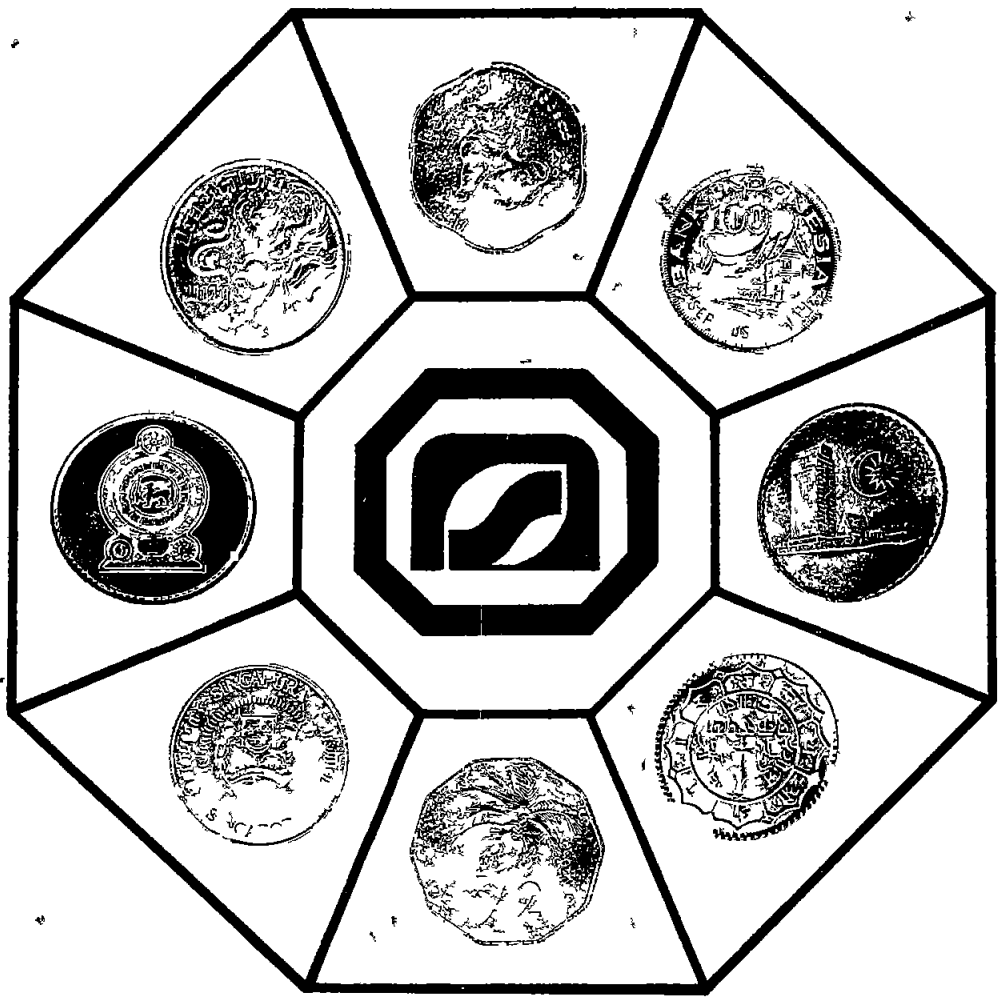
FOREIGN EXCHANGE MARKETS IN THE SEACEN REGION



THE SOUTH EAST ASIAN CENTRAL BANKS (SEACEN)
RESEARCH AND TRAINING CENTRE

FOREIGN EXCHANGE MARKETS IN THE SEACEN REGION

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FOREWORD

After the collapse of the Bretton Woods system in March 1973, the international monetary scenario was in disarray. After several years of experimenting, the generalized floating exchange rate system eventually emerged as the generally accepted system. On top of this international monetary turbulence, there were also two oil crises in the 1970s and early 1980s which provoked a drastic change in the international trade pattern as well as in the direction of international capital flows. The same oil shocks also ignited an inflationary flame and caused payments imbalances especially in the developing countries. At the same time, the new international monetary system exhibited a series of turbulent movements in certain key exchange rates, notably the U.S. dollar, the pound sterling and recently, the Japanese yen. The international financial markets also went through remarkable changes. Interest rates rose sharply since the turn of the 1980s, culminating in the international debt crisis in 1982. By then, a world economic recession was already set in train with the sharp downturn in commodity prices.

In the face of this turbulent international scenario, the SEACEN countries were eager to find ways and means to cushion off, at least partially, these external disturbances. Foreign exchange markets represented the best opportunity for counteracting such disturbances. However, the foreign exchange markets in the SEACEN region were in general not well developed, with some of them still in rudimentary character. In view of the importance of foreign exchange markets in implementing monetary and exchange rate policies, The South East Asian Central Banks (SEACEN) Research and Training Centre exercised the initiative to undertake a collaborative project on the *"Foreign Exchange Markets in the SEACEN Region"*. It aims to study the existing foreign exchange market structure in the SEACEN countries, and examine whether a further development of the foreign exchange market will help improve the effectiveness of exchange rate and monetary policies in cushioning off external shocks.

As the project was a collaborative effort, each member central bank made available at least one researcher in preparing the respective country studies. The SEACEN Centre for its part co-ordinated the whole project. In this regard, Mr. Ng Beoy Kui, Research Economist, was responsible for the research design and co-ordination with the country researchers. He also prepared the overview of the foreign exchange markets in the region which forms Part I of this study. The country researchers who were actively involved in the project include the following:

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At various stages of the Project, Mr. Ng was kindly assisted by Miss Sally Ho Ngeok Ying, Mrs. Kanaengnid Quah and Mr. Bernard Then, while the manuscript was entirely typed by Miss Chew Hong Yng.

The views expressed in this volume, however, are those of the authors and should not in any manner be ascribed to the institutions or individuals whose assistance is duly acknowledged herein.

Vicente B. Valdepenas, Jr.
Director
The SEACEN Centre

Kuala Lumpur
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PART I

AN OVERVIEW OF THE FOREIGN EXCHANGE MARKETS IN THE SEACEN REGION

by
Ng Beoy Kui

Introduction

A foreign exchange market has an important role to play in a national economy, especially in an open one like any of the SEACEN countries. In the SEACEN region, all countries can be generally categorized as open economies. The openness of each economy is a matter of degree, depending on the country's extent of involvement in international trade and capital flows. While countries like Singapore, Malaysia and Indonesia are actively involved in international transactions, in particular the export of primary commodities, both Nepal and Burma are, however, relatively less open, both in terms of international trade and capital flows. The remaining countries, i.e., Thailand, the Philippines and Sri Lanka, fall in between the two extreme categories. Even then, the eight countries have scarcely any alternatives in this interdependent world but to deal with foreign currencies to facilitate international transactions with the rest of the world. While all the SEACEN countries impose exchange control regulations with varying degrees of liberalisation, the mere existence of a foreign exchange market in each country indicates that international trade and capital flows have to be transacted on terms mutually agreed by both or more parties. The major role of the foreign exchange market in this circumstance is to determine through market forces reasonable rates of exchange for two or more currencies such that international transactions can be facilitated at the utmost efficient manner.

Apart from determining market rates of exchange for various currencies, the foreign exchange markets, in most instances, also provide forward facilities to cover exchange risks to international traders and investors. This essential service provided by the foreign exchange markets is extremely important, particularly so in a world of fluctuating exchange rates. At least, the forward facilities provide a beneficial insurance cover against exchange risks such that expected export earnings would not be eroded overnight by a drastic change in exchange rates. On the other hand, importers will not face alarmingly large import bills when the time for their payments are due. The same advantages also apply to international investors and borrowers where foreign currencies are part and parcel of their businesses.

In recent years, developments in the developed countries have shown that the foreign exchange market is not merely a market for foreign currencies. In these countries, the foreign exchange market is just like another financial market where investment opportunities in financial assets are readily available to investors. In the foreign exchange markets, foreign currencies, like any other financial assets, earn varying rates of return to investors. This is particularly so, where futures and option markets for foreign exchange also exist parallel to the traditional foreign exchange markets.

From a central bank's point of view, the foreign exchange market may also provide an avenue for effective implementation of exchange rate and monetary policies. Once an exchange rate regime is adopted, the major responsibility of the central bank is to ensure that the exchange rate system is operated in an effective

manner to achieve certain desired goals of the country. Unless the exchange rates are administratively determined solely by the government, the foreign exchange market provides a reasonably good gauge of the long-run equilibrium exchange rate where both demand and supply of foreign currencies are met. The determination of exchange rates in this manner would at least theoretically avoid unnecessary distortion in the allocation of scarce resources. In short, the role of the exchange market in this respect is to ensure that the exchange rate would not be either over-valued or under-valued. Either of these undesirable features would have serious repercussions on trade, capital flows, foreign investment, government finance, external debt situation, balance of payments adjustment, controllability of money supply and income distribution. In view of the pervasiveness of its implications, the implementation of exchange rate policy through intervention in foreign exchange markets must be effected with utmost care. Of course, other political, social and economic considerations may be equally, if not more important, in prescribing the final decision of central bank intervention in foreign exchange markets. Over the short run, central bank interventions may aim at reducing instability in exchange markets and providing continuous quotes for its country's currency.

I. Objectives of the Research Project

In view of the important roles of foreign exchange markets in various respects, there is a need to study the market in greater depth so that future developments of each country's foreign exchange market towards an efficient one can be charted with a better perspective.

The purpose of this project is therefore to identify the basic strengths and weaknesses of existing foreign exchange market structures and examine whether the development of foreign exchange market will help improve the effectiveness of monetary and exchange rate policy in cushioning off external shocks. As indicated in the terms of reference approved by the Board of Governors of The South East Asian Central Banks (SEACEN) Research and Training Centre at its meeting in Rangoon on 19 January 1984, "the project will study the development of foreign exchange market as such undertaking would eventually improve the effectiveness of exchange rate and monetary policies as well as facilitate the smooth adjustment of domestic money market to disturbances originating from the external sector."

II. Organization of the Study

This study is a collaborative project of the member central banks and The SEACEN Centre. Under this collaborative approach, the researchers of the member central banks and monetary authorities prepared the respective country studies while The SEACEN Centre served as the co-ordinating agency and conducted an overall analysis based largely on the country studies. Bank Indonesia, Bank Negara Malaysia, Nepal Rastra Bank, the Central Bank of the Philippines, The Monetary Authority of Singapore, the Central Bank of Sri Lanka and the Bank of Thailand participated in the project. The scope of the study is therefore limited to seven countries, and excluded Burma. The time frame of the study covers a period of 15 years from 1970 to 1984 (both years inclusive). However, for the empirical studies in Chapter 3, the period covered is from March 1973 to December 1984 during which the generalized floating exchange rate system emerged and became deep-rooted.

In this study, the term "central bank" also includes monetary authorities. For purposes of inter-country comparison, the U.S. dollar is extensively used in Part One.

The study is divided into two parts. Part One is an overview of the foreign exchange markets in the SEACEN region while Part Two contains the country papers of the seven member countries.

III. Scope of the Study

Part One is an overview of foreign exchange markets in the SEACEN region. This part consists of three chapters. Chapter 1 provides an analysis on the exchange rate and control systems adopted by the SEACEN countries. Such analysis is important in two respects. The exchange rate regime adopted would determine the relative price at which foreign currencies are traded. Secondly, the exchange control and regulations would influence the rate at which the foreign currencies are allowed to flow in and out of a country. These two aspects invariably exert pervasive impact on foreign exchange operations.

Given the institutional framework as determined by the exchange rate and control system, Chapter 2 attempts to analyze the existing structures of foreign exchange markets in the SEACEN countries. This chapter also analyzes the major factors and constraints affecting the orderly development of foreign exchange markets in the region.

The final chapter of Part One attempts to study the reaction of central banks and monetary authorities on external shocks. This chapter also discusses the basic question of whether further development of the existing foreign exchange markets will help improve the effectiveness of exchange rate and monetary policies, particularly in the face of external shocks.

Part Two contains seven country papers of member central banks. The country studies examine in detail historical developments of each country's foreign exchange market; the structure and characteristics of each market, including its regulations and restrictions; the roles of central banks and monetary authorities in developing their own foreign exchange markets as well as implementing exchange rate and monetary policies through their foreign exchange markets. The country chapters provide microscopic studies of foreign exchange markets in the SEACEN region.

Chapter 1

EXCHANGE RATE AND CONTROL SYSTEMS

As the adoption of any particular exchange rate and control system will have profound implications on the operations of a foreign exchange market, this chapter intends to explain the main rationales for the adoption of the existing systems of the SEACEN countries, and their implications and effects on the operations of their foreign exchange markets.

This chapter comprises three sections. Section One relates to the historical experience of the SEACEN countries in their efforts to realign their exchange rates in the face of the final collapse of the Bretton Woods system in 1973 and the establishment of the generalized floating exchange rate arrangement since 1973. This is to provide a historical perspective on the evolution of the past exchange rate arrangements in the SEACEN countries. Under the new generalized floating exchange rate system, the member countries were subsequently given options to adopt any particular exchange rate system. In response to this development, the SEACEN countries finally decided to adopt the kind of exchange rate arrangement most suited to their national needs.

Section Two of this Chapter attempts to address the various issues involving the final choice of exchange rate regimes in the SEACEN region.

Following the adoption of the various exchange rate systems in the SEACEN region, the final section proceeds further to analyze the implications and effects of the existing exchange rate systems on the operations of their foreign exchange markets in these countries. This section will highlight the major constraints under which foreign exchange markets in the SEACEN Countries operates.

I. Major Developments and Realignments, 1970-84

For the present study, the period covered is from 1970 to 1984, with three distinct sub-periods. The first sub-period extends from 1970 to March 1973 when the Bretton Woods system encountered a series of threats of breakdown, with intermittent attempts to reinstate the par value system before its final collapse in March 1973. The second sub-period stretches from April 1973 to August 1978 during which the generalized floating exchange rate system was experimented, with a lot of adaptation and accommodation on the part of the developing countries, including the SEACEN countries, to the new international monetary arrangement. The third sub-period under the present study is the period from April 1978 onwards. During this period, the generalized floating exchange rate system has already been deeply entrenched, but with a recurrent overshooting in the exchange rates of a few major currencies, in particular the U.S. dollar.

Table 1.1 shows a calendar of changes in the exchange rate regimes of the SEACEN countries during the period 1970 to 1980.

1. The Unsettled Period, 1970 – March 1973

The par value system under the Bretton Woods framework had undergone several stresses since its establishment in 1946. By the early 1970s, it was obvious that the system was again under serious threat of breakdown when some of the major currencies started to float from August to December 1971. The par value system was again reinstated after the Smithsonian Agreement in December 1971.

Table 1.1
EXCHANGE RATE REGIMES OF THE SEACEN COUNTRIES, 1970-1986

	Indonesia	Malaysia	Nepal	Philippines	Singapore	Sri Lanka	Thailand
Adjustably pegged period (before July 1971)	Pegged to U.S. dollar	Pegged to Pound sterling	Pegged simultaneously to Indian rupee and U.S. dollar	Pegged to U.S. dollar Managed float after 21 Feb. '70	Pegged to Pound sterling	Pegged to Pound sterling	Pegged to U.S. dollar
Unsettled period (August 1971-March 1973)	Pegged to U.S. dollar	Pegged to Pound sterling Pegged to gold after Jun. 1972	Pegged simultaneously to Indian rupee and U.S. dollar	Managed float	Pegged to Pound sterling Pegged to gold after Jun 1972	Pegged to U.S. dollar after Nov. 1971 Pegged to Pound sterling after 8 Jul. '72	Pegged to U.S. dollar
Generalized float period (April 1973-1986)	Pegged to U.S. dollar	Managed float after 21 June 1973	Pegged simultaneously to U.S. dollar & Indian rupee & adopted dual exchange rates for U.S. dollar after Mac. 1978	Managed float	Managed float after 20 June 1973	Basket pegging after May 1976	Pegged to U.S. dollar
	Managed float after 15 Nov. 1978	Basket pegging within margins after Sep. 1975	Pegged to a basket of currencies excluding Indian rupees after 1 Jun. '83 Pegged to a basket of currencies including Indian rupees from Jun. 1986	Independent float after 13 Dec. '84	Basket pegging within margins after Sep. 1975	Managed float after Nov. 1977	Basket pegging within margins after 1 Mar. '78 Pegged to U.S. dollar after Nov. 1978 Fixed exchange rate after 1 July 1981 Basket pegging

Under the agreement, the par value system was reformed to have a wider permissible margin for exchange rate movements around the parities from 1 to 2.25 per cent. However, the revival of the par value system was short-lived. The pound sterling began to float in June 1972, followed by a 10 per cent devaluation in the U.S. dollar in February 1973. After this, all major currencies began to float, effectively putting an end to the Bretton Woods system.

During this turbulent period, the SEACEN countries underwent several major exchange rate realignments in response to the new developments. This was particularly so after July 1971 when the Bretton Woods system was under severe stress.

Before July 1971, the SEACEN countries were at one time members of either the sterling area or the dollar area. Of the SEACEN countries, Malaysia, Singapore and Sri Lanka were former members of the sterling area. These countries, because of their colonial heritage, held their exchange reserves mainly in pound sterling and used this currency for international payments. Their currencies were therefore pegged to the pound sterling under the adjustably-pegged period until July 1971, even though they had withdrawn from the sterling area in the second half of 1960s after realizing a growing weakness in the pound sterling. Nepal had never been under British rule, but its currency was closely related to the pound sterling because it was pegged to the Indian currency.

The other SEACEN countries, namely Indonesia, the Philippines and Thailand were former members of the dollar area, and their currencies were pegged to the U.S. dollar. In Indonesia, between the period 1970 to July 1971, the Indonesian currency (rupiah) was adjusted twice, once in April 1970 for the rate of General Foreign Exchange and the other in December 1970, for the rate of Aid Foreign Exchange as part of the trade and exchange liberalization effort of the Indonesian government. In the case of the Philippines, the government floated and devalued the peso in February 1970 in the face of persistent balance of payments deficits and the mounting debt-servicing problem. As for Thailand, the Thai government continued to peg the baht to the U.S. dollar during the period.

From August 1971 to March 1973, the exchange rates of the SEACEN countries entered into a period of uncertainty. All the countries adopted accordingly a cautious "wait and see" attitude. After the Smithsonian Agreement in December 1971, it was generally believed that the par value system would return to normal, even though the system was on the brink of collapse on several occasions. During this unsettled period, the SEACEN countries in general kept their exchange rate regimes intact, except Malaysia, Singapore and Sri Lanka. Anticipating that the pound sterling would weaken further, Sri Lanka took a drastic step by pegging its rupee to the U.S. dollar instead of the pound sterling in November 1971. The pound sterling did weaken and culminated in its final devaluation in June 1972. However, pegging the rupee to the U.S. dollar caused a severe disruption in Sri Lanka's international trade, so that the government had to reverse its decision by pegging the rupee back to the pound sterling in July 1972.

As for Malaysia and Singapore, both countries severed their relationship with the pound sterling when the latter was devalued in June 1972. The two currencies, Malaysian ringgit and Singapore dollar, were then pegged to the gold, with the U.S. dollar as the intervention currency. This represented the first two cases of changing the exchange rate regime over this period.

The other SEACEN countries continued to hold on to their old exchange rate regimes during the entire period of August 1971 to March 1973. However, these

countries introduced several realignments into their exchange rates amidst the international monetary crisis.

The Indonesian rupiah was devalued by 9 per cent to Rp415 per U.S. dollar in August 1971. At the same time, the system of multiple exchange rates was finally dismantled to pave the way for a further liberalization in latter years.

The Nepalese rupee was also devalued against the Indian rupee by 3 per cent in December 1971. In response to the pound sterling devaluation in June 1972, the Nepalese rupee was floated against the pound sterling in July 1972. When the U.S. dollar was devalued in February 1973, the Nepalese rupee was also devalued against the U. S. dollar although it floated against the Indian rupee and the pound sterling.

The Philippine peso went on a managed floating, although closely pegged to the U.S. dollar. While pegged to the U.S. dollar, the Thai baht was devalued twice in terms of gold during the period, one in May 1972, by 7.9 per cent, and the other, in March 1973, by 10 per cent. In these two instances, the par value of the Thai baht vis-a-vis the U.S. dollar remained unchanged.

2. The Experimental Years, March 1973 – March 1978

After the collapse of the Bretton Woods system, most of the major currencies floated against each other, while others exercised several realignments to cushion off any potential instability in their respective foreign exchange markets. A new system of international monetary arrangement was gradually emerging. Meanwhile, there was much discussion at international fora toward a reform of the international monetary system. It was only in January 1976 that the International Monetary Fund (IMF) finally endorsed the new system, under the Second Amendment to the IMF Articles of Agreement, after almost three years of experimenting on a generalized floating exchange rate system. The Second Amendment went into effect formally in March 1978 onwards.

During this five-year period, the SEACEN countries made several attempts to adapt to the new system of generalized floating. While Indonesia and the Philippines adopted a cautious attitude by not changing their exchange rate regimes, the other SEACEN countries strongly reacted to the new developments.

The Nepalese rupee was devalued against the U.S. dollar in October 1975 by 18.48 per cent. Effective from March 1978, the same rupee, however, got actually revalued against the U.S. dollar by 4 per cent and devalued against the Indian rupee by 4 per cent, after observing the consistently broken cross rates among the three currencies. At the same time, Nepal also introduced the dual exchange rate regime against the U.S. dollar. Under the new regime, two rates were quoted for the U. S. dollar, namely the "basic" exchange rate and the "second" exchange rate. The "basic" rate was for transactions involving settlement of official debts and imports of essential and development goods, while the "second" rate was applied to exports of priority items and those imports not covered by the "basic" rate.

In May 1973, Malaysia and Singapore decided to abrogate the free interchangeability at par between the Malaysian and Singapore dollar. In June 1973, the two countries floated their currencies against the U.S. dollar. It was not until September 1975 that the two countries finally decided to peg their currencies to a basket of their respective trading partners' currencies. Since then, the exchange rate regime in the two countries remained unchanged.

After it was re-linked to the pound sterling in July 1972, the Sri Lankan rupee depreciated generally against major currencies. In May 1976, Sri Lanka changed its exchange rate regime by pegging to a basket of currencies, with the pound sterling as the intervention currency. However, the year 1977 witnessed a major change in policy. First of all, the dual exchange rate regime under the Foreign Exchange Entitlement Certificate Scheme was abolished in November 1977. Secondly, the exchange rate regime turned into a managed float system, with the U.S. dollar as the intervention currency. However, the margins for customer transactions were still fixed by the Central Bank of Sri Lanka. At the same time, exchange control regulations were significantly liberalized.

Thailand did not change its exchange rate regime during the period 1973 to 1978. However, the Thai baht was in fact revalued by 4 per cent against the U.S. dollar in July 1973. The objective was to maintain the value of the Thai baht to its previous level against major currencies in order to prevent rising import costs.

3. The Generalized Floating Period, April 1978 Onwards

After the Jamaica Agreement in January 1976, the generalized floating system was formally endorsed by the Second Amendment to the IMF Articles of Agreement. However, it was not until March 1978 that the amendment went into operation. Among several new provisions, the most important one is that each member country has the option to choose its own exchange rate arrangement. As a result of this new provision, the SEACEN countries subsequently adopted the exchange rate regime most suited to their economic and financial structures. Of the SEACEN countries, Malaysia, Singapore and Sri Lanka maintained the same exchange rate regime as the ones they had adopted before March 1978. The other SEACEN countries, however, modified their exchange rate regimes in due course.

Indonesia adopted a system of managed float in November 1978. Under the new regime, Bank Indonesia sets the middle rate each day using a basket of currencies out of Indonesia's main trading partners as the main variable. At the same time, the Indonesian rupiah was devalued by 33.6 per cent against the U.S. dollar in order to improve the non-oil export sectors. In January 1982, the foreign exchange system was further liberalized as exporters were no longer required to sell their foreign exchange proceeds to the exchange banks. In March 1983, the Indonesian rupiah was devalued again by 27.6 per cent against the U.S. dollar as part of the policy measures to restore competitiveness of Indonesian exports in the face of declining commodity prices. The Indonesian rupiah was devalued further by 31 per cent against the U.S. dollar in September 1986 with the aim of restoring external balance amidst a further worsening of commodity prices, in particular the oil prices.

