	15.53	16.62	12.95	21.29	40.85

1989	1990	Average 72-76	Average 77-81	Average 82-86	Average 87-89
19.11	6.72	2.60	3.73	7.35	12.93
10.06	32.35	N.A.	3.27	6.44	10.64
13.60	8.94	0.80	1.21	12.49	19.23
0	0	N.A.	0	0	0
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5.11	4.00	N.A.	1.96	7.15	6.51
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
0.90	1.70	3.20	2.58	1.90	0.61
51.02	53.71	17.66	15.74	38.12	52.14

FLs) by the public sectors of these countries grew faster than their private sectors did. For Thailand, however, the ratio increased from 0.48 (1972-1976) to 1.94 (1982-1986), but dropped to 1.37 (1987-1989) and 1.32 in 1990. The decrease in ratio from 1987 to 1990 was brought about because Thailand's private sector increased its external borrowing (i.e. its drawing of long-term FLs) at a faster rate than its public sector did. Also from 1972 to 1990 Thailand, by and large, had lower than average public-to-private debt disbursement ratios than those of the Total for All Countries and those of the developing countries in East Asia and the Pacific. In fact, in Thailand from 1972 to 1990, the average share of the private sector's total drawings of long-term FLs was larger than that of the Total for All Countries and those of East Asia and the Pacific developing countries. In relative terms, Thailand's private sector participated more in the country's external borrowing when compared to the private sectors of the other countries.

Table 8 Long-term Foreign Loan Disbursements: Public and Private External Debt

TOTAL FOR ALL COUNTRIES	1972	1973	1974	1975	1976
Public and Publicly Guaranteed	14460.7	19868	25131.1	33386.8	38479.4
Private Non-guaranteed	6915.8	7010.2	11588.3	10330.3	11466.3
Total Disbursements	21376.5	26878.2	36719.4	43717.1	49945.7
Public/Private Ratio	2.0909656	2.8341559	2.1686615	3.2319294	3.3558689
EAST ASIA AND THE PACIFIC					
Public and Publicly Guaranteed	2280.3	2619.8	3117.2	5153.1	5917.9
Private Non-guaranteed	1039.1	1242.8	2043.6	2084.6	2035.2
Total Disbursements	3319.4	3862.6	5160.8	7237.7	7953.1
Public/Private Ratio	2.1944952	2.107982	1.5253474	2.471985	2.9077732
THAILAND					
Public and Publicly Guaranteed	50.2	69	97.1	149.8	241.5
Private Non-guaranteed	195.8	139.5	324.8	304	277.5
Total Disbursements	246	208.5	421.9	453.8	519
Public/Private Ratio	0.2563841	0.4946237	0.2989532	0.4927632	0.8702703
TOTAL FOR ALL COUNTRIES	**1984**	**1985**	**1986**	**1987**	**1988**
Public and Publicly Guaranteed	79078.9	77100.3	75130.3	76900	86577
Private Non-guaranteed	13229	11585.3	10597	8483	8184
Total Disbursements	92307.9	88685.6	85727.3	85383	94761
Public/Private Ratio	5.9776929	6.6550111	7.0897707	9.0651892	10.578812
EAST ASIA AND THE PACIFIC					
Public and Publicly Guaranteed	17970.9	22441	18828.3	20094	22466
Private Non-guaranteed	4997.6	5611.8	4476.4	4564	4222
Total Disbursements	22968.5	28052.8	23304.7	24658	26688
Public/Private Ratio	3.595906	3.9988952	4.2061255	4.4027169	5.3211748
THAILAND					
Public and Publicly Guaranteed	1469	2392	1302	1322	1441
Private Non-guaranteed	1417	784	587	600	1031
Total Disbursements	2886	3176	1889	1922	2472
Public/Private Ratio	1.0366972	3.0510204	2.2180579	2.2033333	1.3976722

Source: World Debt Tables.

Table 8

(US$ millions)

1977	1978	1979	1980	1981	1982	1983
47780.1	64811.1	74942.5	72131.3	79609.5	79090.3	86308.6
13585.5	15930.5	19309.6	22571	30397.1	20571.3	12796.3
61365.6	80741.6	94252.1	94702.3	110006.6	99661.6	99104.9
3.5169924	4.0683657	3.8811006	3.1957512	2.6189834	3.8446914	6.744809
6406.9	9214.8	10774.9	9790.8	13734.4	14942.2	19072.3
2267.6	2697.4	2998	3751.1	3937.3	4378.9	5227
8674.5	11912.2	13772.9	13541.9	17671.7	19321.1	24299.3
2.8254101	3.4161785	3.5940294	2.6101144	3.4882788	3.4123182	3.6488043
314.4	713.2	1258.9	1357.9	1461	1420	1315
348.9	572.9	799	1026.7	789.6	707	950
663.3	1286.1	2057.9	2384.6	2250.6	2127	2265
0.9011178	1.2448944	1.5755945	1.3225869	1.850304	2.0084866	1.3842105

1989	1990	Average 1972-1976	Average 1977-1981	Average 1982-1986	Average 1987-1989
72460	84359	26265.2	67854.9	79341.68	78645.667
13216	17105	9462.18	20358.74	13755.78	9961
85676	101465	35727.38	88213.64	93097.46	88606.667
5.4827482	4.9318328	2.7363163	3.4562387	6.062395	8.3755832
19734	23310	3817.66	9984.36	18650.94	20764.667
6743	9407	1689.06	3130.28	4938.34	5176.3333
26477	32717	5506.72	13114.64	23589.28	25941
2.9265905	2.477942	2.2415166	3.1868022	3.7724098	4.2168274
1275	1513	121.52	1021.08	1579.6	1346
2525	1149	248.32	707.42	889	1385.3333
3800	2662	369.84	1728.5	2468.6	2731.3333
0.5049505	1.3167972	0.4825989	1.3788995	1.9396945	1.368652

Terms of New Commitments Table 9 presents the average terms of the new commitments that Thailand, East Asia and the Pacific developing countries, and the Total for All (developing) Countries received from 1972 to 1990. This data shows the comparative cost of external borrowing over an extended period between the countries. Data is from the World Debt Tables. Our conclusions are as follows:

- Considering the terms of private creditors, we find that, on average, Thailand obtained the lowest loan interest rates. In fact, the country's average loan interest rate from 1972 to 1989 was 8.61 percent. During the same period, the interest rates of the developing countries in East Asia and the Pacific and of the Total for All Countries were 9.34 percent and 9.69 percent, respectively. From 1987 to 1989, Thailand's average interest rate was only 6.87 percent, whereas the average interest rates for East Asia and the Pacific and that of the Total for All Countries were 7.7 percent and 8 percent, respectively. Moreover, Thailand's average maturity and grace periods from 1972 to 1990 were longer than those of the Total for All Countries, approximately similar to those of East Asia and the Pacific.

- For the terms of official creditors, Thailand obtained lower loan interest rates (average 6.37 percent) than those of the developing countries in East Asia and the Pacific (average 6.41 percent) from 1972 to 1989. In fact, from 1987 to 1989, Thailand had the lowest average interest rate at only 5 percent while the average interest rates of East Asia and the Pacific and the Total for All Countries were 5.27 percent and 5.37 percent, respectively. Also, from 1972 to 1989 Thailand's average maturity and grace periods were longer than those of East Asia and the Pacific and those of the Total for All Countries.

Thailand's cost of external borrowing was, therefore, quite low, when compared with that of the other countries. Thailand's interest rate cost from 1972 to 1990 was in fact lower than that of a comparable country in East Asia and the Pacific, whether the funds were from private or official creditors. Standard economic theory would suggest that there exists a positive relationship between loan interest rates and default risk evaluated by lenders. What we find here suggests that in the eyes of foreign private creditors, Thailand's default risk was relatively low when compared with the average for any comparable country, whether in East Asia and the Pacific or of the Total for All Developing Countries.

Official vs. Private Sources of Funds Let us now examine the percentage shares of official and private sources of funds in the total public/publicly guaranteed long-term FL commitments. Table 10 presents this data for: Thailand, the developing countries in East Asia and the Pacific, and the Total for All Countries. This data illustrates how much the public sectors depend on each source of external funds and how this changes over time. Again, data is from the World Debt Tables. We found that for the Thai public sector, the private creditors' share in new public long-term external debt commitments rose steadily from 10.75 percent (average 1972-1976), to 40.02 percent (1977-1981), and from 47.99 percent (1982-1986) to 55.26 percent (1987-1989). For the developing countries in East Asia and the Pacific, however, private creditors' shares increased from 49.96 percent (1972-1976) to 64.78 percent (1982-1986), but dropped to 49.22 percent (1987-1989). For the Total for All Countries, the share was 51.22 percent (1972-1976), 55.2 percent (1982-1986), dropping to 44.63 percent (1987-1989). We may conclude, therefore,

that from 1972 to 1989 Thailand's private creditors' share in the total public debt commitment grew at a faster rate than that of East Asia and the Pacific and that of the Total for All Countries. Most importantly, from 1987 to 1989, Thailand's private creditors' share in the country's total public debt commitment was in fact larger than that of East Asia and the Pacific and that of the Total for All Countries.

Furthermore, the Thai public sector's increasing reliance on private sources of funds suggests three things:

- The Thai public sector is gradually gaining better access to the private international financial markets by maintaining economic stability, hence its reputation as a trustworthy borrower in the world financial markets.
- The availability of funds from official sources could, however, be declining for Thailand. This is a realistic hypothesis, since the Thai public sector would not have deliberately chosen to increasingly rely on private sources of funds as the private creditors' terms are more costly and less attractive than those of official creditors (see the previous section). Consequently, the official creditor's declining share, despite their more attractive terms, suggests that the Thai public sector might be facing a type of credit rationing from official sources. In fact, the nature of the credit rationing might have something to do with certain lending policies of official creditors. The official creditors might, for example, want to gradually channel more funds to relatively poorer, more needy, and less developed countries.
- Borrowing countries are likely to have a greater "degree of freedom" on how to use and manage the funds from private sources rather than those from official sources. In other words, official sources might impose more restrictions on how funds can be used than private sources. Hence, the countries might borrow from private creditors despite more costly terms.

In conclusion, the Thai public sector's increasing reliance on private sources of funds may be due to its increasing ability to borrow from private international financial markets, the diminishing availability of cheap funds from official sources, as well as the less restrictive conditions imposed on the funds borrowed from the private sources.

The Total Outstanding Debt Disbursed-export Ratio One may want to assess the debt burden, debt service obligation, and the abilities of debtor countries to service external debts. Such an assessment is not a straightforward task, however, as it is difficult to define what a country's actual "debt service ability" is. In this section we will, therefore, evaluate debt obligations and debt service ability by simply looking at the total long-term external outstanding debt (of both the public and private sectors), the exports of goods and services, and the ratio between these two variables.

A country that has a lower outstanding-export debt ratio total should, of course, be more able to manage its debt service and thus face lower default risk, ceteris paribus. Table 11 presents data, calculated from the World Debt Tables, for Thailand, East Asia the Pacific, and the Total for All Countries.

Table 9 Average Terms of Foreign Loans: New Public Debt Commitments

TOTAL FOR ALL COUNTRIES	1972	1973	1974	1975	1976
Official Creditors					
Interest Rate (%)	4.3	4.1	4.4	4.9	5.4
Maturity (years)	25.3	26.7	24.3	25	23
Grace Periods (years)	6.7	7.2	7.1	7.8	6.5
Private Creditors					
Interest Rate (%)	7.3	9	9.6	8.7	7.9
Maturity (years)	9.2	11.2	10.6	8.1	8.7
Grace Periods (years)	2.9	4.2	3.3	2.7	2.9
EAST ASIA AND THE PACIFIC					
Official Creditors					
Interest Rate (%)	4.4	3.9	5.3	6.9	7.2
Maturity (years)	26.3	30.6	23.3	21.5	20.9
Grace Periods (years)	7	7.8	6.6	5.9	6.1
Private Creditors					
Interest Rate (%)	8	9.8	9.1	8.9	8.3
Maturity (years)	8.1	9	13.1	8.6	9.6
Grace Periods (years)	2.5	2.4	3.5	2.5	3.4
THAILAND					
Official Creditors					
Interest Rate (%)	6.1	3.7	5.5	7.4	7.9
Maturity (years)	26.5	33.2	24.2	24.2	20.6
Grace Periods (years)	6.6	8.6	6.4	6.4	5.2
Private Creditors					
Interest Rate (%)	N.A.	7.2	10.6	8.9	7.3
Maturity (years)	N.A.	12.9	7	7	7.3
Grace Periods (years)	N.A.	1.9	0.5	0.5	2.3

Table 9

(in Years and Percent)

1977	1978	1979	1980	1981	1982
5.2	4.8	5.1	5.3	6.7	7.6
22.8	24.4	23	23.7	22.1	22.6
6.3	6.4	6.1	6.1	5.6	5.8
8.1	9.7	11.6	12.8	14.7	13.1
8	9	9.2	8.9	8.9	9.3
3.2	3.7	3.8	3.4	3.4	3.4
1977	**1978**	**1979**	**1980**	**1981**	**1982**
6.7	6	5.7	6.6	7.8	9
20.7	23.1	22.1	21.5	20	20.6
5.7	6	6.1	6	5.4	5.5
8.2	9.5	10.3	13.4	13.2	11.5
9.1	9.9	10.7	10.5	11.4	11.1
3.1	3.5	3.6	3.1	3.9	4.5
1977	**1978**	**1979**	**1980**	**1981**	**1982**
6.1	5.6	5.4	6.8	7.4	8.5
19.6	21.1	22.4	21.1	22.4	22.5
5.2	5.7	6.1	6	6.2	6.2
8.3	8.9	10.5	13.8	13.8	11.5
7.9	9.4	10	18.6	9.3	12
2.3	3.9	3.6	4	2.8	4.2

(Continued on page 32)

Table 9 (Continued)

TOTAL FOR ALL COUNTRIES	1983	1984	1985	1986	1987
Official Creditors					
Interest Rate (%)	7.3	7.1	6.5	6.4	5.3
Maturity (years)	21.7	22.6	23.1	21.3	23
Grace Periods (years)	5.6	5.7	5.8	5.5	6.1
Private Creditors					
Interest Rate (%)	10.5	10.9	9	7.5	7.5
Maturity (years)	8.4	9.5	10.9	10	9.7
Grace Periods (years)	3.4	4.5	5.1	4.4	3.9
EAST ASIA AND THE PACIFIC	**1983**	**1984**	**1985**	**1986**	**1987**
Official Creditors					
Interest Rate (%)	8	7.9	7.1	7	5.4
Maturity (years)	22.3	21.9	22.6	22.7	23.2
Grace Periods (years)	6.3	5.8	6.2	5.9	6.9
Private Creditors					
Interest Rate (%)	9.5	9.8	8.8	6.8	7
Maturity (years)	10.6	10.8	13	11.1	11.4
Grace Periods (years)	4.8	5.3	6.7	4.3	4
THAILAND	**1983**	**1984**	**1985**	**1986**	**1987**
Official Creditors					
Interest Rate (%)	8	7.8	7.8	5.7	4.5
Maturity (years)	22.7	22.4	22.4	26.2	26.2
Grace Periods (years)	7.3	6.7	6	8.5	8
Private Creditors					
Interest Rate (%)	8.9	9.5	8.7	6.4	6.2
Maturity (years)	10.5	11.5	15.2	12.3	11.2
Grace Periods (years)	6	5.6	12.3	5.5	4.7

N.A. = Not available.

Source: World Debt Tables.

Table 9

(In Years and Percent)

1988	1989	1990	Average 1972-1989	Average 1987-1989
5.2	5.6	5.5	5.622222	5.366667
22.2	22.2	22.8	23.27778	22.46667
6.4	6.3	6.7	6.277778	6.266667
8	8.5	8.8	9.688889	8
9.3	11	10.4	9.438889	10
3.8	4	3.6	3.666667	3.9
1988	**1989**	**1990**	**Average 1972-1989**	**Average 1987-1989**
4.8	5.6	4.9	6.405556	5.266667
23.6	22.6	24.6	22.75	23.13333
7.4	6.8	7.1	6.3	7.033333
7.7	8.4	8.6	9.344444	7.7
10.2	11.9	12.7	10.56111	11.16667
3.2	4.1	3.8	3.8	3.766667
1988	**1989**	**1990**	**Average 1972-1989**	**Average 1987-1989**
4.1	6.4	4.6	6.372222	5
26.7	24.1	25.2	23.80556	25.66667
8.6	6.6	7.6	6.683333	7.733333
6.4	8	7	8.605556	6.866667
10.1	10	14.2	10.12222	10.43333
3.9	4.4	5.3	3.8	4.333333

Table 10 Long-term Foreign Loan Commitments: Public/Publicly-guaranteed Debt

EAST ASIA AND THE PACIFIC	1972	1973	1974	1975	1976
TOTAL COMMITMENTS	100	100	100	100	100
Official Creditors	66.98650	57.14999	42.32346	40.18548	43.56572
Multilateral	21.94112	22.88407	19.20577	20.21066	19.23476
Bilateral	45.04884	34.26885	23.11921	19.97338	24.33097
Private Creditors	33.01004	42.84708	57.67502	59.81452	56.43428
THAI PUBLIC SECTOR	**1972**	**1973**	**1974**	**1975**	**1976**
TOTAL COMMITMENTS	100	100	100	100	100
Official Creditors	100	80.82664	97.77676	92.21116	75.46012
Multilateral	73.55021	53.27210	51.84506	68.23886	61.37423
Bilateral	26.44979	27.55454	45.93170	23.97231	14.08589
Private Creditors	0.00000	19.17336	2.22324	7.78884	24.53988
TOTAL FOR ALL COUNTRIES	**1972**	**1973**	**1974**	**1975**	**1976**
TOTAL COMMITMENTS	100	100	100	100	100
Official Creditors	54.47786	47.49464	50.49883	48.01962	43.39751
Multilateral	19.53330	16.70744	17.49475	18.06810	16.10401
Bilateral	34.94456	30.78720	33.00435	29.95130	27.29332
Private Creditors	45.52214	52.50573	49.50117	51.98038	56.60267
EAST ASIA AND THE PACIFIC	**1984**	**1985**	**1986**	**1987**	**1988**
TOTAL COMMITMENTS	100	100	100	100	100
Official Creditors	39.61213	28.30752	32.22080	45.48027	50.82796
Multilateral	24.15472	16.87219	21.59998	21.94240	21.39637
Bilateral	15.45741	11.43533	10.62081	23.53787	29.43159
Private Creditors	60.38787	71.69248	67.77920	54.51510	49.17204
THAI PUBLIC SECTOR	**1984**	**1985**	**1986**	**1987**	**1988**
TOTAL COMMITMENTS	100	100	100	100	100
Official Creditors	44.66519	39.62664	27.74600	56.27907	47.42371
Multilateral	19.05813	20.23759	6.17849	10.00000	11.25563
Bilateral	25.60706	19.38905	21.56751	46.27907	36.21811
Private Creditors	55.33481	60.37336	72.25400	43.72093	52.57629
TOTAL FOR ALL COUNTRIES	**1984**	**1985**	**1986**	**1987**	**1988**
TOTAL COMMITMENTS	100	100	100	100	100
Official Creditors	45.89709	41.31926	56.23456	51.80470	53.04962
Multilateral	25.59280	27.33260	37.67763	30.12074	29.09058
Bilateral	20.30429	13.98666	18.55679	21.68396	23.95905
Private Creditors	54.10291	58.68062	43.76557	48.19637	46.95038

Source: World Debt Tables.

Table 10

(Percent of Total Commitments)

1977	1978	1979	1980	1981	1982	1983
100	100	100	100	100	100	100
49.23828	41.66298	42.00999	52.10983	39.44920	37.75826	38.18371
26.51232	22.26843	19.97956	24.25988	22.46993	21.68836	22.99706
22.72596	19.39527	22.03043	27.84995	16.97865	16.06990	15.18665
50.76172	58.33702	57.99001	47.89017	60.55080	62.24232	61.81629

1977	1978	1979	1980	1981	1982	1983
100	100	100	100	100	100	100
57.12655	65.29321	56.69477	64.03874	56.76334	68.35546	79.73087
26.43926	39.31441	17.92752	45.01666	32.55545	34.73880	45.66863
30.68729	25.97880	38.76724	19.02729	24.20790	33.61666	34.06224
42.87345	34.69824	43.30523	35.95605	43.24275	31.64454	20.35324

1977	1978	1979	1980	1981	1982	1983
100	100	100	100	100	100	100
43.39179	37.41765	34.25350	48.09473	37.96782	39.22799	41.33439
20.65946	17.37596	15.98447	22.55627	19.73845	22.60296	22.80600
22.73233	20.04169	18.26892	25.53846	18.22937	16.62503	18.52850
56.60821	62.58223	65.74650	51.90538	62.03218	60.77201	58.66550

1989	1990	Average 1972-1976	Average 1977-1981	Average 1982-1986	Average 1987-1989
100	100	100	100	100	100
56.02018	49.92377	50.04223	44.89406	35.21648	50.77613
33.28776	22.79035	20.69527	23.09802	21.46246	25.54218
22.73713	27.13342	29.34825	21.79605	13.75402	25.23553
43.97982	50.08014	49.95619	55.10594	64.78363	49.22232

1989	1990	Average 1972-1976	Average 1977-1981	Average 1982-1986	Average 1987-1989
100	100	100	100	100	100
30.50595	63.21906	89.25494	59.98332	52.02483	44.73624
21.35417	14.99128	61.65609	32.25066	25.17633	14.20326
9.15179	48.22777	27.59884	27.73370	26.84850	30.54965
69.49405	36.72284	10.74506	40.01514	47.99199	55.26376

1989	1990	Average 1972-1976	Average 1977-1981	Average 1982-1986	Average 1987-1989
100	100	100	100	100	100
61.25446	59.97326	48.77769	40.22510	44.80266	55.36959
38.59078	37.60310	17.58152	19.26292	27.20240	32.60070
22.66368	22.37017	31.19614	20.96215	17.60025	22.76889
38.74554	40.02674	51.22242	59.77490	55.19732	44.63076

Table 11 Total Public and Private Long-term External Outstanding Debt Disbursed-exports

Year	1972	1973	1974	1975	1976
TOTAL FOR ALL COUNTRIES					
Total Long-term Outstanding Debt Disbursed	90674.4	109240.9	135785.4	161539.1	195396.8
Exports	68201	98819	150926	150567	176068
TLDOD/EXPORTS (%)	132.9517	110.5465	89.9682	107.2872	110.9780
EAST ASIA AND THE PACIFIC					
Total Long-term Outstanding Debt Disbursed	12990.7	15769.8	19277.7	24404.2	29816.6
Exports	12417	20667	32583	32057	41289
TLDOD/EXPORTS (%)	104.62028	76.304253	59.164902	76.127523	72.214391
THAILAND					
Total Long-term Outstanding Debt Disbursed	891.4	902.7	1160.9	1352.3	1607.8
Exports	1589	2133	3173	2989	3645
TLDOD/EXPORTS (%)	56.098175	42.320675	36.586826	45.242556	44.109739

Year	1984	1985	1986	1987	1988
TOTAL FOR ALL COUNTRIES					
Total Long-term Outstanding Debt Disbursed	713812.4	783600.4	870709.3	980479	959815
Exports	471571.6	463018.3	450235.7	497141	566086
TLDOD/EXPORTS (%)	151.36883	169.23746	193.38966	197.22352	169.55286
EAST ASIA AND THE PACIFIC					
Total Long-term Outstanding Debt Disbursed	104673	125678	148178	167650	166454
Exports	126193	122856	132459	168611	206707
TLDOD/EXPORTS (%)	82.946756	102.297	111.86707	99.430049	80.526542
THAILAND					
Total Long-term Outstanding Debt Disbursed	10526	13206	14645	17071	16365
Exports	10415	10222	12136	16530	22439
TLDOD/EXPORTS (%)	101.06577	129.19194	120.67403	103.27284	72.93106

Source: World Debt Tables and IMF's IFS.