Nepal also made several changes in its exchange rate regime. After realizing that the multiple exchange rate system would not be beneficial to the country in the long run, Nepal took the first step to unify the dual exchange rate system for the U.S. dollar in October 1981. But the exchange rate for the Indian rupee remained separate. In other words, the Nepalese rupee maintained two fixed rates, one with the U.S. dollar and the other with the Indian rupee. The fixed rate for the Indian rupee was for domestic transactions and also for transactions between residents of Nepal and India. The fixed rate for the U.S. dollar was on the other hand, used for the calculation of cross exchange rates for other major currencies. On 1 June 1983, Nepal decided to peg its currency to a basket of its major trading partners' currencies, excluding the Indian rupee. The fixed exchange rate for the Indian rupee was somehow maintained. Under this new regime, exchange rates for major convertible

currencies were quoted daily, with the exchange rate for Indian rupee being fixed until November 1985. With this kind of exchange rate arrangement, there was a tendency for broken cross rates which created an opportunity for people to arbitrage among broken cross rates and make profit at the expense of Nepal Rastra Bank. In mid-1985, there was a shortage of Indian rupee, due mainly to the broken cross rates and the persistent trade deficits with India. These developments led to a massive drain of Indian rupee reserves held by Nepal Rastral Bank. As a result, the Nepalese rupee was subsequently devalued by 17 per cent against the Indian rupee to eliminate the thorny problem of broken cross rates. In order to solve the problem of broken cross rates once and for all, Nepal Rastra Bank in June 1986 finally included the Indian rupee in the basket of currencies.

Both Malaysia and Singapore, on the other hand, continued to maintain the same exchange rate regime adopted in September 1975, i.e., pegging their respective currencies to a basket of their major trading partners' currencies. During this period, both countries also liberalized their exchange control regulations. While Singapore eventually dismantled its exchange controls in June 1978, Malaysia continued to liberalize further its exchange controls to a significant extent throughout the period 1978 to 1986.

Throughout the period 1970-1984, the Phillipines continued to maintain some kind of managed float system. The exchange rate of the peso was allowed to float, although bands around the guiding rate were observed. Before April 1972, the band system was 3/4 per cent above and one per cent below the guiding rate which was introduced in February 1970. The band was widened in April 1972 to 4 1/2 per cent below and above the guiding rate. The U.S. dollar was the intervention currency throughout. Following a highly destabilizing balance of payments deficit in 1983, foreign exchange trading was suspended and for the time being, the exchange rate of the peso against the U.S. dollar was fixed. After December 1984, the Central Bank of the Philippines decided to let the peso float freely. The exchange rate regime adopted by the Philippines is now classified by the International Monetary Fund as "independently floating".

Sri Lanka continued its managed float system during the same period. However, Sri Lanka further liberalized exchange trading by allowing the commercial banks to freely determine their own margins for customer transactions in all currencies.

Immediately after the Second Amendment came into effect, Thailand changed in March 1978 its exchange rate regime, from one pegged to the U.S. dollar to one pegged to a basket of its major trading partners' currencies. However, this change was short-lived as the regime went back to a peg with the U.S. dollar under the Daily Fixing System. The Daily Fixing System was discontinued on 1 July 1981, after which the exchange rate of the Thai baht against the U.S. dollar was fixed at 23 baht per U.S. dollar by the Exchange Equalization Fund. After maintaining a fixed exchange rate against the U.S. dollar for about three years, the Thai government decided to revert to the system of pegging the baht to a basket of currencies, as the Thai baht had been under pressure.

II. Choice of Exchange Rate Regimes

After much deliberation and a series of exchange rate realignments in the 1970s, the SEACEN countries finally settled the basic issue involving the choice of appropriate exchange rate regimes. The issue lies fundamentally on a choice

between pegging and floating their currencies. In choosing an exchange rate regime, the exercise involves the assessment of costs and benefits associated with each option. In many instances, this had created a dilemma for the SEACEN countries. By the end of 1986, the SEACEN countries had generally overcome the dilemma, and adopted those exchange rate regimes which were considered to be most appropriate and suited to their respective economic and financial structures.

Of the seven countries under study, Malaysia, Nepal, Singapore and Thailand had specifically rejected, for one reason or another, the floating exchange rate system; and, declared officially that their exchange rates would be pegged to their respective undisclosed baskets of major trading partners' currencies. On the other hand, the Philippines preferred the other extreme, i.e., independently floating. In between these two categories is the intermediate group of countries which practice managed floating. Both Indonesia and Sri Lanka are in this category of countries. Table 1.2 sets out the current exchange rate regimes officially declared by the SEACEN countries as of 30 November 1986.

Table 1.2

OFFICIAL EXCHANGE RATE REGIMES OF THE SEACEN COUNTRIES
As at 30 November 1986

Country	Name of Currency	Year of Adoption	Exchange Rate Regime
Indonesia	Rupiah	1978	Managed Floating
Malaysia	Ringgit	1975	Basket Pegging
Nepal	Rupee	1983	Basket Pegging
Philippines	Peso	1984	Independently Floating
Singapore	Singapore dollar	1975	Basket Pegging
Sri Lanka	Rupee	1977	Managed Floating
Thailand	Baht	1984	Basket Pegging

Source: IMF, *International Financial Statistics.*

A casual observation of these officially-declared exchange rate regimes suggests that the SEACEN countries have a fairly diverse range of exchange rate regimes, from independently floating to strict pegging. However, a closer examination of the nominal exchange rate movements reveals that the actual practice is very much different from the officially-declared exchange rate regimes. In this study, the exchange rates of domestic currencies vis-a-vis the U.S. dollar are used to analyze the actual implementation of the different exchange rate policies for three reasons. First, the U.S. dollar is the sole intervention currency for all SEACEN countries in their intervention operations in foreign exchange markets. Secondly, most of the international trade and, to a significant degree, capital flows are denominated in U.S. dollars. Finally, the use of the U.S. dollar as a numeraire or common denominator will facilitate inter-country comparison in a more meaningful way. The exchange rate movements of the SEACEN countries is shown in Appendices 1.1 – 1.7

The discrepancy between officially declared policy and the actual practice is rather obvious in most of the SEACEN countries. Indonesia, for instance, had declared that its exchange rate regime is of the managed floating type. In other words, the exchange rate is expected to be determined largely by market forces. The foreign exchange market will be subjected to central bank intervention as and when necessary to fine-tune and provide continuous quotes. However, this is not so in practice. Prior to 1982, a major part of foreign exchange transactions was conducted through the Jakarta Foreign Exchange Bourse. In the Bourse, participants can only bid or offer for the amount of foreign exchange at the exchange rate set by Bank Indonesia. The intervention rate is determined largely by the trade-weighted average of exchange rates among Indonesia's major trading partners' currencies. After the promulgation of Government Decree No. 1 of 1982 where foreign exchange can be held freely by the private sector, the inter-bank market for foreign exchange became increasingly important. Even then, Bank Indonesia continued to set the intervention rate and stood ready to buy and sell unlimited amounts of foreign exchange or rupiah to authorized traders for the day. From an analysis of the nominal exchange rate movements, it is obvious that the Indonesian rupiah followed closely the movement of the U.S. dollar between 1978 and 1983. From 1983 to 1985, the Indonesian rupiah depreciated against the U.S. dollar at a steady pace without much fluctuation, indicating the effect of day-to-day intervention by the Bourse.

In contrast, both Malaysia and Singapore had declared officially that their exchange rates were pegged to their respective baskets of major trading partners' currencies. In practice, the exchange rate is determined mainly by market forces. The role of central banks and monetary authorities in the foreign exchange markets was reduced to fine-tuning or eliminating abrupt fluctuations in exchange rates. Since 1975, exchange rates in the two countries has not exhibited a regular pattern or step function. Both countries also explicitly declared that the composite baskets , which are not disclosed to the public, are used extensively as indicators for foreign exchange market intervention. In this respect, both Malaysia and Singapore are considered as "peggers".

For the other SEACEN countries like Nepal, the Philippines, Sri Lanka and Thailand, exchange rate movements exhibited such a strong degree of central bank intervention that exchange rates did not move abruptly and, did so mostly in one direction. For Nepal, its exchange rate depreciated against the U.S. dollar until the end of 1984 and later appreciated . The currency has been depreciating against the U.S. dollar again since mid-1985. As in other SEACEN countries, the nominal effective exchange rate was used as an indicator for determining the intervention rate.

While the Philippines had officially adopted an independently floating system, from the analysis of its exchange rate movements, central bank intervention was rather apparent. It was also indicated that the nominal effective exchange rate was frequently used as one of the indicators to determine the intervention rate. Similarly, Sri Lanka had adopted officially the managed floating system, but in general, the rupee moved closely with the U.S. dollar between 1977 to 1985. During the period, there was a general depreciation of the rupiah in a rather smooth way against the U.S. dollar. Like the other SEACEN countries, the nominal effective exchange rate was actively used as a guide in determining the intervention rate.

As for Thailand, the exchange rate had been effectively pegged to the U.S. dollar prior to November 1984. Even though there was a change in the exchange rate regime to the basket-pegging system, the basket used was currency-weighted,

unlike its counterparts in the other SEACEN countries. As its international trade is largely denominated in the U.S. dollar, it is reasonable to infer that the U.S. dollar would have a higher weight than other currencies. In this sense, the Thai baht is therefore heavily pegged to the U.S. dollar though at a lesser degree than before.

From the foregoing analysis, it is apparent that the SEACEN countries are in general "peggers" rather than "floaters". The only visible difference among them is the extent of pegging. In most instances, the exchange rate movement falls more closely in the category of a crawling peg, using nominal effective exchange rates as the main indicator. Like most of the developing countries, the SEACEN countries in principle rejected the adoption of a floating exchange rate system, considering the fact that floating may result in unstable exchange rates which could bring harmful effects on the economy. As the SEACEN countries are mainly open economies, unstable exchange rates would adversely affect both international trade and the inflow of foreign capital into the region. This is because unstable exchange rates can generate uncertainty and high exchange risk which cannot be easily covered as a result of limited forward facilities in the region, except for Singapore. Foreign investment may also be discouraged not only by the high exchange risk involved, but also by the probable loss of confidence arising from a suspicion that monetary and fiscal discipline has been abandoned. Even if the floating system may not result in unstable exchange rates, the SEACEN countries may not be able to realize the full benefits of a floating exchange rate system. Owing to the peculiar characteristics of the economic and financial structures in the region which will be described below, the usual insulation properties and rapid adjustment through exchange rate changes in the floating exchange rate system might not be operative at all.

The SEACEN countries as a group had not adopted the floating rate system, more so because of their economic and financial structures which fail to meet two feasibility conditions for a floating rate system. The two feasibility conditions are (1) the degree of openness of the economy, and (2) the existence of well-developed financial markets which are well-integrated into the international system.

McKinnon (1963), who had introduced the openness criterion, argued that an economy can be so open that, if the exchange rate were to float, it is possible that domestic traders would transact their businesses in foreign currencies and therefore the home currency would be very thinly traded, resulting in wide fluctuations in exchange rates. On this argument, the more open an economy, the less likely is a floating exchange rate feasible.

The second criterion requires that financial markets in a country are so well developed that the gross substitutability of domestic and foreign assets in private portfolios is almost perfect. This is important because this condition will ensure that the domestic financial market is well-integrated with the international markets, and that the two-way capital flows are readily feasible in response to interest rate and exchange rate changes. Given this condition, the short run exchange rate will be inherently stable (Branson and Louka Katseli – Papaefstration, 1981).

A close examination whether the SEACEN countries meet these two feasibility conditions follows. On the openness criterion, there is no doubt that the SEACEN countries as a whole do not meet this test. For all the heterogenous nature of their economic structure, the SEACEN countries are basically open economies. The extent of openness of these countries is visible from Table 1.3. Among the SEACEN countries, Singapore and Malaysia are the two most open economies, with trade dependency ratios exceeding 100 per cent. On the other extreme is Nepal whose

Table 1.3

OPENNESS OF THE SEACEN COUNTRIES
(Trade Dependency Ratios)[1]
Percentages

Country	1970	1975	1980	1985
Indonesia	29.1	46.6	55.1	45.4
Malaysia	90.5	94.5	116.8	113.1
Nepal	13.6	19.8	21.7	26.8
Philippines	39.1	44.0	46.2	39.5
Singapore	209.7	242.0	391.3	276.8
Sri Lanka	37.6	42.4	86.1	64.4
Thailand	38.1	45.2	55.4	55.7
"Floaters"[2]	30.4	33.8	40.0	40.1

Note :
[1] Refers to the ratio of the sum of exports and imports to GNP.
[2] Refers to average figures for Canada, Japan, the United Kingdom and the United States.
Source: IMF, *International Financial Statistics.*

ratio hardly exceeded 30 per cent. In between these two groups is the intermediate category of countries whose ratios ranged mostly from 30 per cent to 80 per cent. This group comprises Indonesia, the Philippines, Sri Lanka and Thailand. Compared to the average trade dependency ratios of the "floaters" comprising Canada, Japan, the United Kingdom and the United State, the SEACEN countries except Nepal recorded higher ratios. This observation confirms Heller's results (Heller, 1976) that relatively open economies tend to peg while relatively closed economies tend to float.

In the case of Nepal, the overriding factor for its decision to peg is its close economic link with India. In fact, India has been the largest trading partner of Nepal. The two countries also have a long open border, with unrestricted movement of goods, capital and labour. Moreover, the unlimited convertibility between the Indian currency and the Nepalese rupee also indicates the close link between the two countries. As a result of this traditional close link, the Nepalese rupee has been pegged closely to the Indian currency. In 1986, the Indian currency was included in the basket of currencies to which the Nepalese rupee was pegged.

As to the capital market criterion, it is difficult to determine whether the SEACEN countries meet the test. This is mainly because there is still no well-developed indicator for capital market development and its integration with international financial markets. For the purpose of this study, however, four ratios are used to indicate financial development and its international integration (see Table 1.4). The first three ratios, i.e., the ratio of M1 to GNP, the ratio of M2 to GNP, and the ratio of financial assets of the commercial banks to GNP, are indicators of financial development. They indicate that the more well-developed the financial system, the better the quality of financial assets produced, thereby providing a necessary condition for the substitutability of domestic assets for foreign assets and vice versa. The sufficient condition for this substitutability is suggested by an indicator of international financial

Table 1.4

FINANCIAL DEVELOPMENT AND INTERNATIONAL INTEGRATION IN 1984
(per cent)

Country	M1 / GNP	M2 / GNP	Financial Assets[1] / GNP	Sum of Foreign Assets & Liabilities[2] / GNP
Indonesia	10.6	23.8	31.7	7.0
Malaysia	18.0	61.7	80.0	11.3
Nepal	12.9	28.4	20.8	4.1
Philippines	6.4	20.9	42.6	23.7
Singapore	23.3	71.3	146.9	105.7
Sri Lanka	11.1	30.0	32.9	6.6
Thailand	9.7	56.7	61.7	8.5
"Floaters"[3]	18.1	60.5	119.8	18.9[4]

Note :
[1] Refers to total assets of the commercial banks less fixed assets.
[2] Refers to the sum of foreign assets and foreign liabilities of the commerical banks.
[3] Refers to average figures for Canada, Japan, the United Kingdom and the United States.
[4] Excluding the United Kingdom for its extreme figure (274 per cent)
Source: IMF, *International Financial Statistics.*

integration. In this case, the ratio of sum of foreign assets and liabilities to GNP is used as the integration indicator.

From Table 1.4, it is observed that only Singapore has financial development indicators consistently higher than that of the "floaters". Other SEACEN countries do not meet this necessary condition. As for the integration indicator, except for Singapore and the Philippines, all the other SEACEN countries also do not meet the sufficient condition.

As to the higher index for the Philippines, caution should be exercised in interpreting this figure because of the extent of offshore banking operations in the Philippines, the foreign assets of which may actually be quite sheltered (Heller, 1978). Secondly, the Philippines also has a large figure for foreign liabilities, reflecting the high incidence of foreign debt in the country. Taking the capital market criterion as a whole, the Philippines does not have the same degree of a well-integrated financial system as the "floaters".

In the case of Singapore, conditions seem to be favourable for an adoption of a floating exchange rate system. However, its economy may be susceptible to instability if the floating rate regime is adopted because of its high degree of openness. Other considerations such as the desire to maintain international competitiveness and to control inflation through the exchange rate policy have inhibited Singapore to float its currency more freely than it should.

Following the argument of Branson and Katseli-Papaefstration, in a country which does not have an internationally integrated capital market, the supply of and demand for foreign exchange will be determined mainly by current account flows. In such a situation, the short-run stability in the foreign exchange market will hinge heavily upon the Marshall-Lerner conditions for trade elasticities. Even if the Marshall-Lerner condition is met, it is still possible that the short-run stability in the exchange market may be disturbed as a result of the overriding presence of a J-curve effect.

In this connection, it is therefore important to examine the trade elasticities of the SEACEN countries to see whether the Marshall-Lerner condition is met. The general impression from various empirical studies on the price elasticities of major commodities produced by the SEACEN countries has indicated that elasticity pessimism seems to be the rule rather than the exception. Rana (1981) had compiled six summary tables on major empirical studies on trade elasticities of natural rubber, palm oil, rice, coconut oil and copra, tin and sugar. From the tables, it is observed that the price elasticities of the major commodities on both demand and supply sides are very low. The price elasticities on the demand side are low probably due to the low share of these commodities in the total world consumption, and the "necessity" characteristics of some of the commodities such as rice and sugar.

One would expect that the price elasticities of natural rubber, palm oil and tin are high because of the availability of close substitutes such as synthetic rubber, any other edible oils and aluminium. However, the empirical results show that for these commodities the price elasticities turn out to be low in general. One possible reason is the wider use of these commodities in various differentiated products, rendering the share of each commodity in each differentiated product relatively small. For instance, natural rubber can be manufactured into various rubber products and one of the most common uses of natural rubber is tyre. In the case of passenger-car tyre, the share of natural rubber in the total production of the tyre is less than 30 per cent, the rest being mainly the share of synthetic rubber, carbon black and steel belt. On the supply side, the low price elasticities reflect partly the long gestation period for perennial crops such as rubber, palm oil, and coconut oil, and partly the low mobility of factors engaged in producing these commodities (Rana, 1981). As a result of these low price elasticities, the SEACEN countries as a whole cannot afford to bear the risk of unstable exchange rate if a floating exchange rate system is to be adopted.

The SEACEN countries in general prefer to be "peggers" rather than "floaters" for other reasons. One of these reasons is the overdependence on the export of a few primary commodities and the heavy geographical concentration in trade patterns (Ng, 1987). While the shares of the SEACEN countries' major exports have been on the decline over the last two decades, the overdependence phenomenon is still painfully evident in most of them. Countries like Indonesia, Malaysia, Sri Lanka and to a lesser degree, Nepal and Thailand, continued to export a few major primary commodities which together accounted for the bulk of exports (30 per cent to 72 per cent in 1985 as shown in Table 1.5). Although the export of manufactured goods had increased its share to a significant degree, it, however, has been confined mainly to electronics products, textile products and petroleum products. In other words, there is also an overdependence phenomenon in the export of manufactures. Such overdependence has, on many occasions, rendered the SEACEN countries vulnerable to external shocks.

Table 1.5

EXPORTS BY PRINCIPAL COMMODITY IN THE SEACEN COUNTRIES

(Percentage of Total Merchandise Exports)

	1970	1975	1980	1985
Indonesia				
Petroleum	40.0	74.8	65.1	57.0
Rubber	19.3	5.0	4.9	4.3
Wood	9.1	7.0	7.7	2.1
Total	68.4	86.8	77.7	63.4
Malaysia				
Rubber	33.4	21.9	16.4	9.5
Palm oil	5.1	14.3	9.3	11.8
Petroleum	3.9	9.2	23.7	22.6
Tin	19.6	13.1	8.9	3.0
Timber	16.5	12.0	14.1	10.2
Total	78.5	70.5	72.4	57.1
Nepal				
Rice	n.a.	31.8	3.1	9.1
Jute & jute products	n.a.	n.a.	18.3	11.1
Timber	n.a.	13.1	14.8	0.1
Total	n.a.	44.9	36.2	20.3
Philippines				
Coconut & coconut pdts	20.3	20.1	14.1	7.5
Copper concentrates	17.0	9.2	9.4	1.8
Logs and timber	23.9	9.0	7.0	2.8
Sugar	17.1	25.3	10.8	3.7
Total	78.3	63.6	41.3	15.8
Singapore				
Petroleum products	19.0	26.3	28.5	26.7
Rubber	14.0	10.2	7.9	3.0
Telecommunication	3.0	3.1	6.6	2.0
Total	33.0	39.6	43.0	31.7
Sri Lanka				
Tea	55.0	48.7	34.7	34.0
Rubber	21.8	16.5	14.6	7.3
Coconut Products	11.7	8.4	4.2	6.8
Total	88.5	73.6	53.5	48.1
Thailand				
Rice	17.0	13.0	14.6	11.7
Corn	13.3	12.7	5.5	4.0
Tapioca products	8.3	10.2	11.2	7.7
Rubber	15.1	7.7	9.3	7.0
Total	53.7	43.6	40.6	30.4

Source : IMF, *Supplement on Trade Statistics,* Supplement Series No. 4, 1982

The heavy geographical concentration in trade patterns is equally evident in the SEACEN countries, not only on the export side but also on the import side (see Table 1.6 and Table 1.7). Japan and the United States are the two major trading partners of the SEACEN countries on the export side. In 1985, both countries accounted for 72 per cent of Indonesia's exports, 38 per cent for Malaysia, 55 per cent for the Philippines, 30 per cent for Singapore, 27 per cent for Sri Lanka and 33 per cent for Thailand. For Nepal, India is the major trading partner, accounting for 45 per cent of its exports in 1984. Again, on the import trade, both Japan and the United States are the two major trading partners, accounting for the bulk of import trade (Indonesia, 42 per cent; Malaysia, 38 per cent; Philippines, 39 per cent; Singapore, 31 per cent; Sri Lanka, 22 per cent; Thailand, 37 per cent). The other major trading partners of the SEACEN countries are the EEC countries, the SEACEN countries themselves, and the Middle East countries.

Given the prevalent overdependence phenomenon and the high geographical concentration in trade patterns, it would be difficult for the SEACEN countries to adopt a floating exchange rate system basically on theoretical grounds. It has been argued that overdependence on the export of a few primary commodities requires constant adjustment, and exchange rate flexibility would be able to provide a solution. However, the low price elasticities discussed earlier render the exchange

Table 1.6

MAIN TRADING PARTNERS OF THE SEACEN COUNTRIES IN EXPORT MARKET

Country	Trading Partners[1]		Country	Trading Partners[1]	
Indonesia	Japan	(49)	Singapore	SEACEN	(23)
(89)	United States	(23)	(63)	United States	(21)
	SEACEN	(10)		EEC	(10)
	EEC	(7)		Japan	(9)
Malaysia	SEACEN	(26)	Sri Lanka	Middle East	(23)
(78)	Japan	(25)	(69)	United States	(22)
	EEC	(14)		EEC	(19)
	United States	(13)		Japan	(5)
Nepal[2]	India	(45)	Thailand	United States	(20)
(93)	United States	(9)	(67)	EEC	(19)
	EEC	(35)		SEACEN	(15)
	China	(4)		Japan	(13)
Philippines	United States	(36)	SEACEN[3]	Japan	(6)
(81)	Japan	(19)		United States	(7)
	EEC	(14)		EEC	(7)
	SEACEN	(12)		SEACEN	(5)

[1] Figures in parenthesis refer to percentage share of export market in 1985 unless stated otherwise.

[2] Refers to 1984 figures.

[3] Figures in parenthesis refer to frequency in occurrence.

Source : IMF, *Direction of Trade Yearbook.*

Table 1.7

MAIN TRADING PARTNERS OF THE SEACEN COUNTRIES IN IMPORT MARKET

Country	Trading Partners[1]		Country	Trading Partners[1]	
Indonesia	Japan	(28)	Singapore	SEACEN	(20)
(71)	EEC	(22)	(64)	Japan	(16)
	United States	(14)		United States	(15)
	SEACEN	(7)		Middle East	(13)
Malaysia	Japan	(23)	Sri Lanka	Middle East	(22)
(75)	SEACEN	(23)	(60)	EEC	(16)
	United States	(15)		Japan	(15)
	EEC	(14)		United States	(7)
Nepal[2]	India	(36)	Thailand	Japan	(26)
(75)	Japan	(17)	(68)	EEC	(16)
	EEC	(17)		SEACEN	(15)
	Korea	(5)		United States	(11)
Philippines	United States	(25)	SEACEN[3]	Japan	(7)
(65)	SEACEN	(14)		United States	(6)
	Japan	(14)		EEC	(5)
	Middle East	(12)		SEACEN	(5)

[1] Figures in parenthesis refer to percentage share of import market in 1985 unless stated otherwise.

[2] Refers to 1984 figures.

[3] Figures in parenthesis refer to frequency of occurence.

Source : IMF, *Direction of Trade Yearbook.*

rate adjustment through the floating rate totally ineffective. On the other hand, the overdependence phenomenon would, in fact, enhance the high degree of openness which, in turn, results in an unstable exchange rate if a floating rate system is adopted. The geographical concentration in trade patterns also provides a strong case against the floating rate system. This is because where trade is heavily concentrated in a few trading partners, an exchange rate fluctuation in these trading partners would be swiftly transmitted to the home country through the trade account. It is therefore beneficial from the economic point of view for the home country to peg its currency to its major trading partners' currencies. This is at least to ensure that the prices of exports and imports which are normally denominated in foreign currencies would be relatively stable in domestic currency terms. In this way, pegging would help reduce exchange rate fluctuations to a significant extent.

As mentioned earlier, the SEACEN countries are basically open economies, susceptible to external disturbances. One possible disturbance is the difference in inflation rates between the SEACEN countries and their trading partners. It has been argued that such difference would be a potential source of disturbance which might be readily transmitted through the trade account. In such a situation, exchange rate adjustments through the adoption of the floating rate system would be effective in insulating the home country from imported inflation. However, it is important at this

juncture to identify the real source of inflation differential. If the inflation differential originates mainly from a change in world prices, an exchange rate adjustment would be required. On the other hand, if the inflation differential is mainly the outcome of changes in domestic price level, any exchange rate adjustment would only worsen the inflationary tendency. This is because the exchange rate depreciation tends to cause import prices to rise significantly and, in turn, results in a further round of inflation, accentuating the vicious circle of depreciation and inflation.

There is strong evidence that the SEACEN countries have different rates of inflation from their two major trading partners, i.e., Japan and the United States (see Table 1.8). However, such inflation differentials are not adequate reasons for the adoption of a floating rate system. As discussed earlier, most of the SEACEN countries do not meet the two feasibility conditions. A successful introduction of the floating rate system would therefore imply that the SEACEN countries have to commit substantial amounts of real resources to further develop their exchange and financial markets so that these markets are well-integrated with the international ones. At the same time, the SEACEN governments must also be prepared to dismantle most of the exchange and payments restrictions to facilitate international capital flows.

Table 1.8

AVERAGE INFLATION DIFFERENTIALS BETWEEN THE SEACEN COUNTRIES AND MAJOR TRADING PARTNERS

set at Rs. 1.01	1971-75	1976-80	1981-85
SEACEN and Japan			
Indonesia	9.3	8.3	7.0
Malaysia	4.3	2.8	2.6
Nepal	4.2	4.3	6.5
Philippines	5.9	5.5	18.6
Singapore	5.1	3.9	1.4
Sri Lanka	4.9	9.0	10.0
Thailand	3.3	4.8	2.8
SEACEN and U.S.			
Indonesia	13.5	6.5	4.2
Malaysia	3.6	4.4	1.0
Nepal	5.4	4.3	4.3
Philippines	9.7	2.5	15.8
Singapore	7.0	5.2	2.2
Sri Lanka	2.4	5.5	7.5
Thailand	6.4	2.1	1.6

Note: Figures refer to absolute differentials.

Sources: IMF, *Supplement on Economic Indicators.*
IMF, *International Financial Statistics,* February 1987.

Futhermore, the insulation against external shocks is not inherent in a floating rate system. As Cooper (1982) argued convincingly, by the time the insulation takes effect, relative prices, total wealth and income, as well as the allocation of resources might have changed so that the insulation becomes defective. In certain instances, a floating rate system may actually transmit disturbances across national boundaries more strongly than a system of pegging. Moreover, a floating exchange rate system without well-developed financial markets, especially forward exchange market facilities, may have three detrimental effects: namely, a reduction in foreign trade, a decline in foreign investment and the adverse effects resulting from changes in the value of reserve currencies. While there are no empirical studies on these effects, both the fear of these potential detrimental effects and the suspicion over the insulation properties of a floating exchange rate system have convinced the SEACEN countries that pegging would be a better choice. Moreover, pegging in a world of generalized floating does not imply a rigidly fixed exchange rate system. In fact, in the past decade, experience in the SEACEN countries has shown that pegging especially the crawling type has provided some flexibility in cushioning off external shocks in a more systematic and orderly manner. The frequent realignment in the exchange rates of the SEACEN countries discussed in Section I also provided an additional tool at moderating external disturbances, as well as in enhancing the competitiveness of the SEACEN countries' exports.

III. Implications and Effects on Foreign Exchange Operations

The exchange rate regime exerts a direct influence on the direction of exchange rate movements and the extent of exchange rate fluctuations in the foreign exchange market. It provides the basic institutional framework within which exchange rates are determined. It also dictates the role of the central bank and the impact of market forces in the foreign exchange market. In certain instances, it also determines the different exchange rates for different transactions in the multiple exchange rate system.

As noted earlier in Section II, the SEACEN countries are, in general, "peggers" rather than "floaters". As a "pegger", the central bank would have to intervene in the foreign exchange market to keep exchange rates pegged to a certain target. Intervention in the foreign exchange market can be conducted in an undisclosed manner or in an open position. In the case of Malaysia, the Philippines and Singapore, the interventions in the foreign exchange markets are conducted through exchange brokers to provide signals to market participants about the general policy stance of the central bank, but not the extent of its intervention. The main advantage of this kind of intervention is that the central bank takes the initiative and yet does not have to fully commit too much foreign exchange for a full-scale intervention. Once the signal is clearly conveyed to the market, the central bank may just stop further intervention and let the market participants carry on in the desired trend of exchange rate movement.

The other kind of intervention is more explicit but passive in stance. Each day, the central bank, sometimes through an exchange equalization fund, announces the intervention rates at which they are obliged to buy and sell unlimited amounts of foreign exchange. In this case, the central bank clears the market every day at the intervention rates. The countries that are conducting this kind of intervention include Nepal, Indonesia, Sri Lanka and Thailand. In these countries, nominal effective exchange rates (calculated from the composite exchange rates of the major trading-partners' currencies) are extensively used as the major indicator for determining the intervention rates. In this kind of intervention arrangement, the role of market

participants in the foreign exchange markets can be at times very active as long as the exchange rate movement falls within the intervention limits. For instance, inter-bank foreign exchange markets in both Indonesia and Thailand are increasingly becoming active, and banks in these two countries resort to transacting in foreign exchange with their respective central banks only as a last resort. The main attractive feature of this kind of intervention is that the market always clears, and the demand is fully met.

One of the serious implications of central bank intervention in the foreign exchange market is that the central bank has to set aside a certain amount of intervention currency all the time. The availability of international reserves for constant market intervention depends largely on the balance of payments position of the country concerned. Table 1.9 shows the external reserves position of the SEACEN countries in terms of number of weeks of their imports.

The other implication arising from central bank intervention is the simultaneous change in money supply. Such changes would have pervasive effects on interest rates, prices, output and even employment. In order to offset this monetary influence, some central banks resort to sterilization, a process through which simultaneous offsetting changes in money supply occur so that the level of money supply remains intact at its level prior to the intervention. In this case, the central bank must have a battery of monetary instruments to use. Of these instruments, the

Table 1.9

EXTERNAL RESERVE POSITION OF THE SEACEN COUNTRIES
(Non-Gold Reserves in Terms of Weeks of Imports)

	Indonesia	Malaysia	Nepal	Philippines	Singapore	Sri Lanka	Thailand
1970	8.1	22.9	61.1	8.2	21.4	5.8	33.0
1971	8.7	27.1	59.1	12.1	26.6	7.4	31.8
1972	19.1	29.3	60.1	17.6	26.8	8.4	33.7
1973	15.3	27.1	59.1	28.7	23.2	10.5	30.6
1974	20.2	19.6	47.0	21.9	17.4	5.6	29.1
1975	6.4	21.2	29.1	18.2	19.2	3.9	26.6
1976	13.7	32.7	40.7	21.1	19.3	8.2	26.2
1977	20.9	31.9	43.1	18.0	19.2	21.7	20.4
1978	20.4	28.5	34.1	17.8	21.1	21.4	19.5
1979	29.3	25.9	32.5	17.7	17.2	18.5	13.4
1980	25.9	21.2	27.8	17.8	14.2	6.2	8.8
1981	19.6	18.4	28.5	12.7	14.2	8.9	9.0
1982	9.7	15.8	26.2	5.6	15.7	9.1	9.4
1983	11.8	14.8	14.9	4.9	17.1	8.0	8.1
1984	17.9	13.8	10.2	4.9	18.9	14.2	9.6
1985	24.3	22.4	6.2	11.4	27.2	12.3	18.6

Source: IMF, *Supplement on Economic Indicators, 1985.*

open market operations involving deliberate buying and selling of government securities by the central bank is the most appropriate and effective instrument for conducting sterilization. However, except for Indonesia and the Philippines, open market operations are not a common monetary instrument among central bankers in this region. Secondly, sterilization cannot be successfully carried out because of the high degree of openness of the SEACEN economies, which renders monetary control completely ineffective.

As a result of the pegging exchange rate system, exchange rates of most of the SEACEN countries do not fluctuate very much (Appendices 1.1 – 1.7). The fluctuation, if any, was reduced to a minimum through central bank intervention so that a stable exchange rate situation prevails to promote trade and foreign investment. However, it must be remembered that pegging in a par value system under the Bretton Woods period is very much different from pegging in a generalized floating system. Under the Bretton Woods system, pegging to any one of the major currencies was almost equivalent to maintaining a fixed parity with all other currencies (Branson and Katseli – Papaefstration, 1981). In the generalized floating system, pegging to a basket of currencies would imply floating against non-basket currencies. This has resulted in a substantial increase in exchange risk exposure since 1973. In response to such developments, both international traders and investors in the SEACEN region had improved their exposure management practices, seeking cover in forward markets. In relation to this, there was also a general increase in business cost arising from the increased demand for forward cover as well as the internal costs of managing foreign currencies. Following the wider fluctuations in exchange rates compared to the par value system, the SEACEN countries except Nepal have developed their forward facilities to cover exchange risks. But the forward markets, with the exception of Singapore, are mainly for bona fide business transactions and are relatively inactive.

While the exchange rate regime determines the extent to which exchange rates fluctuate, the exchange control regulations regulate the physical flow of foreign exchange into and out of the country. In the SEACEN region, only Singapore has totally dismantled its exchange controls since June 1978. The other SEACEN countries have adopted varying degrees of exchange controls. The purpose of these controls in general cover the following:

1) To shelter the domestic economy from destablizing capital flows, especially capital flight in times of political uncertainty, exchange speculation and high interest rate overseas;

2) To shelter low domestic interest rates in local money market from the spill-over effect of high interest rates overseas;

3) To serve as a measure to correct balance of payments imbalances, especially by discriminating against imports and inducing exports; and,

4) To offset exchange market pressure by, say, imposing capital control on outflow of short-term capital in response to high interest rates overseas.

Over the years since 1970, exchange control regulations in the SEACEN countries have been generally liberalized. For instance, in Indonesia, exporters are no longer required to sell their foreign exchange proceeds to commercial banks since 1982. Similarly, the commercial banks are also not required to sell foreign exchange to Bank Indonesia. In addition, residents are allowed to hold freely foreign currency deposits in Indonesia.

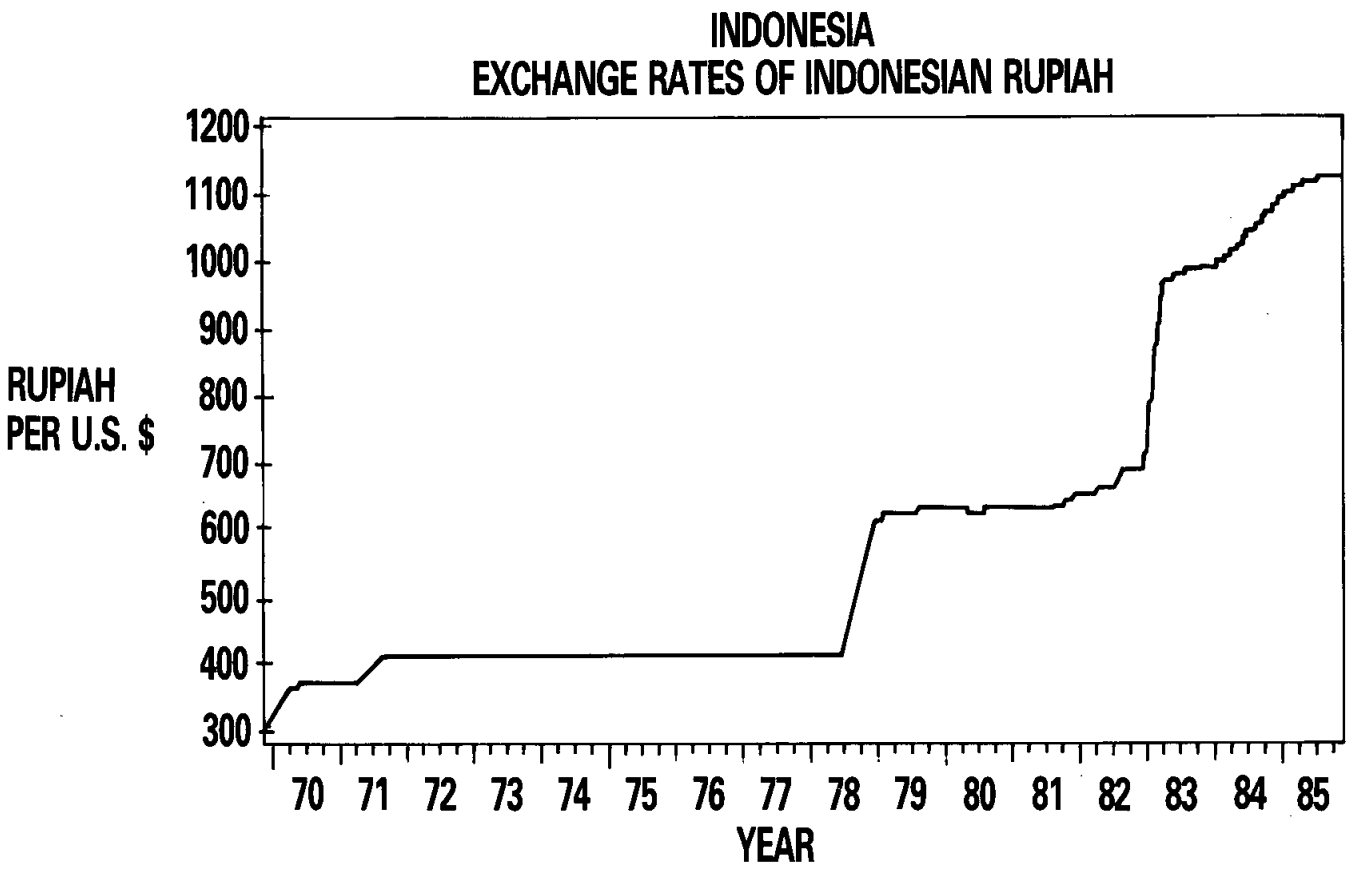
The liberalization of exchange controls has important implications on the development of foreign exchange markets in the region. The most important implication of liberal exchange control is the tolerance of private ownership of foreign exchange especially among the market participants including commercial banks, exporters, and importers as well as international investors. This ownership will allow market forces to operate in the exchange market such that the role of the central bank is reduced to smoothing out exchange rate movements rather than dictating day-to-day exchange rates for all transactions.

The liberalization of exchange control also serves to indicate the government's determination to allow greater role for private sector to play in the national economy. Such indication will be a crucial factor in inducing foreign investment to the country.

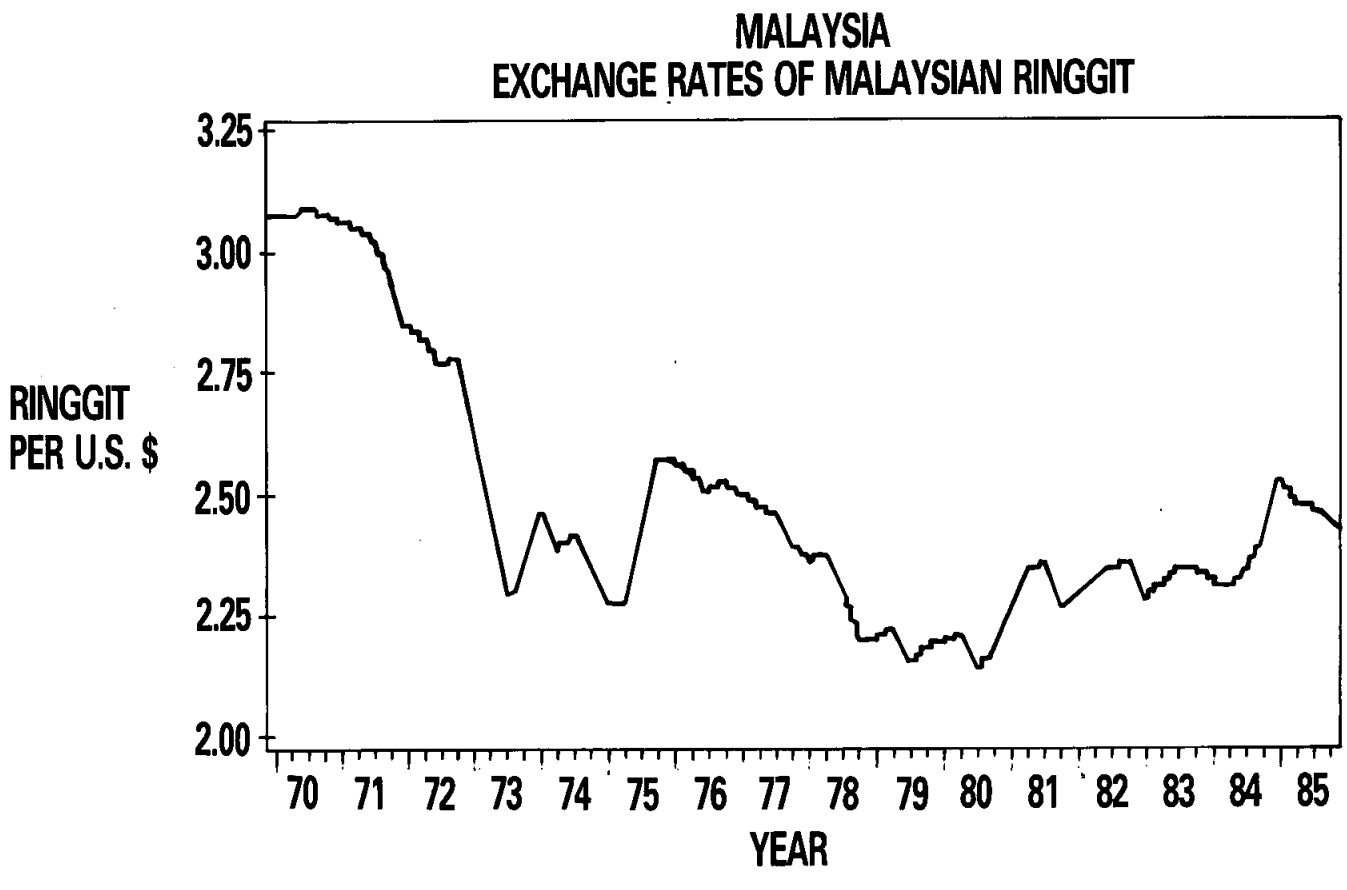
However, the tighter exchange controls in some of the SEACEN countries in the earlier period had given rise to the development of black foreign exchange markets. These black markets operated parallel to the official markets and in severe competition with the latter. The size of the market and the magnitude of transactions seem to vary inversely with the degree of exchange controls. Following the liberalization of exchange controls in the 1970s and early 1980s, the size and operations of the black markets in the SEACEN region had reduced rather significantly over the years.

In short, exchange controls determine the distribution and direction of foreign exchange flows to various sectors in the economy. All the transactions and flows of foreign exchange will have to be effected through the foreign exchange market. In this regard, exchange controls invariably affect the operations of the foreign exchange market both on the demand and the supply sides. □

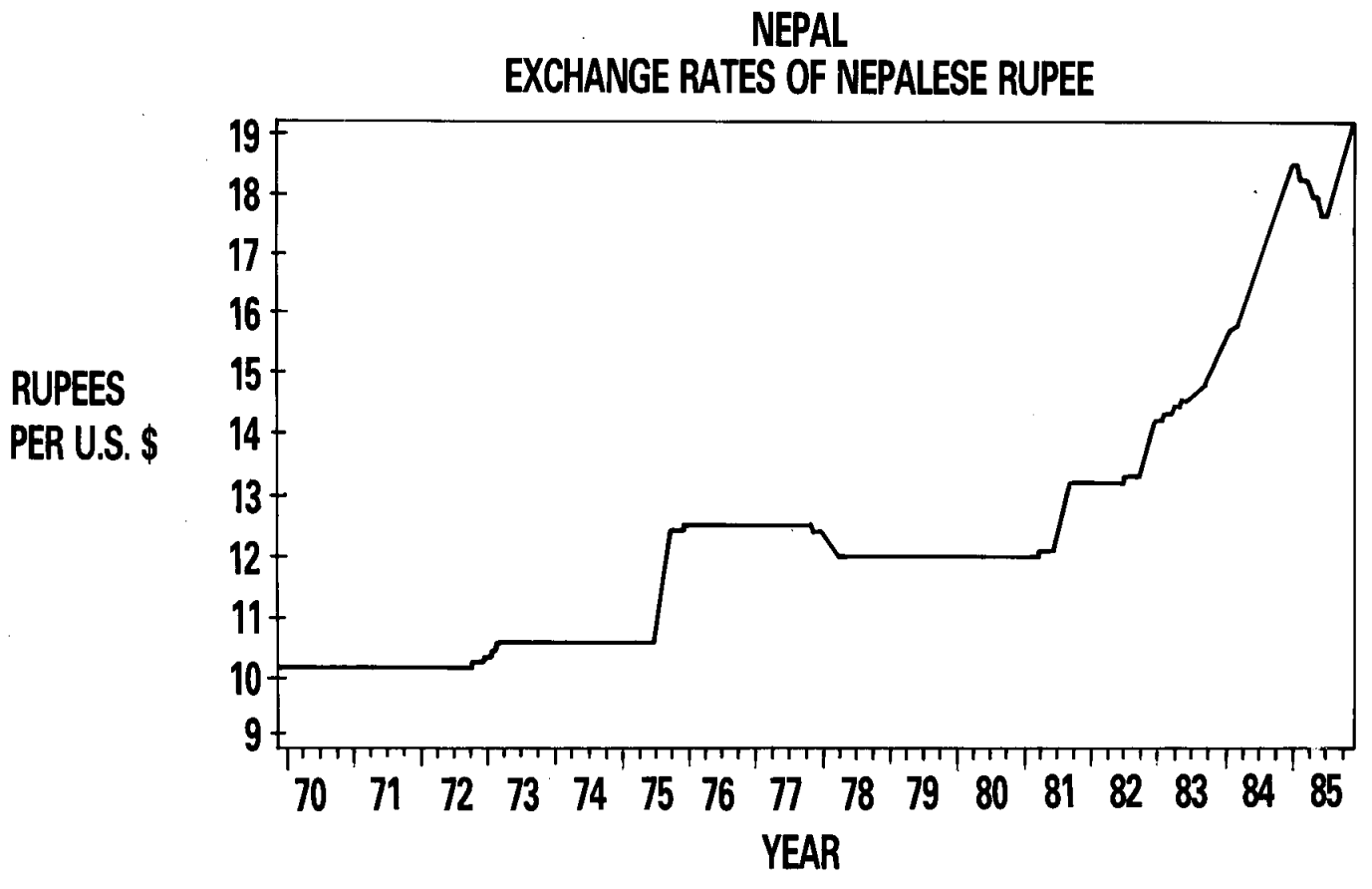
Appendix 1.1


INDONESIA
EXCHANGE RATES OF INDONESIAN RUPIAH
RUPIAH
PER U.S. $
1200
1100
1000
900
800
700
600
500
400
300
70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85
YEAR