Table 11

(US$ millions and percent)

1977	1978	1979	1980	1981	1982	1983
240014.6	298667.4	352265.6	404466.2	461921	517788.3	639356.2
210495	235539	307936	398570	470415.2	440839.8	434393.9
114.0239	126.8017	114.3957	101.4793	98.1943	117.4550	147.1835
36203.8	43527.7	49725	58079.2	68129.6	79297.6	97554
51359	61530	80416	102358	112687	121830.9	112237
70.491637	70.742240	61.834710	56.741242	60.459148	65.088249	86.917861
1999.1	2750.7	4075.1	5830.5	7267.8	8522.8	9523
4180	5127	6662	8578	9252	9384	9227
47.825359	53.6513	61.1693	67.9704	78.5538	90.8227	103.2080

1989	1990	Average 1972-1976	Average 1977-1981	Average 1982-1986	Average 1987-1989
958824	1047040	138527.32	351466.96	705053.32	966372.67
614569	724337	128916.2	324591.04	452011.86	559265.33
156.01568	144.55150	110.34632	110.97899	155.72689	174.26402
166414	187356	20451.8	51133.06	111076.12	166839.33
229130	257405	27802.6	81670	123115.18	201482.67
72.628639	72.786465	77.686270	64.053795	89.823387	84.195077
17081	17545	1183.02	4384.64	11284.56	16839
27647	29525	2705.8	6759.8	10276.8	22205.333
61.78247	59.424217	44.871594	61.83403	108.99248	79.328789

It was found that, for the Total for All Countries, the ratio between the total outstanding debt and exports rose steadily over time. That is, the ratio was 110.35 percent (1972-1976), 155.73 percent (1982-1986), and 174.26 percent (1987-1989). This means that, for most of the developing countries, their outstanding debt was accumulated at a faster rate than the growth of their export earnings. This, by itself, is not an encouraging sign, as it indicates that most of the developing countries have increasingly fallen into debt. Consequently, if a new external debt crisis were to occur, this could have serious financial repercussions both locally as well as globally.

For East Asia and the Pacific and Thailand, however, the ratios between outstanding debt and exports increased from 1972 to 1986, but decreased thereafter. The ratio for East Asia and the Pacific was 77.69 percent (1972-1976), 89.82 percent (1982-1986), 84.20 percent (1987-1989) and 72.79 percent in 1990. Thailand's ratio was 44.87 percent (1972-1976), then 108.99 percent (1982-1986), and finally 79.33 percent (1987-1989) and 59.42 percent in 1990. Thus, from 1987 to 1990, both Thailand and the developing countries in East Asia and the Pacific slowed their drawings of FLs while their export earnings continued to increase. It should be noted that, from 1982 to 1986, when its outstanding-export debt ratio was highest, Thailand was experiencing quite severe external problems, foreign reserves were dangerously low, the economy was in recession; the baht was devalued to maintain the country's external order. From 1987 to 1990, however, when exports and foreign reserves were dramatically high, the story was totally different.

Only from 1982 to 1986 did Thailand have an average outstanding-export debt ratio total that was smaller than that of East Asia and the Pacific and that of the Total for All Countries. If a smaller ratio means that a country is better able to manage its external debt services—and, as a result, have a lower default risk—it can be concluded that Thailand was in relatively better shape than the other countries, as regards its debt burdens and debt service ability, especially from 1972 to 1981 and 1987 to 1990.

THAILAND'S FOREIGN LOANS AND EXTERNAL DEBTS

This part, divided into three sections, presents a more focused view of Thailand's FLs and external debts. The first section is a broad picture of disbursements, outstanding debts, and debt services of the public and private sectors' FLs. The second section looks at both the public sector's sources of external funds and how those funds are distributed among various economic sectors. The third section looks at the private sector's external debt, its sources of funds, and how the funds are allocated among the various economic and business activities. A brief examination of the foreign borrowing of commercial banks in Thailand concludes the chapter.

Disbursements, Outstandings Debt, and Debt Services of Thailand's Public and Private Sectors

A Comparative Picture of the Public and Private Sector's External Debt. This section is further divided into two subsections: the first examines long-term FLs of the public and private sectors; the second examines short-term FLs.

Long-term Foreign Loans

Tables 12, 13, and 14 present respective data on disbursements, outstanding debts, and debt services of the public and private sector's long-term FLs. All data is from the World Bank's World Debt Tables and the Balance of Payment Division of the Bank of Thailand. Data is summarized and discussed below.

Disbursements of Long-term Foreign Loans Table 12 shows that, the share of disbursements of private non-guaranteed debt in the country's total long-term loan disbursements tended to decline from 1970 to 1986, but reversed direction from 1987 to 1989. The average share of private non-guaranteed loan disbursements was as high as 75.68 percent (1970-1974), dropping to only 36.70 percent (1983-1986), before rebounding to 46.46 percent from 1987 to 1989.

The share of public/publicly guaranteed long-term loan disbursements, however, rose steadily from 1970 to 1986, but dropped significantly from 1987 to 1989. The average share of public/publicly guaranteed loan disbursements was only 24.32 percent (1970-1974), increasing to 63.3 percent (1983-1986), but falling again to 53.54 percent (1987-1989).

It is interesting to note that the central government's share of the country's total long-term FL disbursements was not particularly high, especially in comparison with the share of the total public/publicly guaranteed debt. From 1970 to 1990, the central government's share of the country's total long-term loan disbursements grew at a slower rate than did the public/publicly guaranteed debt. This indicates that the rising trend in the share of public/publicly guaranteed loan disbursements from 1970 to 1986 was due to a rapid expansion in FL drawings of other public agencies such as state enterprises whose loans were guaranteed by the Thai government. From this we can conclude that the central government itself did not greatly contribute to the rapidly increasing share of public/publicly guaranteed long-term loan disbursements from 1970 to 1986. The rising trend should be attributed to increases in the external borrowing of other public agencies.

The increasing trend in the share of private non-guaranteed long-term loan disbursements during the high economic expansion from 1987 to 1989 reflects rapid increases in the private sector's demand for foreign long-term capital. Table 21 shows that the growth rates of private non-guaranteed long-term loan disbursements in 1988 and 1989 were as high as 71.83 percent and 144.91 percent, respectively. Whereas, according to the Bank of Thailand, domestic commercial banking's growth rates in new lending were only 39.8 percent and 42.30 percent, respectively, during these two years. At that time, the private sector's borrowing from foreign lenders grew at a much more rapid pace than did its borrowings from domestic banks.

Greater borrowing from abroad implies either that the private sector could not find enough long-term funding for its business and investment purposes within Thailand or that it was more attractive or convenient for the private sector to borrow from foreign lenders than to secure funds from domestic financial/capital markets. In either case, it can be concluded that, to a certain degree, a kind of market imperfection exists in the domestic financial/capital markets. In fact, this may be a reasonable hypothesis: for in an ideal world of perfect capital mobility and zero transaction costs, domestic financial/capital markets should be able to function in such a way that the domestic borrower could be equally as happy borrowing either from the domestic financial/capital markets or from foreign sources. (A type of M & M theorem of domestic vs. foreign sources of funds.)

Table 12 Long-term Foreign Loan Disbursements: Thailand's Public and Private External Debt

Year	1970	1971	1972	1973	1974	1975
Public and Publicly Guaranteed (i)	51.8	44.1	50.2	69	97.1	149.8
Central Government (ii)	28.7	23.1	18.7	29	18.4	8.3
Private Non-guaranteed (iii)	169.3	159.6	195.8	139.5	324.8	304
Total Disbursements (i + iii)	221.1	203.7	246	208.5	421.9	453.8
Public/Private Ratio (i/iii)	0.30597	0.27632	0.25638	0.49462	0.29895	0.49276
% of Public (i) (Total Disb. = 100)	23.4283	21.6495	20.4065	33.0935	23.0149	33.0101
% of Central Govt. (ii) (Total Disb. = 100)	12.9806	11.3402	7.6016	13.9089	4.3612	1.8290
% of Private (iii) (Total Disb. = 100)	76.5717	78.3505	79.5935	66.9065	76.9851	66.9899

Year	1983	1984	1985	1986	1987	1988
Public and Publicly Guaranteed (i)	1315	1469	2392	1302	1322	1441
Central Government (ii)	512.9	523.8	798.2	317	273.7	223.7
Private Non-guaranteed (iii)	950	1417	784	587	600	1031
Total Disbursements (i + iii)	2265	2886	3176	1889	1922	2472
Public/Private Ratio (i/iii)	1.38421	1.03670	3.05102	2.21806	2.20333	1.39767
% of Public (i) (Total Disb. = 100)	58.0574	50.9009	75.3149	68.9254	68.7825	58.2929
% of Central Govt. (ii) (Total Disb. = 100)	22.6446	18.1497	25.1322	16.7814	14.2404	9.0494
% of Private (iii) (Total Disb. = 100)	41.9426	49.0991	24.6851	31.0746	31.2175	41.7071

Source: World Debt Tables and Bank of Thailand.

Table 12

(US$ millions)

1976	1977	1978	1979	1980	1981	1982
241.5	314.4	713.2	1258.9	1357.9	1461	1420
123.2	66.5	343.7	493.4	365.3	461.4	491.8
277.5	348.9	572.9	799	1026.7	789.6	707
519	663.3	1286.1	2057.9	2384.6	2250.6	2127
0.87027	0.90112	1.24489	1.57559	1.32259	1.85030	2.00849
46.5318	47.3994	55.4545	61.1740	56.9446	64.9160	66.7607
23.7380	10.0256	26.7242	23.9759	15.3191	20.5012	23.1218
53.4682	52.6006	44.5455	38.8260	43.0554	35.0840	33.2393

1989	1990	Average 1970-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
1275	1513	62.44	535.56	1412.967	1619.5	1346
227.6	176.458	23.58	207.02	439.5	537.975	241.6667
2525	1149	197.8	460.46	841.1	934.5	1385.333
3800	2662	260.24	996.02	2254.067	2554	2731.333
0.50495	1.31680	0.32645	1.01693	1.727126	1.92250	1.368652
33.5526	56.8370	24.3186	48.7140	62.87376	63.2996	53.54268
5.9895	6.6288	10.0385	17.2585	19.64737	20.6770	9.759734
66.4474	43.1630	75.6814	51.2860	37.12624	36.7004	46.45732

The declining trend of the share of public/publicly guaranteed long-term loan disbursements from 1987 to 1989, though, may be due to the government budget surplus during this period. During these years, economic expansion brought higher-than-expected tax revenues to the government. As a result, the public sector's need to borrow from abroad diminished during these fiscally prosperous years.

Outstanding Debt Disbursed and Debt Services of Long-term Foreign Loans Table 13 presents data on the outstanding long-term loan debts of the public and private sectors. On the one hand, we can see that the share of the public/publicly guaranteed debt steadily rose from 45.85 percent (1970-1974) to as high as 78.7 percent (1987-1989), while, on the other hand, the share of private non-guaranteed debt fell from 54.15 percent (1970-1974) to only 21.3 percent (1987-1989). As noted, the central government contributed little to the rising share of public/publicly guaranteed debt. The increase was due to the rapidly increasing outstanding debts of state enterprises (see Table 13). In addition, the country's total outstanding debt-to-export ratio was at its highest level from 1983 to 1986 at 113.53 percent. The ratio dropped, however, to 79.33 percent from 1987 to 1989 at which time country's exports grew at exceptionally high rates.

Table 14 presents data on the long-term loan debt services of the public and private sectors. As also revealed in Table 13, we see that the share of the debt service for public/publicly guaranteed debt steadily rose from 22.43 percent (1970-1974) to 67.34 percent (1987-1989), whereas the share of the debt service for private non-guaranteed debt dropped from 77.57 percent (1970-1974) to only 32.66 percent (1987-1989). Again, we observe that the central government did not play a crucial role in increasing the share of public/publicly guaranteed debt. From 1970 to 1990, the share of the central government's debt services was in fact quite small when compared to the share of the total public/publicly guaranteed debt, largely attributable to state enterprises. The country's total service-to-export debt ratio was highest from 1983 to 1986 at 22.66 percent, dropping to a level of 15.27 percent from 1987 to 1990, a period of dramatic expansion.

Comparing Tables 13 and 14, it is noted that, on the one hand, in any given period of time, the private sector's share of public/publicly guaranteed debt in Table 14 (Debt Services) was smaller than its share of public/publicly guaranteed debt in Table 13 (Outstanding Debts). On the other hand, its share of private non-guaranteed debt in Table 14 (Debt Services) was larger than its share in Table 13 (Outstanding Debts). In other words, even though the private sector might have a smaller share of outstanding debts, its debt service's share was substantially larger. From 1980 to 1982, for example, the private sector's share of the country's outstanding debt was only 28.42 percent, but its share of the country's debt services was as high as 55 percent. This is because the private sector borrowed completely from private foreign creditors whose interest rates were usually more costly and whose maturity and grace periods were much shorter than those of official foreign creditors. In contrast, the public sector could borrow both from official and from private creditors. (See also page 28 on terms and sources of FLs.) This resulted in the debt burdens of the private sector being greater than those of the public sector.

Nonetheless, the private sector alone should by no means be blamed for the large debt burden that the country accrued, especially during 1983-1986. (One should remember that from 1983 to 1986, the ratios for outstanding/export debt totals and debt service/export totals were 113.53 percent and 22.66 percent, respectively, the highest figures in the country's history.) From 1983 to 1986, the private sector's share of the country's outstanding debts and debt services were 26.66 percent and 42.69 percent, respectively, while the shares of other public agencies

whose loans were guaranteed by the government (i.e. the share of public/publicly guaranteed debt subtracted from the central government's share) were 46.45 percent and 39.74 percent, respectively. We conclude, therefore, that the long-term loan indebtedness and debt burdens of the country mainly depend on external borrowings of state enterprises, whose loans are guaranteed by the government, and by the private sector. Any fruitful debt management policy, therefore, should focus on the external debt status of these two particular sectors.

Short-term Foreign Loans

Tables 15 and 16 present the public and private sectors' disbursements and debt services of short-term FLs. From them, it is clear that the private sector drew more short-term FLs than did the public sector. Moreover, the private sector's dominating share hardly changed over time. Tables 15 and 16, are summarized as follows:

- For the disbursements of short-term FLs, the average share of public/publicly guaranteed loan disbursements in the country's total short-term loan disbursements was only 3.35 percent (1980-1986) and 5.50 percent (1987-1989), while the average share of private non-guaranteed loan disbursements was as high as 96.65 percent (1980-1986), 94.50 percent (1987-1989) and 98.21 percent in 1990.
- The average share of the public sector's debt services in the country's total debt services of short-term FLs was only 3.85 percent (1980-1986) and 5.30 percent (1987-1989), while the private sector's debt service share was as high as 96.15 percent (1980-1986), 94.7 percent (1987-1989) and 98.36 percent in 1990.

In addition, when comparing the country's long-term and short-term FL flows, we found that:

- The country's total disbursements of short-term FLs were, on average, larger than those of long-term loans. In particular, the country's total short-term loan disbursements were US$3,804.56 million (1980-1986) and US$4,077.68 million (1987-1989) while the total long-term loan disbursements were US$7,207.03 million (1980-1982), US$11,974.75 million (1983-1986), and US$16,839.33 million (1987-1989), respectively.
- The country's total debt services of short-term FLs were, on average, larger than those of long-term FLs. The debt-service/export ratios of short-term FLs were 38.04 percent (1980-1986), 17.06 percent (1987-1989) and 25.92 percent in 1990, while those of long-term FLs were 14.85 percent (1980-1982), 22.66 percent (1983-1986), and 15.27 percent (1987-1989). Debt services include both principal and interest payments for both long-term and short-term loans.
- From 1987 to 1989, the average net flows (disbursements minus debt services) of short-term FLs were smaller than those of long-term FLs. Based on the annual gross levels, we may, therefore, conclude that short-term FLs had larger average annual inflows and outflows than did long-term FLs. Their net flows, however, were smaller. Although almost all short-term FL flows were to the private sector, the public sector did have a larger than average share of the country's long-term FL flows.

Table 13 Long-term Foreign Outstanding Debt Disbursed: Thailand's Public and Private External Debt

Year	1970	1971	1972	1973	1974
Public and Publicly Guaranteed (i)	348	368.1	386	441.5	512.9
Central Government (ii)	176.5	191.2	210.1	238.6	243.8
Private Non-guaranteed (iii)	401.2	425.3	505.4	461.2	648
Total Outstanding Debt Disbursed (i + iii)	749.2	793.4	891.4	902.7	1160.9
% of Public (i) (Total = 100)	46.44955	46.39526	43.30267	48.90883	44.18124
% of Central Govt. (ii) (Total = 100)	23.55846	24.09882	23.56967	26.43182	21.00095
% of Private (iii) (Total = 100)	53.55045	53.60474	56.69733	51.09117	55.81876
Exports of Goods & Services	1062.5	1177.9	1589	2133	3173
Total Outstanding Debt Disbursed/Exports (%)	70.51294	67.35716	56.09817	42.32068	36.58683

Year	1983	1984	1985	1986	1987
Public and Publicly Guaranteed (i)	6867	7154	9836	11537	13963
Central Government (ii)	2460.6	2712.5	3515.8	4291.9	5159.5
Private Non-guaranteed (iii)	2655	3372	3370	3108	3108
Total Outstanding Debt Disbursed (i + iii)	9522	10526	13206	14645	17071
% of Public (i) (Total = 100)	72.1172	67.96504	74.4813	78.77774	81.79369
% of Central Govt. (ii) (Total = 100)	25.84121	25.76952	26.62275	29.30625	30.22377
% of Private (iii) (Total = 100)	27.8828	32.03496	25.5187	21.22226	18.20631
Exports of Goods & Services	9227	10415	10222	12136	16530
Total Outstanding Debt Disbursed/Exports (%)	103.1971	101.0658	129.1919	120.674	103.2728

Source: World Debt Tables and Bank of Thailand.

Table 13

(US$ millions)

1975	1976	1977	1978	1979	1980	1981	1982
616.1	822.7	1119.2	1820.1	2831.8	4128	5169.2	6205.9
235.7	348.2	402.2	729.2	1134.4	1463	1795.4	2131.5
736.2	785.1	879.9	930.6	1243.3	1702.5	2098.6	2316.9
1352.3	1607.8	1999.1	2750.7	4075.1	5830.5	7267.8	8522.8
45.55942	51.1693	55.98519	66.16861	69.49032	70.8001	71.12469	72.81527
17.42956	21.65692	20.11905	26.50962	27.83735	25.09219	24.70349	25.00939
54.44058	48.8307	44.01481	33.83139	30.50968	29.1999	28.87531	27.18473
2989	3645	4180	5127	6662	8578	9250	9384
45.24256	44.10974	47.82536	53.65126	61.16932	67.97039	78.57081	90.82268

1988	1989	1990	Average 1970-74	Average 1975-79	Average 1980-82	Average 1983-86	Average 1987-89
13349	12424	12572	411.3	1441.98	5167.7	8848.5	13245.33
5281.4	4940.5	3689.532	212.04	569.94	1796.633	3245.2	5127.133
3016	4658	4973	488.22	915.02	2039.333	3126.25	3594
16365	17082	17545	899.52	2357	7207.033	11974.75	16839.33
81.57042	72.73153	71.65574	45.84751	57.67457	71.58002	73.33532	78.69855
32.27253	28.92226	21.02897	23.73194	22.7105	24.93502	26.88493	30.47285
18.42958	27.26847	28.34426	54.15249	42.32543	28.41998	26.66468	21.30145
22439	27647	29525	1827.08	4520.6	9070.667	10500	22205.33
72.93106	61.78609	59.42422	54.57516	50.39965	79.12129	113.5322	79.32999

Table 14 Debt Services of Long-term Foreign Loans: Thailand's Public and Private External Debt

Year	1970	1971	1972	1973	1974	1975
Public and Publicly Guaranteed (i)	40	41.1	43	53.2	58.8	72.3
Central Government (ii)	16.8	17.8	19	23	25.8	28
Private Non-guaranteed (iii)	124.3	156.7	136.8	213.4	195.1	285
Total Debt Services (i + iii)	164.3	197.8	179.8	266.6	253.9	357.3
% of Public (I) (Total = 100)	24.34571	20.77856	23.91546	19.95499	23.15872	20.2351
% of Central Govt. (ii) (Total = 100)	10.2252	8.998989	10.5673	8.627157	10.16148	7.836552
% of Private (iii) (Total = 100)	75.65429	79.22144	76.08454	80.04501	76.84128	79.7649
Exports of Goods and Services	1062.5	1177.9	1589	2133	3173	2989
Total Debt Services/Exports (%)	15.46353	16.7926	11.31529	12.49883	8.001891	11.95383

Year	1983	1984	1985	1986	1987	1988
Public and Publicly Guaranteed (i)	935	1237	1473	1921	1938	2446
Central Government (ii)	368.8	420.8	416.7	430.3	517.5	635.5
Private Non-guaranteed (iii)	821	987	1094	1129	1012	1084
Total Debt Services (i + iii)	1756	2224	2567	3050	2950	3530
% of Public (i) (Total = 100)	53.24601	55.620504	57.382158	62.983607	65.694915	69.291785
% of Central Govt. (ii) (Total = 100)	21.00228	18.920863	16.232957	14.108197	17.542373	18.002833
% of Private (iii) (Total = 100)	46.75399	44.379496	42.617842	37.016393	34.305085	30.708215
Exports of Goods and Services	9227	10415	10222	12136	16530	22439
Total Debt Services/Exports (%)	19.0311	21.353817	25.112502	25.131839	17.84634	15.731539

Source: World Debt Tables and Bank of Thailand.

Table 14

(US$ millions)

1976	1977	1978	1979	1980	1981	1982
86.9	122.3	188.1	313.8	434.3	620.8	788.4
31.9	53.3	84.3	127.2	200.7	280.6	306
291.2	319.9	623.9	654.7	789.8	703.9	709
378.1	442.2	812	968.5	1224.1	1324.7	1497.4
22.98334	27.65717	23.16502	32.40062	35.47913	46.86344	52.65126
8.436921	12.05337	10.38177	13.13371	16.39572	21.18215	20.43542
77.01666	72.34283	76.83498	67.59938	64.52087	53.13656	47.34874
3645	4180	5127	6662	8578	9250	9384
10.37311	10.57895	15.83772	14.53768	14.27023	14.32108	15.95695

1989	1990	Average 1970-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
2269	3301	47.22	156.68	614.5	1391.5	2217.6667
580.1	530.607	20.48	64.94	262.43333	409.15	577.7
1116	1181	165.26	434.94	734.23333	1007.75	1070.6667
3385	4482	212.48	591.62	1348.7333	2399.25	3288.3333
67.031019	73.650156	22.43069	25.288249	44.997943	57.30807	67.33924
17.137371	11.838621	9.7160243	10.368466	19.337765	17.566074	17.560859
32.968981	26.349844	77.56931	74.711751	55.002057	42.69193	32.66076
27647	29525	1827.08	4520.6	9070.6667	10500	22205.333
12.243643	15.180356	12.814428	12.656258	14.849418	22.657316	15.273841

Table 15 Thailand's Public and Private Short-term Foreign Loan Disbursements

Year	1980	1981	1982	1983	1984	1985
Public and Publicly Guaranteed (i)	107	398.1	230	15	0	135
Central Government (ii)	0	0	0	0	0	0
Private Non-guaranteed (iii)	3365.11	4072.21	4186.98	3591.58	4364.15	3359.76
Total Disbursements (i + iii)	3472.11	4470.31	4416.98	3606.58	4364.15	3494.76
% of Public (i) (Total = 100)	3.0817	8.905423	5.207178	0.415906	0	3.862926
% of Central Govt. (ii) (Total = 100)	0	0	0	0	0	0
% of Private (iii) (Total = 100)	96.9183	91.09458	94.79282	99.58409	100	96.13707

Source: The Bank of Thailand.

Table 16 Thailand's Public and Private Short-term Loan Debt Services

Year	1980	1981	1982	1983	1984	1985
Public and Publicly Guaranteed (i)	0	123.02	368.73	133.15	74.78	284.55
Private Non-guaranteed (ii)	3026.702	3938.39	4001.054	3742.77	3972.88	3416.65
Total Debt Services (i + ii)	3026.702	4061.41	4369.784	3875.92	4047.66	3701.2
% of Public (i) (Total = 100)	0	3.0289973	8.4381745	3.4353134	1.8474872	7.6880471
% of Private (ii) (Total = 100)	100	96.971003	91.561825	96.564687	98.152513	92.311953
Exports of Goods and Services	8578	9250	9384	9227	10415	10222
Total Debt Services/ Exports (%)	35.284472	43.907135	46.566326	42.006286	38.863754	36.208178

Source: The Bank of Thailand.

Table 15

(US$ millions)

1986	1987	1988	1989	1990	Average 1980-1986	Average 1987-1989
55.86	57.78	429.49	208.9	194.009	134.4229	232.0567
0	57.78	416.49	208.9	194.009	0	227.7233
2751.2	2604.09	3644.73	5288.07	10618.59	3670.141	3845.63
2807.06	2661.87	4074.22	5496.97	10812.6	3804.564	4077.687
1.989982	2.170654	10.54165	3.800275	1.794287	3.351874	5.504193
0	2.170654	10.22257	3.800275	1.794287	0	5.397833
98.01002	97.82935	89.45835	96.19972	98.20571	96.64813	94.49581

Table 16

(US$ millions)

1986	1987	1988	1989	1990	Average 1980-1986	Average 1987-1989
70.36	63.42	252.49	319.51	125.545	150.65571	211.80667
2771.66	2872.14	3139.29	4744.25	7528.347	3552.8723	3585.2267
2842.02	2935.56	3391.78	5063.76	7653.892	3703.528	3797.0333
2.4757039	2.1604055	7.4441739	6.3097382	1.6402766	3.8448176	5.3047725
97.524296	97.839594	92.555826	93.690262	98.359723	96.155182	94.695227
12136	16530	22439	27647	29525	9887.4286	22205.333
23.418095	17.758984	15.115558	18.315767	25.923428	38.036321	17.063436

Public Sector External Debts

Sources of Long-term Foreign Loans Tables 17 and 18 present the public sector's long-term external debt as classified by lenders or sources of funds. These tables identify the major funding sources on which the public sector has relied, and reveal how the share of each funding source has changed over time. Table 17 presents data on outstanding debt disbursed to the public sector (government and state enterprises) classified by lenders; data is from the Bank of Thailand. Table 18 presents data on new loan commitments to the public sector (public and publicly guaranteed) classified by lenders; data is from the Ministry of Finance.

From Table 17, we see that the share of outstanding debt disbursed from multilateral sources, such as the International Bank for Reconstruction and Development (IBRD) and the Asian Development Bank (ADB), has steadily declined since 1973. The multilateral sources' share was 50.94 percent during 1973 and 1974, dropping to only 23.93 percent from 1987 to 1989. The bilateral sources' share also declined from 1973 to 1982, dropping from 41.40 percent during 1973 and 1974 to 26.94 percent from 1980 to 1982. The bilateral source share, however, markedly increased after 1982, mainly due to the Thai public sector's huge borrowing from Japan. In fact, from 1987 to 1989 and in 1990, Japan's share alone of the total outstanding public debt was 24.83 percent and 31.31 percent, respectively. These figures were actually higher than the combined shares of all multilateral sources.

Table 17 shows that the private creditors' share (i.e. private capital markets plus suppliers' credit) rose quite rapidly from 1973 to 1989. In fact, the private creditors' share was only 7.67 percent during 1973 and 1974, but increased to 43.31 percent from 1987 to 1989.

Table 18 shows that the multilateral sources' share of new loan commitments steadily declined. The share was 63.18 percent from 1970 to 1974, eventually dropping to only 19.63 percent from 1987 to 1989. The share of bilateral sources also dropped from 1970 to 1982; it was 23.19 percent from 1970 to 1974, and dropped to 15.78 percent from 1980 to 1982. The bilateral sources share started to increase soon thereafter to 27.01 percent from 1983 to 1986, 47.64 percent from 1987 to 1989 and 54.72 percent in 1990. Once again, the reason for these increases was the large public borrowing from Japan. From 1987 to 1989 the share of loan commitments from Japan alone was 40.21 percent, the largest figure from a single source during this period.

Note also that the private creditors' share of new loan commitments rose substantially from 1970 to 1989. Their share was only 6.01 percent from 1970 to 1974, but increased to 31.38 percent from 1987 to 1989.

One thing of which we can be certain is that from 1970 to 1989 the multilateral sources' share dropped while the private creditors' share increased (see Tables 17 and 18). This conclusion is consistent with the information discussed on page 29. (See the subsection concerning the public sectors' sources of funds.) One indisputable fact is the role of Japan as the single most important source of FLs to the Thai public sector. In fact, if private creditors had not borrowed from Japan, the share of the bilateral sources would have been rather small. Tables 17 and 18 also show that, in contrast to Japan, the U.S.' share of loan commitments has declined and has become almost negligible in recent years.

Japan's and the U.S.' differing share of loan commitments to Thailand (see Table 17 and 18) might be explained in the light of the capital suppliers and demanders discussed on page 10, where it was shown that Japan has been a

consistent supplier/exporter of both goods and capital to the rest of the world (i.e. Japan has had both a current account surplus and a capital account deficit since the 1960s). On the other hand, the U.S. became a net importer of both goods and capital from the rest of the world, especially during the 1970s and 1980s. Since Japan has accumulated a great deal of foreign capital through its continuous trade surplus, it is quite able to lend to and invest in other countries, whereas the U.S. has gradually lost its status as a capital exporter because of its huge and constant trade deficit; this has resulted in a decrease in her ability to provide capital to the rest of the world. A study by Pranee (1988) found that the Thai government borrowed more from Japan mainly because the terms (i.e. interest rates, grace period, maturity, and other conditions) were less costly and more attractive than those from other sources, (Tables 19, 20 and 22 present the average interest rates, maturity, and grace periods that the Thai public sector received from various foreign lenders from 1950 to 1986. We find that Japanese terms, particularly those of Japan's Overseas Economic Co-operation Fund (OECF) and Exim Bank, were in fact both economical and attractive.)

Pranee's findings are, therefore, consistent with ours (see page 10-11). Since, if a country has accumulated large sums of foreign capital, its domestic interest rate should be quite low and, as a result, should be able to lend to others at a relatively low rate with fewer restrictive terms and conditions. The cost of capital, therefore, is inversely proportional to the amount of capital that a country has.

The Public Sector's Use of Loans Table 23 illustrates how public/publicly guaranteed long-term loan commitments were distributed among the various economic sectors of the country. Most public loans were spent in the following sectors (in decreasing order of share size):

- energy
- communication, telecommunication and transportation
- agricultural and irrigation, public utility
- industrial
- defense

The majority of long-term FLs were spent on improving the country's basic infrastructure and in facilitating its development process. From the above evidence, one may be tempted to conclude that public loans were already used productively, since all major economic sectors, excluding defense, are known to have clear and direct positive externalities on the private economy of the country. Whether the uses of public loans were really productive and efficient cannot be confirmed by Table 22. A cost-benefit assessment, or project evaluation, of public spending is required before such a definite conclusion can be made. Such an assessment, however, is far beyond the scope of this study.

The Private Sector's External Debts

This section examines the private sector's FLs and external debt in more detail. Data concerning the private sector's loans and external debt herein presented and discussed does not include the borrowing of the commercial banks.

Table 17 The Percentage of Public/Publicly Guaranteed Long-term Outstanding External Debt Disbursed Classified by Major Lenders

Year	1973	1974	1975	1976	1977
MULTILATERAL	50.5447	51.3258	53.4510	49.6386	43.3536
IBRD	47.7124	46.0227	43.9807	37.2289	31.7116
ADB	2.83224	5.30303	9.47030	12.40964	11.64205
Others	0	0	0	0	0
BILATERAL	42.2658	40.5303	39.4864	34.0964	32.8410
Germany	12.8540	11.1742	8.1862	6.2651	4.6916
Japan	13.9434	13.6364	16.0514	16.9880	18.2450
U.S.	12.63617	11.1742	11.5570	8.1928	7.9062
Other Bilateral	2.83224	4.5455	3.6918	2.6506	1.9983
PRIVATE CREDITORS	7.1895	8.1439	7.0626	16.2651	23.8054
Private Capital Markets	0.0000	2.8409	3.5313	14.2169	22.5022
Suppliers' Credit	7.18954	5.3030	3.5313	2.0482	1.3032
TOTAL	100	100	100	100	100

Year	1985	1986	1987	1988	1989
MULTILATERAL	31.6713	28.5845	24.7386	23.3619	23.6878
IBRD	23.3681	20.4516	17.7988	15.9683	15.6432
ADB	7.6653	7.3894	6.3047	6.7788	7.4443
Others	0.6379	0.7435	0.6351	0.6148	0.6003
BILATERAL	27.5888	29.6769	31.8256	32.9477	33.5077
Germany	1.9030	2.0745	2.0680	1.8767	2.0669
Japan	17.8397	20.6077	24.1577	24.8423	25.4889
U.S.	4.6566	4.0940	2.8038	3.2034	2.7873
Other Bilateral	3.1895	2.9007	2.7961	3.0254	3.1647
PRIVATE CREDITORS	40.7400	41.7386	43.4358	43.6903	42.8045
Private Capital Markets	36.8913	37.7180	39.4005	39.9126	38.8336
Suppliers' Credit	3.8486	4.0206	4.0353	3.7777	3.9708
TOTAL	100	100	100	100	100

Full name of lenders:

IBRD = International Bank for Reconstruction and Development.
ADB = Asian Development Bank.

Source: Bank of Thailand.

Table 17

(Percent)

1978	1979	1980	1981	1982	1983	1984
35.7383	29.1928	24.6648	26.3148	29.7293	33.2119	35.6902
25.6152	21.3417	17.5057	19.4997	22.3053	25.3605	26.8552
10.12304	7.81423	7.10853	6.63778	7.17489	7.51639	8.17508
0	0.0369	0.0506	0.1773	0.2491	0.3350	0.6599
30.5369	27.0549	28.6871	26.7481	25.3778	26.8609	26.4242
3.1320	2.7645	2.6056	2.4818	2.2089	1.9956	1.7104
19.9664	15.0018	17.9357	15.8755	14.4494	16.1835	16.0269
5.8725	7.2245	6.1219	5.4560	5.4476	5.1712	5.1448
1.5660	2.0641	2.0238	2.9348	3.2719	3.5106	3.5421
33.7248	43.7523	46.6481	46.9372	44.8929	39.9272	37.8855
33.1655	43.5311	45.8639	45.3417	42.0196	36.6497	34.9764
0.5593	0.2212	0.7842	1.5954	2.8733	3.2775	2.9091
100	100	100	100	100	100	100

1990	Average 1973-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
23.9691	50.9352	42.2748	26.9029	32.2895	23.9294
16.4860	46.8676	31.9756	19.7702	24.0089	16.4701
6.8877	4.0676	10.2919	6.9737	7.6865	6.8426
0.5954	0.0000	0.0074	0.1590	0.5941	0.6167
40.8994	41.3980	32.8031	26.9377	27.6377	32.7603
2.6751	12.0141	5.0079	2.4321	1.9209	2.0039
31.3100	13.7899	17.2505	16.0869	17.6645	24.8296
2.3729	11.9052	8.1506	5.6752	4.7666	2.9315
4.5414	3.6888	2.3942	2.7435	3.2857	2.9954
35.1315	7.6667	24.9220	46.1594	40.0728	43.3102
30.3146	1.4205	23.3894	44.4084	36.5589	39.3823
4.8169	6.2463	1.5326	1.7510	3.5139	3.9280
100	100	100	100	100	100

Table 18 The Percentage of Public/Publicly Guaranteed Long-term Foreign Loan Commitments Classified By Major Lenders

Year	1970	1971	1972	1973	1974	1975
MULTILATERAL	88.1226	45.8163	63.7669	60.4858	57.6908	66.4980
IBRD	75.3512	0.0000	44.7635	47.0574	36.3125	40.0590
ADB	12.7714	45.8163	19.0034	13.4283	21.3783	26.4390
BILATERAL	9.5019	24.1379	36.2331	18.8580	27.2446	14.1050
Germany	1.7880	0.0000	0.0000	4.2620	2.0432	0.0000
Japan	7.7139	24.1379	4.5608	0.0000	21.6213	14.1050
U.S.	0	0	31.6723	14.5960	3.5801	0
France and French Bank Syndicated Loans	0	0	0	0	0	0
Other Bilateral	0	0	0	0	0	0
PRIVATE CREDITORS	2.3755	8.6086	0	4.0051	15.0646	16.0236
Private Capital Markets	2.3755	8.6086	0	4.0051	15.0646	16.0236
Exim Banks	0	0	0	0	0	0
Suppliers' Credit	0	0	0	0	0	0
Other Sources	0	21.4372	0	16.6511	0	0
Defense	0	0	0	0	0	3.3734
TOTAL	100	100	100	100	100	100

Year	1983	1984	1985	1986	1987	1988
MULTILATERAL	45.5983	18.0231	46.1599	11.1216	7.5959	24.1483
IBRD	36.8168	10.9231	16.6987	9.9354	2.6854	17.5717
ADB	8.7815	7.1000	29.4612	1.1861	4.9105	6.5767
BILATERAL	22.2499	24.3225	6.3384	55.1412	49.5997	53.0237
Germany	1.5531	1.1185	0.7250	2.3947	0.8312	1.7673
Japan	19.7235	21.7774	0.0000	44.5524	42.8581	45.4131
U.S.	0.9734	1.4266	2.2098	2.7887	0.0000	0.0000
France and French Bank Syndicated Loans	0.0000	0.0000	0.0000	0.0000	1.5729	1.6058
Other Bilateral	0.0000	0.0000	3.4036	5.4054	4.3376	4.2375
PRIVATE CREDITORS	16.8525	45.1878	36.1213	24.7125	41.1419	20.4410
Private Capital Markets	16.8525	45.1878	36.1213	13.7800	34.1752	11.9345
Exim Banks	0.0000	0.0000	0.0000	5.4663	6.6215	6.6996
Suppliers' Credit	0.0000	0.0000	0.0000	5.4663	0.3453	1.8069
Other Sources	8.6600	2.1988	0.0000	0.4271	1.6624	0.0000
Defense	6.6394	10.2677	11.3804	8.5977	0.0000	2.3869
TOTAL	100	100	100	100	100	100

Full name of lenders:

IBRD = International Bank for Reconstruction and Development.
ADB = Asian Development Bank.

Source: Ministry of Finance.

Table 18

(Percent)

1976	1977	1978	1979	1980	1981	1982
53.0321	33.2441	18.2753	27.8920	36.2962	34.1195	35.2554
31.3339	25.6223	18.2753	18.7123	26.4060	25.7161	24.0654
21.6982	7.6218	0.0000	9.1797	9.8902	8.4033	11.1899
11.5040	22.4293	18.5597	14.8489	15.0898	14.5630	17.6886
1.3617	0.8108	1.1425	2.7467	4.1709	1.0252	0.0000
8.9643	21.1319	16.4365	11.6347	10.5708	12.9347	16.7900
1.1780	0.4865	0.9807	0.4675	0.3481	0.6031	0.8986
0	0	0	0	0	0	0
0	0	0	0	0	0	0
23.5593	25.8072	35.1522	33.3853	27.9879	20.6845	37.6294
23.5593	25.8072	35.1522	33.3853	27.9879	20.6845	37.6294
0	0	0	0	0	0	0
0	0	0	0	0	0	0
3.2583	11.9355	4.3396	9.7010	12.4642	20.3316	2.9737
8.6463	6.5840	23.6731	14.1728	8.1618	10.3015	6.4530
100	100	100	100	100	100	100

1989	1990	Average 1970-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
27.1559	17.4664	63.1765	39.7883	35.2237	30.2257	19.6334
16.7477	11.0831	40.6969	26.8006	25.3958	18.5935	12.3349
10.4082	6.3833	22.4795	12.9877	9.8278	11.6322	7.2985
40.2986	54.7185	23.1951	16.2894	15.7805	27.0130	47.6407
2.9730	5.9491	1.6186	1.2123	1.7320	1.4478	1.8572
32.3505	31.9071	11.6068	14.4545	13.4318	21.5133	40.2072
0.0000	0.0000	9.9697	0.6225	0.6166	1.8496	0.0000
0.0000	14.1193	0.0000	0.0000	0.0000	0.0000	1.0596
4.9751	2.7430	0.0000	0.0000	0.0000	2.2023	4.5167
32.5455	27.8151	6.0108	26.7855	28.7673	30.7185	31.3761
5.1511	14.3288	6.0108	26.7855	28.7673	27.9854	17.0869
23.8461	7.6119	0.0000	0.0000	0.0000	1.3666	12.3891
3.5482	5.8744	0.0000	0.0000	0.0000	1.3666	1.9002
0.0000	0.0000	7.6177	5.8469	11.9232	2.8215	0.5541
0.0000	0.0000	0.0000	11.2899	8.3054	9.2213	0.7956
100	100	100	100	100	100	100

Table 19 Interest Rate of Thailand's Central Government and State Enterprises Loans (in Percent) Classified by Lenders

Lenders	Average 1950-1959	Average 1960-1969	Average 1970-1979	Average 1980-1986
IBRD	4.7083	5.8333	7.4946	9.6712
ADB	-	-	7.0383	8.5125
AID	3.2500	3.0000	2.0000	-
USAID	-	3.5000	2.0000	2.0000
DENMARK	-	-	0.0000	0.0000
FRANCE	-	-	3.5000	3.0000
OPEC FID	-	-	3.8000	6.1500
JAP EXIM	-	5.7433	6.4375	7.5786
OECF	-	4.5000	3.6073	3.2341
CHASE	-	-	1.0000	0.4688
CITY BANK	-	-	1.5000	9.9000
COM. BANK	-	-	5.0939	4.2646
FFB	-	-	12.7500	9.6563
LTCB	-	-	3.8427	3.7575
TOKYO	-	-	-	3.2688
US EXIM	3.0000	4.0000	8.4375	8.4584
EDC	-	-	9.0000	6.4750
JAP LEAS	-	-	8.0833	8.5250
KFW	-	3.4389	4.1696	5.0215
MANU HANOV	-	-	1.3000	0.1563
SYN	-	-	0.6875	5.6788
OTHER	-	-	8.8167	9.0450

Full name of lenders:

1) ADB: Asian Development Bank.
2) AID: Agency for International Development, USA.
3) CHASE: Chase Manhattan Bank Limited.
4) CITY BANK: City Bank.
5) COM. BANK: Commercial Bank.
6) DENMARK: Government of Denmark.
7) EDC: Export Development Corporation, Canada.
8) FFB: Federal Financing Bank, USA.
9) FRANCE: Government of France.
10) IBRD: International Bank for Reconstruction and Development.
11) JAP EXIM: Export-Import Bank of Japan.
12) JAP LEAS: Japan Leasing Corporation.
13) KFW: Kreditanstalt für Wiederanfban, West Germany.
14) LTCB: The Long-term Credit Bank of Japan Limited.
15) MANU HANOV: Manufacturers Hanover Limited.
16) OECF: The Overseas Economic Cooperation Fund, Japan.
17) OPEC FID: OPEC Fund for International Development.
18) OTHER: Other Sources.
19) SYN: Syndicated Loan.
20) TOKYO: Tokyo Bank.
21) US EXIM: Export-Import Bank of the United States.
22) USAID: United States Agency for International Development.

Source: Ministry of Finance.

Table 20 Maturity of Thailand's Central Government and State Enterprises Loans (in Years) Classified by Lenders

Lenders	Average 1950-1959	Average 1960-1969	Average 1970-1979	Average 1980-1986
IBRD	18.67	19.61	21.77	18.92
ADB	-	-	21.96	22.64
AID	36.50	30.00	41.00	-
USAID	-	27.00	40.43	32.50
DENMARK	-	-	25.00	24.00
FRANCE	-	-	25.50	27.00
OPEC FID	-	-	20.00	16.75
JAP EXIM	-	16.00	16.00	13.20
OECF	-	20.00	22.74	29.93
CHASE	-	-	5.00	15.00
CITY BANK	-	-	4.00	6.57
COM. BANK	-	-	10.81	8.51
FFB	-	-	7.00	13.14
LTCB	-	-	9.50	5.67
TOKYO	-	-	-	7.30
US EXIM	40.00	2.00	10.00	8.34
EDC	-	-	11.00	16.83
JAP LEAS	-	-	9.00	16.00
KFW	-	59.67	29.96	24.87
MANU HANOV	-	-	7.73	12.00
SYN	-	-	11.50	9.40
OTHER	-	-	10.00	7.45

Full name of lenders:

1) ADB: Asian Development Bank.
2) AID: Agency for International Development, USA.
3) CHASE: Chase Manhattan Bank Limited.
4) CITY BANK: City Bank.
5) COM. BANK: Commercial Bank.
6) DENMARK: Government of Denmark.
7) EDC: Export Development Corporation, Canada.
8) FFB: Federal Financing Bank, USA.
9) FRANCE: Government of France.
10) IBRD: International Bank for Reconstruction and Development.
11) JAP EXIM: Export-Import Bank of Japan.
12) JAP LEAS: Japan Leasing Corporation.
13) KFW: Kreditanstalt für Wiederanfban, West Germany.
14) LTCB: The Long-term Credit Bank of Japan Limited.
15) MANU HANOV: Manufacturers Hanover Limited.
16) OECF: The Overseas Economic Cooperation Fund, Japan.
17) OPEC FID: OPEC Fund for International Development.
18) OTHER: Other Sources.
19) SYN: Syndicated Loan.
20) TOKYO: Tokyo Bank.
21) US EXIM: Export-Import Bank of the United States.
22) USAID: United States Agency for International Development.

Source: Ministry of Finance.