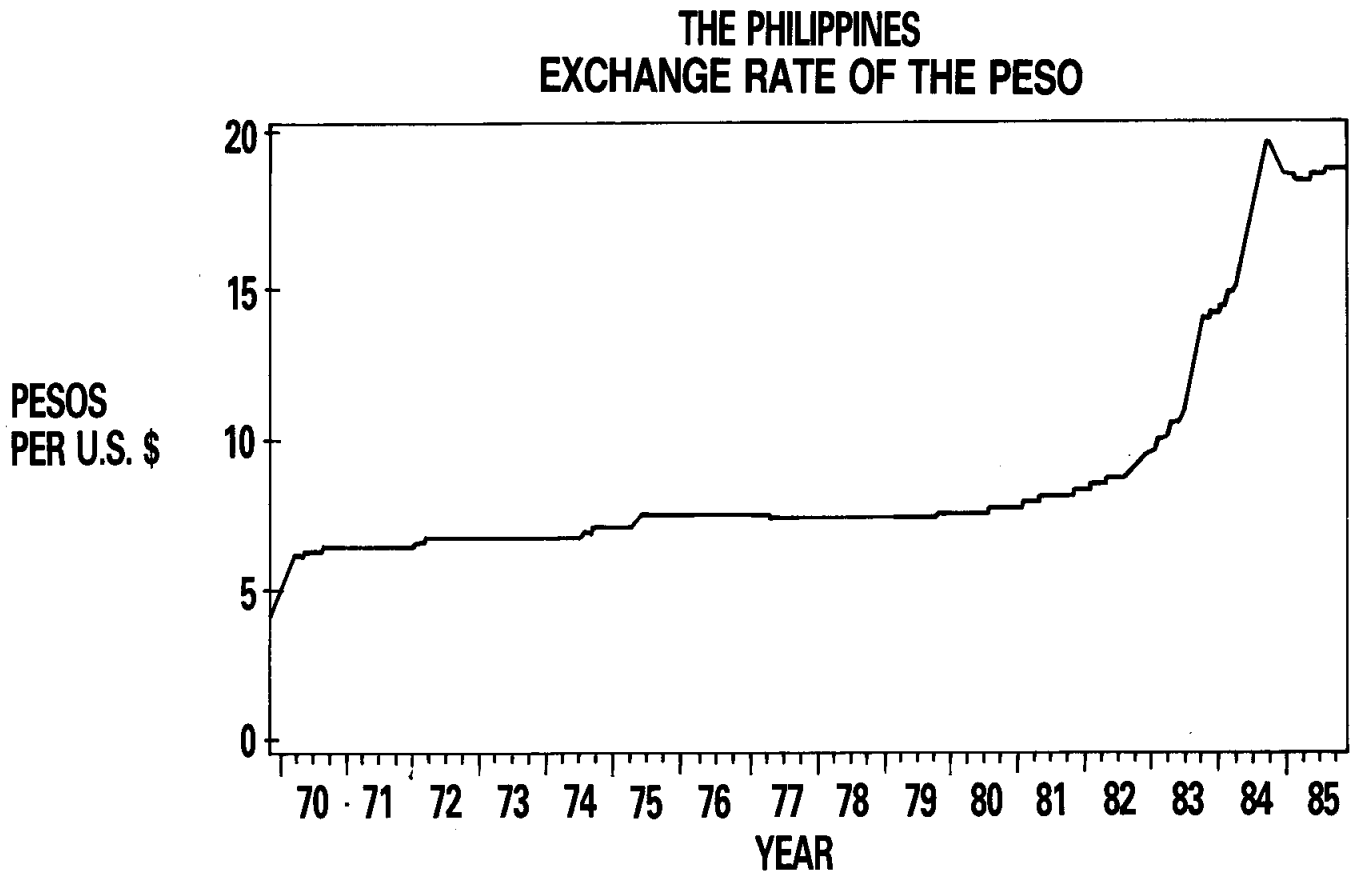
Appendix 1.2


MALAYSIA
EXCHANGE RATES OF MALAYSIAN RINGGIT
RINGGIT
PER U.S. $
3.25
3.00
2.75
2.50
2.25
2.00
70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85
YEAR

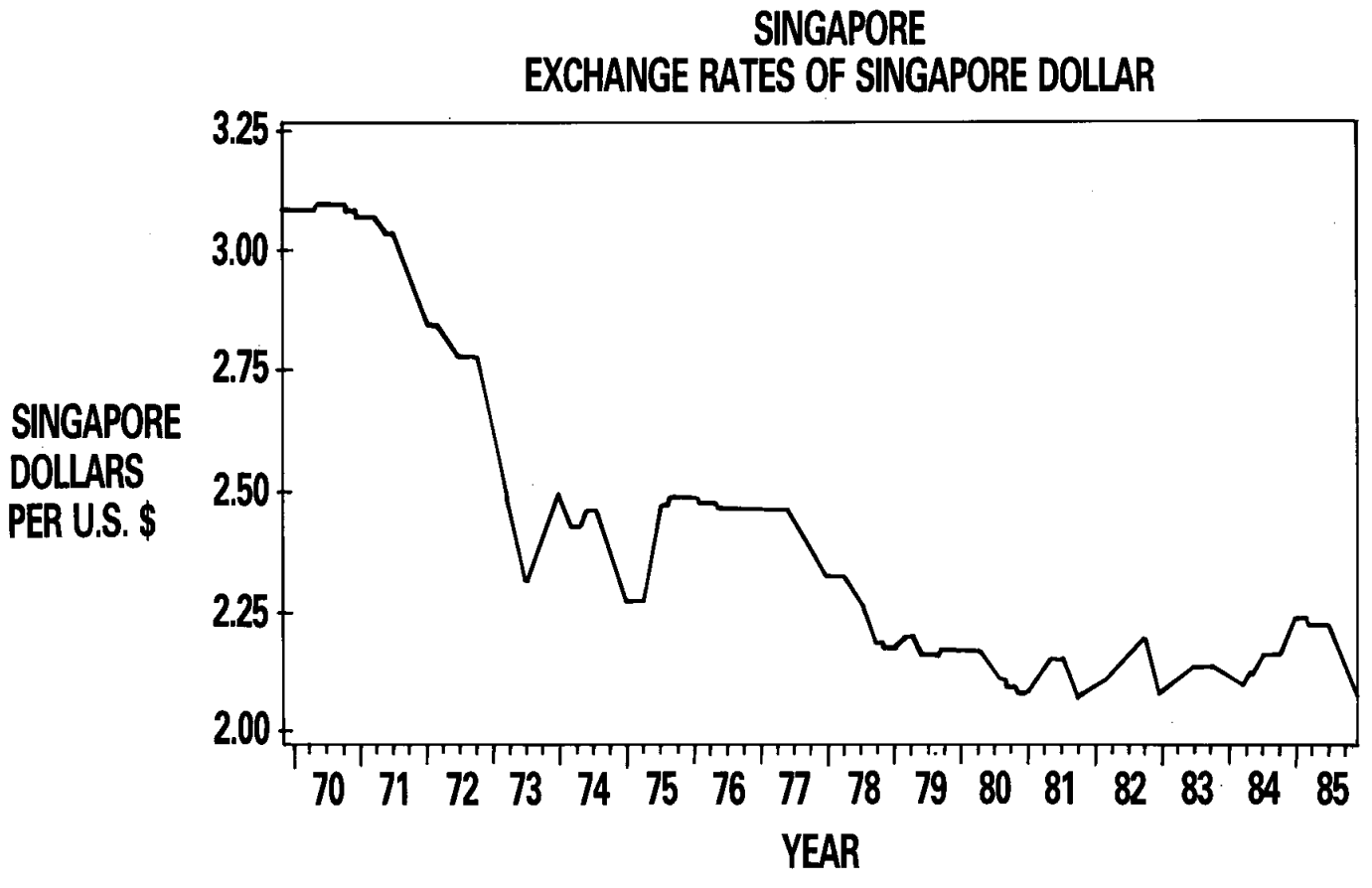
Appendix 1.3


NEPAL
EXCHANGE RATES OF NEPALESE RUPEE
RUPEES
PER U.S. $
19
18
17
16
15
14
13
12
11
10
9
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

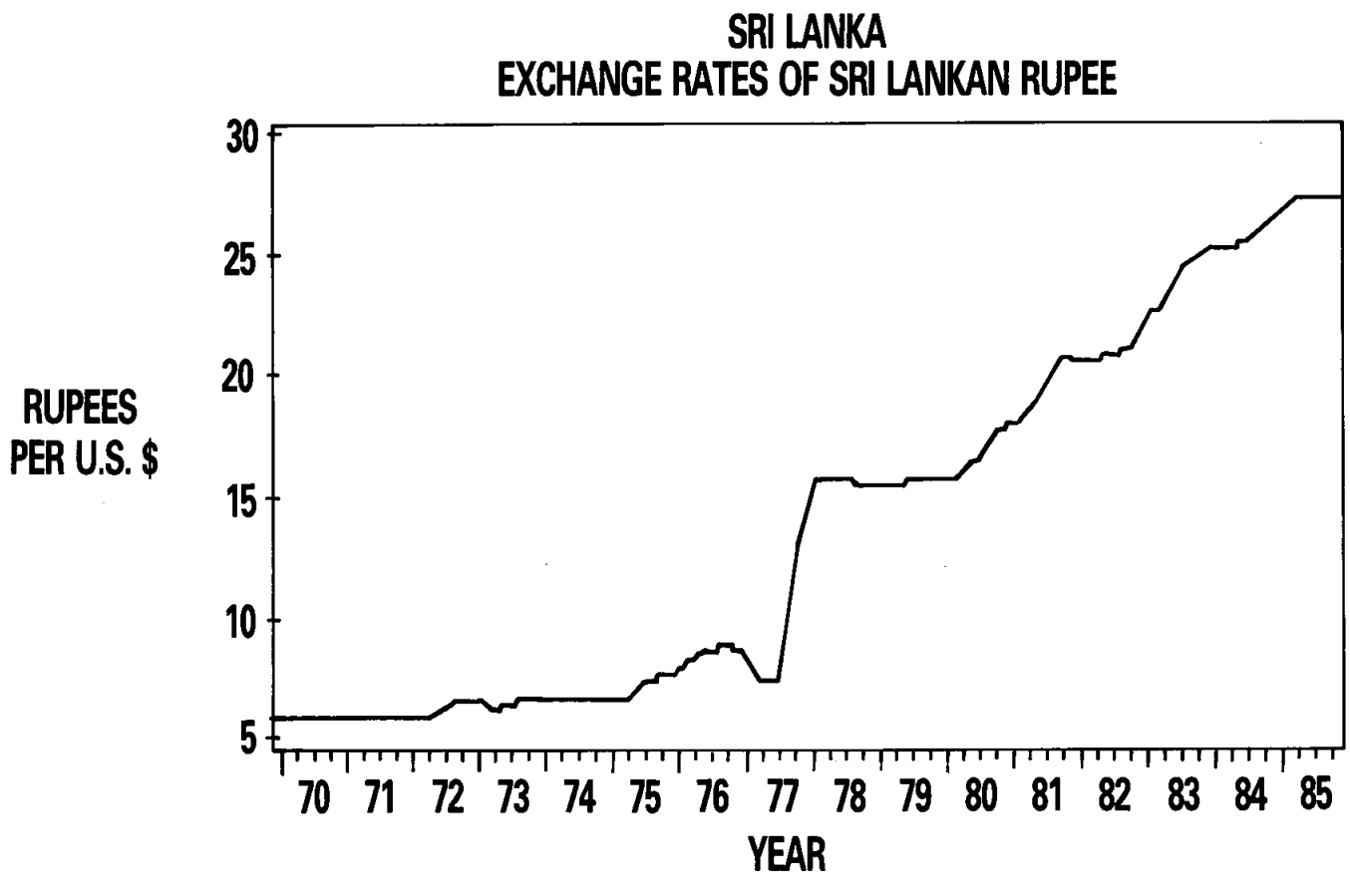
Appendix 1.4


THE PHILIPPINES
EXCHANGE RATE OF THE PESO
PESOS
PER U.S. $
20
15
10
5
0
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

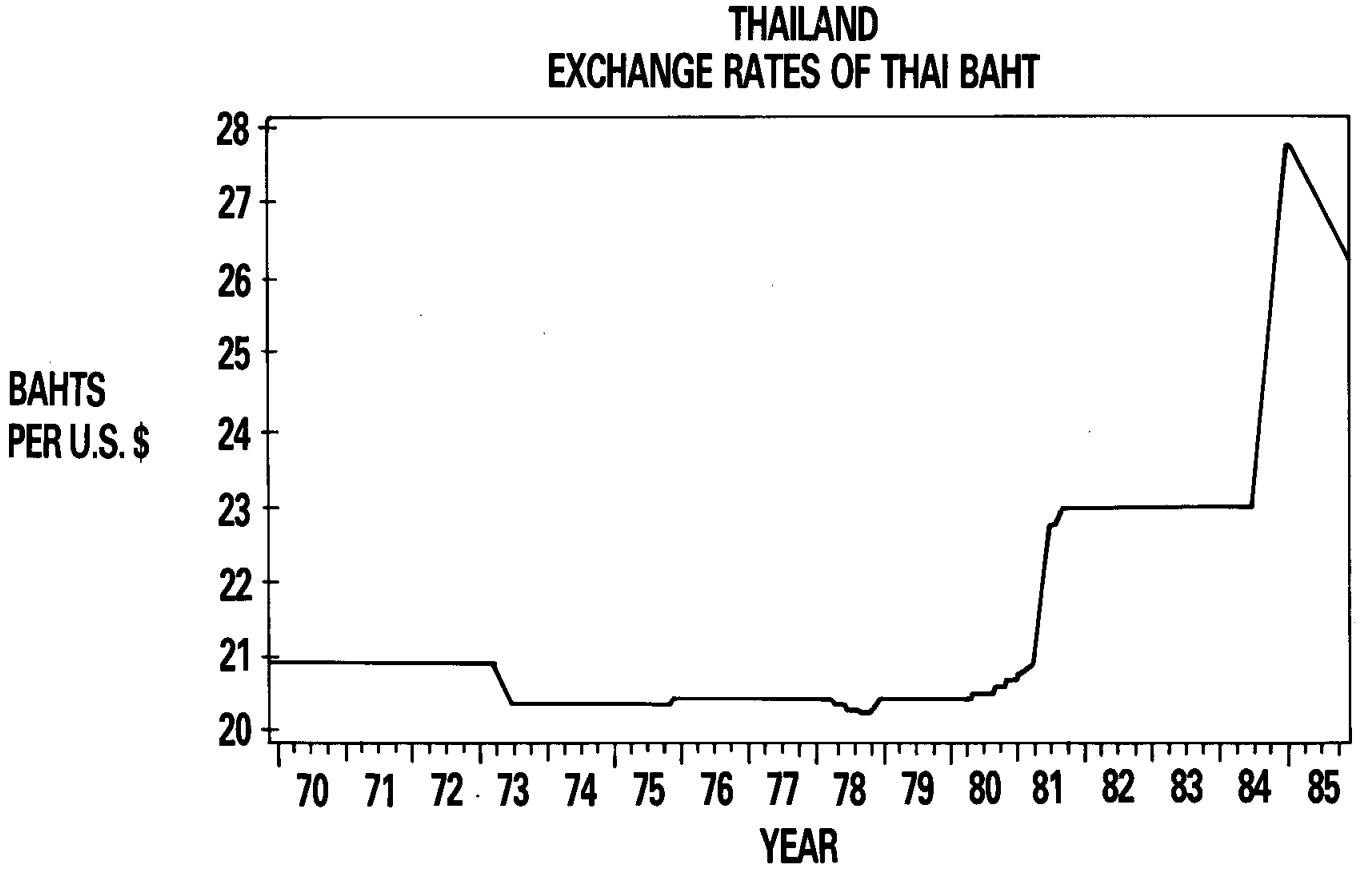
Appendix 1.5


SINGAPORE
EXCHANGE RATES OF SINGAPORE DOLLAR
SINGAPORE DOLLARS PER U.S. $
3.25
3.00
2.75
2.50
2.25
2.00
70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85
YEAR

Appendix 1.6


SRI LANKA
EXCHANGE RATES OF SRI LANKAN RUPEE
RUPEES
PER U.S. $
30
25
20
15
10
5
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Appendix 1.7


THAILAND
EXCHANGE RATES OF THAI BAHT
BAHTS
PER U.S. $
28
27
26
25
24
23
22
21
20
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Chapter 2

STRUCTURE AND DEVELOPMENT OF THE FOREIGN EXCHANGE MARKETS

This chapter has two purposes. The first purpose is to provide an overview of the structure and characteristics of the foreign exchange markets in the SEACEN countries. The second purpose is to assess and analyze the development of the foreign exchange markets in the region.

Section I of the chapter is an overview of the salient features of foreign exchange markets in the SEACEN countries before 1970. This is to provide some historical background for a better understanding of the development of these exchange markets in the later years.

Section II attempts to provide an analysis of the major factors behind the emergence and growth of these foreign exchange markets. It looks at their evolution and growth against the changing international scenario.

Section III describes the existing institutional structure and market organization of the foreign exchange markets in the region. Its purpose is to provide a summary information on the structure and characteristics unique to the exchange markets in the region.

Section IV examines the role of the central banks and monetary authorities in the overall effort to develop their respective foreign exchange markets.

Section V attempts to identify the structural weaknesses in the existing exchange markets which hamper their role in facilitating trade and capital flows. This part includes also an analysis of the major constraints which might hinder an orderly development of the exchange markets in the region.

I. Salient Features of the Exchange Markets before the 1970s

The foreign exchange markets in the SEACEN countries, with the exception of Singapore, are still considered "less developed" than their counterparts in the major industrial countries. While Singapore has developed itself into an international financial centre with a very well-developed exchange market, the majority of the SEACEN countries are still in the process of developing their exchange markets so that they can provide foreign exchange services comparable in the developed countries. There are several policy and institutional constraints that account for the low development of the exchange markets in the region, and these will be described in detail in the latter parts of the chapter.

To provide a proper perspective and some historical background, it would be advisable to provide a glimpse of the salient features of the exchange markets in the SEACEN region before the 1970s. It has been observed that in general, the SEACEN exchange markets were of the rudimentary type, with a tight exchange rate and control system. The markets were basically customer-based markets, surrounded by a periphery of black markets providing illegal foreign exchange services to those who were not eligible under the exchange control regulations.

1. Relatively Stringent Exchange Control Regulations

Before the 1970s, exchange markets in the SEACEN countries comprised of the central banks, the commercial banks as the former's agents, and the customers. In most circumstances, the central banks or the monetary authorities were the sole buyers and sellers of foreign exchange in their own countries. On such a situation, any resident who earned foreign exchange was bound by law to surrender all his foreign exchange to the central bank or their authorized agents, which were normally the commercial banks. Likewise, all those residents who needed foreign exchange for import or some other purposes were required to buy foreign exchange from the central banks or their agents. This system existed because stringent foreign exchange controls were imposed. Consequently, the central banks were in a monopolistic position in their exchange markets.

For instance, in Indonesia, it was illegal to hold foreign exchange without permission under the 1964 Law No.32. Under the same law, all foreign exchange must be surrendered in full to Bank Indonesia which in turn channelled all foreign exchange to the Foreign Exchange Fund. On the use of foreign exchange, there were also restrictions on the amount of foreign exchange granted for various purposes. Moreover, different exchange rates were applied for different categories of trade and capital flows in accordance with the national priorities.

Similarly, in Nepal, after the introduction of the Exchange Control Act in April 1960, exporters were required to surrender all their foreign exchange to Nepal Rastra Bank except those exporters who were under the Exporters' Exchange Entitlement (EEE) Scheme. [1] Like Indonesia, there was also a stringent control on the use of foreign exchange.

In the case of the Philippines, restrictions on the use of foreign exchange on imports were first introduced as early as January 1949, especially for imports of luxury and non-essential commodities. Purchases of foreign exchange for services were also restricted. As for receipts of foreign exchange, the proceeds must be surrendered to the agent banks of the Central Bank of the Philippines within 3 business days of receipt.

Tight exchange controls were also implemented in Sri Lanka before 1970. Foreign exchange proceeds from exports and invisibles must be surrendered to the Central Bank of Sri Lanka within a specified period. Payments for imports and invisibles required exchange control permission which were given provided that these payments did not contravene the conservation of scarce foreign exchange in the country.

Compared to the above three countries, less stringent control on foreign exchange was implemented in Thailand before the 1970s. Under exchange control restrictions, all export proceeds as in other SEACEN countries must be sold to authorized agents within 7 days of their receipt. But Thailand had a relatively free import policy as most commodities were allowed to be imported freely.

In both Malaysia and Singapore, exchange control regulations before 1970 were also less stringent, compared to the other SEACEN countries. Exchange control approval was required only for exports exceeding a certain limit in value to countries outside the sterling area and the proceeds must be sold to authorized

[1] The EEE scheme was implemented to encourage diversification of trade away from India and also to encourage indigenous and priority products. See country chapter on Nepal.

banks. There was hardly any exchange control on imports under open general licences.

2. Exchange Rate Basically Determined by Central Banks

The other main features of the rudimentary exchange markets in the SEACEN region before the 1970s were the common practice of determining the exchange rate basically by the central banks and the imposition of multiple exchange rates. The commercial banks, being agent banks, had little role to play in determining the exchange rates. A survey of the SEACEN countries reveals this phenomenon.

Indonesia was a typical example of this category. Private participants, especially the commercial banks did not take part in the determination of exchange rates prior to the 1970s. Indonesia also adopted the multiple exchange rate system, which was only dismantled after August 1971.

In Nepal, Nepal Rastra Bank even fixed the exchange rates for commercial banks' customers. The commercial banks were therefore reduced to mere agents for the Bank. Like Indonesia the multiple exchange rates system was a predominant feature, and the exchange rate with the U.S. dollar was unified only after October 1981.

Similarly, the Philippines also adopted a multiple exchange rate system since April 1960. The system was abolished on 1 May 1970. Before the 1970s, the Central Bank determined the official rate based on a par value while the other rates were determined by market forces.

For Sri Lanka, Malaysia and Singapore, they pegged their exchange rates to the pound sterling, and therefore a lesser role had been given to market forces to determine their exchange rates. In Singapore and Malaysia, the day-to-day exchange rates were fixed by the Association of Banks under the so-called cartel system of exchange quotation. Malaysia and Singapore had never adopted a multiple exchange rate system, while Sri Lanka had its multiple exchange rates being unified only in November 1977.

Like Malaysia and Singapore, Thailand had not imposed multiple exchange rates before the 1970s. However, the exchange rates were determined by the Exchange Equalization Fund for spot exchange transactions with banks in U.S. dollars and the authorized banks' rates for customers.

3. Mainly Customer-based Market

As a result of stringent exchange controls and the adoption of the par value system, the exchange markets in the SEACEN countries before 1970 were mainly customer-based. Only Singapore and Malaysia had some forms of inter-bank markets which were operated like a cartel system under the auspices of the Association of Banks in their respective countries. In Indonesia, the Philippines and Thailand, inter-bank markets for foreign exchange were of recent origin. In the case of Nepal, an inter-bank market has never existed until today. The rudimentary nature of the inter-bank markets in the SEACEN region prior to the 1970s was mainly due to tight exchange controls, where the commercial banks did not have ownership of foreign exchange, and they acted only as agents for the central banks. For the same reason, the forward exchange market was not developed during the period. Exchange risks, if any, under the Bretton Woods system were largely shouldered by the central banks.

4. Existence of Black Market

Parallel to the customer-based exchange market was the large volume of transactions in the black market in most of the SEACEN countries. In Indonesia, during the period of a tightly controlled foreign exchange system, the exchange rates in its black market were significantly higher than the official rates. In the Philippines, a black market for foreign exchange has been flourishing even to this day. With the liberalization of exchange control over the years, the exchange rates in the black market were on the declining trend, from 48 per cent (on the average) higher than the official rate in 1950 to only 12 per cent higher in 1970 (see Pante). Except in Malaysia and Singapore, there were also reports of black markets in Nepal, Sri Lanka and Thailand.

II. Emergence and Growth of the Exchange Markets

The rudimentary nature of exchange markets in the SEACEN countries began to be somewhat eroded, and the markets slowly developed to emerge as relatively important financial markets in the region. The turn of the 1970s saw several international developments which had contributed significantly to such emergence and growth of the exchange markets. These developments included the final collapse of the Bretton Woods system, a general trend towards liberalization of exchange control regulations, a significant increase in trade and capital flows as well as the active participation of foreign banks, with the emergence of offshore banking in the region.