Table 21 All Loan Inflows Classified by Countries

Country	1970	1971	1972	1973	1974	1975	1976	1977	1978
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Brunei	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
China	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hong Kong	2.31	8.55	4.24	10.98	18.27	26.93	22.32	20.92	29.05
Indonesia	0.03	0.00	0.01	0.09	0.00	0.09	0.02	0.03	0.00
Korea	0.00	0.00	0.04	0.09	0.03	0.35	0.16	0.08	0.00
Malaysia	0.09	0.00	0.02	0.00	0.28	0.32	0.01	0.00	0.00
Philippines	0.02	0.01	0.02	0.00	0.00	0.05	0.00	0.00	0.00
Singapore	0.00	0.33	4.00	8.91	26.29	17.62	30.17	30.30	37.82
Taiwan	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.02	0.01
Japan	19.69	12.10	16.21	20.04	9.15	5.56	5.62	10.73	8.45
Australia	1.43	0.75	0.70	0.02	0.01	0.70	0.03	0.01	0.01
New Zealand	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Canada	0.04	3.82	3.25	2.86	0.35	1.08	0.38	0.44	0.00
U.S.	57.60	41.38	39.77	36.31	21.27	27.54	29.88	21.82	16.20
Bangladesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Burma	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
India	0.23	0.07	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Laos	0.01	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Macao	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nepal	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
South Vietnam	0.08	0.01	0.04	0.09	0.01	0.00	0.00	0.00	0.00
Iran	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Israel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Jordan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lebanon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Libya	0.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oman	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United Arab Emirates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Saudi Arabia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Austria	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00

Table 21

(Percent)

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.02	0.14	0.01	0.26	0.07	0.02
34.22	37.55	33.12	32.59	23.94	27.48	28.11	25.95	35.38	30.97	27.05
0.03	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
0.00	0.01	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.00	0.04
0.05	0.03	0.00	0,00	0.00	0.03	0.02	0.01	0.00	0.00	0.01
0.02	0.69	1.41	2.15	1.05	0.36	0.02	0.45	0.31	0.54	0.14
35.77	34.48	33.04	41.78	38.69	43.98	44.87	44.69	25.84	33.66	41.63
0.02	0.01	0.00	0.00	0.03	0.03	0.00	0.02	2.16	0.34	0.56
5.53	2.46	4.40	2.19	3.64	3.54	2.22	4.18	5.10	12.94	13.01
0.08	0.20	0.01	0.20	0.52	0.15	0.02	0.03	0.44	0.24	0.04
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.06	0.06	0.00	0.00	0.12	0.00	0.04	0.00	0.00	0.00
13.66	11.46	8.12	5.00	9.26	7.93	14.76	12.23	10.24	3.74	4.48
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.12	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
0.05	0.12	0.12	0.24	0.55	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.18	0.10	0.08	0.00	0.00	0.00	0.16	0.92	0.00

(Continued on page 60)

Table 21 (Continued)

Country	1970	1971	1972	1973	1974	1975	1976	1977	1978
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Belgium	0.00	1.01	0.07	0.00	0.35	1.10	0.43	0.38	1.04
Denmark	0.57	0.00	0.00	0.08	0.00	0.00	0.07	0.01	0.02
Gibraltar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
France	0.01	0.03	0.00	0.08	0.73	1.83	1.13	0.00	0.00
Germany	1.24	0.73	0.54	0.60	0.22	0.52	1.10	0.61	0.61
Italy	0.00	0.00	0.82	0.40	0.01	0.37	1.10	1.46	0.03
Liechtenstein	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Luxembourg	0.20	0.01	0.14	0.00	0.00	0.00	0.18	0.91	1.71
Morocco	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Netherlands	0.38	0.47	0.98	4.61	1.69	0.00	0.04	0.27	0.01
Norway	0.00	0.15	0.00	0.08	0.00	0.00	0.00	0.13	0.13
Poland	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00
Sweden	0.00	0.00	0.00	0.00	0.24	0.26	0.53	0.00	0.09
Switzerland	2.17	5.55	3.00	1.35	0.18	2.70	1.06	0.13	0.79
U.K.	9.80	21.04	21.46	10.98	17.90	9.72	5.70	10.77	3.92
Argentina	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Bahamas	0.20	0.00	3.10	2.19	1.75	1.08	0.00	0.27	0.09
Bermuda	0.98	1.56	1.38	0.00	1.22	0.00	0.00	0.00	0.00
Brazil	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cyprus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nauru	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Panama	2.93	0.00	0.00	0.05	0.02	0.00	0.00	0.19	0.00
Zimbabwe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South Africa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Venezuela	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IFC	0.00	0.00	0.00	0.00	0.00	2.16	0.00	0.52	0.00

Source: Bank of Thailand.

Table 21

(Percent)

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.75	1.60	6.15	0.01	2.30	1.09	0.91	1.35	6.03	6.01	2.09
0.01	0.06	0.00	0.01	0.00	0.01	0.04	0.01	0.04	1.54	0.68
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
0.17	1.22	1.63	0.15	2.24	0.89	0.70	0.30	0.27	0.05	1.03
0.34	3.21	0.63	0.07	0.05	1.72	0.29	0.43	0.32	0.23	0.28
0.06	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.16	0.00	0.50	0.05	0.01	0.01	0.00	0.01	0.00	0.01	0.02
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.21	0.45	0.25	1.99	1.01	0.37	0.15	0.18	0.61	0.46	0.73
0.00	0.00	0.00	0.04	0.01	0.03	0.01	0.07	0.01	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.39	0.77	0.43	0.37	0.13	0.31	0.47	1.24	1.29	1.17	1.19
0.57	0.77	0.35	0.12	0.10	0.47	0.76	0.58	4.66	0.32	2.09
4.85	3.95	4.05	8.41	15.01	7.45	5.87	8.01	6.03	6.41	3.25
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.17	0.84	0.35	0.02	0.17	0.07	0.02	0.00	0.09	0.08
0.00	0.00	0.80	1.43	0.00	1.73	0.17	0.00	0.00	0.00	0.44
0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10
0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.12	0.32	0.05	0.00
0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
0.21	0.00	0.00	0.19	0.00	0.13	0.20	0.05	0.32	0.18	0.01
0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.11	3.74	2.52	1.34	1.81	0.15	0.03	0.06	0.00	0.00
1.35	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 22 Grace Period of Thailand's Central Government and State Enterprises Loans (in Years) Classified by Lenders

Lenders	Average 1950-1959	Average 1960-1969	Average 1970-1979	Average 1980-1986
IBRD	4.00	4.72	5.36	4.07
ADB	-	-	5.13	5.39
AID	5.50	6.00	11.00	-
USAID	-	7.00	10.57	8.58
DENMARK	-	-	7.00	7.00
FRANCE	-	-	11.00	10.33
OPEC FID	-	-	5.50	4.50
JAP EXIM	-	5.33	5.42	3.13
OECF	-	5.00	6.81	10.00
CHASE	-	-	1.50	13.00
CITY BANK	-	-	0.00	8.50
COM. BANK	-	-	3.07	2.92
FFB	-	-	1.20	5.50
LTCB	-	-	4.17	4.67
TOKYO	-	-	-	3.80
US EXIM	4.00	2.00	4.00	3.17
EDC	-	-	5.50	5.50
JAP LEAS	-	-	0.00	2.50
KFW	-	5.72	10.61	6.52
MANU HANOV	-	-	1.80	12.00
SYN	-	-	4.50	4.36
OTHER	-	-	4.00	3.35

Full name of lenders:

1) ADB: Asian Development Bank.
2) AID: Agency for International Development, USA.
3) CHASE: Chase Manhattan Bank Limited.
4) CITY BANK: City Bank.
5) COM. BANK: Commercial Bank.
6) DENMARK: Government of Denmark.
7) EDC: Export Development Corporation, Canada.
8) FFB: Federal Financing Bank, USA.
9) FRANCE: Government of France.
10) IBRD: International Bank for Reconstruction and Development.
11) JAP EXIM: Export-Import Bank of Japan.
12) JAP LEAS: Japan Leasing Corporation.
13) KFW: Kreditanstalt für Wiederanfban, West Germany.
14) LTCB: The Long-term Credit Bank of Japan Limited.
15) MANU HANOV: Manufacturers Hanover Limited.
16) OECF: The Overseas Economic Cooperation Fund, Japan.
17) OPEC FID: OPEC Fund for International Development.
18) OTHER: Other Sources.
19) SYN: Syndicated Loan.
20) TOKYO: Tokyo Bank.
21) US EXIM: Export-Import Bank of the United States.
22) USAID: United States Agency for International Development.

Source: Ministry of Finance.

Private Sector Long-term Loans, Supplier Credit, and Private Domestic Investment Initially, this section evaluates the private sector's long-term loan disbursements and private domestic capital formation. Table 24 shows the disbursements of private non-guaranteed long-term loans, their components, and the country's private domestic investment. Data is from the Bank of Thailand and the World Debt Tables.

The private sector's total long-term loan disbursements may be divided into two parts—supplier credit and loans. Supplier credit is usually directly related to private sector imports of intermediate goods and raw materials from foreign countries, especially lender countries, whereas loans are funds that the private sector borrows for more specific long-term business and investment purposes. Table 24 illustrates the fact that the share of supplier credit in total long-term loan disbursements rapidly declined over time. The suppliers' credit share was as high as 53.17 percent from 1970 to 1974, but gradually dropped to only 16.28 percent from 1987 to 1989, and 9.0 percent in 1990. During this period, the private sector increasingly used long-term FLs for domestic investment, rather than for import purposes. The percentage ratio between long-term loans (particularly, total disbursements minus supplier credit) and the country's private domestic investment clearly rose from 1970 to 1986. The loan-to-private investment ratio, only 6.37 percent from 1970 to 1974, rose to 13.31 percent from 1983 to 1986. During this period, the private sector depended more and more on FLs as a source of long-term capital for its domestic investment projects. This increasing reliance by the private sector on FLs further suggests that the private sector found that it was either more convenient or less costly to borrow from abroad than it was to borrow from domestic financial/capital markets. This indicates the existence of a market imperfection in the domestic financial/capital markets. (See the discussion on the growth of private sector long-term loan disbursements from 1987 to 1989 on page 39.)

From 1987 to 1989, however, the ratio of loans-to-private investment fell to 8.37 percent. The reason for this drop may be the recent dramatic growth recorded by other forms of foreign capital flows, particularly foreign direct investment and foreign portfolio investment. Comparing private sector long-term loan disbursements and inflows of foreign direct and portfolio investment, we see that in 1982 the private sector's long-term loan disbursements were larger by US$448 million than the combined inflows of foreign direct and portfolio investment. In 1988 and 1989, however, private sector FL disbursements were smaller than the combined inflows of foreign direct and portfolio investment by US$605 million and US$640 million, respectively. (Data is calculated from the Balance of Payment Statistics and the World Debt Tables.) According to Duangmanee (1988), the combined share of foreign direct investment and portfolio investment in the country's total capital movement was roughly 66 percent from 1986 to 1988, compared to only 11 percent from 1980 to 1982.

Sources and Uses of Private Sector Foreign Loans Tables 21 and 25 present sources and distribution of private sector FLs among various business and economic activities. Data in these two tables excludes supplier credit, but represents both long and short-term FLs. The private sector loans presented and discussed in the previous section include supplier credit. Data in Tables 21 and 25 is from the Balance of Payment Division of the Bank of Thailand.

Table 23 The Percentage of Public/Publicly Guaranteed Long-term Foreign Loan Commitments Classified by Economic Sectors

Year	1970	1971	1972	1973	1974	1975
Agricultural/Irrigation	0	0	0	3.21	1.79	42.17
Communication/ Transportation	15.95	14.13	0	67.71	9.54	24.50
Telecommunication	0	0	0	0	0	0
Industrial	12.76	0	0	2.44	11.81	8.43
Energy	71.30	77.69	52.07	15.25	55.63	21.52
Public Utility	0	0	0	0	19.08	0
Community/Rural Development	0	0	0	0	0	0
Public Health	0	0	0	0	0.51	0
Education	0	0	16.26	11.39	1.64	0
Defense	0	0	0	0	0	3.37
Others	0	0	31.67	0	0	0
Discrepancies	0	8.17	0	0	0	0
TOTAL	100	100	100	100	100	100

Year	1983	1984	1985	1986	1987	1988
Agricultural/ Irrigation	12.09	11.12	3.31	18.03	7.46	9.76
Communication/ Transportation	0	0	0	0	38.85	24.34
Telecommunication	34.62	33.59	16.97	22.74	15.24	20.43
Industrial	4.83	7.95	1.61	29.26	2.69	6.13
Energy	22.24	8.04	30.41	14.10	29.87	35.80
Public Utility	2.47	5.37	13.06	7.03	3.21	1.16
Community/Rural Development	0	5.98	5.88	0	2.69	0
Public Health	0.26	0.31	0	0	0	0
Education	0	0.73	1.13	0	0	0
Defense	6.62	10.21	11.36	8.84	0	2.39
Others	16.88	16.69	16.02	0	0	0
Discrepancies	0	0	0.24	0	0	0
TOTAL	100	100	100	100	100	100

Source: Ministry of Finance.

Table 23

(Percent)

1976	1977	1978	1979	1980	1981	1982
9.66	18.92	2.03	9.80	9.74	7.90	12.97
18.01	18.14	36.54	30.59	9.50	25.47	0
0	0	0	0	0	0	22.93
1.36	4.054	0.47	1.75	1.52	2.65	2.70
9.52	27.07	16.74	26.97	42.61	37.51	42.06
0	7.39	8.81	7.58	5.82	2.97	1.30
0	0	0.44	2.09	0.39	1.78	0.08
16.99	0	4.39	0.23	0	0	0.10
7.30	0	0	2.05	0.90	0	3.80
8.65	6.58	23.67	14.17	8.16	10.30	6.45
0	17.84	6.90	4.76	21.36	11.42	7.61
28.51	0	0	0	0	0	0
100	100	100	100	100	100	100

1989	1990	Average 1970-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
0	2.62	1.00	16.52	10.20	11.14	5.74
26.92	38.25	21.47	25.56	11.66	0	30.04
21.00	14.93	0	0	7.64	26.98	18.89
0	0.11	5.40	3.21	2.29	10.91	2.94
45.19	43.98	54.39	20.36	40.73	18.70	36.95
6.88	0.11	3.82	4.76	3.36	6.98	3.75
0	0	0	0.51	0.75	2.96	0.90
0	0	0.10	4.32	0.03	0.14	0
0	0	5.86	1.87	1.57	0.46	0
0	0	0	11.29	8.30	9.26	0.80
0	0	6.33	5.90	13.46	12.40	0
0	0	1.63	5.70	0	0.06	0
100	100	100	100	100	100	100

Table 24 Thailand's Private Long-term Foreign Loan Disbursements

Year	1970	1971	1972	1973	1974	1975
Total Private Non-guaranteed Disbursements (i)	169.3	159.6	195.8	139.5	324.8	304
Suppliers' Credit (ii)	131.12	111.89	87.2	55.67	109.9	92.33
Loans (iii)	38.18	47.71	108.6	83.83	214.9	211.67
Private Domestic Investment (iv)	1069.615	1073.029	1114.952	1625.752	2400.049	2487.021
Suppliers' Credit (ii)/ Total Disb. (i) (%)	77.44832	70.10652	44.53524	39.90681	33.83621	30.37171
Loans (iii)/Private Domestic Investment (iv) (%)	3.569509	4.446292	9.74033	5.156383	8.953984	8.510986

Year	1983	1984	1985	1986	1987	1988
Total Private Non-guaranteed Disbursements (i)	950	1417	784	587	600	1031
Suppliers' Credit (ii)	140.51	131.23	154.51	97.72	122.3	237.98
Loans (iii)	809.49	1285.77	629.49	489.28	477.7	793.02
Private Domestic Investment (iv)	5785.565	6622.361	5462.756	5897.068	8508.65	13031.31
Suppliers' Credit (ii)/ Total Disb. (i) (%)	14.79053	9.261115	19.70791	16.64736	20.38333	23.08244
Loans (iii)/Private Domestic Investment (iv) (%)	13.99155	19.41558	11.5233	8.297005	5.614287	6.085496

Source: World Debt Tables and Bank of Thailand.

Table 24

(US$ millions)

1976	1977	1978	1979	1980	1981	1982
277.5	348.9	572.9	799	1026.7	789.6	707
60.9	64.6	50.66	96.82	186.31	135.75	122.64
216.6	284.3	522.24	702.18	840.39	653.85	584.36
2456.961	3380.49	3919.109	4959.694	5608.664	5520.944	4931.087
21.94595	18.51533	8.84273	12.11765	18.14649	17.19225	17.34653
8.815769	8.410023	13.32548	14.15773	14.98378	11.84308	11.85053

1989	1990	Average 1970-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
2525	3292.18	197.8	460.46	841.1	934.5	1385.3333
135.55	296.26	99.156	73.062	148.2333	130.9925	165.2767
2389.45	2995.92	98.644	387.398	692.8667	803.5075	1220.057
17815.38	24326.75	1456.679	3440.655	5353.565	5941.938	13118.45
5.368317	8.9989	53.16662	18.35867	17.56176	15.10173	16.27803
13.41228	12.31533	6.373299	10.644	12.89247	13.30686	8.370689

Table 25 All Loan Inflows Classified by Economic Sections (in Percent)

Economic Section	1970	1971	1972	1973	1974	1975	1976	1977	1978
1) Financial Institutions	8.62	3.95	11.62	21.37	18.93	30.78	38.95	42.62	45.05
2) Trade	4.72	9.82	25.93	20.21	10.31	12.03	11.62	7.08	5.88
3) Construction	1.90	2.61	2.09	1.46	1.04	2.27	1.54	1.88	1.50
4) Mining and Quarrying	2.84	1.37	0.75	0.82	1.77	0.94	0.89	7.23	4.72
4.1) Oil Exploration	0.00	0.00	0.09	0.00	1.06	0.02	0.01	0.01	0.00
4.2) Others	2.84	1.37	0.66	0.82	0.72	0.92	0.89	7.22	4.72
5) Agriculture	0.00	0.00	0.03	0.22	0.42	0.00	0.09	0.00	0.01
6) Industry	66.24	64.59	48.45	37.64	49.16	43.99	42.80	37.24	40.69
6.1) Food	3.40	3.21	1.76	2.93	6.48	4.16	5.62	9.05	2.61
6.2) Textiles	16.34	7.90	13.00	14.00	22.42	16.43	14.05	11.52	5.08
6.3) Metal-based and Non-metallic	1.06	1.85	18.43	5.08	5.09	3.32	2.08	1.83	0.52
6.4) Electrical Appliances	0.98	0.72	1.29	0.03	0.87	0.32	1.57	1.88	0.72
6.5) Machinery and Transport Equipment	1.89	2.59	2.33	1.47	2.21	3.70	2.71	2.87	1.08
6.6) Chemicals	12.61	0.82	4.76	3.57	1.43	2.49	2.24	0.75	3.06
6.7) Petroleum Products	14.03	24.43	1.46	0.34	7.27	4.58	9.84	7.30	21.61
6.8) Construction Materials	12.18	22.31	4.47	10.13	3.38	8.58	4.57	1.97	5.86
6.9) Others	1.88	0.76	0.95	0.11	0.01	0.41	0.11	0.08	0.16
7) Services	15.68	17.66	11.14	18.28	18.36	9.98	4.11	3.95	2.15
7.1) Transportation and Travel	1.18	2.72	0.92	4.21	12.22	2.27	1.73	1.47	0.35
7.2) Housing and Real Estate	13.77	13.75	8.29	12.58	5.50	3.33	2.20	2.14	0.54
7.3) Hotels and Restaurants	0.46	1.06	1.83	0.91	0.60	4.41	0.00	0.00	0.93
7.4) Others	0.27	0.13	0.11	0.58	0.05	0.01	0.18	0.34	0.33
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Bank of Thailand.

Table 25

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
39.93	24.04	18.67	16.85	24.74	27.64	22.80	23.35	23.64	10.3680	11.2368
9.89	13.03	19.42	18.44	20.41	24.05	27.54	32.38	24.21	27.1518	25.7104
1.49	2.03	2.68	2.44	2.53	2.96	3.04	5.57	3.69	1.9675	2.6427
8.30	3.11	6.65	7.13	2.86	0.69	1.91	1.16	0.02	0.1258	0.2191
0.21	0.12	0.37	1.98	0.86	0.25	0.00	0.00	0.01	0.0259	0.1885
8.09	2.99	6.28	5.15	2.00	0.44	1.91	1.16	0.01	0.0999	0.0307
0.06	0.12	0.19	0.14	0.27	0.11	0.35	0.42	0.48	0.5308	0.8135
36.34	50.16	45.85	44.59	39.74	37.54	34.78	24.58	33.19	51.2386	46.5278
4.34	7.93	10.68	13.16	14.76	9.13	10.60	8.56	9.33	7.4118	5.5843
3.69	3.31	5.17	6.27	4.62	4.93	6.66	1.74	1.85	1.4295	1.5376
1.31	2.45	2.43	2.26	4.95	1.26	1.78	2.56	2.71	5.5626	4.1525
0.49	1.52	0.99	0.90	0.88	0.89	0.56	0.53	1.49	4.9709	12.5986
3.60	5.11	4.68	4.65	3.90	7.08	3.83	4.64	5.00	5.0221	3.7911
1.87	5.09	4.63	3.83	3.01	4.00	4.65	4.14	4.13	7.8939	5.5407
13.49	15.81	9.66	10.29	4.04	8.76	4.23	0.96	6.95	15.5694	6.7534
7.13	7.82	6.81	2.56	2.55	0.86	1.76	0.51	0.93	1.0545	3.7972
0.43	1.13	0.80	0.46	0.88	0.64	0.71	0.96	0.79	2.3239	2.7722
4.00	7.44	6.56	10.41	9.43	7.01	9.42	12.55	14.76	8.7385	12.8457
0.61	0.56	0.92	0.64	0.59	0.17	0.44	0.40	0.91	1.3895	0.5530
1.50	2.71	2.71	4.98	6.02	3.69	4.03	7.66	5.27	5.1255	7.5427
1.57	3.20	2.41	4.34	2.12	2.09	3.59	2.80	5.57	1.8055	2.9113
0.32	0.97	0.53	0.46	0.70	1.07	1.37	1.68	3.02	0.4168	1.8386
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	113.86	124.33

Table 21 shows that the major suppliers of private sector FLs are (in decreasing order of share size): Singapore, Hong Kong, the U.S., the U.K., and Japan. According to our previous examination of current and capital accounts of various countries on page 10, Singapore appeared not to have accumulated enough fundamental foreign capital resources to become a net supplier of capital to the rest of the world. One reason, therefore, that the private sector borrowed significantly from Singapore may be related to Singapore's role as one of the world's most important international financial centers. While Singapore itself may not have much fundamental foreign capital resource to lend to others, it may be a good international financial intermediary. Similar lines of reasoning may also be applied to Hong Kong and the U.K.

The use of international financial intermediaries makes it difficult to trace the ultimate sources of funds, a situation very different from that of bilateral loan relations between governments where we are more certain of the source and distribution of funds. So, when a private domestic firm borrows from a foreign country, the country itself may have little foreign capital resource to lend, but it is probably able to efficiently run or facilitate a number of transnational banks and international financial intermediaries.

Table 25 shows that disbursement of the private sector's total FLs (both long- and short-term loans) was among the following main business activities (in decreasing order of share size): industry, trade, financial institutions, and services. It is notable, that construction, mining and quarrying, and agriculture received significantly smaller shares of total loan inflows. The financial institutions' substantial share may make it hard to ascertain which domestic business sectors actually received the funds. It is difficult to determine from Table 25 what the ultimate domestic destinations of FLs were in the period when financial institutions in Thailand clearly functioned as financial intermediaries between domestic firms and foreign lenders. On the other hand, if the majority of the financial institutions' foreign borrowings were short-term loans and mainly for their own temporary liquidity needs, while the capital needs of other real business sectors were mostly medium- or long-term, then financial institutions would not have a clear and definite intermediary function as regards FLs.

To use the example of a neoclassical investment model, we know that funds should first flow to the most productive and least risky activities. So, presuming that Table 25 represents the ultimate uses of FLs, we could say that industry, trade, financial institution, and service sectors are considered by lenders to be either more productive or less risky than such other sectors as mining and quarrying, construction, and agriculture. In fact, according to the Bank of Thailand, domestic commercial banks have primarily been lending to the following business sectors (in decreasing order of share size): manufacturing, trade, export and import, and personal consumption. Mining, construction and agriculture sectors received substantially smaller shares of the domestic commercial banks' lending. In conclusion, there appears to be some consistency between the distribution of FLs (see Table 25) and the lending pattern of domestic commercial banks.

Foreign Borrowing of Commercial Banks: A Brief Analysis Finally, we wish to present a brief analysis of the foreign borrowing of the commercial banking system. There are some distinctive and possibly limiting features regarding the data on commercial banks' foreign borrowing that warrant mention:

- According to the Bank of Thailand, all commercial bank borrowings are short-term, with maturities of less than one year.

- Detailed data on disbursements, commitments, terms of borrowing, and sources of funds are publicly unavailable. We have used, therefore, only the outstanding debt data on the commercial banks' borrowings from banks abroad.
- Data on private sector FLs in previous sections do not include the borrowings of commercial banks.

Due to these above features, it is difficult to make a meaningful comparison between the foreign borrowing of the commercial banking system and that of other real private or public sectors.

Moreover, since foreign borrowings of commercial banks were only short-term, it is difficult to clearly determine whether banks in Thailand functioned as intermediaries between domestic firms and foreign lenders or not. If the capital needs of the domestic business sector had been mainly medium- or long-term, then commercial banks would not have functioned solely as intermediaries; it appears, instead, that the banks' borrowing from abroad was for their own temporary liquidity purposes, such as for foreign exchange transactions. On the other hand, if domestic firms had required short-term capital from foreign sources, it is possible that the banks could have functioned as intermediaries. However—as a note of caution—the prevalence of short-term FLs borrowed by the private sector does not necessarily imply that commercial banks functioned as foreign capital intermediaries. We cannot conclude, therefore, from current data whether banks in Thailand functioned as foreign capital intermediaries. Such a conclusion can be reached only when it is known exactly how the banks use or allocate their borrowed foreign capital; such information, however, is publicly unavailable.

Consider also Table 26, in which the outstanding debt of the commercial banks' borrowing is presented and classified according to source of funds or credits. From 1970 to 1989, commercial banks' borrowing share from the Bank of Thailand and from domestic commercial banks increased steadily, whereas the commercial banks' borrowing share from banks abroad continually decreased (i.e. the share of borrowing from banks abroad in the banks' total outstanding debt dropped from 70.53 percent from 1970 to 1974 to 46.75 percent from 1987 to 1989). It is also noted that commercial banks' share of borrowing from banks abroad was still fairly substantial in comparison to that of domestic banks' borrowing from the Bank of Thailand. In fact, the share of borrowing from banks abroad was 59.8 percent in 1990, representing the largest source. So, although the commercial banks in Thailand relied less on foreign banks, they still remained their most important source of funds or credits.

Table 27 presents the net flows of the commercial banks' borrowing from banks abroad, the capital account of the country, and the ratio between these two variables, the aim being to show the importance of the net flows of the commercial banks' foreign borrowing within the capital movement of the country. From 1971 to 1979, the ratio between the net flows and the capital account was around 20 percent. The commercial banks' foreign borrowing net outflows from 1980 to 1986 were negative; however, the net outflows were again positive from 1987 to 1989 with a ratio of 14 percent. In comparing the time-series of the commercial banks' net flows of foreign borrowing with those of the country's capital account (e.g. from the S.D./MEAN ratio), from 1971 to 1990 the net flows of commercial banks' foreign borrowing appear more volatile than the flows of the capital account. This apparent volatility may be due to the fact that the banks' foreign borrowings were purely short-term, allowing funds to move in and out of the country in a relatively

swift manner. (Note that from 1980 to 1986 the baht regularly depreciated against the U.S. dollar. It could be that the net outflows of the banks' foreign borrowing during this period were related to exchange rate speculation.)

We conclude, therefore, as regards the commercial banking system in Thailand, that external creditors, particularly banks abroad, are still the systems most important source of borrowed capital, although their share has declined. Moreover, because of the volatile nature of the commercial banks' net flows of foreign borrowing, it is difficult to assess the precise contribution of the commercial banks' foreign borrowing to the country's aggregate capital movement.

Table 26 Commercial Banks' Outstanding Borrowing

(Percent of Total)

Year	1970	1971	1972	1973	1974	1975	1976
From the Bank of Thailand	19.6658	27.9207	25.7285	28.6999	32.6580	46.2605	35.9225
From Domestic Banks	0.1923	1.3505	3.2767	2.5934	5.2689	2.6950	4.2884
From Banks Abroad	80.1419	70.7289	70.9948	68.7067	62.0731	51.0445	59.7892
Total	100	100	100	100	100	100	100
Year	**1977**	**1978**	**1979**	**1980**	**1981**	**1982**	**1983**
From the Bank of Thailand	28.3362	24.5575	31.5820	38.4763	38.8993	42.4037	36.1884
From Domestic Banks	1.6648	0.6166	1.5628	2.4743	3.0816	5.4306	4.1259
From Banks Abroad	69.9990	74.8259	66.8552	59.0494	58.0191	52.1657	59.6857
Total	100	100	100	100	100	100	100
Year	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**
From the Bank of Thailand	33.2159	36.9731	53.5652	57.4784	48.9107	32.8080	30.2865
From Domestic Banks	2.9396	6.7488	5.0455	2.4955	6.2049	11.8616	9.8658
From Banks Abroad	63.8445	56.2781	41.3893	40.0261	44.8844	55.3304	59.8477
Total	100	100	100	100	100	100	100

Year	Average 1970-1974	Average 1975-1979	Average 1980-1982	Average 1983-1986	Average 1987-1989
From the Bank of Thailand	26.9346	33.3317	39.9264	39.9857	46.3990
From Domestic Banks	2.5363	2.1655	3.6622	4.7150	6.8540
From Banks Abroad	70.5291	64.5028	56.4114	55.2994	46.7469
Total	100	100	100	100	100

Source: Bank of Thailand.

Table 27 Commercial Banks' Net Flows of Foreign Borrowing

(US$ millions)

Year	1970	1971	1972	1973	1974
Banks' Borrowing from Banks Abroad (Outstanding)	154.25	157.875	167.6058	334.5635	371.735
Net Flows of Commercial Banks' Foreign Borrowing	N.A.	3.625	9.730769	166.9578	37.17144
Thailand's Capital Account	168	164	247	262	565
Banks' Net Flows/Capital Account (%)	N.A.	2.210366	3.939583	63.72434	6.579016
Net Flows of Private Short-term Loans (Disbursements-repayments-interest Payments)	N.A.	N.A.	N.A.	N.A.	N.A.
Banks' Net Flows/Net Flows of Private Short-term (%)	N.A.	N.A.	N.A.	N.A.	N.A.
Year	**1975**	**1976**	**1977**	**1978**	**1979**
Banks' Borrowing from Banks Abroad (Outstanding)	395.093	451.2059	720.7598	1219.748	1734.742
Net Flows of Commercial Banks' Foreign Borrowing	23.35802	56.11289	269.5539	498.9884	514.9939
Thailand's Capital Account	555	521	1089	1128	1997
Banks' Net Flows/Capital Account (%)	4.208652	10.77023	24.75243	44.23656	25.78838
Net Flows of Private Short-term Loans (Disbursements-repayments-interest Payments)	N.A.	N.A.	N.A.	N.A.	74.285
Banks' Net Flows/Net Flows of Private Short-term (%)	N.A.	N.A.	N.A.	N.A.	693.2677
Year	**1980**	**1981**	**1982**	**1983**	**1984**
Banks' Borrowing from Banks Abroad (Outstanding)	1252.466	1377.832	1118.913	1675.609	1973.861
Net Flows of Commercial Banks' Foreign Borrowing	-482.276	125.366	-258.919	556.6957	298.2523
Thailand's Capital Account	1865	2612	773	2554	2639
Banks' Net Flows/Capital Account (%)	-25.8593	4.799616	-33.4954	21.79701	11.30172
Net Flows of Private Short-term Loans (Disbursements-repayments-interest Payments)	338.406	133.82	185.927	-151.196	391.271
Banks' Net Flows/Net Flows of Private Short-term (%)	-142.514	93.68253	-139.259	-368.195	76.22653

(Continued on page 74)

Table 27 (Continued)

(US$ millions)

Year	1985	1986	1987	1988	1989
Banks' Borrowing from Banks Abroad (Outstanding)	1462.97	988.1364	1137.846	2088.796	2704.778
Net Flows of Commercial Banks' Foreign Borrowing	-510.891	-474.833	149.7091	950.9503	615.9821
Thailand's Capital Account	1642	466	1310	4250	7527
Banks' Net Flows/ Capital Account (%)	-31.114	-101.896	11.42817	22.3753	8.183632
Net Flows of Private Short-term Loans (Disbursements-repayments-interest Payments)	-56.89	-20.454	-268.046	505.444	543.831
Banks' Net Flows/Net Flows of Private Short-term (%)	898.0332	2321.47	-55.852	188.1416	113.2672

Year	1990	Average 1971-74	Average 1975-79	Average 1980-82	Average 1983-86
Banks' Borrowing from Banks Abroad (Outstanding)	3180.211	257.9448	904.3098	1249.737	1525.144
Net Flows of Commercial Banks' Foreign Borrowing	475.434	54.37124	272.6014	-205.276	-32.6942
Thailand's Capital Account	10517	309.5	1058	1750	1825.25
Banks' Net Flows/ Capital Account (%)	4.520624	19.11333	21.95125	-18.185	-24.9777
Net Flows of Private Short-term Loans (Disbursements-repayments-interest Payments)	3090.239	N.A.	N.A.	219.3843	40.68275
Banks' Net Flows/Net Flows of Private Short-term (%)	15.38502	N.A.	N.A.	-62.6967	731.8838

Year	Average 1987-89	S.D.	Mean	S.D./Mean
Banks' Borrowing from Banks Abroad (Outstanding)	1977.14	900.8487	1202.744	0.748994
Net Flows of Commercial Banks' Foreign Borrowing	572.2138	424.6027	180.73	2.349376
Thailand's Capital Account	4362.333	2530.121	2040.524	1.239937
Banks' Net Flows/Capital Account (%)	13.9957	32.94629	4.192421	7.858536
Net Flows of Private short-term Loans (Disbursements-repayments-interest Payments)	260.4097	848.1043	397.2198	2.135101
Banks' Net Flows/Net Flows of Private short-term (%)	81.85225	693.4224	309.3919	2.241243

Source: Bank of Thailand and IMF's IFS.

Chapter 3

Quantitative Factors that Determine Foreign Loans

This chapter examines, in a quantitative manner, the economic factors that influence or determine a country's drawing of FLs. The discussion is based mainly on the regression results available. Section one describes a basic model for a country's FL drawings. Section two presents regression models for Thailand's FLs. The third section presents basic regression models for other developing countries, including those in the Asia-Pacific region.

AN INVESTMENT MODEL FOR FOREIGN LOANS

A neoclassical model of investment states that an investment only takes place if the future returns of the investment project are expected to be greater than its cost. Firms continue to invest only so long as the marginal productivity of the capital exceeds the cost. In a world with symmetric information, perfect capital markets and zero transaction costs, or tax distortions—a version of the Modigliani-Miller theorem—investment should not depend on either the source of funds or the form of capital. In a less-than-perfect world, however, investment may face a financing constraint. A simple version of a financing constraint model of investment (or a financing hierarchy hypothesis) is as follows: because of financial asymmetry, firms will use inside capital or internal funds first for investment. Borrowing or outside capital will only be needed if internal funds alone are insufficient to finance an entire project. According to a neoclassical investment model with a financing constraint, therefore, factors that would influence the firms' investment behavior are:

- the expected returns from the investment project
- the cost of funds
- the amount of internal net capital that the firms have

If FLs are viewed as capital that is yet to be invested in a domestic economy, a neoclassical investment model may be used as a framework to explain a country's demand for FLs. On the one hand, the borrowing country's expected value

of future output might be considered as a return on the external borrowing or FL drawing. On the other, the fundamental cost of borrowing from abroad should include interest payments and exchange rate risk or volatility. If a financing constraint line of reasoning is taken, foreign borrowing should be inversely proportional to the net domestic capital resources or internal funds that the borrowing country has. The more domestic resources available, the less FLs needed.

A country's supply of FLs can also depend on:

- the liquidity situation in the world financial markets that is reflected by the world interest rate
- the reputation, debt-service risk, and repudiation history of the borrowing country

Countries that are anticipated to have difficulty in servicing their debts, plus those with debt repudiation records, might be unable to obtain new loans. The debt-service risk should be low if the borrowing country is to generate high value on future output. In other words, the higher the expected value of future output, the lower the repudiation risk perceived by the lenders, ceteris paribus.[1] Lenders might be more willing, therefore, to supply loans if they believe that the output prospects of the borrowing country are positive.

The equilibrium FL drawing (i.e. the FL disbursement data we actually observe) naturally depends on all the supply-demand factors mentioned earlier, although they particularly depend on:

- the differential between domestic and world interest rates
- exchange rate volatility
- domestic internal capital resources
- the expected output of the borrowing country
- the repudiation or debt-service risk

The regression models that follow reflect all of these relevant supply-demand factors.

MODELS FOR THAILAND'S FOREIGN LOANS

The following regression models use the estimated one-period-ahead output, E(GNPt+1), as a proxy for the expected value of the country's future output. E(GNPt+1) is computed by simply regressing the actual GNPt+1 on GNPt-1; then the regression coefficients are used to calculate the estimated values of GNPt+1.[2]

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[1] The implicit assumption here is that the government of the borrowing country can and has an incentive to allocate part of the output to debt service payment via, for example, a fiscal policy.

[2] Regressing GNP+1 on GNPt-1 and using the estimated values as a proxy of the expected future output is totally arbitrary as far as econometric modeling is concerned. We did this, however, simply to avoid the problem of expectation formation in the model. Alternatively, one may say that the expectation in our model is ad hoc or exogenous.

For the aggregate economy, the net flows of internal capital resources that the country can utilize in its investment projects are usually represented by the current account or trade balance. Thus, from the macroeconomic point of view, we know that

Current Account Balance (Surplus) = (S-I) + (T-G),

where (S-I) is the private savings-investment gap, and (T-G) is the government budget surplus.

Also, let TL be the total drawings of the Thai public and private sectors' long-term FLs, let (X-M) be the country's current trade balance, and let R be the current interest rate differential between the average domestic interest rate (the average between the domestic interbank rate and the Central bank's discount rate) and the average foreign interest rate (the average between the U.S. lending rate and the Euro dollar London rate) adjusted with the depreciation between the baht and the U.S. dollar. Also, let DSRt-1 be the country's total debt service-to-export ratio as during the previous period. The economic rationale behind the inclusion of DSRt-1 in the regression is as follows:

- A high previous debt-service ratio period could be a signal to foreign lenders that the borrowing country might have some difficulty in servicing future FLs. As a result, the lenders might reduce their lending exposures to the country.
- As a matter of debt management policy, a borrowing country might choose to lower its FL disbursements if the previous debt service period was found to be "too high." Obviously, this is a type of feed-back rule that aims to stabilize a country's external outstanding debts.

The data used is from the World Debt Tables and the Bank of Thailand. The study period is from 1972 to 1989, and the results are shown in equations (1.1) to (1.3) below (t-statistics are shown in parentheses).

(1.1) $TL_t = -375.3334 + 0.0474\, E(GNP_{t+1}) - 0.3338\, (X-M)_t$
(-2.345) (10.982) (-4.266)

Adjusted R-squared = 0.926, n = 18, F = 106.71, D.W. = 1.72

(1.2) $TL_t = -228.4869 + 0.0459\, E(GNP_{t+1}) - 0.2907\, (X-M)_t + 7.1725\, R_t + AR(1)$
(-0.462) (4.919) (-2.346) (0.145)

Adjusted R-squared = 0.756, n = 13, F = 10.277, D.W. = 1.87

(1.3) $TL_t = -772.7375 + 0.0423\, E(GNP_{t+1}) - 0.3652\, (X-M)_t + 35.9863\, DSR_{t-1} + AR(1)$
(-2.357) (6.916) (-4.469) (1.334)

Adjusted R-squared = 0.914, n = 17, F = 43.55, D.W. = 1.98

These regression equations confirm our basic theory that the expected value of a country's future output as well as its internal capital resources determine the country's current FL drawings. The large negative sign of (X-M) in equations (1.1) to (1.3) indicates that if a country has more of its own net capital resources, it will borrow less from abroad. The positive sign of E(GNPt+1) shows that a country will require more long-term FLs if future output is expected to increase. It should also be noted that both the current interest rate differential, Rt, and the previous period debt-service ratio, DSRt-1, are not statistically significant in determining a country's total long-term FL drawings. It appears that Thailand's foreign borrowing, therefore, has not been constrained by the country's past debt-service ratio. The significance of these variables will be discussed in Chapter 4, wherein the country's FL drawings are examined in more detail.

To obtain a more focused view of Thailand's borrowings from abroad, three disaggregated foreign borrowing models for the country's public sector, private sector, and commercial banks are presented.

The first section examines the public sector's drawing of FLs. The next two sections look at the drawings of the private sector and commercial banks, respectively.

The Public Sector's Drawing of Foreign Loans

Here, the public sector's FLs include the central government's external loans, as well as those guaranteed by the government. Public and publicly-guaranteed FLs are long-term in nature. Hence, only long-term FLs are examined, as these have been the major part of the public sector's total foreign borrowing. Instead of using (X-M) to represent the net capital resources, the government finance surplus, (T-G), is used as an indicator of the net flows of total government resources. Again, E(GNPt+1) is used as a proxy or instrument for the country's expected value of future output. The study period is 1970 to 1989. Data is from the Bank of Thailand and the World Debt Tables; all monetary units are in U.S. dollars.

Notations:

GL = the public sector's drawings of long-term FLs.
R = the difference between the average domestic interest rate and the average foreign interest rate, adjusted for the exchange rate depreciation between the baht and the U.S. dollar.
(T-G) = the government finance surplus.
D1 = a dummy representing the country's exchange rate volatility. D1 = 1 if the percentage depreciation of the baht per U.S. dollar is greater than or equal to 2 percent. D1 = 1 during 1981, 1982, 1984, and 1985. D1 = 0, otherwise.
D2 = a dummy representing the period of the international debt crisis. D2 = 1 from 1982 to 1986, and D2 = 0, otherwise.
DSRt-1 = the country's total debt service-to-export ratio at time t-1.

Equations (2.1) to (2.5) present models for the public sector's drawing of long-term FLs. The summarized results are as follows:

- The larger the current government budget surplus, the smaller the drawings of the public sector's long-term FLs. (T-G) is statistically significant, and the coefficient is negative in every equation.

- The public sector will receive more loans if the expected future output is high. E(GNPt+1) does have a significantly positive impact on the public sector's current drawing of FLs in all equations.
- The current interest rate differential, Rt, does not significantly influence the drawing of FLs by the public sector. Rt is not statistically significant in the equation.
- The dummy variable D1 is not significant in determining the public sector's FL drawing. In other words, in the years that the exchange rate depreciation (baht against U.S. dollar) was greater than or equal to 2 percent, the public sector appeared not to change its long-term FL drawing behavior.
- The dummy variable D2 is not significant in determining the public sector's FLs. The years of international turmoil accompanying the LDC debt crisis had no effect on the public sector's drawing of FLs.
- The previous debt-service ratio period, DSRt-1, evidently does not influence the current drawing of FLs by the public sector. The coefficient of DSRt-1 is statistically the same as zero.

Discussion: The results that both (T-G) and E(GNPt+1) are significant in determining the public sectors' drawing of FLs are consistent with the theory and findings resultant from the basic aggregate model equation (1), i.e. the net capital resource and the country's expected future output are indeed important.

The finding that Rt is not significant in determining public loans is not surprising. Duangmanee (1988) mentions a similar result. In her study, the interest rate differential is found to be insignificant even in a monthly-data study, suggesting that the decision by the public sector to obtain long-term FLs was not influenced by the current interest rate differential. This finding, however, may have to do with the long-term nature of the loans. In long-term loan relationships, the interest rates that really matter are the future ones when the actual debt service has to be paid, not the current ones. Note also that the insignificance of Rt is consistent with what was observed in equation (1.2) of the country's aggregate long-term FL disbursement model.

The finding that D1 is not significantly different from zero implies that the exchange rate volatility that occurred during the period that D1=1 did not deter the public sector from borrowing abroad. This may be because borrowers of long-term loans are more concerned with possible exchange rate volatility when the actual debt service has to be paid, rather than with current volatility which is regarded as temporary.

The finding that the coefficient of D2 is not significantly different from zero suggests that during the international debt crisis of 1982 to 1986 international lenders did not consider Thailand a relatively bad risk. The LDC debt crisis, therefore, appeared not to affect the Thai public sector's long-term borrowing from abroad.

The finding that DSRt-1 is not significant means that the current drawing of public sector long-term FLs was not influenced by the previous debt service status period of the country. It further suggests that either the public sector appeared not to have a type of feedback rule or policy linking the current drawing of FLs and the past debt-service ratio, or that foreign lenders were not particularly concerned about

the country's past debt-service ratio in supplying current loans to the public sector. Note also that the insignificance of DSRt-1 is consistent with that in equation (1.3).

Models for Public Sector Long-term Foreign Loans

(2.1) GLt = - 2509.3883 + 0.03979 E(GNPt+1) - 0.1800 (T-G)t
(-0.3318) (2.973) (-1.714)

+ AR(1)

Adjusted R-squared = 0.878, n = 19, F = 43.99, D.W. = 1.99

(2.2) GLt = 148.477 + 0.06267 E(GNPt+1) - 0.2065 (T-G)t
(0.038) (3.206) (-1.213)

+ 4.3456 Rt + ARMA(1,2)
(0.127)

Adjusted R-squared = 0.512, n = 13, F = 3.10, D.W. = 1.84

(2.3) GLt = -193.7791 + 0.02255 E(GNPt+1) - 0.1520 (T-G)t
(-0.413) (2.385) (-1.369)

+ 125.0223 D1 + AR(1)
(1.031)

Adjusted R-squared = 0.871, n = 19, F = 31.31, D.W. = 1.91

(2.4) GLt = -30144.76 + 0.04990 E(GNPt+1) - 0.2441 (T-G)t
(-0.037) (3.682) (-2.354)

- 202.5250 D2 + AR(1)
(-1.376)

Adjusted R-squared = 0.888, n = 19, F = 36.85 D.W. = 1.89

(2.5) GLt = -38706.1 + 0.05155 E(GNPt+1) - 0.1747 (T-G)t
(-0.044) (3.759) (-1.904)

+ 21.1284 DSRt-1 + AR(1)
(1.311)

Adjusted R-squared = 0.887, n = 19, F = 36.41, D.W. = 1.94

The Private Sector's Drawing of Foreign Loans

Long-term Foreign Loans To examine the long-term FL drawing of the private sector, it is important to note that here the private sector's FLs do not include trade credit. To explain trade credit behavior, one needs a fundamentally different and more complicated model that can take into account the import-trade behavior of the private sector. To represent the net domestic private capital resource

available, instead of using (X-M) as the net capital resource, we will use the private investment-savings gap, (I-S). The larger the investment-savings gap, the less the net domestic capital resource available. Again, we will use the country's expected future output, E(GNPt+1), as a proxy for the expected value of the private sector's future returns or output. Data is from the Bank of Thailand and the World Debt Tables. The study period is from 1970 to 1989.

Notations:

PL = the private sector's drawings of long-term FLs, excluding trade credit.
(I-S) = the private sector's investment-savings gap.
D3 = a dummy variable representing the period when FL interest payments were exempt from withholding tax. In particular, we set D3 = 1 from 1980 to 1983, and D3 = 0, otherwise.

Equations (3.1) to (3.6) represent the models for the private sector's drawing of long-term FLs (t-statistics are in parentheses). The main regression results are summarized below:

- The investment-savings gap, (I-S), is found to be significant in explaining the private sector's drawing of long-term FLs, and the coefficient is positive in every equation.
- The country's expected output, E(GNPt+1), is found to be significant in determining private sector long-term FL drawings, and the coefficient has a positive sign in all equations.
- The current interest rate differential, Rt, is not significant in determining long-term FL drawings. The coefficient of Rt is found to be not statistically different from zero.
- The dummy variables D1, D2, and D3 are all statistically insignificant in explaining private sector long-term FL drawings. Their regression coefficients are not statistically different from zero.
- The previous debt-service ratio period, DSRt-1, does not influence the current drawing of private sector long-term FLs. The coefficient of DSRt-1 is not significantly different from zero.

Discussion: Both domestic internal capital resources and the country's expected future output are important. In particular, the positive coefficient of (I-S) means that the larger the domestic investment-savings gap, the more the private sector needs to borrow from abroad. The positive coefficient of E(GNPt+1) means that the private sector will definitely acquire more long-term FLs if the country's expected future output increases. These results, therefore, appear to support our basic theory.

The statistical insignificance of Rt means that the current interest rate differential does not statistically matter when determining the private sector's drawing of long-term FLs. In fact, this result is similar to those of the previous section—that this result may also be influenced by the long-term nature of the FLs.

The insignificance of the dummy variables D1, D2 and D3 means that during the period of the exchange rate depreciation (D1 = 1), the period of the great

LDC debt crisis (D2 = 1), and the period when tax exemption was withheld (D3 = 1), long-term FL drawings by the private sector were evidently not affected.

Finally, the insignificance of DSRt-1 means that the country's previous debt-service ratio did not hamper the private sector's current drawing of long-term FLs.