1. Collapse of the Bretton Woods System

The most important event in the foreign exchange scene in the 1970s was the total collapse of the Bretton Woods system in March 1973. The international monetary arrangement had since then evolved into a generalized floating exchange rate system. Under the new system, each and every country determines its own exchange rate regime and the exchange rates are allowed to fluctuate relatively freer than before. For the SEACEN countries, initially, some SEACEN exchange rates were pegged to a single currency while others adopted a system of pegging to a basket of their trading partners' currencies. Still others preferred a managed float system. In the meantime, most of the developed countries particularly the United States, the United Kingdom and Japan adopted independently floating system. The major implication of this new monetary arrangement was that exchange rates were allowed to fluctuate more widely, either with broader bands or no limit. The pegging to any single major currency or a basket of currencies in the world of floating rates also implied a greater degree of floating vis-a-vis all others. This was completely different from the Bretton Woods system under which "pegging to any one of the major currencies was equivalent to maintaining a fixed parity with all others" (see Branson and Katseli-Papaefstratiou, 1981). The major issue then was the extent by which the central banks in the region had allowed the exchange rates to fluctuate. An examination of the exchange rate movements reveals that the exchange rates of the currencies of the Philippines, Nepal, Thailand and Indonesia were pegged effectively with the United States dollar for most part of the 1970s. Only Malaysia, Sri Lanka and Singapore had wider margins of fluctuation against the U.S.dollar. However, the turn of the 1980s saw much wider fluctuations of exchange rates in all the SEACEN countries. These wider fluctuations implied the increasing role of private participants, not only the commercial banks, but also the exchange brokers and even private corporate treasurers. The wider fluctuations in exchange rates also signalled the need for extensive forward exchange covers which became more prevalent after 1980.

2. General Liberalization of Exchange Control Restrictions

The other significant development during this period was the general liberalization of exchange controls throughout the world. The SEACEN countries followed suit and liberalized their exchange controls to a significant extent.

For instance, Indonesia took its first step towards a liberalization of its exchange controls by introducing a free foreign exchange system in April 1970 (Government Regulation No. 16 of 1970). Under the new system, the holding, selling and purchasing of foreign exchange were no longer subject to restrictions. Indonesia further liberalized its exchange controls under Government Decree No. 1 of 1982 so that exporters are no longer required to sell their foreign exchange proceeds to commercial banks. Likewise, the new law allows the foreign exchange banks to hold foreign exchange and not necessarily sell them to Bank Indonesia.

In the Philippines, the controls on foreign exchange were also liberalized during the period 1970-82. In October 1983, with the occurrence of an exchange crisis, the Philippines tightened its exchange control. For instance, the surrender requirement for export proceeds went up to 100 per cent. But the requirement was gradually eased up over time. By 15 August 1985, the exchange control system was significantly liberalized when an open foreign exchange trading system was adopted. From then on, the commercial banks were allowed to keep their foreign exchange receipts and trade among themselves in the inter-bank markets.

For Malaysia, Sri Lanka and Thailand, there is now no restriction on the holding of foreign exchange by the commercial banks under the existing exchange control regulations in these countries. However, there is still the exchange control regulation requiring exporters to repatriate their export receipts within a specified period. As a whole, the exchange controls for these three countries had been significantly liberalized between 1970 to 1985.

In Nepal, exchange controls are still strictly observed. All export proceeds must be surrendered to Nepal Rastra Bank or its agents within six months after shipment. Foreign exchange for all purposes is rationed in accordance to national needs. The commercial banks are allowed to hold only up to 30 per cent of their earnings in foreign countries in the form of demand deposits in foreign countries. Even then, its exchange controls have been liberalized somewhat throughout the period 1970-85.

Among the SEACEN countries, only Singapore has completely dismantled its exchange controls effective from 1 June 1978.

The liberalization of exchange controls especially the legal permission to hold foreign exchange has facilitated the development of an inter-bank foreign exchange market as well as the emergence of a forward exchange market in the SEACEN region. This is because in a world of generalized floating exchange rates, the exchange risk has increased tremendously for most of the SEACEN countries (see Rana, 1981). To cope with this new development, traders and investors will have to seek a forward cover or else their profit margins might be totally wiped out overnight following erratic exchange rate changes in the exchange markets. The bankers also need a forward cover as they cannot afford to be in open positions all the time either because of legal requirements such as those imposed on banks in Malaysia [1] and

[1] In Malaysia, the limit on an open position that can be maintained in general by each authorized bank in any one foreign currency is set at the equivalent of M$400,000 (see Bank Negara Malaysia, 1984, pp. 348).

Thailand, or because of their risk aversion in foreign exchange transactions. The wider fluctuation in exchange rates coupled with liberalized exchange restrictions has given rise to active inter-bank transactions.

3. Increase in Trade and Capital Flows

Of no less significance was the high level of trade and capital flows during the period 1970-85 between the SEACEN countries and the rest of the world which led to the emergence and growth of exchange markets in the region. The high level of trade flows arose largely from the two oil crises in 1973/74 and 1979/80. These two oil crises coupled with the commodity boom between 1976-80 helped to improve exports of both Malaysia and Indonesia, while the other SEACEN countries suffered badly in their balance of payments as their import bills on oil rose substantially, exceeding their export growth in the same period. The ensuing balance of payments deficits incurred by most of the SEACEN countries had led them to resort mostly to external borrowing from commercial sources, in most instances, on variable interest rates as well as temporary financial assistance from the IMF through the recycling of petro-dollars (see Table 2.1). However, the rapid increase in interest rates over the period 1979-81 together with the sharp appreciation of the U.S. dollar against the currencies of the SEACEN countries between 1980 to 1984 (see charts on exchange rate movements for the seven SEACEN countries in Appendix I) had culminated to massive interest payments during the period 1982-84. This substantial trade and

Table 2.1

CURRENT ACCOUNT DEFICIT FINANCING IN THE SEACEN COUNTRIES*
(in million U.S. Dollars)

	1977	1978	1979	1980	1981	1982	1983	1984
Current account deficits [1]	2055	4694	3481	4685	10844	16976	17235	8203
Financing:								
Non-debt creating flows	1465	2162	2088	4387	7088	5541	5319	4333
Official transfer	267	305	463	632	852	761	813	867
Counterpart items [2]	−92	123	− 286	700	2317	1014	− 281	− 444
Direct investment	1290	1734	1911	3055	3918	3766	4787	3910
External borrowing	2824	5591	5069	7608	8711	14124	11786	8912
Long-term	2832	3236	4823	5361	6663	10482	10397	6728
Short-term	− 7	2355	246	2247	2048	3642	1389	2184
Use of reserves [3]	− 1638	− 2156	− 2983	− 4860	− 1974	100	1300	− 3434
Errors and omissions	− 597	− 904	− 693	− 2447	− 2979	− 2790	− 357	− 741

* Includes Burma.
[1] Figures exclude official unrequited transfer.
[2] Figures include monetization/demonetization of gold, allocation/cancellation of SDRs, and valuation changes in reserves.
[3] Negative sign indicates accumulation of reserves.

Source: International Monetary Fund, *International Financial Statistics Supplement on Balance of Payments*, 1984.

capital flows during the latter half of 1970s and early 1980s therefore provided the environment conducive for the development of exchange markets in this region.

During the period 1970-84, there was also a significant inflow of foreign investments, following a general adoption of export-oriented strategy in the SEACEN countries' industrialization programmes. This influx of foreign investment exerted a profound influence on the development of foreign exchange markets in the SEACEN countries. Since the beginning of the 1970s, most of the SEACEN countries shifted towards export-oriented, and outward-looking industrial policy. This shift in policy and the provision of fiscal incentives together with the setting up of free trade zones had brought a substantial influx of foreign investment into their respective manufacturing sectors. In order to provide more efficient financial services involving foreign currencies to these multinational corporations, most of the SEACEN countries took measures to improve their foreign exchange services, not only by providing the much needed forward facilities, but also by liberalizing their exchange control regulations which had been mentioned earlier. Singapore, Sri Lanka and the Philippines even went to the extent of extending offshore banking services so that the corporate treasurers of foreign companies have access to investment opportunities and borrowing facilities in these offshore money markets.

4. The Emergence of Offshore Banking

Of these offshore banking activities, Singapore emerged as an international financial centre, comprising the Asian dollar market, Asian bond market and an international financial futures market, i.e. the Singapore International Monetary Exchange (SIMEX). The SIMEX has a "mutual offset" system of trading with the Chicago Mercantile Exchange (CME), thus providing an international connection in the world futures exchange market. For the year ending 31 March 1986, a total of 584,859 contracts were traded, compared to only two financial futures contracts transacted for the first time in September 1984.

In the Philippines, the offshore banking system was established in 1976 and became operational in mid-1977. Since its inception, offshore to onshore lending has been a major activity of the offshore' banking units (OBUs). At the end of 1985, there were altogether 12 OBUs in the Philippines.

The other country which also has an offshore banking system is Sri Lanka. The offshore banking system comprises mainly the foreign currency banking units scheme which was set up in 1979 to provide financing to offshore enterprises as well as extend international financial services in the southern sub-continental Asian region. At the end of 1985, there were altogether 25 foreign currency offshore banking units with assets of US$739.2 million.

The emergence of these offshore banks has an important implication on the foreign exchange markets in the SEACEN region. These offshore centres attract funds in foreign currencies not only from the SEACEN region but also from the rest of the world. These funds are then on-lent domestically or to any countries. Through this intermediation process, the role of foreign exchange markets become more prominent and indispensable as multiple currencies are actively involved. In this respect, the exchange markets are, therefore, developed so as to provide essential ancillary services pertinent to the offshore banking system.

5. Active Participation of Foreign Banks and International Exchange Brokers

An important element in the emergence of foreign exchange markets in the SEACEN region is the increasing participation of foreign banks and international money brokers. Foreign banks have been in the SEACEN countries for a long time. These banks are particularly active in foreign exchange markets mainly because they are branches or subsidiaries of well-established banks in the industrial countries, and therefore, they have an extensive network in world financial centres. This network of correspondent banks overseas is, in fact, the major source of convertible foreign currencies which are essential for the operations of the exchange markets. Secondly, these banks also draw expertise in foreign exchange operations all over the world and this has been a stimulus to an orderly development of exchange markets in the SEACEN region. Apart from foreign exchange operations, these banks are also active in offshore banking and financial futures, thereby contributing significantly to their development as well.

The extent of participation of these foreign banks in the SEACEN countries is shown in Table 2.2. From the table, it can be seen that Singapore and Malaysia have a larger participation of foreign banks and exchange brokers. Sri Lanka also has a large number of foreign banks (20 out of total 25 banks) but they are limited in their branching to other places. The Philippines, Indonesia and Thailand, unlike the previous cases, have relatively limited foreign bank participation. In the case of Nepal, it does not have any full-fledged foreign bank but two joint-venture banks which began to operate only recently. Apart from the foreign banks, money brokers which have extensive international links also operate in a number of SEACEN countries. They play a significant role in the inter-bank foreign exchange markets, and are also the main vehicle for international connections between local and international exchange markets. It is observed from various indicators that there is a high correlation between the degree of foreign-bank and money-broker participation and the stage of development of a foreign exchange market in the region.

The other factor which contributed in no small measure to the development of foreign exchange markets in the region is the active role of the central banks in this endeavor. The central banks provide not only the leadership, but also design the favourable institutional framework which is conducive to the emergence and growth of their exchange markets. The role of central banks in developing exchange markets will be discussed in more detail in the latter part of this chapter.

III. Institutional Structure and Market Organization

As discussed in Chapter 1, the exchange rate and control system adopted by a country is the basic institutional framework within which a foreign exchange market may operate. While the exchange rate regime prescribes the extent within which the exchange rate is allowed to fluctuate, the exchange control regulates the flow of foreign exchange in and out of the country. The operations of a foreign exchange market, which is normally supervised by the central bank or monetary authorities, is therefore very much regulated by the exchange rate and control system.

In the SEACEN region, Malaysia, Nepal, Singapore and Thailand declared that their exchange rates are pegged to an undisclosed basket of currencies of their trading partners. Both Indonesia and Sri Lanka, on the other hand, have a system of managed float; while the Philippines is the only country in the SEACEN

Table 2.2

FOREIGN BANKS AND MONEY BROKERS IN THE SEACEN COUNTRIES

	Foreign Banks			Number of Money brokers
	Number	Branches	Assets (%)	
Indonesia 1984	11 (84)	21 (1,215)	8.0% (U.S.$28.1 b)	–
Malaysia 1985	16 (38)	146 (837)	28% (U.S.$29.9 b)	8
Nepal 1985	2 [a] (5)	2 (390)	n.a. (U.S.$0.6 b)	–
Philippines 1982	4 (34)	9 (1790)	13.0% (U.S.$24.0 b)	– [b]
Singapore [c] 1982	112 (125)	170 (369)	86.4% (U.S.$151.0 b)	8
Sri Lanka [d] 1983	20 (25)	28 679	n.a. (U.S.$2.3 b)	7
Thailand 1982	14 (30)	18 (1,643)	4.8% (U.S.$25.0 b)	7

[1] Figures in parenthesis refer to total figures for all commercial banks.
[a] Refers to joint-venture with foreign banks.
[b] Brokers ceased to operate after the foreign exchange crisis in late 1983.
[c] Includes 74 offshore banks with total assets amounting to U.S.$79 billion.
[d] Excludes 25 foreign currency banking units with total assets amounting to US$739.2 million.

Sources: 1) Skully, Michael T., *Financial Institutions and Markets in Southeast Asia*, 1984.
2) SGV Group, *A Study of Commercial Banks in the Philippines* 1982.
3) Central Bank of Ceylon, *Review of Economy*, 1983.
4) Bank Negara Malaysia, *Quarterly Bulletin*, September 1986.
5) Bank Indonesia, *Report for the Financial Year*, 1985/86.

region adopting a freely floating system. However, from the past experience of these countries, Malaysia, Singapore and the Philippines have their exchange rates fluctuating relatively widely. In contrast, exchange rates in Nepal fluctuate only within a narrow margin. In between the two extreme groups is the intermediate group comprising Indonesia, Sri Lanka and Thailand where their exchange rates fluctuate within wider bands, but not to the extent of those in Malaysia, the Philippines and Singapore.

In terms of exchange control regulations, Nepal has the most stringent restrictions on the flow of foreign exchange, whereas Singapore has abolished its exchange control system completely since 1978. The other SEACEN countries, on

the other hand, have varying degrees of exchange control restrictions, depending on the respective trade and exchange restriction policies of these countries.

For purposes of analysis, the institutional structure and market organization of exchange markets in the SEACEN region can be broken up into market participants, market instruments as well as a host of sub-markets, such as customer-based market, inter-bank market, forward market and black market. This section provides a broad view of how the SEACEN exchange markets operate within the institutional framework set up by the exchange rate regimes and exchange restrictions which have been adopted by the SEACEN countries.

1. Main Participants of the Exchange Markets

In all SEACEN countries, the central banks and monetary authorities are entrusted with the responsibility of administering exchange control regulations. The central banks are therefore vested with comprehensive legal powers to regulate and supervise the foreign exchange markets. In this regard, the central bank is the most important participant in the foreign exchange market. Exchange control regulations empower the central bank to appoint authorized foreign exchange dealers or authorized agents who are given full authority in transacting foreign exchange business.

In the SEACEN countries, commercial banks are normally the major authorized dealers. But in Nepal, commercial banks are mere authorized agents of Nepal Rastra Bank in foreign exchange dealings. While commercial banks in Nepal are permitted to maintain 30 per cent of their total foreign exchange receipts in current accounts overseas, the final ownership of all foreign exchange remains with Nepal Rastra Bank. For the rest of the SEACEN countries, the commercial banks are allowed to operate on their own account. In the case of the Philippines, this privilege was extended only as late as August 1985.

Apart from the administration of exchange controls, the central banks being the main participants in the exchange markets implement their exchange rate policy by direct or indirect intervention in the foreign exchange markets. Alternatively, the central banks can also influence exchange rates by intervening in the domestic money markets. However, this is a practice which is not common in the SEACEN countries.

The modalities of intervention in the foreign exchange markets by central banks vary from country to country. In Malaysia and Singapore, the central banks intervene in their foreign exchange markets through a network of exchange brokers so that their intervention does not get disclosed and thus prevents undesirable speculation in the markets. In the Philippines, where brokers ceased to operate since late 1983, the Central Bank of the Philippines intervenes directly in the exchange market through one of the government-owned commercial banks. In the case of Indonesia, Sri Lanka and Thailand, their central banks announce daily their intervention rates at which they stand ready to buy and sell unlimited amounts of foreign exchange. For Nepal, Nepal Rastra Bank determines daily the rates at which it will buy and sell from the commercial banks and also the rates for banks' customers. For all the SEACEN countries, the U.S. dollar is the intervention currency.

The next important participants in the foreign exchange markets of the SEACEN region is the group of commercial banks. In the SEACEN countries except Nepal, commercial banks are the authorized foreign exchange dealers which can hold, sell and purchase foreign exchange. In Malaysia, Singapore, Sri Lanka (with

Chart 2.1

MAIN PARTICIPANTS IN THE FOREIGN EXCHANGE MARKETS OF THE SEACEN COUNTRIES

(As at end of June 1986)

Indonesia	Bank Indonesia 27 authorized foreign exchange banks
Malaysia	Bank Negara Malaysia 38 commercial banks 8 exchange brokers
Nepal	Nepal Rastra Bank 4 commercial banks
The Philippines	The Central Bank of the Philippines 12 foreign currency deposit units (FCDU) 30 expanded FCDUs 28 commercial banks
Singapore	The Monetary Authority of Singapore 136 commercial banks, 180 Asian Currency Units (ACU) 8 international exchange brokers local brokers
Sri Lanka	The Central Bank of Sri Lanka 25 commercial banks 25 offshore banking units 7 money and exchange brokers
Thailand	Bank of Thailand 30 authorized banks authorized agents 7 exchange brokers

approved limits) and Thailand, it has been the practice that commercial banks operate on their own account as they are not required to surrender any amount of foreign exchange to their respective central banks. The commercial banks in Indonesia, the Philippines and Thailand are also authorized to operate on their own account, but this priviledge was obtained only in recent years. In Indonesia, the banks were allowed to operate on their own account since 1970 under Government Regulation No. 16 of 1970. However, the commercial banks still had to surrender a major portion of the export proceeds earned by exporters to Bank Indonesia. It was only in January 1982 that commercial banks were not required to surrender any portion of the export proceeds to Bank Indonesia under Government Decree No. 1 of 1982.

For the Philippines, the commercial banks had been surrendering to the Central Bank 100 per cent of their foreign exchange receipts arising out of exports since October 1983. This surrender requirement was gradually liberalized until August 1985. Since then, the commercial banks have been allowed to operate on their own account.

In contrast, the four commercial banks in Nepal have not been allowed to operate on their own account, thus they have to surrender all their foreign exchange receipts to Nepal Rastra Bank. As a consequence, the commercial banks do not trade among themselves in foreign exchange.

Of no less importance are the money and exchange brokers as another important group of market participants in the inter-bank foreign exchange markets. This group of participants do not take position for themselves; they only arrange and facilitate foreign exchange transactions among other parties, mainly the commercial banks. In return for their services, brokerage fees are charged for the exchange transactions. In addition to facilitating exchange business among banks in the country, international broking firms are also actively involved in exchange transactions between domestic banks. Among the SEACEN countries, however, Indonesia, the Philippines and Nepal do not have exchange brokers in their inter-bank markets.

At the retail transactions level, there are also other participants in the exchange markets such as the money changers or authorised foreign exchange dealer. They deal mainly in the sale and purchase of foreign currencies notes and coins from the public, mainly tourists.[1]

Other main participants include a wide range of customers such as exporters, importers, tourists, investors, overseas workers and even government agencies. They form the core of the customer-based foreign exchange market which will be elaborated further in the next section.

2. Inter-bank and Customer-based Exchange Markets

The foreign exchange markets in the SEACEN countries can be generally categorized into two levels. The first level is the customer-based exchange markets which is primarily a retail market. When commercial banks cannot unstock their open positions, i.e., either overbought or oversold at the retail level, they normally trade among themselves to balance their positions and avoid unnecessary exchange risks. The inter-bank market is therefore the second level. Only when they cannot square their positions at the inter-bank market level that they then resort to transacting with

[1] In Nepal and the Philippines, the money changers are allowed only to buy foreign currencies from customers but not to sell their foreign exchange except to authorized banks.

the central bank at the going intervention rates. Alternatively, these banks may seek forward cover from the international foreign exchange market, provided that this is allowed under their respective exchange control regulations.

The overall structure of the foreign exchange markets in the SEACEN region is illustrated in Chart 2.2. The central banks are the supervisory authorities in the exchange markets. In this regard, the central banks determine the exchange rate regimes and administer exchange controls for the SEACEN countries. The commercial banks, which are normally the authorized dealers in foreign exchange, deal with customers directly by providing foreign exchange services. They also trade directly among themselves through the inter-bank market. Parallel to the customer-based market is the black market for foreign exchange which exists in a number of the SEACEN countries. Malaysia and Singapore do not have a black market. Commercial banks also deal among themselves through brokers, if any. They can also deal in offshore money markets, futures exchanges such as SIMEX or in the international money and exchange markets.

As the inter-bank market is normally conceived as the "foreign exchange market", this market will be discussed first before proceeding to the other sub-markets.

2.1 Inter-bank exchange market

The inter-bank exchange markets in the SEACEN countries are essentially secondary wholesale foreign exchange markets. Transactions in this type of markets are normally in the form of telegraphic transfers and contracted by telephone or by telex. The banks can deal directly among themselves or through the intermediary of foreign exchange brokers. Apart from dealing with their domestic counterparts, banks also deal with banks abroad. Inter-bank transactions arise out of the need for spot transactions of particular type of currencies, forward cover to balance overbought or oversold positions in certain currencies through swap or outright forward transactions, and the desire to increase earnings by operating arbitrage and speculative activities.

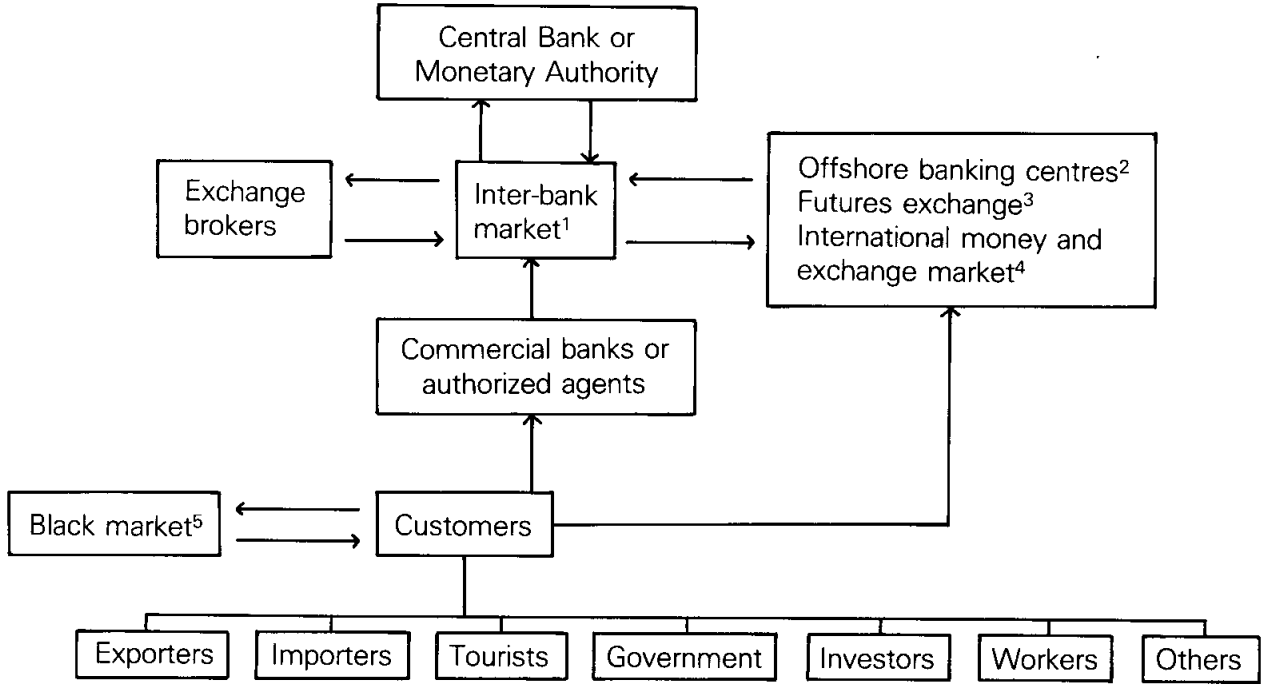
In the SEACEN countries, most of the inter-bank market activities are bona fide commercial transactions. Speculative activities have been deliberately discouraged either by stringent exchange control regulations or through close supervision by the central banks. Secondly, exchange rates in the SEACEN countries normally do not "overshoot" or "undershoot" as in the foreign exchange markets in the developed countries, such that opportunities for speculative activities have been significantly reduced. Thirdly, the central banks may also intervene in the exchange market to ensure orderly conditions, even to the extent of frustrating the speculators' expectations from self-fulfilling.