Models for the Private Sector's Long-term Foreign Loans

(3.1) PLt = - 295.6852 + 0.0220 E(GNPt+1) + 0.1671 (I-S)t
(-2.118) (6.286) (2.221)

Adjusted R-squared = 0.713, n = 20, F = 24.64, D.W. = 1.93

(3.2) PLt = - 442.7230 + 0.0250 E(GNPt+1) + 0.1891 (I-S)t
(-1.326) (3.742) (1.920)

- 16.2029 Rt
(-0.351)

Adjusted R-squared = 0.540, n = 14, F = 6.08, D.W. = 1.90

(3.3) PLt = -304.0073 + 0.0231 E(GNPt+1) + 0.1680 (I-S)t
(-2.150) (6.106) (2.210)

- 141.8182 D1
(-0.813)

Adjusted R-squared = 0.708, n = 20, F = 16.32, D.W. = 2.08

(3.4) PLt = - 301.7221 + 0.0238 E(GNPt+1) + 0.1549 (I-S)t
(-2.158) (6.050) (2.030)

- 166.2437 D2 (-0.992)

Adjusted R-squared = 0.713, n = 20, F = 16.74, D.W. = 2.12

(3.5) PLt = - 319.9929 + 0.0229 E(GNPt+1) + 0.2253 (I-S)t
(-2.352) (6.655) (2.721)

- 267.2443 D3
(-1.474)

Adjusted R-squared = 0.732, n = 20, F = 18.29, D.W. = 2.22

(3.6) PLt = 150.8115 + 0.02578 E(GNPt+1) + 0.1027 (I-S)t
(0.426) (5.885) (1.177)

- 34.4088 DSRt-1
(-1.368)

Adjusted R-squared = 0.727, n = 20, F = 17.89, D.W. = 2.02

Short-term Foreign Loans For the short-term FL drawings of the private sector, the regression results are shown in equations (3.7) to (3.12). Let PSt denote the private sector's current short-term FL drawing period. The regression results are summarized as follows:

- The private sector's investment-savings gap, (I-S), and the country's expected output, E(GNPt+1), are again significant in determining short-term FL disbursements.
- The current interest rate differential, Rt, is not statistically significant in determining the private sector's drawing of short-term FLs.
- The dummy variable D1 that represents the exchange rate depreciation is positively significant in explaining private sector drawings of short-term FLs. As a result, the private sector drew more, rather than less, short-term FLs during the period of exchange rate volatility.
- The dummy variables D2 and D3, representing the international LDC debt crisis and the withholding of tax exemption, respectively, are not statistically significant in determining private sector short-term FL disbursement. These two events did not seem to affect short-term loan drawings by the private sector.
- The country's previous debt-service ratio period, DSRt-1, is evidently not significant in explaining the current short-term FL drawings of the private sector (though the regression coefficient has the expected negative sign).
- Finally, as a note of caution, the regression analysis of short-term FLs might suffer because of the small number of observations and the leeway taken by the author. Moreover, the annually averaged nature of data used in the regression does not capture the short-term nature of the private sector's FL disbursements.

Models for the Private Sector's Short-term Foreign Loans

$$(3.7)\quad PSt = \underset{(0.865)}{779.1455} + \underset{(2.887)}{0.0517}\, E(GNPt+1) + \underset{(1.755)}{0.3319}\, (I\text{-}S)t$$

Adjusted R-squared = 0.473, n = 11, F = 5.49, D.W. = 1.96

$$(3.8)\quad PSt = \underset{(1.652)}{1445.43} + \underset{(2.283)}{0.0403}\, E(GNPt+1) + \underset{(2.485)}{0.4015}\, (I\text{-}S)t$$

$$- \underset{(-1.223)}{119.1675}\, Rt + AR(1)$$

Adjusted R-squared = 0.414, n = 10, F = 2.59, D.W. = 2.00

(3.9) PSt = 781.246 + 0.0440 E(GNPt+1) + 0.4513 (I-S)t
(1.739) (5.239) (5.289)

+ 747.0700 D1 + AR(1)
(3.512)

Adjusted R-squared = 0.739, n = 10, F = 7.36, D.W. = 2.09

(3.10) PSt = 525.303 + 0.0526 E(GNPt+1) + 0.3656 (I-S)t
(0.552) (2.903) (1.879)

+ 391.643 D2
(0.913)

Adjusted R-squared = 0.462, n = 11, F = 3.86, D.W. = 2.10

(3.11) PSt = 430.263 + 0.0552 E(GNPt+1) + 0.2837 (I-S)t
(0.331) (2.236) (1.112)

+ 703.580 D3 + AR(1)
(0.970)

Adjusted R-squared = 0.361, n = 10, F = 2.27, D.W. = 2.16

(3.12) PSt = 5328.900 + 0.0265 E(GNPt+1) + 0.0297 (I-S)t
(1.828) (1.135) (0.135)

- 170.0836 DSRt-1 + AR(1)
(-1.435)

Adjusted R-squared = 0.430, n = 10, F = 2.70, D.W. = 2.15

The Net Flows of Thai Commercial Banks' Foreign Borrowing

The only data available concerning commercial banks' foreign borrowing is that on borrowing outstanding. We can, therefore, only study the changes in this data, i.e. the net flows of the banks' foreign borrowing, and not actual FL disbursements as studied in previous sections. In this section, as an indicator of the net capital resource flows, we will use the difference between the banks' lending and deposit flows, the (L-D). Naturally, the larger the (L-D), the smaller the net internal capital resource flows available to the banks. We will also use the country's expected output, E(GNPt+1), as a proxy for the expected future returns or output of the banks. It should also be remembered that all foreign borrowing by the commercial banks was short-term. Data is from the Bank of Thailand; the study period is from 1970 to 1989.

Notations:

BL = the Thai commercial banks' net flows of foreign borrowing.
(L-D) = the difference between the banks' aggregate lending and deposit flows.

Equations (4.1) to (4.6) represent the models for the commercial banks' foreign borrowing (t-statistics are in parentheses.) The regression results are summarized as follows:

- The flows of the banks' net internal capital resources, (L-D), are highly significant in determining the net flows of the banks' foreign borrowing, and the coefficient of (L-D) is clearly positive in all equations.
- The country's expected output, E(GNPt+1), is significant in explaining the current net flows of the banks' foreign borrowing. The coefficient is positive in all equations.
- The current interest rate differential, Rt, is not evidently significant in determining the net flows of the banks' foreign borrowing.
- The dummy variable D1 is found to be statistically significant with a positive coefficient, but the dummy variable D2 is significant only at the 80 percent confidence level. The regression coefficient of D2 is also positive. The dummy variable D3, however, is not significant at all in explaining the banks' foreign borrowing.
- The previous debt service ratio period, DSRt-1, is found to be not statistically significant in explaining the banks' current foreign borrowing.

Discussion: As expected, both the banks' internal capital resource flows and the country's expected future output are positively significant in explaining the banks' net flows of foreign borrowing. In particular, the larger the banks' lending-deposit flow gap, (L-D), the greater the banks' need to borrow from abroad. Also, the larger the country's expected output, E(GNPt+1), the higher the net flows of foreign borrowing that the banks will obtain.

Since the banks' foreign borrowings were short-term, one might expect to see that the current interest rate differential, Rt, significantly explains or determines the net flows of the banks' foreign borrowing. On the contrary, we find that the regression coefficient of Rt is similar to zero. Although it is difficult to explain this seemingly "irrational" behavior, it might be that the annually averaged data of Rt does not properly reflect or represent the actual interest rate differential at the time the banks decided to borrow from abroad. (A monthly-data study by Duangmanee in 1988, however, does not support this view.) Alternatively, it could be that the banks' foreign borrowing was not at all sensitive to the interest rate differential (perhaps due to the imperfect, regulated and protected structure of the Th financial markets), but that the foreign borrowing behavior was governed by c r factors instead. Note that the insignificance of Rt is markedly consistent with the evidence discussed in previous sections.

Similar to the private sector's short-term loans, we find that the banks' net borrowing from abroad was larger during the period of exchange rate depreciation. (D1 is evidently significant with a positive coefficient.) Moreover, the banks' foreign borrowing during the period was unaffected by the international debt crisis (D2 = 1). On the contrary, during this period the banks' net foreign borrowing flows were systematically larger, for the coefficient D2 is significantly positive at the 80 percent confidence level. The results are interpreted as follows:

During the LDC debt crisis, the Thai banks were not considered high risk borrowers by foreign creditors, especially when compared with those in Latin

America. (In fact, the country's credit rating improved during this period; it was forty-third globally in 1982 and thirty-third in 1986.) Thai banks were able, therefore, to draw more loans during this period.

We found that the Bank of Thailand's withholding of the tax exemption measure did not, however, alter the banks' foreign borrowing behavior, for the dummy variable D3 is statistically insignificant. Moreover, the banks' foreign borrowing did not seem to be affected by the country's previous debt-service ratio period, for the coefficient of DSRt-1 is not statistically different from zero. Please see also the discussion in previous sections.

Models for the Commercial Banks' Foreign Borrowing

(4.1) BLt = 31.6171 + 0.00409 E(GNPt+1) + 0.4480 (L-D)t
(0.648) (3.186) (10.596)

+ AR(1)

Adjusted R-squared = 0.869, n = 19, F = 40.71, D.W. = 2.01

(4.2) BLt = 185.2869 + 0.00143 E(GNPt+1) + 0.4705 (L-D)t
(1.658) (0.626) (9.663)

- 18.3227 Rt
(-1.080)

Adjusted R-squared = 0.887, n = 14, F = 35.18, D.W. = 1.98

(4.3) BLt = 39.4607 + 0.00321 E(GNPt+1) + 0.4930 (L-D)t
(0.959) (2.673) (10.173)

+ 122.9579 D1 + AR(1)
(1.764)

Adjusted R-squared = 0.884, n = 19, F = 35.39, D.W. = 2.04

(4.4) BLt = 43.7432 + 0.00305 E(GNPt+1) + 0.4939 (L-D)t
(1.048) (2.362) (9.918)

+ 102.7692 D2 + AR(1)
(1.549)

Adjusted R-squared = 0.879, n = 19, F = 33.75, D.W. = 2.13

(4.5) BLt = 30.7543 + 0.00404 E(GNPt+1) + 0.4507 (L-D)t
(0.618) (3.021) (10.162)

+ 12.1091 D3 + AR(1)
(0.194)

Adjusted R-squared = 0.860, n = 19, F = 28.58, D.W. = 2.02

(4.6) BLt = 43.1307 + 0.00420 E(GNPt+1) + 0.4459 (L-D)t
(0.355) (2.557) (8.881)

- 1.0216 DSRt-1 + AR(1)
(-0.106)

Adjusted R-squared = 0.859, n = 19, F = 28.53, D.W. = 2.01

THE DRAWING OF FOREIGN LOANS BY OTHER COUNTRIES

By utilizing data in the World Debt Tables, we are able to study the total long-term FL drawings of the Total for All Countries and East Asia and the Pacific. Due to the pooling nature of this study, we will omit some country-specific variables, such as interest rate differentials and dummy variables, but we will regress the total drawings of the long-term FLs (TL) on the trade balance (X-M), the expected next-period output (E(GNPt+1)), and the past debt-service ratio (DSRt-1). The regression results are shown in equations (5.1) to (5.2) and (6.1) to (6.2) (t statistics are shown in parentheses).

We can see from equations (5.1) to (5.2) and (6.1) to (6.2) that the net capital resource, (X-M), is statistically significant in explaining the total drawings of long-term FLs, TLt, of both groups, although not at a high confidence level. This result is consistent, therefore, with that of Thailand's, as was observed and discussed in previous sections. The expected future output, E(GNPt+1), however, is significant (at the 80% confidence level) only in equation (6.1) for East Asia and the Pacific, but not at all significant in the Total for All Countries' equations.

In addition, at the 90 percent confidence level, the past debt-service ratio, DSRt-1, is not statistically significant in either equation (5.2) for the Total for All Countries or equation (6.2) for East Asia and the Pacific. (However, at 80%, DSRt-1 will be significant in equation (5.2), but with a positive coefficient.) The insignificance of DSRt-1 here is consistent with Thailand's FL drawing equations; the previous period debt-service ratio does not seem to influence the current drawing of FLs.

We conclude that equations (5.1) to (5.2) and (6.1) to (6.2) perform substantially worse than the previous regression equations of Thailand's FLs. This may be due to the pooling nature of the study. A country-by-country study might yield a better insight into the FL drawings of these other countries.

The Total for All Countries

(5.1) TLt = 124683.36 - 0.01468 E(GNPt+1) - 0.1345 (X-M)t
(1.561) (-0.527) (-1.479)

+ ARMA(1,1)

Adjusted R-squared = 0.869, n = 16, F = 25.8, D.W. = 1.87

(5.2) TLt = 88538.09 - 0.0161 E(GNPt+1) - 0.1944 (X-M)t
(1.689) (-0.841) (-1.971)

+ 1464.8679 DSRt-1 + ARMA(1,1)
(1.558)

Adjusted R -squared = 0.889, n = 16, F = 25.13, D.W. = 1.90

East Asia and the Pacific

(6.1) TLt = 12276.93 + 0.0200 E(GNPt+1) - 0.1212 (X-M)t
(0.787) (1.516) (-1.340)

+ ARMA(1,1)

Adjusted R-squared = 0.921, n = 16, F = 44.92, D.W. = 2.19

(6.2) TLt = 46735.86 + 0.00003 E(GNPt+1) - 0.1886 (X-M)t
(0.489) (0.003) (-2.168)

+ 232.709 DSRt-1 + ARMA(1,1)
(1.139)

Adjusted R-squared = 0.919, n = 16, F = 35.12, D.W. = 1.86

Conclusions: Examining the various economic factors that affect the drawing of FLs, we have consistently found that the expected output and the domestic net capital resources are the two main determinants of Thailand's FL disbursements. The interest rate differential, the country's past debt-service ratio, and the dummy variables are, however, not as evident in determining the FL disbursements.

Although the trade balance (X-M) is found to be significant in explaining the drawing of the FLs in both the Total for All Countries and East Asia and the Pacific, we were unable to arrive at significant conclusions from the regression equations of these two groups. It is felt that the regression study is plagued by the pooling nature of the data.

Chapter 4

Impacts of Foreign Loans on the Thai Macroeconomy

BASIC ISSUES

Theoretically, FLs as a form of capital should have a positive impact on the investment, production, and growth of debtor countries. The debt burden of the loans, however, must also be considered, since a heavy burden might result in serious macroeconomic implications. For example, substantially large public debt obligations may eventually force the governments of debtor countries to change or revise their policies on taxes and expenditures, such as to increase taxes or to cut spending, in order to service their huge foreign debts. Such increases in fiscal burdens may cause domestic resource reallocation and capital flight problems. Moreover, fiscal policies that are constrained or distorted, because of the large foreign debt burdens, will usually lose their degree of freedom in stabilizing domestic macro variables, such as inflation and unemployment. As for the monetary side, foreign capital flows may have a direct impact on the monetary base and the money supply, and, as a result, may influence the monetary policies of debtor countries. In particular, the authorities may need to keep sterilizing the effects of the FL flows in order to stabilize their domestic quantity of money. In this chapter, we give a brief picture of the impact of FLs, both long-term and short-term, on the Thai macroeconomy. The key macroeconomic variables that we are interested in are:

- the domestic price level
- the domestic real output and its growth rate
- the domestic exchange rate

Furthermore, we will try to determine whether the inflows and outflows of FLs have affected the Thai authorities' fiscal and monetary positions. In particular, we will try to find out whether there were any evident relationships between the FL flows and the government finance, as well as the country's monetary base.

THE METHODOLOGY

To study the macroeconomic impacts of FL flows, we will first simply examine correlation coefficients of some relevant detrended variables. Then, we will take a look at the Granger causality relationships among the level of the variables. The reason that the variables are linearly detrended is that two variables can move together simply because both of them are driven by a common factor, such as time. So, after the variables are detrended, if their correlation coefficient is still significant, it means that the two variables move together even though the shared effect of time is discounted, if not completely eliminated. Of course, correlation cannot tell the direction of "causality." It simply tests whether the detrended variables are statistically independent or not. Furthermore, to determine the robustness of the correlation test, we will examine the bivariate or pairwise Granger causality among the variables. Obviously, both the correlation and the bivariate causality tests are non-structural methods because a formal model, such as a VAR or a simultaneous equation model, would have to be created in order to fully understand the whole structure of the relationships between FL flows and domestic macroeconomic variables. (It is also worth mentioning that such a structural model would be an ambitious undertaking that would probably result in an interesting synthesis between Chapters 3 and 4. The task of creating a large-scale model, however, is beyond the scope of this present research.)

This chapter examines both the correlation coefficients between the linearly detrended values of Thailand's FL flows and those of some major domestic macroeconomic variables as well as the bivariate Granger causality among the level of variables. Data is for 1970-1989 for long-term loans and 1980-1989 for short-term loans. All monetary units are in U.S. dollars, and the sources of data are the Bank of Thailand and the IMF's International Financial Statistics. Results are shown in Tables 28, 29, 30 and 31.

Notations:

TLD	=	the Total (Public and Private) Long-term FL Disbursements.
TSD	=	the Total (Public and Private) Short-term FL Disbursements.
DSLP	=	the Total (Public and Private, including Trade Credit) Debt Service Payments of Long-term FLs.
DSSP	=	the Total (Public and Private, including Trade Credit) Debt Service Payments of Short-term FLs.
Exchange	=	baht per U.S. dollar (annually averaged).
Price	=	the GDP Deflator.
Govt Finance	=	Government Revenue minus Government Expenditure.
NFL	=	Net Flows of Long-term Loans, TLD minus DSLP.
NFS	=	Net Flows of Short-term Loans, TSD minus DSSP.
Growth	=	the Growth Rate of the Real GDP.
RGDP	=	the Country's Real GDP.
Money	=	the Monetary Base (currency plus commercial banks' reserve).
dMoney	=	the Change or Increase in the Monetary Base.

CORRELATION RESULTS AND DISCUSSION

Impacts of the Long-term Foreign Loans

Loans and the Exchange Rate We can see from Table 28 that the detrended value of disbursements of long-term FLs and that of the exchange rate between the baht and U.S. dollar have not been significantly correlated (even though the negative sign might appear to suggest that the loan inflows have been associated with the appreciation of the exchange rate).

Table 28 Correlation Coefficients of Long-term FLs and Macroeconomic Variables

TLD and Exchange	=	- 0.1478
DSLP and Exchange	=	0.6562 (**)
TLD and Price	=	0.5062 (**)
DSLP and Price	=	- 0.2323
TLD and Govt Finance	=	- 0.1261
DSLP and Govt Finance	=	- 0.0046
NFL and Growth	=	- 0.1729
NFL and RGDP	=	0.3825 (*)
NFL and Money	=	- 0.0032
NFL and dMoney	=	- 0.4678 (**)

(*) and (**) mean that the correlation coefficient is significantly different from zero at the 0.9 and 0.95 confidence levels, respectively, with d.f. = n - 2 = 18. The null hypothesis is that the variables are statistically independent, or no meaningful correlation between the variables exists. All variables are linearly detrended.

Although the debt service payments of long-term loans have been significantly associated with the depreciation of the exchange rate, since the correlation coefficient has a positive sign, we may conclude that the debt service payments seem to have a clear depreciatory impact on the baht against the U.S. dollar. The larger the debt service payments, the stronger the U.S. dollar against the baht.

Note further that the direction of the causality results in more debt payments inducing exchange rate depreciation, not vice versa. The reason is obvious: during the period of exchange rate depreciation, domestic borrowers will want to avoid or postpone their foreign debt payments. So exchange rate depreciation should not naturally induce more debt payments. But whenever the borrowers finally make the payments, the demand for foreign currencies will increase, and, therefore, through the natural market mechanism, the baht should depreciate.

Loans and the Price Level Evidently, the disbursements of long-term FLs have been positively associated with the price level—the larger the loan inflows, the higher the price level, meaning that the loan disbursements were inflationary by nature. The debt service payments of long-term loans, however, have not been significantly associated with the price level (although the negative sign would seem to suggest that the debt service payments were somewhat deflationary by nature).

Note that, in theory, a higher domestic price level can induce larger FL inflows, and vice versa, the reason being that a higher domestic price level may result in a higher domestic nominal interest rate (i.e. the Fisher's Effect), and, consequently, it may make borrowing from abroad look more attractive, ceteris paribus. On the other hand, larger loan inflows automatically mean larger domestic spending, and greater liquidity in domestic money markets. So larger FL inflows may cause higher domestic prices. In sum, causality, in theory, may go in both directions.

However, we have suspected from the previous chapter that the loan inflows (both long-term and short-term loans) were not sensitive to the nominal interest rate differential. If this is true, we may conclude that higher domestic price levels do not induce more FL inflows, via the interest rate mechanism, but that the reverse remains true. In other words, if long-term FL inflows were not that sensitive to the interest rate differential, the observed correlation evidence would imply only that more loan inflows cause higher domestic price levels.

Loans and Government Finance For a country with a large foreign debt obligation, growing debt service payments may gradually force the government to try to collect more revenue and/or cut its spending, especially if the country can no longer borrow more new loans from abroad, in order to finance its current debt payments. For a country that is in a precarious FL position, we observe that the debt service payments and the government finance surplus are positively correlated. In other words, sufficiently large and growing debt service obligations can indeed influence the fiscal positions/policies of the debtor country.

For Thailand, we find, however, that both the disbursements and the debt service payments of long-term FLs, especially the latter, have not been correlated with government finance. (Nonetheless, the negative sign of the correlation coefficient between long-term loan inflows and government finance suggests that the FL disbursement took place during periods of government finance deficit. See also the discussion in the previous chapter on the disbursement of public long-term FLs.)

This statistical insignificance of the correlation coefficients means that both inflows and outflows of long-term FLs were not evidently associated with the fiscal positions of the Thai government. As a result, we may conclude that the fiscal positions and fiscal policies of the Thai government were not affected by the country's long-term FL positions; they seem to be quite independent. In other words, the government's fiscal policies were not constrained by the country's FL positions.

Loans and Real Output We can see from Table 28 that the detrended value of net flows (i.e. disbursements minus debt service payments) of long-term FLs has not been associated with the country's growth rate or real GDP. Statistically speaking, the insignificance of the correlation coefficient means that the real GDP growth rate and long-term FL net flows are quite independent. This means that the current long-term FL flows alone are not sufficient or able to capture the movement of the current real GDP growth rate. (The negative sign of the correlation coefficient might appear to suggest, however, that long-term foreign borrowing usually took place during the recession, or declining growth, period of the country.)

On the contrary, the net flows of long-term FLs have been significantly and positively associated with the real GDP of the country (even though the confidence level is only at 0.10). That is, the current long-term loan net flows and the country's current real output have moved together in the same direction, as one may have expected. As a note of caution, however, this evident co-movement between the loan net flows and the real output may not necessarily imply that the current loan net flows cause the current real output. In reality, it might take some time for loan net flows to affect the country's capital stock, and for the capital stock to have an impact on the country's real output, because capital stock accumulation, as well as the production process, takes time. On the other hand, it is theoretically conceivable that real output may induce FLs. For example, good current output may serve as a kind of a collateral signal to foreign lenders that the country's prospects as a borrower are good. (See also the previous chapter for a discussion on the relation between expected output and long-term FL disbursements.)

Loans and the Monetary Base Without any sterilization attempt from monetary authorities, the net flows of FLs and the country's monetary base should be positively correlated. That the monetary base, by definition, includes reserves held by commercial banks, means that any net flows of foreign capital should directly affect this reserve position.

We find, nonetheless, that net flows of long-term FLs have not had any significant correlation with the monetary base of the country. Long-term FL flows and the monetary base were found to be statistically independent. This means that, in reality, the net flows of long-term FLs have influenced neither the monetary base nor, as a result, the money supply of the country.

Moreover, it should be noted that the net flows of long-term loans have been significantly and negatively associated with the change in the monetary base. That is, we find from Table 28 that the larger the net flows of long-term FLs, the smaller the increase in the monetary base. In a hypothetical world without any sterilization, we should find, on the contrary, that the larger the net flows of foreign capital, the larger the increase or change in the monetary base; the capital flows should directly affect the commercial banks' reserve. This observed negative correlation may be due to sterilization attempts from authorities.

These two examples of correlation, therefore, suggest that monetary authorities have been active in sterilizing the monetary impact of long-term FLs. We thus conclude that the flows of FLs did influence the actions of monetary authorities. Had there not been any sterilization or intervention from the government's central bank, the net flows of FLs should have had a clear and positive impact on the country's quantity of money, and, through the monetary mechanism, could have robustly affected more domestic macroeconomic variables, such as price levels and interest rates.

Impacts of Short-term Foreign Loans From the correlation coefficients presented in Table 29, we may summarize the results as follows:

- Both the inflows (disbursements) and the outflows (debt service payments) of the total short-term FLs were not evidently associated with the country's exchange rate (between the baht and the U.S. dollar).
- Both the disbursements and the debt service payments of the country's short-term FLs were not significantly correlated with the country's general price level, the GDP deflator.

- Both the disbursements and the debt service payments of the total short-term FLs were not evidently associated with the Thai government's finance position.
- The current net flows of the country's short-term FLs were not correlated with the current growth rate of the country's real GDP but correlated significantly with the level of the country's real output. The larger the current net flows of short-term FLs, the larger the country's current real output.
- The net flows of short-term FLs were associated with the country's monetary base although the confidence level is lower, at only 0.9. We find that the loan net flows, however, were not significantly correlated with the increase or change in the monetary base. From these two correlation results, we are unable to conclude that the net flows of short-term FLs had a clear and definite impact on the country's quantity of money, for if one insists on a higher statistical confidence level, the loan net flows are not significantly associated with the country's monetary base.

Table 29 Correlation Coefficients of Short-term Foreign Loans and Macroeconomic Variables

TSD and Exchange	=	- 0.3415
DSSP and Exchange	=	- 0.1510
TSD and Price	=	0.4269
DSSP and Price	=	0.4023
TSD and Govt Finance	=	0.5328
DSSP and Govt Finance	=	0.3536
NFS and Growth	=	0.4427
NFS and RGDP	=	0.7255 (**)
NFS and Money	=	0.5823 (*)
NFS and dMoney	=	0.2437

(*) and (**) mean that the correlation coefficient is significantly different from zero at the 0.9 and 0.95 confidence level, respectively, with d.f. = n - 2 = 8. The null hypothesis is that the variables are statistically independent, or no meaningful correlation between the variables exists. All variables are linearly detrended.

Discussion: First, as with long-term FLs, short-term FLs are found to be significantly correlated with the country's real output but not correlated with government finance, the growth rate of the country's real output, or the change in the country's monetary base. The significance of these correlation results was discussed in the previous section. Unlike long-term FLs, however, short-term FLs

have not been associated with the exchange rate and price level. This may be due to the short-term nature of FLs and the annually averaged nature of exchange rate and price level data.

The country's real output is the only macroeconomic variable that has been clearly associated with short-term FL flows. As discussed earlier, this evident correlation, however, does not establish the direction of causality. We can by no means conclude that current short-term FLs will instantaneously create more real domestic output.

Finally, comparing the results in Table 28 with those in Table 29, we can say that, on the whole, short-term FLs seem to have less association with the Thai macroeconomy than do long-term FLs. As a result, long-term FLs should demand relatively more attention and careful management from the Thai authorities, as far as the domestic macroeconomy is concerned.

THE BIVARIATE GRANGER CAUSALITY TESTS

We conducted bivariate causality tests among the level of FL flows and certain domestic macroeconomic variables by imposing two period lags. We found that the causality tests provided only partial support for the preceding correlation tests. The results are summarized as follows:

- It was found that DSLP is Granger caused by Exchange. So the positive correlation between the two variables found on page 91 seems to be robust.
- The positive correlation between TLD and Price, however, may not be totally robust since we find that Price is not Granger caused by TLD.
- The positive correlation between NFL and RGDP seems to be robust since we find significant causality relationships between the two variables and the causality does have both directions.
- The NFL and Money have Granger causality relationships, so the insignificant correlation between the two variables reported earlier may not be quite robust.
- The Govt Finance is not Granger caused by either TLD or DSLP. Thus, it seems robust to conclude that the country's long-term FL flows have not influenced the government finance position. (Moreover, the discovery that Govt Finance Granger caused TLD is in line with what was discussed and observed in Chapter 3.)
- For short-term loans, NFS is Granger caused by RGDP (but not vice versa), so that the positive correlation between the two variables reported on page 93 seems to be robust.
- There was found no Granger causality between NFS and Money, suggesting that the positive correlation between the two variables reported earlier may not be quite robust.
- Govt Finance is not Granger caused by either DSSP or TSD, leading to the robust conclusion that the government finance position has not been influenced by the country's short-term FL flows.

Table 30 Granger Causality Test of Long-term Foreign Loans

	Null Hypothesis	F statistics	Prob
	RGDP is not GC by NFL	6.9623	0.0088
	NFL is not GC by RGDP	21.2687	0.0001
	RGDP is not GC by TLD	8.4475	0.0045
	TLD is not GC by RGDP	39.4874	0.0000
?	Price is not GC by DSLP	3.1310	0.0776
?	DSLP is not GC by Price	2.8613	0.0934
?	Price is not GC by TLD	0.0444	0.9567
	TLD is not GC by Price	9.5535	0.0028
	Exchange is not GC by DSLP	3.4207	0.0640
	DSLP is not GC by Exchange	0.3634	0.7022
?	Exchange is not GC by TLD	4.7920	0.0276
?	TLD is not GC by Exchange	14.1622	0.0005
?	Money is not GC by NFL	3.8784	0.0478
?	NFL is not GC by Money	5.0348	0.0240
	Govt Finance is not GC by DSLP	1.4853	0.2625
?	DSLP is not GC by Govt Finance	3.0935	0.0796
	Govt Finance is not GC by TLD	0.7707	0.4827
	TLD is not GC by Govt Finance	5.1689	0.0223

Note: "GC" means Granger Caused, and
"?" means the result is not in line with the previous correlation test.

Table 31 Granger Causality Test of Short-term Foreign Loans

	Null Hypothesis	F statistics	Prob
?	RGDP is not GC by NFS	1.5671	0.3420
	NFS is not GC by RGDP	6.9678	0.0746
	Price is not GC by DSSP	1.6041	0.3359
?	DSSP is not GC by Price	7.0175	0.0739
	Price is not GC by TSD	0.6791	0.5711
	TSD is not GC by Price	1.9411	0.2878
	Exchange is not GC by DSSP	0.2140	0.8187
	DSSP is not GC by Exchange	1.1431	0.4275
	Exchange is not GC by TSD	0.4615	0.6688
	TSD is not GC by Exchange	0.2607	0.7863
?	Money is not GC by NFS	0.5820	0.6115
	NFS is not GC by Money	2.5350	0.2267
	Govt Finance is not GC by DSSP	0.9667	0.4742
?	DSSP is not GC by Govt Finance	7.5924	0.0670
	Govt Finance is not GC by TSD	2.2172	0.2563
	TSD is not GC by Govt Finance	2.7645	0.2086

Note: "GC" means Granger Caused, and
"?" means the result is not in line with the previous correlation test.

Chapter 5

Thailand's Foreign Loan and External Debt: Policies and Management

BASIC ISSUES

There are various factors, both global and domestic, that can affect a debtor country's ability to service its current external debts and/or to attract new FLs. External factors, for example, are the international interest rate, value of foreign currencies, oil prices, and export prices of domestic products. Internal or domestic factors are the domestic inflation rate, the growth of domestic output, and government finance, among others. Any sudden or unexpected change in these variables will certainly impact the external debt position of the debtor country. As we have discussed earlier, the LDC debt crisis that took place during the late 1970s and 1980s was caused, in part, by a dramatic turnaround of the major debtor countries' export earnings and the unexpected rise of the world interest rate.

Nevertheless, a debt crisis is not totally exogenous like an uncontrollable stochastic shock. In fact, a debtor country might be able to avoid or mitigate the crisis if it has sound management of its external debt as well as its domestic macroeconomy. In particular, the ability to foresee both external and internal disturbances, the ability to respond appropriately to the disturbances, the sound structure of the country's external debt, and the fiscal discipline of the public sector are all crucial to the solvency of the debtor country. External debt policies and management, therefore, are the authorities' main tools in constructing a healthy and trustworthy external debt structure.

We may recall that 1983 to 1986 was a turbulent period for Thailand's external sector. During this period the country's total long-term outstanding debt-to-export ratio was as high as 113.53 percent, and the country's total long-term debt service-to-export ratio was the highest at 22.66 percent. As a consequence, from 1984 to 1985, there was a major devaluation of the baht against the U.S. dollar. The devaluation was aimed at maintaining the order of the domestic exchange rate market and the country's foreign reserve position. Also, 1984 and 1985 were indeed important years for Thailand's external debt management, for there were some new measures and regulations introduced during these years to maintain the country's

external stability and to restructure the country's external debt. In this chapter, we will review the Thai authorities' external debt policies and management, and evaluate the effectiveness of the measures and regulations that were used during the 1980s.

THE THAI PUBLIC SECTOR'S FOREIGN LOANS

Important Measures and Regulations

For the Thai government and other public agencies, borrowing from abroad as prescribed by laws and regulations involves negotiating a good deal of bureaucracy. Generally speaking, these regulations have been introduced to make certain that all new FLs are beneficial to the country—in an economic, social or security sense—and are really needed. Moreover, they are intended to ensure that the public sector is able to pay back the debts with ease. Also, in accordance with the law, several official agencies have been involved in the new loan creation and debt service processes, including the National Economic and Social Development Board (NESDB), the National Debt Policy Committee, the Budget Bureau, the Ministry of Finance, and the Bank of Thailand. These official agencies examine and evaluate the necessity of the FL and its benefit to the country, then incorporate the external borrowing into the country's development plans, find the source of funds and, finally, monitor and manage the debt service payments.

Following are some of the important measures and regulations that concern the public sector's FL and external debt:

- ***The Foreign Borrowing Ceiling*** To ensure that the country's external debt will remain at a manageable level, the government has set a ceiling on the public sector's external borrowing. In 1982, the borrowing ceiling for the public sector was US$2.4 billion. (Recall that 1982 was also the first year of the international debt crisis when Mexico repudiated its external debt. Thailand also faced external problems from 1982 to 1986, as discussed earlier.) The ceiling was adjusted downward to US$2.06 billion from 1983 to 1984. In 1985, it was US$1.6 billion and US$1 billion for 1986-1988. The ceiling was adjusted upward to US$1.2 billion for 1989 to 1991.

- ***Debt Service Ratio Ceiling*** In 1960, the government set a ceiling on the debt service of the public sector by announcing that the public sector could not create a new loan that would result in the debt service-to-export ratio exceeding 5 percent. The ceiling, however, has regularly been adjusted upward. In 1974, the ceiling was raised to 7 percent. In 1982, it was raised to 9 percent, and finally to 11 percent in 1985.

- ***Debt Service and Government Estimated Revenue, or Debt Burden, Ratio*** Also in 1960, the government announced that the public sector could not create a new loan that would result in the debt service exceeding 13 percent of government estimated revenue, thereby setting another ceiling on the debt service of the public sector.

- ***New Foreign Borrowing and Government Expenditure*** In 1967, Thai authorities announced that new FL commitments made by other public

agencies, such as state enterprises, and guaranteed by the central government could not exceed 10 percent of government's planned expenditure.

In addition, in 1976, the government announced that new FL commitments of the central government itself could not exceed 10 percent of the government's planned expenditure. This measure placed a limit on how much the government could rely on external borrowing in financing its annual spending. Since 1976, the public sector's total new FL commitments (those of the central government plus those guaranteed by the government), therefore, cannot exceed 20 percent of the government's planned expenditure.

- ***State Enterprises' Foreign Loan Creation*** We may recall from Chapter 2 that state enterprises have been largely responsible for the huge and increasing FL shares of the public sector, both disbursement and debt service shares. The government finally resolved to restrict state enterprises' FL creation. In 1985, the National Debt Regulations indicated that state enterprises may borrow from a private foreign creditor when the expected rate of return of their domestic project is not lower than the loan interest rate, the expected risk of exchange rate volatility, and other transaction costs combined. Furthermore, the domestic project needs to provide sufficient cash flow to cover the debt service. In particular, the ratio between the expected internal cash generation and the debt service obligations must be greater than 1.5. The regulation, however, also conceded that if state enterprises are unable to abide by the prescribed conditions, they may inform the National Debt Policy Committee and request an exemption.

It is noted that most of these measures are related mainly with some arbitrarily *estimated* or *planned* figures of future debt service, government revenue, government spending, etc. There has been no measure or regulation to indicate that, if the public sector fails to satisfy these measures, the government would take some definite corrective action within a specific time period. As stated, the regulations themselves are not exactly binding, and an exemption may be sought. In fact, the regulations and measures can even be altered or aborted. The debt service ratio ceiling has been adjusted upward constantly, and the 13 percent debt burden ceiling is no longer mentioned in the current National Debt Regulations.

The Performance of the Thai Public Sector

Herein, we evaluate the performance of the public sector with regard to its foreign borrowing and external debt. Table 32 presents data on the public sector's long-term FLs. The public sector's FLs include loans of the central government and those of other public agencies which are guaranteed by the government. Concerning Table 32, there are probably certain differences between government sources—such as the Ministry of Finance or the National Debt Policy Committee—and this study, both in definitions of FL flows and in loan data used. In this study, we rely mainly on data from the World Debt Tables. This discrepancy influences the conclusions that one may draw on the performance of the Thai public sector. Table 32 is summarized as follows:

Table 32 Thai Public Sector's Long-term Foreign Loans (Public and Publicly Guaranteed External Debt)

Year	1980	1981	1982	1983	1984
Public Sector's Long-term Loan Disbursements	1357.9	1461	1420	1315	1469
Public Sector's Long-term Loan Commitments	1920.4	1641.2	2094.2	1189	1359
Public Sector's Long-term Loan Debt Services	434.3	620.8	788.4	935	1237
Government Revenue	4666.732	5131.21	5046	6245	6264.224
Government Expenditure	5919.809	6110.128	6833.826	7237.348	7667.964
The Country's Exports of Goods and Services	8578	9250	9384	9227	10415
Public Sector's Long-term Debt Service Ratio (%)	5.062952	6.711351	8.401535	10.1333	11.8771
Debt Services/ Government Revenue (%)	9.306299	12.09851	15.62426	14.97198	19.74706
Disbursements/Government Expenditure (%)	22.93824	23.91112	20.77899	18.16964	19.15763
Commitments/Government Expenditure (%)	32.44024	26.86032	30.64462	16.42867	17.72309

Sources: World Debt Tables and IMF's IFS

- According to World Bank data, the actual new FL *commitments* of the public sector were lower than the ceiling only from 1982 to 1984 and in 1987. The ceiling, however, has been constantly violated since 1985. From 1985 to 1989, the average new *commitments* of public sector's long-term FLs were US$1.66 billion per year, definitely higher than the ceiling set for this period.
- The actual debt service-to-export ratio of the public sector was not markedly lower than the announced ceiling. From 1985 to 1987, the ceiling was clearly violated, the average debt service ratio was 13.99 percent, significantly higher than the 11 percent ceiling.
- The debt service-to-actual government revenue of the Thai public sector or actual debt burden ratio was definitely higher than the 13 percent ceiling. From 1980 to 1986, the debt service of the public sector's long-term FLs was 18.06 percent of the government's actual revenue, and it reached 23.04 percent from 1987 to 1989.
- From 1980 to 1986, the new loan commitment-to-actual government expenditure ratio was clearly higher than the combined 20 percent ceiling. The new commitments of the public sector's long-term FLs were 25.53 percent of the government's actual expenditure from 1980 to 1986, but they were only 14.64 percent from 1987 to 1989.

Table 32

(US$ millions and Percent)

1985	1986	1987	1988	1989	1990	Average 1980-86	Average 1987-89
2392	1302	1322	1441	1275	1513	1530.986	1346
2357	1748	860	1999	1344	1721	1758.4	1401
1473	1921	1938	2446	2269	3301	1058.5	2217.667
5912.184	6457.622	7639.544	9927.73	11874.56	15812.39	5674.71	9813.946
7347.399	7755.466	8828.014	9321.934	10541.2	12016.03	6981.706	9563.717
10222	12136	16530	22439	27647	29525	9887.429	22205.33
14.4101	15.82894	11.72414	10.90066	8.207039	11.18036	10.34647	10.27728
24.91465	29.74779	25.36801	24.63806	19.10807	20.87603	18.05865	23.03805
32.55574	16.78816	14.97506	15.45817	12.09539	12.59152	22.04279	14.17621
32.07938	22.53894	9.741716	21.44405	12.74997	14.32254	25.53075	14.64524

- An examination of only the FLs of the central government reveals that the central government's FLs have consistently conformed to all of the measures and regulations. Violations have come solely from the foreign borrowing of other public agencies whose loans are guaranteed by the government, such as those of state enterprises.

According to Table 32, one might be inclined to conclude that, for the public sector's FLs, there seems to be a clear difference between what the measures and regulations required and what actually happened—that is, there is a question regarding the credibility of the public sector's FL policy. The Thai authorities, however, have strongly affirmed, that the public sector has abided by all of the measures and regulations: *and that there has been virtually no violation.* These diametrically opposed views of the public sector's FL performance may be attributed either to discrepancies in FL definitions and data used in the analysis or to differences in the interpretation of the measures and regulations themselves.

Restructuring the Public Sector's Foreign Loan

FL restructuring is another important measure, in addition to the laws and regulations, that is being used to shape the country's external debt structure. Because of external concerns from 1983 to 1986, the government initiated FL restructuring programs in 1985. It was intended that these programs would:

- reduce the loan interest rate cost
- diversify foreign exchange exposures of the FL portfolio
- lengthen debt payment periods
- reduce the country's total outstanding debt

The government's restructuring programs include the following operations:

- FL refinancing
- both interest rate and currency swaps
- loan prepayment

Preliminary results of the restructuring programs are summarized below: (Data is from the Bank of Thailand and the Ministry of Finance.)

- From 1984 to 1985, the Ministry of Finance refinanced 48 FL contracts amounting to US$2.835 billion. According to the Bank of Thailand, this refinancing program reduced the country's debt service by US$869 million and produced interest payment savings from 1985 to 1989 of US$71 million.
- From 1985 to 1990, 14 interest rate and currency swap programs amounted to US$479 million. Preliminary (and unofficial) calculations show that these interest rate/currency swap programs saved the country interest payments of US$15.36 million.
- From 1987 to 1989, when the government had a budget surplus, the Ministry of Finance prepaid 16 loan contracts amounting to US$501 million. The prepayments were estimated to have reduced the country's debt services from 1988 to 1989 by US$103 million.

Discussion: To a certain extent, the government's restructuring programs have saved the public sector some foreign currency. The outstanding external debt of the public sector, however, has not shown any sign of decrease. From 1987 to 1989, the average public sector's long-term outstanding external debt was US$13.24 billion. It was US$8.85 billion and US$5.17 billion during 1983-1986 and 1980-1982, respectively. Recently the outstanding debt has increased at a slower rate.

Moreover, unlike the prepayment scheme, the refinancing and the swap programs do not really eliminate the country's indebtedness, though they do change the form and maturity of the country's debt. As a result, uncertainty, caused by exchange rate and interest rate volatility, can still occur and affect the country's debt obligation. In other words, refinancing and swaps do not remove all existing uncertainties, although the risk is restructured and calculated (or believed) to be lower.

The estimated or short-term benefit of refinancing and swap programs, therefore, may or may not be the same as the actual or long-term benefits evaluated when all restructured loans mature. As a matter of fact, the benefit of restructuring programs can only be truly known when all restructured loans finally mature.

As regards foreign exchange exposures of the public sector's FL portfolio, we cannot conclude that the portfolio is well diversified. According to the Ministry of Finance, in 1984 the share of the Japanese yen and the U.S. dollar within the public sector's FL portfolio stood at 29.3 percent and 63.5 percent, respectively, a

combined share of 92.8 percent. In 1989, the Japanese yen was 43.1 percent while the U.S. dollar was 45.2 percent, a combined share of 88.3 percent. Although the combined yen-dollar share in 1989 was lower than it was in 1984, the yen share had become so large that even a slight devaluation of the baht against the yen could result in substantial additional debt obligations to the public sector—unless, of course, the dollar happened to move in an opposite direction to the yen. Recently, the share of the Japanese yen has increased rapidly because the public sector has relied heavily on Japan as a major source of FLs.

THAI PRIVATE SECTOR'S FOREIGN LOANS

In Chapter 2 it was observed that the private sector's share in the country's long-term FLs and external debt, other than the disbursement share from 1987 to 1989, steadily declined. With over 90 percent of the country's current short-term FLs, the private sector, however, plays a considerably important role in the country's FL and external debt position.

Surprisingly, there has been virtually no government restriction on the private sector's external borrowing. The only major instrument that Thai authorities have used to directly influence borrowing by the private sector is the withholding of tax on loan interest payments. For example, during the period of the large current account deficit, the government wanted to promote inflows of foreign capital to maintain the country's international reserve position. An important measure instituted in 1979 was an exemption of the withholding of tax on interest payments for FLs. The exemption was suspended in 1984 when the balance of payments stabilized and became surplus.

In 1985, National Debt Regulations indicated that the Bank of Thailand had to closely monitor the foreign borrowing of the private sector to ensure that FL creation was sustainable, meaning that the private sector was able to pay back the loans. The Central Bank was to report to the National Debt Policy Committee every four months on the private sector's external debt position.

As a result, the Bank of Thailand announced in 1985 that all private foreign borrowers were to register with the Bank of Thailand within seven days of the date on which loan contracts were signed, and not later than the day that the loans were brought in and foreign currencies sold to authorized banks. This measure was adopted to facilitate the central bank's availability of data on the private sector's FLs.

As regards commercial banks, there is regulation only on their foreign currency transactions, not their FL creation; regulation is aimed at curbing speculation within the domestic exchange rate market. (Of course, regulation may have an accompanying impact on FL creation by the banks.) Since November 1984, commercial banks have not been allowed to over-buy or over-sell spot or forward positions in excess of 20 percent of their capital or US$5 million, whichever is greater. Furthermore, the banks are required to provide daily reports on their foreign exchange positions to the Bank of Thailand. These measures were implemented to prevent commercial banks from speculating on the value of the baht.

Compared with the public sector's external debt policies, it seems that Thai authorities have employed a somewhat laissez faire policy toward private sector foreign borrowing, which is appropriate, provided no externality or incentive problems arise. By their nature, the payment of FLs, however, cannot really be

enforced by international law, so there may be an intrinsic incentive for borrowers to repudiate their debts. Furthermore, a decision to repudiate by one domestic borrower may have an externality impact on others; an outright debt repudiation by a domestic firm may lead to a sudden withdrawal of foreign capital from other domestic borrowers or to a severe credit crunch, which could cause foreign lenders to fear that other domestic firms might also repudiate their debts. This incentive-externality problem may necessitate some type of government intervention. The government, for example, may mitigate it by enforcing proper measures and regulations on domestic private borrowing to assure foreign creditors that domestic borrowers will pay back their debts. We believe, therefore, that the authorities should ensure that the private sector will both be able and willing to service all of its external debt obligations; a passive monitoring role may not be sufficient, as far as the incentive-externality problem is concerned.

Conclusions: Rightly so, the public sector has been concerned about its external debt. Consequentially, certain laws, measures and regulations were introduced to guarantee that the external debt structure would be both safe and sound, and that the country would get optimum benefit from its foreign borrowings. The laws and regulations, however, are too flexible. In some cases what actually happened has not been the same as what was initially required. Also, the Thai public sector has engaged in some FL restructuring programs that, according to preliminary data, have only been somewhat successful.