Exchange rate determination in the inter-bank market differs from country to country. In the case of Malaysia, the Philippines and Singapore, exchange rates are determined basically through bids and offers in the market. However, the central banks stand ready to intervene in the exchange markets either to moderate erratic fluctuations in exchange rates or to maintain continuous two-way quotations for local currencies. Of course, it is also possible that the intervention is meant to achieve certain other targets of exchange rate policies.

While inter-bank transactions in Malaysia and Singapore are made through telephone or telex, in the Philippines these are conducted at the Foreign Exchange

Chart 2.2

MARKET ORGANIZATION OF A TYPICAL FOREIGN EXCHANGE MARKET IN THE SEACEN COUNTRIES



[1]Inter-bank transactions on bank's account are non-existent in Nepal.

[2]These offshore banking centres exist in the philippines, Singapore and Sri Lanka.

[3]Future exchange is available in the Singapore International Monetary Exchange (SIMEX).

[4]Refers to the Asian dollar and Euro-currency markets as well as correspondent banks overseas.

[5]Except Malaysia and Singapore where there is no black market for foreign exchange.

Trading Centre (Forex) under the Bankers' Association of the Philippines. Only members of that association are allowed to deal on the trading floor. During the dealings, all purchases and sales of foreign exchange among member banks are posted on a trading board. Once bids and offers are received within 25 minutes, the finalization and perfection of the bids and offers are posted on the trading board. For spot transactions of less than U.S.$100,000, the authorized banks are required to trade within the specific margins of the Bankers' Association of the Philippines' reference rate which is the weighted average of all spot transactions for the day. Transactions above U.S.$100,000 are dealt at the freely determined rates of the Foreign Exchange Trading Centre.

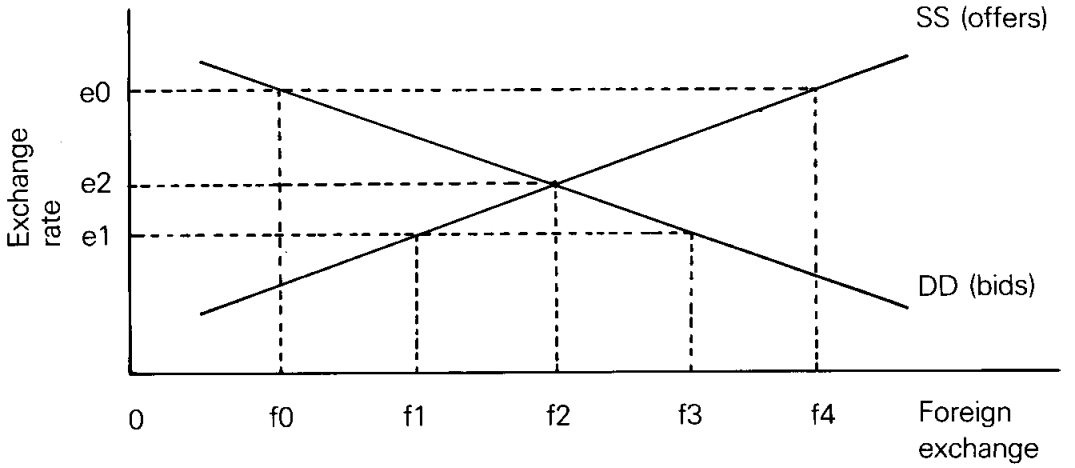
In Indonesia, the inter-bank market is structured into two types. The first type is the usual transactions through telephones among banks themselves, and the second type is the transactions effected through the Jakarta Foreign Exchange Bourse. In the usual inter-bank transactions, foreign exchange banks deal directly among themselves because exchange brokers are non-existent. In the first half of 1970s, this type of transactions was very limited as banks had to surrender a substantial portion of their foreign exchange to Bank Indonesia. Following the substantive measures to liberalize exchange controls, especially through the promulgation of Government Decree No. 1 of 1982, this type of transaction has become increasingly important. Today, transactions conducted through the usual inter-bank exchange market far exceed those at the Bourse several times.

In the Bourse, daily calls for foreign exchange are conducted under the supervision of Bank Indonesia. Bidding for foreign exchange is restricted to the authorized foreign exchange banks, non-bank financial institutions as well as licensed foreign exchange dealers. In the Bourse, participants can only bid or offer for the amount of foreign exchange but not at any exchange rate they desire. Bank Indonesia will set the intervention rate and stands ready to buy and sell unlimited amounts of foreign exchange or rupiah with the authorized traders for the day. The intervention rate is determined basically by the trade weighted average of exchange rates of major trading partners' currencies. Bank Indonesia also offers swap facilities for both authorized banks and non-bank financial institutions.

The market clearing process at the Bourse may be conceptualized as shown in Chart 2.3:

Chart 2.3

MARKET CLEARING AT THE JAKARTA FOREIGN EXCHANGE BOURSE



Assume that Bank Indonesia does not know the exact equilibrium exchange rate, i.e., e2. Let Bank Indonesia set the intervention rate at e0 after bids and offers have been made. As the bids are less than the offers, Bank Indonesia stands ready to mop up the excess foreign exchange for the day. If the intervention rate is at e1, then Bank Indonesia has to make up the shortfall by selling foreign exchange to the banks.

Inter-bank exchange markets also operate in Sri Lanka and Thailand. In Sri Lanka, banks are free to deal directly with each other or through brokers in the inter-bank market. Only when banks cannot square their foreign exchange positions generated out of transactions with customers will they resort to deal with the Central Bank of Sri Lanka. The Central Bank of Sri Lanka, like Bank Indonesia, stands ready to buy and sell any amount of U.S. dollars against Sri Lankan rupees for both spot and forward transactions at the intervention rates.

The inter-bank exchange market in Thailand has more or less the same set-up as its counterpart in Sri Lanka. In Thailand, commercial banks are required to maintain that their net spot and forward exchange positions, either overbought or oversold, shall not be more than 20 per cent of their respective capital funds or U.S.$5 million, whichever is higher. As a result of these regulations, the banks themselves transact foreign exchange business directly or through 7 brokers to meet their purposes. They will resort to dealing with the Exchange Equalization Fund (EEF) which is administered by the Bank of Thailand only when they cannot match their needs by way of the inter-bank market. On its part, the EEF like its counterparts in Indonesia and Sri Lanka announces daily its intervention rate for U.S. dollars at which it stands ready to buy and sell U.S. dollars for the day.

In contrast to the other SEACEN countries, the Nepalese foreign exchange operations are mainly customer-based and the major form of inter-bank transactions is between Nepal Rastra Bank and the four commercial banks. As these banks do not operate on their own account, the insignificant inter-bank transactions are just to facilitate customers' transactions in the international trade.

2.2 Customer-based exchange market

Customer-based markets are mainly transactions between commercial banks and their customers. There are, of course, money changers or authorized foreign exchange dealers who buy and sell currency notes to tourists but this type of transactions is of less significance. In the SEACEN countries, customer-based markets arise mainly from the increase in trade flow and to a lesser extent, in capital flow. As noted in Chapter 1, the economies of the SEACEN countries are largely trade-oriented. These countries export a wide range of commodities and, in turn, import a significant amount of goods and services for both domestic consumption and investment purposes. Foreign exchange markets, in this regard, help facilitate the enormous trade transactions in the region.

In all the SEACEN countries, the main source of foreign exchange supply comes from the export sector. Hence, exchange control regulations are imposed by most of these countries to ensure that export proceeds are repatriated to the respective countries within specified periods. For instance, exchange control regulations in Malaysia and Nepal require that export proceeds be received within a period of six months from the date of export. In the case of the Philippines, the period for the receipt of export proceeds is 60 days from the date of shipment and surrendered to the agent banks within 3 business days of receipt. In Sri Lanka, foreign exchange

proceeds from exports must be collected within a period ranging from 21 days to 6 months depending on the form of payment. In addition, all export proceeds exceeding Rs 500,000 in value must be sold forward to local banks. As in Sri Lanka, the Thai exchange control requires that foreign exchange receipts be surrendered from 15 days to 6 months from the date of export, depending on the form of payment. These proceeds must be sold to authorized agents within 7 days of receipt. But for Indonesia and Singapore, there is no surrender requirement and export proceeds can be disposed off freely.

On the use of foreign exchange for imports, nearly all the SEACEN countries have relatively tight import licensing and high import tariffs and quotas to discourage imports, especially of luxury goods. In the early 1970s, discriminatory exchange rates were even applied on imports so as to reduce the outflow of foreign exchange. In some countries such as Indonesia and Thailand, advance payments in the form of deposits with agent banks are required before import permits are approved. In general, both Malaysia and Singapore have relatively free import policies.

As to capital flows, while some restrictions have been placed on overseas borrowing of the private sector, long-term official borrowing and foreign investment are normally encouraged. Investment abroad of local residents is also encouraged except in Nepal, where investment in foreign countries is strictly prohibited.

Almost all the SEACEN countries allow non-residents to hold accounts denominated in foreign currencies. But for residents, strict control is imposed in holding accounts denominated in foreign currencies, either at home or abroad. Even if permission is given, they are strictly for bona fide transactions such as working balances held by commercial banks with their correspondent banks abroad. Only Indonesia and the Philippines allow their residents to hold accounts denominated in foreign currencies. In the case of Sri Lanka and the Philippines, workers working overseas are allowed to hold foreign currency accounts in their offshore foreign currency denominated accounts.

As a result of these exchange control requirements, the role of the foreign exchange markets in most of the SEACEN countries is to meet customers' needs to exchange local currencies with foreign currencies and vice versa to facilitate trade and capital flows. Third – currency trading is only available in Singapore where a futures exchange has been installed.

2.3 Forward market

Most of the foreign exchange business in the customer-based market are spot transactions. Forward facilities are available in all the SEACEN countries but the forward market is relatively inactive (except in Singapore), compared to its counterparts in the developed countries. The facilities are restricted to bona fide commercial transactions and not for speculative purpose.

In Sri Lanka, every exporter is required to sell his export proceeds forward to his bank if the shipment exceeds Rs 500,000. On the other hand, banks are prohibited to sell forward for non-essential imports. In the Philippines, no full-fledged domestic forward market has developed. Before October 1983, forward facilities were provided to the energy, food, and infrastructure sectors. After the exchange crisis in 1983, the forward facility was suspended except for the servicing of certain matured or maturing foreign debts. For Malaysia and Thailand, the forward market is also

restricted to bona fide commercial transactions and the market is of relatively less significance. In Indonesia and Nepal, forward facilities at the customer-based level are also of little significance. However, in Singapore, all types of forward transactions may be dealt with in the form of options, rollovers and swap for both fixed or odd dates up to one year forward. The currencies involved include U.S.dollars, Japanese yen, Deutsche mark, Swiss franc, pound sterling,Malaysian ringgit and Hong Kong dollar.

At the inter-bank market level, forward facilities are more common in most of the SEACEN countries. These forward transactions arise from the need either to meet central bank regulations or to seek forward cover in order to reduce exchange risks. Most of these transactions are outright forward or swap transactions. Some central banks in the SEACEN countries also provide forward cover to their agent banks. In Indonesia, Bank Indonesia provides swap facilities to foreign exchange banks and their customers against foreign exchange risks related to offshore borrowing. In the case of the Philippines, the Central Bank of the Philippines also provides forward facilities through its subsidiary which is also in charge of private corporate debt restructuring programme. The Central Bank of Sri Lanka, on the other hand, extends forward cover in U.S. dollars but only up to three months. The other central banks in the SEACEN region do not provide any forward facilities except some swap arrangements to tie over seasonal demand.

2.4 Black market

Black markets for foreign exchange are still a fact of life in most of the SEACEN countries. But evidence suggests that the size of the black markets in the SEACEN region has been shrinking as restrictions on the availability of foreign exchange through official channels have been liberalized over the years. In countries such as Malaysia and Singapore where a large proportion of the prevailing demand for foreign exchange has satisfactorily been met, the black market is almost non-existent. Even if the black markets do exist in those SEACEN countries where exchange restrictions have significantly been liberalized, the markets tend to be very thin with volatile exchange rates. In Nepal, it was reported that while a black market for convertible currencies does exist, a black market for Indian rupees is almost non-existent because they are readily available. For countries like Indonesia, Sri Lanka and Thailand, black markets for foreign currencies were rampant in the past but with the liberalization of exchange restrictions over the years, their operation had been reduced to insignificance.

The Philippines seems to have a well-developed and organized black market for foreign exchange. It was estimated that the volume of black market transactions is about U.S.$500,000 per day (Central Bank of the Philippines, 1983). Apart from the U.S.dollar, other currencies such as Canadian dollar, pound sterling, Japanese yen and Hong Kong dollars are also actively traded. With the emergence of overseas contract workers, the substantial inflow of remittances has become a major source of foreign exchange supply, and the black market since then has been more dispersed and widespread, extending even to remote provinces. It is also interesting to note that black markets operate on offshore locations, usually in a country which is a major source of foreign exchange. As a result of the influx of Filipino workers working in Hong Kong, Hong Kong has become a dominant overseas black market in foreign currencies in exchange for Philippines pesos, particularly with the emergence of a "Binondo central bank" in early 1984.

Over the years, exchange rates in the Philippine black market, in particular for U.S.dollars, have been on the declining trend. In 1970, the peso exchange rate for

the U.S. dollar was 12 per cent higher than the official rate. By 1979, the black market rate was still higher but only by 8 per cent. However, with the suspension of foreign exchange trading following the foreign exchange crisis in October 1983, the black market staged a comeback, with exchange rates being 23 to 24 per cent higher than the official rate. As the exchange market turned normal in 1985, especially when exchange restrictions were significantly liberalized, the black market rate was on the average only 7 per cent higher than the official rate.

IV. Development of Foreign Exchange Markets and the Role of Central Banks

In the SEACEN countries, the central banks and monetary authorities play a significant role in developing their foreign exchange markets. At the macro-level, the central banks design and set out the basic institutional framework within which a foreign exchange market would operate. This involves the determination of exchange rate regimes and exchange control mechanism, given the economic and financial structures of a country, as discussed in Chapter 1. At the micro-level, the central banks concentrate their efforts on exchange market development especially the broadening and deepening of the exchange market as well as maintaining orderly conditions in the markets. All these efforts can only be completed provided that both institutional structure and physical infrastructure have already been installed. Apart from setting up the institutional framework and developing the exchange market, the central banks should go beyond the horizon of merely developing the exchange markets and should simultaneously concentrate as well on the development of the domestic money markets. This is because only a well-developed domestic money market will help facilitate two-way capital flows, which in turn would stimulate and promote foreign exchange activities.

1. Setting-up the Institutional Framework

Chapter 1 discussed the determination of an exchange rate regime and exchange restrictions in the SEACEN countries. The discussion also includes the implications of the existing exchange rate and control system on the operations of the foreign exchange markets in the region. As noted earlier, the role of a central bank in setting up the institutional framework will have to take into account the existing economic and financial structures of a country. Once the economic and financial structures of a country develop, then the central bank might consider the change in exchange rate and control policies which in due course have a direct impact on the operations of the foreign exchange market.

In the last 15 years since 1970, the SEACEN countries have undergone significant economic growth and structural changes in their economies. Prior to 1970, most of the SEACEN countries were basically agriculture-based economies. They exported primary commodities in exchange for the import of essential consumer goods. The impetus towards major structural adjustments in the SEACEN countries accelerated with the advent of the first oil crisis in 1973/74. These countries shifted their industrial strategies, from import- substitution to export-orientation. In the meantime, there was rapid economic growth in the SEACEN countries, although the pace slowed down somewhat in the first half of the 1980s (see Table 2.3). The change in industrial policy coupled with rapid economic growth had resulted in a significant structural change in the SEACEN economies, with increasingly higher share of industrial output in gross domestic product (GDP).

Simultaneously, there was a significant decline in the share of agriculture (see Table 2.4). On the other hand, there were also structural changes in the financial

Table 2.3

GROSS DOMESTIC PRODUCT AT CONSTANT PRICES
[Average Annual Growth Rates (%)]

	1971 – 75	1976 – 80	1981 – 84
Indonesia	8.0	7.9	5.2
Malaysia	7.4	8.6	6.5
Nepal	1.7	2.3	4.5
Philippines	6.4	6.2	0.2
Singapore	9.5	8.7	8.1
Sri Lanka	4.0	5.5	4.0
Thailand	6.3	7.6	4.4

Source: International Monetary Fund, *International Financial Statistics Supplement: Economic Indicators*, 1985.

sectors of the SEACEN countries as shown by various indicators for financial widening and deepening (see Table 2.5). This development has brought about a substantial increase in international financial intermediation between the region and the rest of the world. This was further evidenced by the emergence of the Asian dollar market, the Asian bond market, commodity exchanges, a futures exchange as well as three offshore banking units in the region.

With these significant changes in both their economic and financial structures, the SEACEN countries through their central banks took steps to liberalize gradually their exchange rate regimes and exchange restrictions over the period 1970 – 84. The liberalization process gathered its momentum when the Bretton Woods system finally collapsed in March 1973. Under the new international monetary arrangement, exchange rates were allowed to fluctuate in accordance with the exchange rate system adopted by each country. The SEACEN countries through their central banks adopted exchange rate systems which were either pegged to baskets of currencies or a system of managed floating. The role of central banks in this respect has directly provided a conducive institutional environment for the steady growth of the exchange markets in the region.

2. Exchange Market Development

The role of central banks in the SEACEN region is not restricted to the setting up of an institutional framework for the operations of exchange markets. They also help in developing the physical infrastructure in the banking sectors to promote the efficient operation of the exchange markets. In this regard, the central banks normally liaise with their respective telecommunication departments to give priority in

Table 2.4

STRUCTURAL CHANGE IN THE SEACEN COUNTRIES

	Agriculture (%)	Mining and Quarrying (%)	Manufacturing (%)
Indonesia			
1970	47.2	5.2	9.3
1975	36.8	19.7	11.1
1980	30.7	9.3	15.3
1984	24.0	18.7	12.3
Malaysia			
1970	32.0	6.0	12.0
1975	27.7	4.0	16.4
1980	22.8	10.0	20.0
1984	20.1	10.5	20.3
Nepal			
1970	66.5	–	n.a.
1975	60.3	–	39.7[a]
1980	59.9	–	40.1[a]
1984	59.1	–	40.9[a]
Philippines			
1970[b]	31.3	2.4	20.1
1975	26.6	2.1	24.2
1980	25.6	2.4	25.0
1984	26.2	1.8	24.4
Singapore			
1970	2.3	0.4	20.5
1975	1.6	0.5	19.7
1980	1.2	0.3	24.1
1984	0.9	0.5	20.6
Sri Lanka			
1970[b]	27.6	0.7	17.3
1975	25.7	2.6	15.1
1980	24.3	3.5	13.7
1984	25.5	2.4	15.0
Thailand			
1970	32.2	1.7	15.5
1975	30.5	1.2	18.1
1980	24.9	1.6	20.7
1984	23.4	1.4	21.2

[a] Refers to non-agricultural activities
[b] Refers to 1971 figures

Table 2.5

FINANCIAL DEVELOPMENT IN THE SEACEN COUNTRIES

	Share of M-1 to GDP			Share of M-2 to GDP		
	1970	1980	1984	1970	1980	1984
Indonesia	7.3	11.5	10.6	9.8	18.6	23.8
Malaysia	18.1	18.9	18.0	36.0	53.2	61.7
Nepal	8.3	12.3	12.9	10.9	23.7	28.4
Philippines	11.3	8.5	6.4	24.6	21.0	20.9
Singapore	27.2	26.3	23.3	62.6	68.9	71.3
Sri Lanka	15.3	13.9	11.1	24.0	31.7	30.0
Thailand	14.1	10.6	9.7	30.5	37.4	56.7

Source: *International Financial Statistics*, various issues.

FINANCIAL INTERMEDIATION RATIO

	1970	1975	1980	1984
Nepal	n.a.	.15	.24	.30
Philippines	n.a.	n.a.	.88	n.a.
Singapore	n.a.	.77	.83	.81
Sri Lanka	.64	.88	.85	.87
Thailand	.33	.39	.35	.34

Source: Tison, G. S., *The Financial Structure and Its Implications for Monetary Policy in the SEACEN Countries*, The SEACEN Centre, 1986.

developing the physical infrastructure such as telephone, cables, telex and electronic fund transfer system. Commercial banks as main participants in the exchange markets are constantly encouraged by the central banks to improve the facilities in their dealing rooms such as the installation of Reuters monitor screens and automatic teleprinters. In order to improve and facilitate the smooth functioning of the exchange markets, both Singapore and the Philippines introduced SWIFT (Society for Worldwide Interbank Financial Telecommunications), which through its network via telex provides high speed transmissions of transactions and information with multiple security levels. In 1985, Singapore also installed its own SHIFT (System for Handling Interbank Fund Transfers) with a high speed electronic fund transfer.

The central banks also took steps to improve foreign exchange services by injecting market expertise through various means. One common measure is to encourage the setting up of joint ventures between local interests and reputable money and exchange broking enterprises overseas. In this way, the local banking community is not only exposed to the latest market techniques but also begins to establish international connections which are essential for the rapid development of their foreign exchange markets. In addition, the central banks also encourage com-

mercial banks to provide training facilities for their foreign exchange dealers to improve dealing techniques and risk management.

In order to monitor and supervise their exchange markets, two of the SEACEN countries set up their physical market places for foreign exchange transactions. Bank Indonesia established its Jakarta Foreign Exchange Bourse in 1967. In the Philippines, the Foreign Exchange Trading Centre (Forex) was set up under the leadership of the Central Bank of the Philippines. This kind of physical marketplace which is not uncommon in Europe has facilitated significantly the development of emerging foreign exchange markets in both Indonesia and the Philippines.

The central banks in their respective enabling acts are also entrusted with the responsibility of maintaining an orderly condition in the exchange markets. In the SEACEN countries, these central banks constantly intervene in the market to smoothen out day-to-day erratic fluctuations, and to maintain continuous two-way quotations for local currencies. Some of the central banks always stand ready to buy and sell foreign exchange at intervention rates while others may defend their home currencies to relieve speculative pressures, if any. As these interventions in the exchange markets often result in monetary instability, the central banks as the monetary authorities have to simultaneously sterilize or neutralize this side-effect of exchange intervention by relieving the pressure in the domestic money markets.

The member central banks also try to ensure the orderly development of their foreign exchange markets. Various supervisory control measures have been instituted, including spot checking on accounts and reports to prevent malpractices in market activities. Some of the central banks even set up committees to oversee and monitor the development of their foreign exchange markets. In Singapore, the Foreign Exchange Committee comprising the MAS and commercial banks was restructured in 1986 to improve further professional and ethical standards among the exchange dealers, and to ensure orderly market practices. Similarly, the Market Practices Committee was also established in Sri Lanka under the leadership of the Central Bank of Sri Lanka to draw up guidelines and monitor market practices in the money and foreign exchange markets. To further ensure that the commercial banks are not over-exposed to exchange risks resulting from either an overbought or oversold position, some central banks closely supervise and monitor the open position of each bank. For instance, in Malaysia, Bank Negara generally sets a limit on the open position to be maintained by each authorized bank in any one foreign currency not to exceed the equivalent of M$400,000. In the case of Thailand, the Bank of Thailand requires the commercial banks to maintain their net spot and forward exchange open position not exceeding 20 per cent of their respective capital funds or US$5 million, whichever is the higher amount. Apart from this kind of limits, some central banks also impose various limits on foreign currency balances held by commercial banks abroad to prevent them from over-exposure to exchange risks and to maintain banking prudence.