Regarding private sector FLs, the authorities have employed a laissez faire policy; more restrictive and more direct measures and regulations may be needed to strengthen the private sector's ability and credibility to meet its external debt obligations. Such regulations and measures should strengthen the private sector's credit worthiness within international markets, but should not obstruct its capacity for acquiring new loans.

Chapter 6

Analysis of Foreign Loans: A Summary and Policy Recommendations

This final chapter provides a detailed summary of important findings and a discussion regarding the external debt outlook and certain policy recommendations.

DETAILED SUMMARY

Important findings detailed in previous chapters are summarized, in a sequential manner, as follows:

A Global and Regional View of Foreign Loans

Identifying Capital Suppliers and Demanders From 1960 to 1990, countries most consistent in having both a current account surplus and a capital account deficit are: Japan, Germany, Middle East countries and oil-exporting countries. Also, the U.S., Japan, New Zealand, France and Germany have consistently had net capital outflows in the form of "other long-term capital" (which includes long-term FL flows). On average, the U.S., however, had a current deficit from 1970 to 1990 and also had a capital account surplus from 1980 to 1990, meaning that, from the 1980s, the U.S. was a net importer of both goods and capital from the rest of the world.

Regional Shares of Long-term Foreign Loans The most dramatic changes in the shares of FLs took place in two regions, East Asia and the Pacific and Latin America. For East Asia and the Pacific, the share (percent of the Total for All Countries) of public/publicly guaranteed loan commitments rose rapidly from 15.87 percent (1972-1976) to 24.46 percent (1987-1989) and 27.58 percent in 1990; its share of private non-guaranteed loan disbursements rose from 17.66 percent (1972-1976) to 52.14 percent (1987-1989) and 55 percent in 1990. For Latin America, the share of public/publicly guaranteed loan commitments dropped from 37.73 percent (1972-1976) to 21.02 percent in 1990; its share of private non-guaranteed loan

disbursements dropped from 57.43 percent (1972-1976) to only 18.09 percent (1987-1989).

Countries' Long-term Foreign Loan Shares Thailand's share (percent of the Total for All Countries) of public/publicly guaranteed loan commitments increased from 0.7 percent (1972-1976) to 2.05 percent (1982-1986), but then dropped slightly to 1.54 percent (1987-1989). The share of private non-guaranteed loan disbursements rose sharply from 2.6 percent (1972-1976) to 12.92 percent (1987-1989). From 1972 to 1989, Thailand, Indonesia, Korea and Malaysia all received larger shares of private non-guaranteed loan disbursements, while the Philippines' share shrank dramatically. Moreover, from 1987 to 1989, Thailand's share of private non-guaranteed loan disbursements was second only to that of Korea, while its share of public/publicly guaranteed loan commitments ranked fifth, after China, Indonesia, the Philippines, and Korea. China became a prominent new borrower in the East Asia and Pacific region; its share of public/publicly guaranteed loan commitments rose from 2.81 percent from 1977 to 1981 to 9.89 percent from 1987 to 1989 and 10.55 percent in 1990.

Comparative Structure of Long-term Foreign Loans From 1972 to 1990 Thailand had a smaller average public-to-private FL disbursement ratio than that of the Total for All Countries and that of East Asia and the Pacific. In relative terms, it seems that Thailand's private sector participated more in the country's external borrowing than did the private sectors of the other countries.

Thailand's cost of external borrowing was low compared with the borrowings of other countries. From 1972 to 1990, Thailand had a lower average loan interest rate than a comparable country in East Asia and the Pacific, whether funds were from private or official creditors.

From 1972 to 1989, Thailand's share of private creditors in the public sector's long-term FL commitments grew faster than that of East Asia and the Pacific and that of the Total for All Countries. The share was 10.75 percent from 1972 to 1976 and rose to 55.26 percent from 1987 to 1989. From 1987 to 1989, Thailand's share of private creditors in the public sector's long-term loan commitments was also larger than that of East Asia and the Pacific as well as that of the Total for All Countries.

Other than from 1982 to 1986, Thailand achieved a smaller average total outstanding debt-to-export ratio than did East Asia and the Pacific or the Total for All Countries. From 1987 to 1989, Thailand's total outstanding debt-to-export ratio was 79.33 percent, while that of East Asia and the Pacific was 84.20 percent and that of Total All Countries was as high as 174.26 percent.

Thailand's Foreign Loans and External Debts

Disbursements and Debt Service of Long-term FLs The share of private non-guaranteed loan disbursements in the country's total long-term FL disbursements reached 75.68 percent (1970-1974), before dropping to 36.70 percent (1983-1986), and then rebounding to 46.46 percent (1987-1989).

The share of private non-guaranteed loan debt service in the country's total long-term loan debt service dropped from 77.57 percent (1970-1974) to 32.66 percent (1987-1989), and then to only 26.35 percent (1990). The central government, however, did not play a crucial role in the increasing shares of public/publicly guaranteed FLs, neither in disbursements nor in debt service. The increasing shares of public/publicly guaranteed FLs are, therefore, attributed to

other public agencies whose loans were guaranteed by the government, such as state enterprises.

Short-term Foreign Loans The average share of private non-guaranteed loan disbursements in the country's total short-term FL disbursements was 96.65 percent (1980-1986) and 94.50 percent (1987-1989).

The average share of private non-guaranteed loan debt service in the country's total short-term loan debt service was 96.15 percent (1980-1986) and 94.7 percent (1987-1989).

Furthermore, comparing the country's total short-term and long-term FL flows, we find that short-term FLs did have larger average annual gross flows, both inflows and outflows, than those of long-term FLs. The net flows of short-term FLs, however, were on average smaller than those of long-term FLs, except those from 1987 to 1989.

The Public Sector's Sources of External Loans The share of multilateral sources in the public sector's foreign borrowing clearly dropped while the private creditors' share increased over time. From 1987 to 1989, the private creditors' share was 43.31 percent of the total outstanding public external debt and 31.38 percent of the total public sector's new loan commitments. The share of bilateral sources also dropped from 1970 to 1982, but began increasing substantially thereafter due to the huge public borrowing from Japan. In 1990, the Japanese share alone was 31.31 percent of the total public sector's outstanding external debt, and 31.91 percent of the total public sector's FL commitments. In contrast to Japan's share, the bilateral share of the U.S. declined and has not been significant in recent years.

The Private Sector's Sources of External Loans From 1970 to 1989, major suppliers of the private sectors' FLs (long-term plus short-term loans, excluding trade credit) were as follows (in decreasing order of share size): Singapore, Hong Kong, the U.S., the U.K. and Japan. From 1987 to 1989, the shares of Singapore and Hong Kong were as high as 33.71 percent and 31.13 percent, respectively. The large shares of Singapore and Hong Kong may be due to the fact that both countries are becoming important international financial/capital centers.

Private Sector Long-term Loans and Domestic Investment The share of supplier credits in the total private sector's long-term FL disbursements declined quite rapidly over time (from 53.17 percent from 1970 to 1974 to 16.28 percent from 1987 to 1989 and 9.0 percent in 1990). The percentage ratio between the private sector's long-term FLs, excluding supplier credits, and private domestic investment clearly increased from 1970 to 1986, but dropped a bit from 1987 to 1989. The ratio was 6.37 percent from 1970 to 1974, 13.31 percent from 1983 to 1986, and 8.37 percent from 1987 to 1989. The declining trend may be due to huge inflows of other forms of foreign capital, such as foreign direct investment and foreign portfolio investment.

Foreign Borrowing of Commercial Banks Although the share (percent of the banks' total outstanding) of the commercial banks' borrowing from banks abroad consistently dropped (from 70.53 percent from 1970 to 1974 to 46.75 percent from 1987 to 1989), it remained substantial when compared with the borrowing from domestic banks and from the Bank of Thailand. The percentage ratio between the banks' net borrowings from banks abroad (or net flows of foreign borrowing) and the country's capital account shows substantial volatility. The ratio was around +20 percent from 1971 to 1979, -18.18 percent and -24.98 percent from 1980 to 1982 and 1983 to 1986, respectively, and +14 percent from 1987 to 1989. The volatility may be due to the short-term nature of the banks' foreign borrowing.

The Quantitative Factors Determining the Foreign Loans

Theoretically, the basic model used in Chapter 3 is a neoclassical investment model with a financing or liquidity constraint. The main regression results are as follows:

- For Thailand, aggregate long-term FL disbursements are associated significantly with the country's expected output and its current trade balance.
- The public sector's drawings of long-term FLs are found to be significantly associated with the country's expected output and the government finance position.
- The private sector's long-term and short-term FL disbursements are associated significantly with the country's expected output and the private investment-savings gap. The confidence level, however, is lower for short-term loan disbursements.
- The net borrowings of commercial banks are significantly associated with the country's expected output and the banks' current liquidity position.
- The current interest rate differential is found to be not significant in explaining any of the preceding foreign borrowing.
- There is no evidence to support the hypothesis that Thailand's foreign borrowing was hampered by the international debt crisis that took place from 1982 to 1986.
- The foreign borrowings discussed were not hampered by the exchange rate devaluation or by Thailand's previous debt-service ratio period.
- For East Asia and the Pacific and for the Total for All Countries, their total long-term FL disbursements can be significantly explained by their current trade balance.

Impacts of Foreign Loans on the Macroeconomy

First, we examined correlation coefficients between FL flows and major domestic macroeconomic variables. In the study, all variables, initially, are linearly detrended to discount the shared time effect. Correlation results are summarized as follows:

- Debt service payments of total long-term FLs are significantly and positively associated with the exchange rate (particularly, baht per U.S. dollar).
- Disbursements of total long-term FLs are significantly and positively associated with the general domestic price level.
- Neither inflows nor outflows of total long-term FLs are evidently associated with the government's finance position.
- Net flows of total long-term FLs are not associated with the growth rate of the country's real output.

- Net flows of long-term loans are not associated with the country's monetary base.
- Net flows of both long-term and short-term FLs are associated significantly and positively with the country's real GDP level.
- Short-term FL flows are not evidently associated with the following variables: exchange rate, domestic price level, government finance position, or growth rate of the country's real output.
- At a lower confidence level, short-term FL net flows are significantly associated with the country's monetary base, but not with the change in the monetary base.

Second, we examined bivariate Granger causality tests among the levels of FL flows and domestic macroeconomic variables and found that the following relationships between the variables are supported by the causality tests:

- the debt service payments of long-term FLs and the exchange rate
- net flows of both long-term and short-term FLs and the country's real output level

Further, we found that the government finance position was not caused by either disbursements or debt service payments of both short-term and long-term FLs. However, relationships between net flows of FLs (both short-term and long-term) and the country's monetary base determined by Granger causality tests are not in line with those of the correlation tests. The correlation between loan net flows and the country's monetary base found previously, therefore, may not be empirically robust.

The Thai Authorities' Policies on and Management of Foreign Loans and External Debts

The authorities have been careful about public sector FL creation and debt servicing. In principle, most public sector foreign borrowing and debt servicing has been officially planned, scrutinized, and incorporated within the country's development plans by government agencies. Laws, regulations and measures have been introduced to ensure that external borrowing is not excessive and that the public sector is able to meet its debt obligations.

Official ceilings have been placed on: the public sector's new FL commitments, the debt service ratio, the debt service-to-estimated government revenue or the debt burden ratio, and the new borrowing-to-planned government expenditure, among others. There also are regulations on FL creation by state enterprises. The public sector has pursued a few FL restructuring programs aimed at reducing its interest payments and the outstanding debt as well as obtaining a more diversified FL portfolio. In sum, the public sector seems committed to maintaining its reputation as a trustworthy FL borrower. Most important, Thailand has never had a serious problem servicing external debt obligations.

However, it is suspected that, in practice, the FL ceilings officially set by authorities have been "violated" by the public sector. The effectiveness of the authorities' measures and regulations are questionable. (The authorities contend, however, that all measures and regulations have consistently been obeyed, and that no violation has occured.) As a consequence, any future announcement of new

measures or regulations regarding the public sector's FL and external debt may face a serious credibility problem. Should a serious external debt crisis occur, this credibility problem may hamper or even discount efforts by the authorities to solve or manage the crisis.

The authorities have placed no restrictions on private sector FL creation or debt servicing; rather, they have assumed a passive monitoring role. The incentive and externality problem relating to the sovereign debt, however, may warrant restrictive government intervention. In particular, the government may need to introduce measures and regulations to ensure that the private sector is both willing and able to meet its external debt obligations.

FOREIGN LOAN OUTLOOK

The recent surplus of the government budget, as well as the lower growth of the country's real output, will likely lead to smaller, even negative, FL disbursements for the country. This trend, however, may not last, as demand for FLs can quickly be revived if the government budget surplus is drained by increases in government spending and decreases in revenue. Table 33 shows a time-series forecast of FL disbursement growths. The ARMA (4,3) model forecasted that Thailand's FL disbursements would have negative growth during 1991 and 1992, but that they would become positive again in 1993 and 1994. For All Developing Countries, however, loan disbursements show a steadily declining trend.

As for the supply side of the loans, we look at the output growth in Japan and Germany. If the recession in these two countries continues, it is likely that their outflows of capital will shrink. Moreover, looking at recent domestic financial developments, especially the development of offshore banking facilities (BIBF), such may eventually reduce the private sector's, as well as the public sector's need to borrow funds from abroad.

Table 33 Forecast of Foreign Loan Disbursement Growth

(Percentage change from the previous year)

Year	1988	1989	1990	1991	1992	1993	1994
The Total for All Developing Countries							
Forecast	0.265	-0.0212	4.049	-3.519	-0.256	-0.215	-0.264
Actual	10.983	-9.587	13.382	N.A.	N.A.	N.A.	N.A.
East Asia and the Pacific							
Forecast	8.838	6.545	-6.41	6	8.878	-5.252	1.182
Actual	8.233	-0.791	-3.66	N.A.	N.A.	N.A.	N.A.
Thailand							
Forecast	32.011	46.531	2.854	-40.869	-27.005	22.987	42.855
Actual	28.616	53.722	-34.627	N.A.	N.A.	N.A.	N.A.

N.A. = Not available.
Estimation: Calculated from ARMA (4,3) models, based on 1973-1989 data.

Source: World Debt Tables.

POLICY RECOMMENDATIONS

Finally, the following policy recommendations for the Thai authorities are relevant:

- To effectively prevent an excessive accumulation of public sector external debt, the government will need to maintain sound fiscal discipline. (In Chapter 3, we observe that more government budget deficits lead to greater disbursements of new FLs.) Continuous government budget deficits lead to ever-growing outstanding debt and consequent debt obligations. The government should bear in mind that a lack of fiscal discipline is a common factor of critically indebted countries that face severe external debt crises.

- For Thai state enterprises to generate sufficient cash flows for their external debt service, a realistic public utility pricing is necessary. (Recall from Chapter 2 that state enterprises have largely been responsible for increasing the public sector's share of FLs and external debt.) If the cost of public utility services is unrealistically low or not allowed to be promptly and sufficiently adjusted in response to a higher production cost, state enterprises may incur liquidity problems, or even a loss. As a consequence, either a central government subsidy or more borrowing will be needed, which may lead to an excessive external debt accumulation. In sum, the manageability of the state enterprises' external debt depends on, among various things, their profitability.

- The country's chronic current account deficit should be reduced or reasonably maintained. As long as the trade deficit continues to grow, Thailand will need to borrow from abroad (in various forms) to stabilize its foreign reserve position. The country's long-term indebtedness depends on the trade balance.

- Economic growth has to be accommodated with a sufficient expansion in domestic savings. High output growth with little expansion in domestic savings eventually leads to a continuous accumulation of foreign debt. Korea is an example of this kind of unsustainable growth. Park (1988) concluded that, although Korea's growth and exports have been impressive, the expansion of domestic savings has been insufficient to sustain the country's rapid growth. As a result, Korea's current account deficit has persisted and has been the major cause of the country's external debt accumulation.

- The exchange rate should be fundamental, sound and stable, as well as flexible enough to discourage speculative moves, such as capital flight. Also, adjustability of the exchange rate may provide a built-in mechanism to help mitigate adverse shocks to the country's balance of payment. Sachs (1988) as well as Gillis and Dapice (1988) are convinced that the ability of Indonesia to promptly adjust its domestic currency in response to global external shocks in the late 1970s was instrumental to the country being able to avert an external debt crisis.

- Provided that the equity market continues to expand robustly, a kind of debt-equity swap program/option might be instrumental in reducing the outstanding foreign debt of the public sector, especially that of state enterprises. Some type of convertible debt instrument should be considered and may eventually play a part in government debt management measures.
- If there exists an economy of scale of foreign borrowing activities, domestic financial markets should be encouraged to function as intermediaries between domestic borrowers and foreign creditors. (Recall, however, from Chapter 2 that, as far as long-term capital is concerned, domestic commercial banks do not function as FL intermediaries at all, for their foreign borrowings are solely short-term.) The economy of scale may arise as domestic banks gain greater efficiency in managing portfolios of FLs and in simultaneously coordinating debt obligation schedules. Financial liberalization may be an answer, for, in theory, it should increase the efficiency of domestic financial markets by reducing the cost of international capital transactions.
- There should also be direct cooperation among debtor countries (such as information pooling and sharing of FLs and external debts) to facilitate external debt restructuring programs. For example, currency/interest rate swap programs that are jointly and directly made among debtor countries in a geographic area are examples of practical regional cooperation. (Recall in Chapter 5 that the Finance Ministry has been somewhat successful, in terms of foreign currency savings, with its swap and restructuring programs.) A clear benefit is that such joint external debt restructuring programs may produce savings of fees and transaction costs otherwise paid to outside middlemen (e.g. transnational commercial banks).

References

Chongrak Raruewsong. 1984. "An Analysis of the Thai Government External Debt-Service Ability." *Thammasart Economic Journal*, Vol. 2, No 2, June.

Duangmanee Vongpradhip. 1989. "Foreign Loans." Direct Foreign Investment and Capital Flow, TDRI.

Gillis, Malcolm and David Dapice. 1988. "Indonesia." *The Open Economy*, edited by Rudiger Dornbusch and F. Leslie C. H. Helmers, Oxford University Press.

Park, Yung-Chul. 1988. "Korea." *The Open Economy*, edited by Rudiger Dornbusch and F. Leslie C. H. Helmers, Oxford University Press.

Pisit Leeartham. 1985. "The Private Sector External Borrowing." *The Debt Crisis of the Thai Government,* Thammasart University, February.

Pranee Tinnakorn. 1984. "An Analysis of the Thai Government External Debt-Service Ability: A Comment." *Thammasart Economic Journal*, Vol. 2, No 4, December.

_____. 1988. "The Thai Government Borrowing from Japan." *Thammasart Economic Journal*, Vol. 6, No 3, September.

Pranee Tinnakorn and Direk Patmasiriwat. 1985. "Less Developing Country External Debt: A Case Study of the Thai Government External Debt." *The Debt Crisis of the Thai Government*, Thammasart University, February.

Rivera-Batiz and Rivera-Batiz. 1985. *International Finance and Open Economy Macroeconomics,* Macmillan.

Sachs, Jeffrey D. 1988. "Developing Country Debt." *International Economic Cooperation*, edited by Martin Feldstein, University of Chicago Press.

_____. 1988. "International Policy Coordination: The Case of the Developing Country Debt Crisis." *International Economic Cooperation,* National Bureau of Economic Research.

Thanasak Chantarovas and Nitaya Pibulratanagit. 1989. "Debt Management Strategies of Thailand," Bank of Thailand, Vol. 29, No 1, March.

Author's Profile

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Dr. Charl Kengchon was until recently a research consultant in TDRI's International Economic Relations Program. Following his high school graduation, Dr. Charl attended Kasetsart University, Bangkok. From 1986 to 1990, he attended the University of Wisconsin-Madison, Wisconsin, U.S.A., taking a Ph.D. in Macroeconomic and Monetary Economics. Since completing his Ph.D. he has lectured at Kasetsart University and was assistant professor within the Department of Economics. In his subsequent position at Chulalongkorn University, he conducted both graduate and undergraduate courses in Monetary Economics. He is currently the Head of the Money and Banking Department at the Thai Farmers' Research Center, a research subsidiary of the Thai Farmers Bank.

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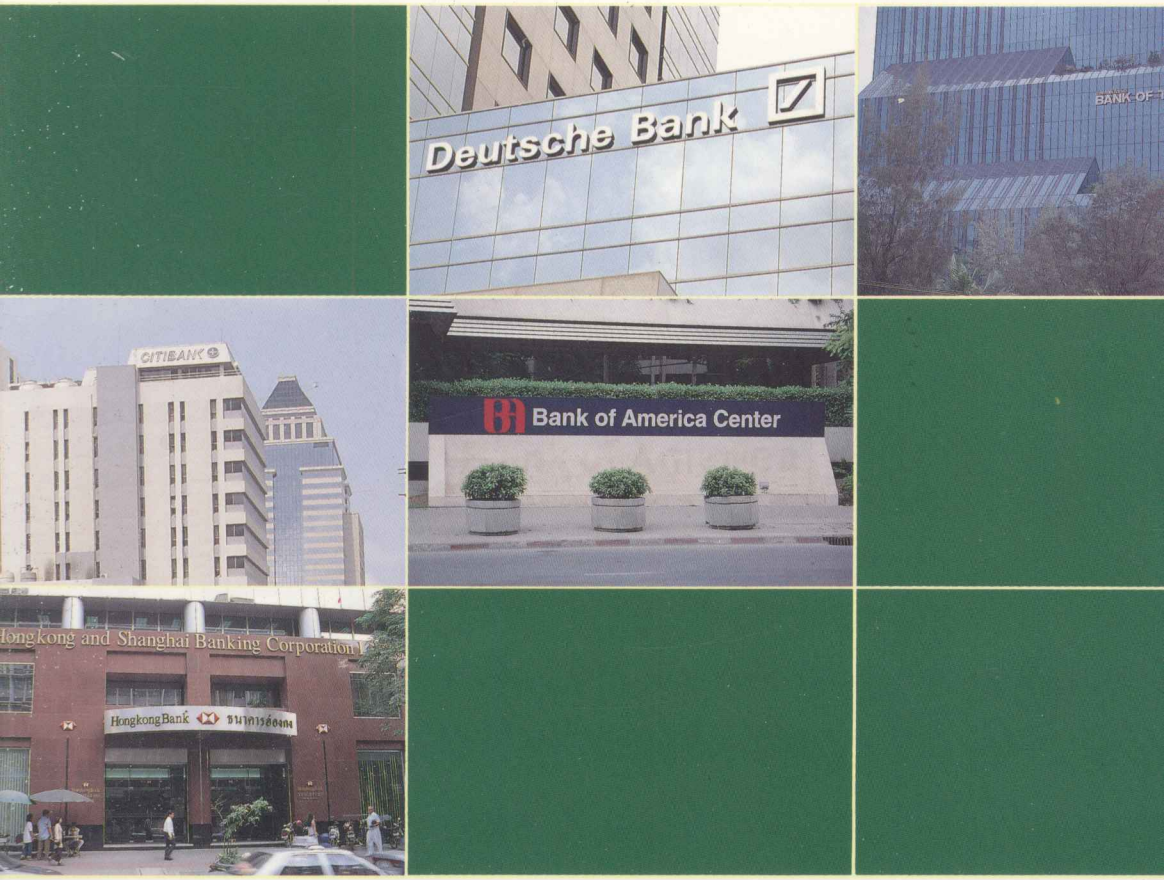
Thailand's Perspective on Foreign Loans

Unlike many developing nations, Thailand has never encountered difficulties in servicing its external debt obligations. The marked absence of severe debt crises in nearly four decades of development is the result of prudent external debt management. Thai laws, regulations, and policy measures have been designed to ensure that external borrowing is not excessive and that the public sector is able to meet its debt obligations.

This study examines Thailand's success in managing its foreign debt by assessing Thailand's foreign loan structure, from both a regional and global perspective. This study covers loans made by the public sector, the non-financial private sector, and Thai commerical banks. Of interest are the factors which determine the disbursement of foreign loans and the impact of such loans on the Thai economy. This study concludes by presenting various of policy recommendations for future foreign borrowing and loan management.



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