In developing an exchange market, the SEACEN member banks adopted two broad strategies, i.e., broadening and deepening their exchange markets. In an effort to broaden their foreign exchange markets, the central banks allow wider movement of exchange rates and liberalized their exchange control restrictions. Such liberalization allows more participants, in particular the commercial banks, to operate on their own account and take positions. The permission to allow both residents and non-residents to hold foreign currency-denominated deposits is also a step forward in broadening the exchange market (as the case in Philippines and Indonesia). The provision of investment opportunities by setting up offshore banking units and the

rapid development of the Asian dollar and bond markets have invariably injected a new element of dynamism into the foreign exchange markets in the region.

On the deepening of foreign exchange markets, the process is still restricted to inter-bank transactions in most of the SEACEN countries. However, the readiness to buy and sell foreign exchange by some of the central banks had deepened the exchange market somewhat, as this last resort facility is essential for the smooth functioning of exchange markets. Forward facilities are available but limited to bona fide commercial transations. There is hardly any option or futures exchange market in the SEACEN countries except in Singapore. The deepening of foreign exchange market also requires a parallel development in the domestic money market which will be discussed in the next section.

V. Some Observations and General Assessment

Over the period 1970 – 84, the exchange markets in the SEACEN countries have evolved somewhat into relatively active financial markets catering to essential foreign exchange services to facilitate trade and capital flows. While the foreign exchange market in Singapore has developed into an international financial market, most of the exchange markets in the SEACEN countries are still far behind; some of them are still rudimentary in nature. The exchange rates in most of the SEACEN countries are mostly determined by the central banks rather than by market forces. Despite the lifting of some exchange restrictions, the exchange markets are still basically customer-based, with relatively small inter-bank transactions merely to unwind open positions. There is also very little broker-dealer relationship in the exchange market network. The black market, whose size has shrinked somewhat in the last decade, still exists in some of the SEACEN countries. Non-bank participants include mainly those who are directly involved in trade and capital transactions, so that speculators have little role to play in the SEACEN exchange markets. Equally apparent is the underdeveloped nature of forward facilities in most of the SEACEN region. As a result, most of the SEACEN exchange markets cannot operate as efficiently as their counterparts in the developed countries.

1. Basic Conditions for an Active Exchange Market

For a foreign exchange market to operate efficiently, four basic conditions must be fulfilled. The first and the most important condition is the ability of market participants to operate on their own account to such an effect that they can take positions. Only a liberal exchange control allows such condition to be fulfilled. While most of the SEACEN countries have liberalized their exchange controls to a significant extent, the authorized dealers who can operate on their own account are mainly restricted to commercial banks. Brokers are allowed to operate but cannot take positions. In addition, the existing exchange regulations also require exporters who own foreign currencies to sell their export proceeds to authorized banks within a specified period. Except for Indonesia and the Philippines, residents are generally still not allowed to open foreign currency-denominated deposit accounts. These exchange control regulations have therefore adversely affected the efficient operation of the exchange markets in the region.

The next most important condition for the efficient operation of an exchange market is the opportunity for potential market participants to earn attractive returns. The usual return earned from foreign exchange transations is the spread between bid and offer rates. But this is limited to commercial banks. Non-bank participants in most of the SEACEN countries are not allowed to deal in foreign exchange. Neither

are they allowed to speculate in the foreign exchange markets. Market participants are therefore denied opportunities to exploit available arbitrage activities in the existence of both exchange rate and interest rate differentials. They are also not allowed to speculate in the forward market as all forward transactions legally have to be backed up by bona fide commercial transations. On top of these restrictions, the exchange rates in the SEACEN countries do not fluctuate as widely as those in the developed countries, following the pegging of their currencies to a few major convertible currencies. As the exchange rates do not move very much, there is very little opportunity for the speculators to actively get involved in the exchange markets. The exchange markets in most of the SEACEN countries are accordingly considered as "narrow" markets.

For the foreign exchange market to be active, market participants should also have access to "liquidity cushioning" through the development of a secondary market and the provision of last resort facilities by central banks. In the SEACEN countries, the secondary market is restricted to the inter-bank exchange market. However, most central banks in the region stand ready to buy and sell U.S. dollars only at intervention rates. There are no last resort facilities for other foreign currencies although for the major convertible currencies, the question of liquidity is not as serious in the SEACEN countries.

Finally, the exchange market must be ready to provide adequate protective cover to market participants from exchange risks. Except in Singapore, the hedging facilities through forward transactions are rather limited in the SEACEN countries. Even if such facilities exist, the facilities are meant for bona fide commercial transactions and not for speculative purpose. To the governments, speculation is considered undesirable and destabilizing. This view is reflective of the actual situation in most of the SEACEN countries, considering the persistent downward pressure on local currencies. Some of the central banks do provide forward facilities but they are either limited to one single currency, or for a limited period or selected sectors. In some of the SEACEN countries, stringent controls have been imposed on forward transactions.

From the discussion above, it is noted that most of the four basic conditions are not met in the SEACEN countries, then making it difficult for their central banks to develop their exchange markets into full-fledged markets. This is basically due to the fact that most of the SEACEN countries continue to encounter several constraints which have serious implications on the development of their exchange markets.

2. Macroeconomic Constraints

The first and the most serious constraint is the constant threat of dwindling scarce exchange reserves in most of the SEACEN countries (see Table 2.6). Only Singapore experienced an increasing accumulation of exchange reserves throughout the period 1971 – 1985. For most of the SEACEN countries, they have to recognize the fact that their exchange reserves may have to be drawn down any time to finance persistent balance of payments deficits, especially in times of shrinking long-term capital inflows. This has been particularly so since the beginning of the 1980s when the SEACEN countries went into a prolonged recession with a substantial downturn in commodity prices (see Appendices 2.1 to 2.7). Long-term capital inflows almost came to a halt as the international debt crisis emerged in August 1982. As a result of these international developments, most of the SEACEN countries had to resort to a large drawndown of their exchange reserves to finance

Table 2.6

FOREIGN EXCHANGE CONSTRAINTS IN THE SEACEN COUNTRIES

	Current Account Deficit *(As % of GDP)*			External Reserves *(Average number of weeks) of imports*		
	1971 – 75	**1976 – 80**	**1981 – 85**	**1971 – 75**	**1976 – 80**	**1981 – 85**
Indonesia	–-2.24	0.14	– -4.23	13.9	22.0	16.7
Malaysia	–-3.42	2.50	–-10.15	24.9	28.0	17.0
Nepal	n.a.	–-0.60	–-3.83	50.9	35.6	17.2
Philippines	–-0.54	–-4.96	–-6.43	19.7	18.5	7.9
Singapore	–-18.44	–-8.30	–-7.60	22.6	18.2	18.6
Sri Lanka	–-2.08	–-4.48	–-7.63	7.2	15.2	10.5
Thailand	–-1.70	–-5.46	–-5.50	30.4	17.7	10.9

Source: International Monetary Fund, *International Financial Statistics; Supplement on Economic Indicators*, Supplementary Series No.10, 1985.

their balance of payments deficits. Some of the SEACEN countries even resorted to IMF stand-by arrangements for temporary relief during the difficult period.

In view of this structural weakness in the balance of payments, most of the SEACEN countries have a constant fear that their exchange reserves might be totally eroded if structural adjustments in the economy could not bring in time an improvement in their balance of payments. Such apprehension has forced most of the SEACEN countries not to liberalize their exchange controls at too fast a rate. Inevitably, the exchange markets in the region have not been relatively active.

The other serious constraint encountered by most of the SEACEN countries in their effort to develop their exchange markets is their eargerness to minimize or reduce exchange risks in the face of a constant exchange pressure on domestic currencies. Most of the SEACEN currencies are generally thinly traded and their exchange rates tend to fluctuate widely, if the central banks do not intervene timely enough in the market. As these domestic currencies are also constantly subject to downward exchange pressure, the central banks do not have much alternative but to "lean against the wind" in order to always maintain the stability of exchange rates. The stability of exchange rates is much needed by most of the SEACEN countries as they are actively involved in the international trade of primary commodities. The stability of the exchange rate is also an important inducement for foreign investments which are needed badly by most of the SEACEN countries. Because of such constraints, exchange rate movements in the past 15 years, even after the adoption of the generalized floating system, have not fluctuated widely (except in Malaysia and Singapore) so as to provide opportunities for exchange speculation.

The development of a full-fledged exchange market also requires active two-way capital flows in and out of a country. In most of the SEACEN countries, there is always the constant pressure of a short-term capital outflow. Such an outflow is largely prevented by stringent exchange control. The lack of two-way capital flows arises basically from the low substitutability between domestic assets and foreign assets, reflecting the underdeveloped nature of the domestic money markets in the region.

3. Capital Market Constraints

In the past, the SEACEN central banks have been playing a catalyst role in bringing about financial development. This is evidenced by a rising share of M1 and M2 to the gross domestic product (indicators of financial widening or monetization) and an overall increase in financial intermediation ratios (indicator for financial deepening) for most of the SEACEN countries (see Table 2.5). However, the development of secondary money markets in the SEACEN region has been, in general, restricted to interbank money market and the relatively inactive discount market. This is partly traced to the money market instruments, especially government securities and Treasury bills, not having attractive yields in order to attract a wider spectrum of market participants. As in other developing countries, the SEACEN governments need relatively cheap finance for their development expenditure. They cannot afford to issue high-yielding securities in order to attract investors. Thus, the market for these papers is a rather captive one, resulting from legal restrictions on the investment portfolio of several financial institutions such as the employees provident funds, insurance companies, and commercial banks.

Likewise, other private market instruments such as commercial papers and corporate bonds are not also well-developed. While some of the SEACEN countries

have adopted certain deregulation measures, especially the freeing of interest rates, the cartel arrangement among the major financial institutions especially the commercial banks have not allowed the interest rates to be fully responsive to both domestic and international developments. Moreover, in a number of the SEACEN countries, the unorganized money market is still the dominant part of the financial structure (see B.K.Ng, 1985). All in all, the financial structure in most of the SEACEN countries is still generally segmented with a large informal sector in the economic background.

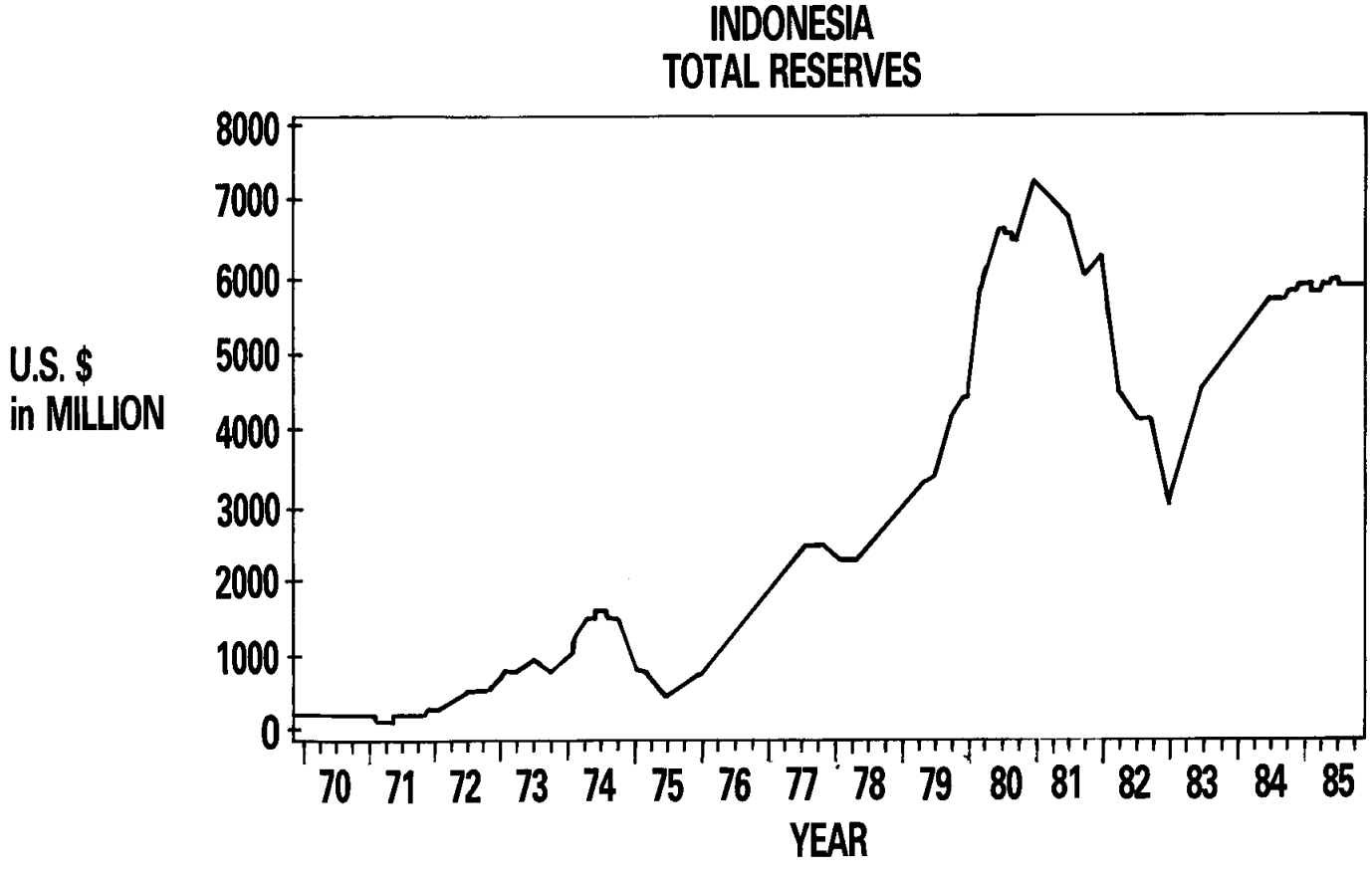
With such relatively less developed domestic money markets, especially where interest rates are generally pegged, there is a very low substitutability of domestic and foreign money market instruments. In other words, there is very little capital flow of short-term nature, although large enough to finance temporarily the balance of payments deficits. Therefore, interest rate differentials between domestic and overseas interest rates would not significantly result in short-term capital flow. This low capital mobility has inevitably forced the international investors and traders to sell domestic currency in exchange for major convertible currencies because they are reluctant to invest in local assets. Such behaviour of the investors and traders therefore constantly exerts a downward pressure on the domestic currency. Even if speculation does exist, it would be a detabilizing one. Because of this constraint, the central banks have to "lean against the wind" through exchange intervention, often resulting in a substantial loss of exchange reserves. Over a long period, the constant intervention of the central banks is bound to have harmful effects on the orderly development of the local exchange markets.

In another instance, the underdeveloped domestic money market coupled with low capital mobility could not possibly provide the conducive environment for the establishment of a wide network of broker-dealer relationship, active inter-bank markets, and organized and sophisticated exchanges. This implies that foreign exchange transactions would not be large enough to support a full-fledged foreign exchange market. And this is what is happening in most of the SEACEN countries. Only Singapore, with its well-developed financial sector to cater to the financial needs of the ASEAN, can afford to develop a full-fledged foreign exchange market. In short, the general lack of well-developed domestic money markets has hampered the development of foreign exchange markets in the region.

4. Concluding Remarks

As a result of the above three constraints, it would be difficult, at least till the end of the next decade, for most of the SEACEN countries to develop their exchange markets into full-fledged ones like their counterparts in the developed countries. Given the existing international scenario and the domestic economic and financial structures, the economic costs of developing an efficient exchange market may well exceed the potential benefits derived therefrom. And these potential benefits can be reaped only when the three constraints are substantively removed. It is therefore expected that the SEACEN countries would continue to maintain the pegging system, while at the same time continue to develop their financial and exchange markets as well as improve their balance of payments position. □

Appendix 2.1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TOTAL RESERVES
U.S. $
in MILLION
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6000
5000
4000
3000
2000
1000
0
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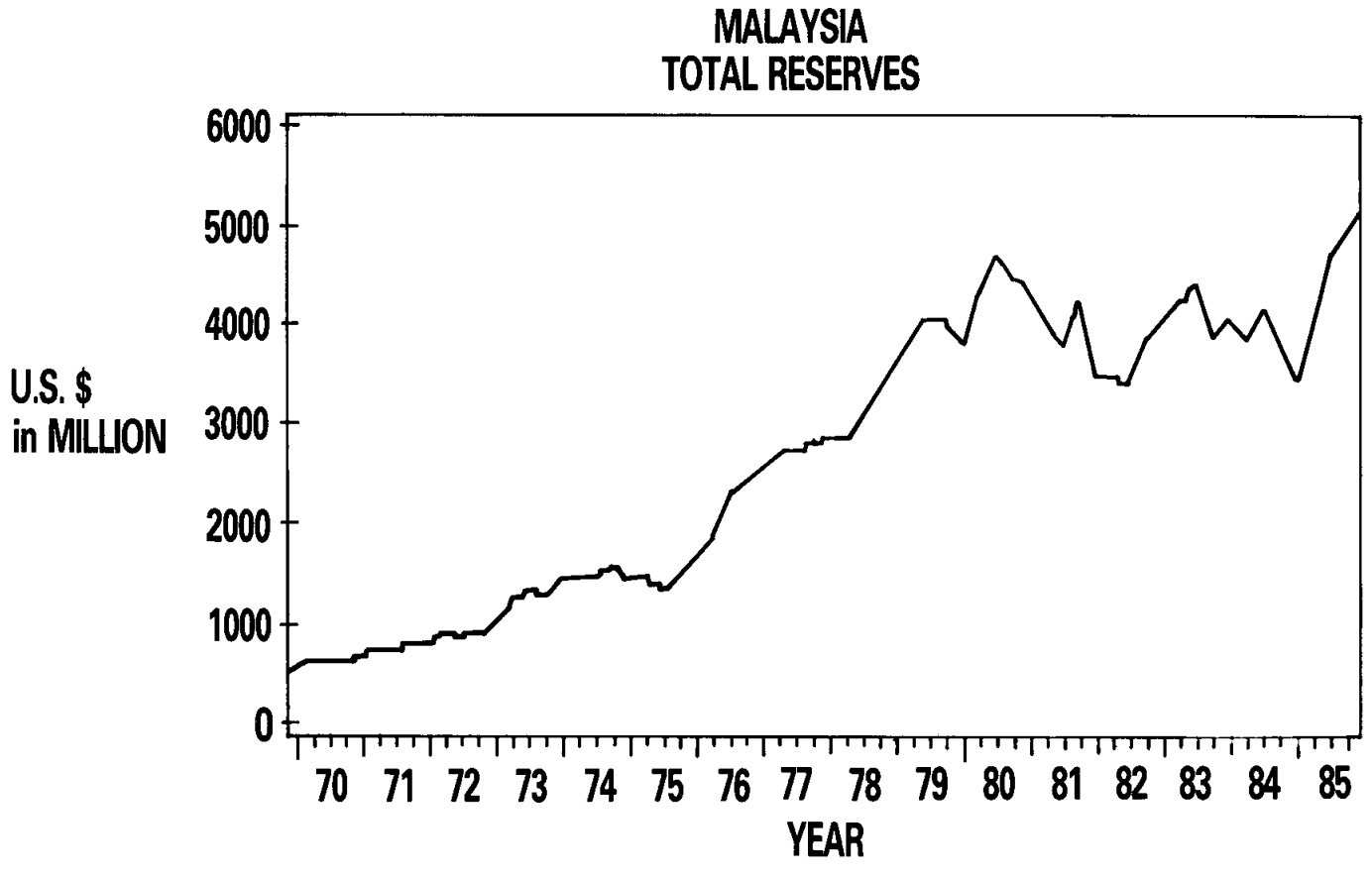
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Appendix 2.2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TOTAL RESERVES
U.S. $
in MILLION
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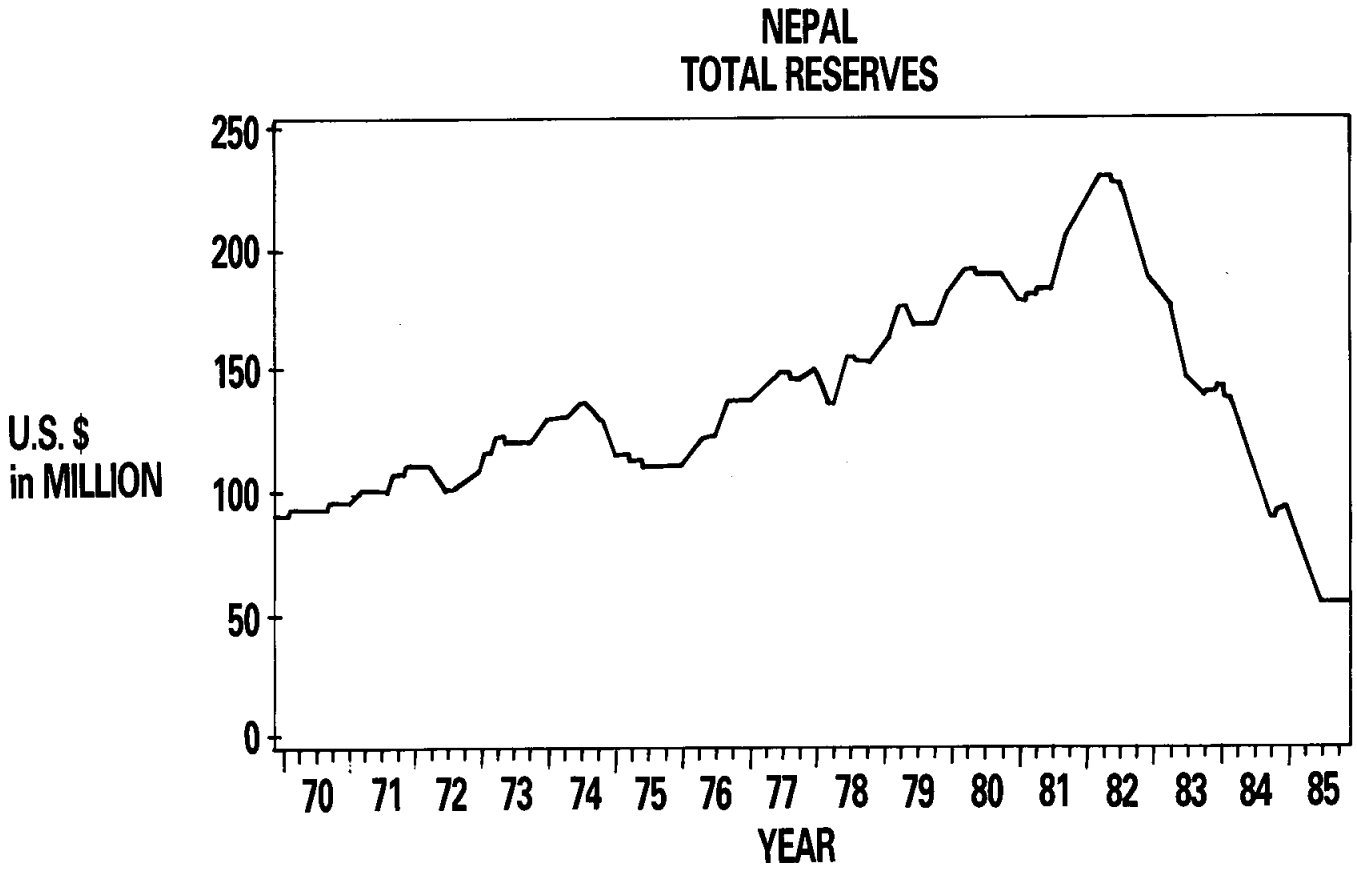
5000
4000
3000
2000
1000
0
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Appendix 2.3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TOTAL RESERVES
U.S. $
in MILLION
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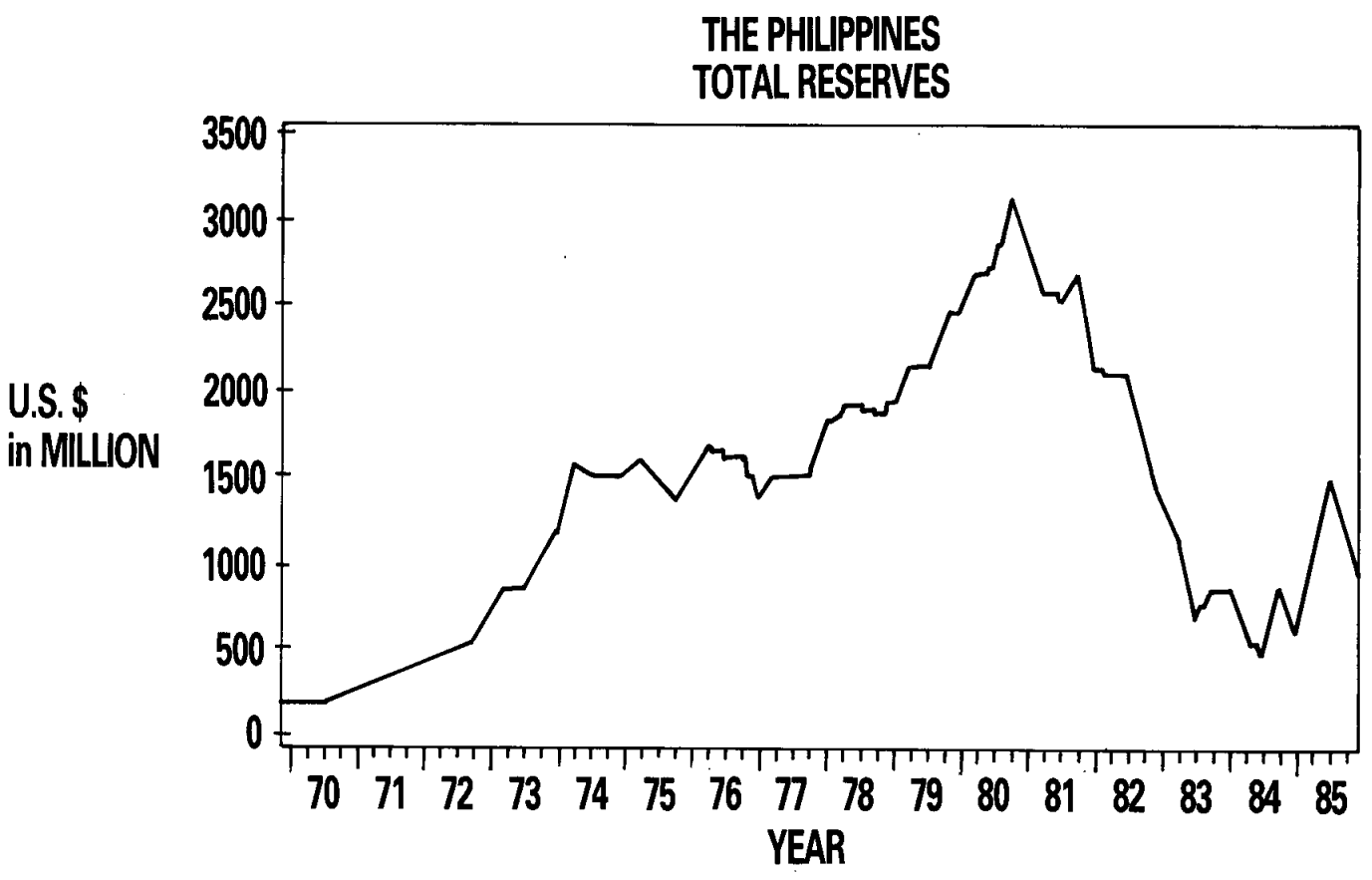
200
150
100
50
0
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Appendix 2.4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TOTAL RESERVES
U.S. $
in MILLION
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3000
2500
2000
1500
1000
500
0
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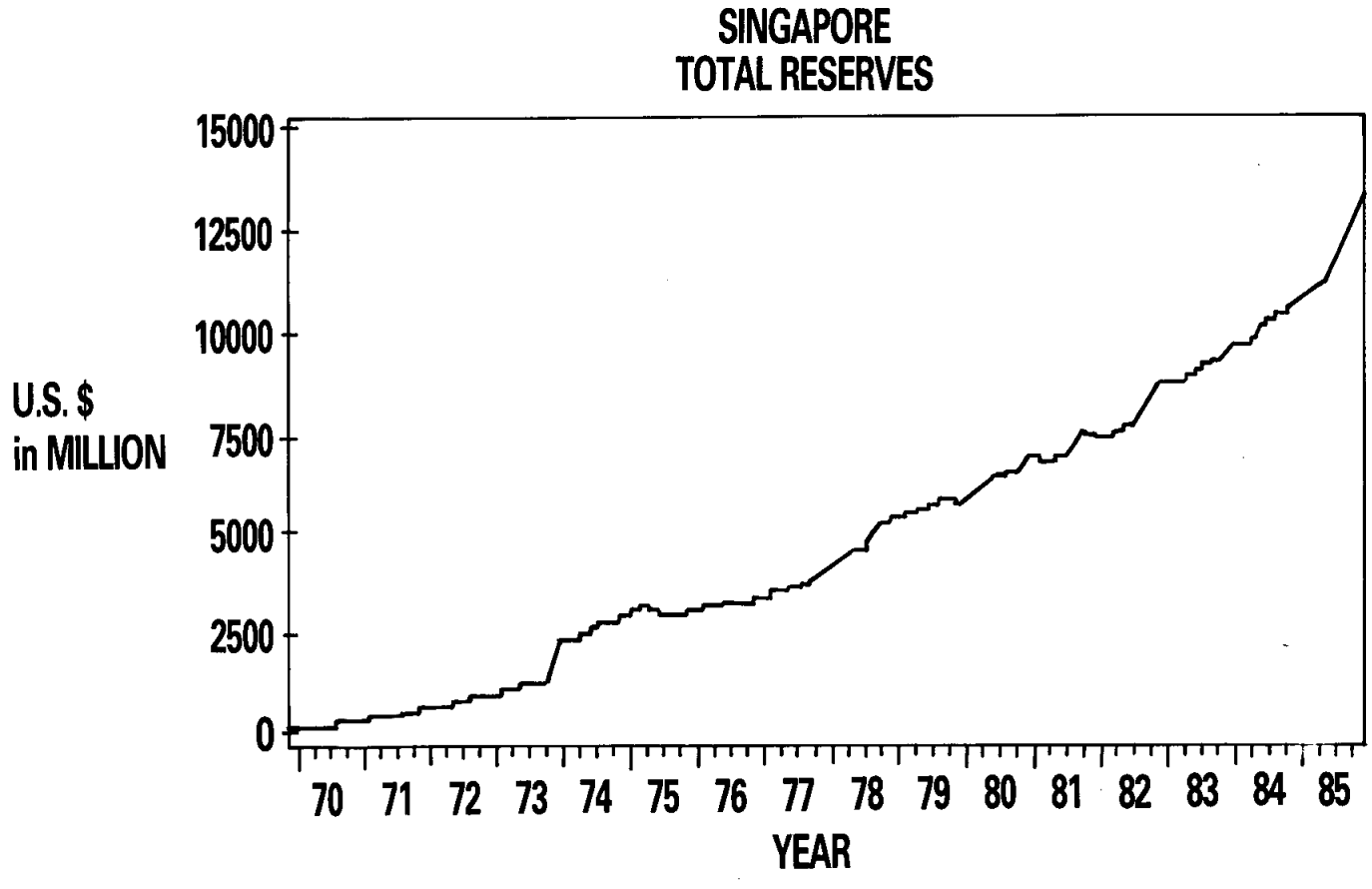
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Appendix 2.5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TOTAL RESERVES
U.S. $
in MILLION
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10000
7500
5000
2500
0
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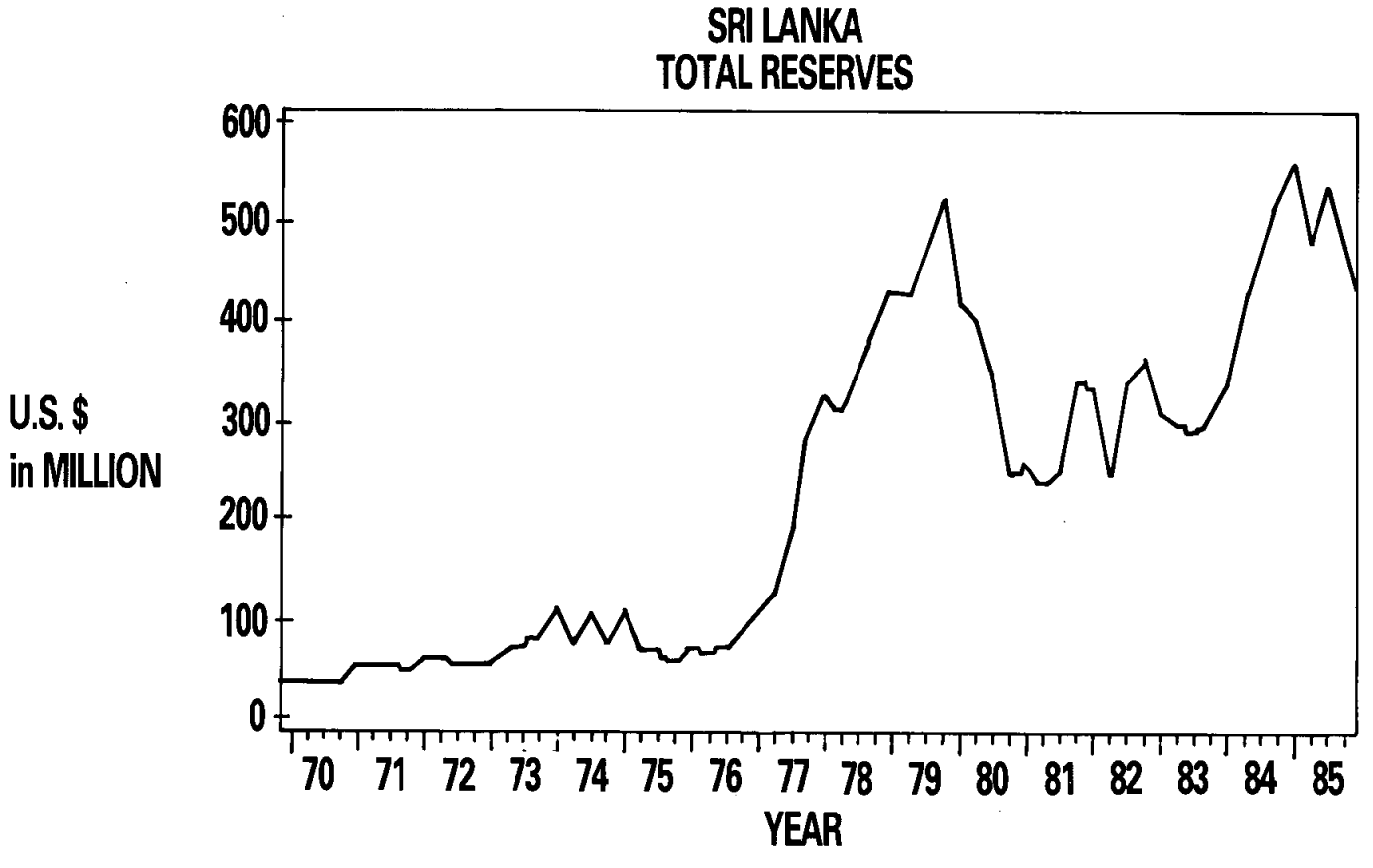
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
YEAR

Appendix 2.6


SRI LANKA
TOTAL RESERVES
U.S. $
in MILLION
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500
400
300
200
100
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74
75
76
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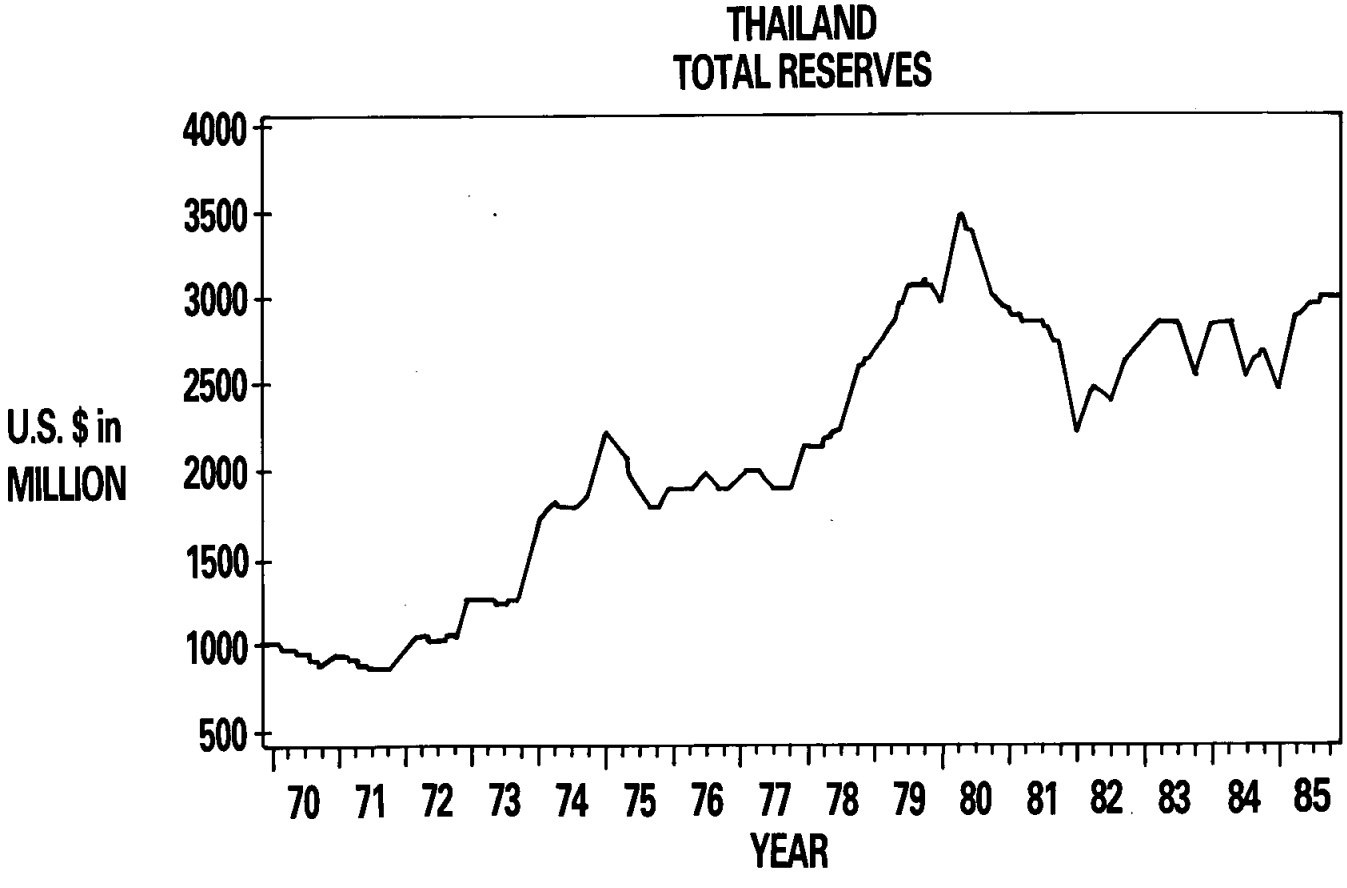
79
80
81
82
83
84
85
YEAR

Appendix 2.7


THAILAND
TOTAL RESERVES
U.S. $ in
MILLION
4000
3500
3000
2500
2000
1500
1000
500
70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85
YEAR

Chapter 3

EXCHANGE MARKET PRESSURE AND CENTRAL BANK POLICY

This chapter aims to study the reaction of the SEACEN countries to external shocks in the period 1970 – 84. The study also examines the rationale underlying the choice of various policy options by the SEACEN countries. In effect, the study revolves around the basic question of whether a further development of the existing foreign exchange market will increase the policy options, and thereby help improve the effectiveness of exchange rate and monetary policies in mitigating external shocks.

This chapter is divided into three sections. Section I attempts to trace the various sources of external shocks encountered by the SEACEN countries throughout the 1970s and the first half of the 1980s. This section also analyzes the effects of these shocks on the economies of the SEACEN countries.

Section II explores the various policy options available to counteract external shocks and their basic requirements, in particular the level of foreign exchange market development required for the successful implementation of these policy options.

Section III applies the Girton-Roper model in identifying and examining the policy options taken by the SEACEN countries in counteracting external shocks. This concluding section also discusses the possibility of improving the policy implementation of meeting such shocks by developing the foreign exchange markets in the region.

I. Sources of Exchange Market Pressure

The SEACEN countries, as noted in Chapter 1, are relatively open economies, following the pegging exchange rate system. Any external shock will, therefore, be transmitted to the domestic economies. However, the precise mechanism through which these effects are transmitted is usually complex and difficult to measure in quantitative terms. There are many channels through which external developments, in particular those coming from the trading partners of the SEACEN countries, can be transmitted readily into the domestic economies. These channels include basically the markets for goods, services, migrant labour as well as the financial markets. Despite the variety of channels in the transmission mechanism, the external shocks will be reflected essentially as monetary imbalances which are instantly translated into "exchange market pressure" as termed by Girton and Roper[1]. This pressure will be relieved either through the movement of exchange rates or changes in external reserves or a combination of both changes. If there is no simultaneous central bank intervention and liberal exchange control, much of this pressure will be reflected in the violent movement of exchange rates. In this case, the domestic economy will be partially insulated from the external influences. As for those countries under the pegging system, as in the case of the SEACEN countries, most of these influences will be reflected in the changes in external reserves because of the active intervention of the central bank to "lean against the wind", so as to smooth out fluctuations in the exchange rate and to maintain the competitiveness of the export sector. External shocks in this instance will be transmitted to a significant degree to the domestic economies.

[1]Girton, L. and Roper, D., "A Monetary Model of Exchange Market Pressure Applied to the Post War Canadian Experience," *American Economic Review*, LXVII (September 1977) : pp. 537 – 548.

The 1970s and first half of the 1980s saw several international developments which were transmitted into the foreign exchange markets of the SEACEN countries. The first external shock during this period was the international monetary crisis between 1971 and 1973. The crisis culminated in the final collapse of the Bretton Woods system and simultaneously led to the emergence of the generalized floating exchange rate system (see Chapter 1 for details). In the process, tremendous exchange market pressure was exerted in the foreign exchange markets in the SEACEN region. The central banks and monetary authorities, in their attempt to realign their exchange rates resorted to changes in exchange rate regimes from the pegging system to freely floating system, and vice versa. [1]Finally, the SEACEN countries had decided to either peg to a basket of trading partners' currencies or go by a system of managed floating.

The most important external shocks which significantly altered the structure of the world economy were the two oil shocks in 1973/74 and 1979/80. In 1973/74, energy prices almost tripled, from an average of U.S.$4.70 per barrel in the period 1970 – 73 to about U.S.$12 in 1974. In the second oil crisis, petroleum prices likewise rose sharply by almost 100 per cent, from U.S.$11.10 per barrel in 1978 to U.S.$19.30 per barrel in 1980. Such dramatic changes in oil prices had exerted great impact on the SEACEN economies. Oil exporting countries such as Indonesia, Malaysia and, to a significant degree, Singapore, had benefitted most out of the two oil crises. For instance, in Indonesia, the share of oil export receipts to the total exports rose sharply from 40.3 per cent in 1970 to almost 75 cent in 1975. In the second oil crisis, the share of oil proceeds to total export receipts also increased tremendously from 57 per cent in 1979 to almost 82 per cent in 1981. In the case of Malaysia, the country suffered in the first oil shock in 1973/74 when it was still a net oil importer. However, by the time the second oil shock occurred, Malaysia had turned into a net oil exporter. In 1981, oil export proceeds constituted 25.5 per cent of total export receipts, as compared to a share of 6.7 per cent in 1974. As for Singapore, it also benefitted from the oil shocks, especially the second one. During the 1970s, Singapore had expanded rapidly its oil refinery capacity in response to the first oil crisis. It imported oil mainly from the Middle East countries, Indonesia and Malaysia, and processed it into petroleum products for export not only to the SEACEN region but also to countries in the Far East, notably Japan and Korea. By 1982, proceeds from the exports of petroleum products represented about 40 per cent of total export receipts, as compared to 20 per cent in 1973.

For the other SEACEN countries, notably the Philippines, Sri Lanka and Thailand, they were adversely affected by the two oil crises. They had to foot a substantial import bill for petroleum. For instance, in 1975, the share of the oil import bill to total import payments in the Philippines rose sharply to 19 per cent, as compared to a lower share of 9.9 per cent in 1972. The share for Sri Lanka in 1975 rose from 8 per cent to 16.4 per cent in 1972. Likewise, Thailand also recorded a significant share of 18.1 per cent in 1975, more than double the share of 8 per cent in 1972.

In the case of the net oil exporters, the two oil crises had favourably influenced their external current account and output growth, through their simultaneous effects on relative prices and the volume of oil trade. The resulting changes in export earnings, in turn, exerted their impact on the level of aggregate demand and money supply of these countries, as external reserves accumulated. In the process, an exchange market pressure was exerted which induced exchange rate appreciations.

[1]Both Malaysia and Singapore pegged to gold after June 1972 but one year later, both countries floated their currencies and finally pegged to baskets of major trading partners' currencies.

On the other hand, the net oil importers encountered exchange market pressures of a different kind : one of exchange rate depreciation and a depletion of their external reserves. The disturbances, in this case, were mainly transmitted through import prices.

As most of the SEACEN countries are exporters of primary commodities (see Chapter 1), any significant changes in commodity prices would also represent recurring external shocks to them. The non-oil commodity boom during the 1976 – 79 period and the sharp downturn in commodity prices during 1981 – 82 had invariably exerted external exchange market pressure on the foreign exchange markets in the region. These changes in commodity prices are the reflection of a host of factors, such as the level of economic activity, interest rates, and inflation in the trading partners, as well as short-term supply conditions in the producing countries.

Transmission of external shocks through the financial markets to the SEACEN countries can be equally dramatic and pervasive. This was partly due to the increasing integration of the region's financial markets with the international ones. The recycling of petro-dollars, the rapid growth of the Eurocurrency markets and the significant rise in private bank lending to the SEACEN region in the 1970s intensified capital inflows into the region. This directly implied that any signficiant change in interest rate and exchange rate would have substantial impact on the external debt situation of the SEACEN countries. Since a high proportion of the SEACEN countries' debt is denominated in U.S. dollars, an appreciation of the dollar would increase significantly the value of debt and debt service payments. And this happened exactly in the period 1981 – 83 when the U.S. dollar appreciated sharply by 33 per cent. The interest rate effect on external debt situation was even more pronounced especially when the world economy reversed from double-digit inflation the late 1970s to a period of deflation in early 1980s. The debt-servicing problem turned into a crisis proportion in 1982, considering that a significant portion of the external debt was categorized as variable interest rate loans. The high interest rates and the concurrent appreciation of the U.S. dollar between 1980 and 1983 had exerted tremendous pressure on the foreign exchange markets in many parts of the world, including the SEACEN countries.

The other external shock which was of no less importance was the double-digit inflation in the second half of the 1970s. For this group of major industrial countries, namely, the United States, Japan, West Germany, France, the United Kingdom, Italy and Canada, the average inflation rate as measured by the consumer price index, rose sharply in 1973, reaching 10 per cent in the second half of 1973, in contrast to 4.9 per cent in the previous year. The major cause of the upsurge in consumer prices was the first oil shock. The inflation reached its peak in the first half of 1974 but still persisted thereafter on a declining rate. By the second half of 1978, pressure started to build-up again. Inflation rates, in fact, turned into double digits in the second half of 1979 and persisted this way for the most part of 1980. Again, the oil shock coupled with the commodity boom was the major factor for the sharp upturn in consumer prices. These inflationary pressures were readily transmitted through the import channel as most of the SEACEN countries imported a substantial portion of manufactured goods from the major industrial countries. In the process, the SEACEN countries also experienced grave inflation during the same period.

II. Policy Options in the Foreign Exchange Market

In the face of these external shocks, the central banks or the monetary authorities in the SEACEN region may adopt one or several policy measures to cushion off,

albeit partially, these shocks. Otherwise, such shocks would be transmitted into the domestic economy, creating economic instability in the process. These policy options which affect the foreign exchange market directly can be classified into four major types, namely, changes in exchange rate, changes in external reserves, a combination of changes in both exchange rate and external reserves, and direct controls. In this study, the discussion will be limited to the first three options.

1. Changes in Exchange Rate

Under this policy option, the exchange market pressure will be cushioned off totally or partially by the changes in exchange rate so that external reserves remain more or less intact. This is possible under two circumstances, i.e., the adoption of a freely floating exchange rate system and the devaluation or revaluation of the domestic currency.

The adoption of a freely floating exchange rate system by the SEACEN countries is not a feasible option from the practical point of view. As has been discussed in detail in Chapter 1, most of the SEACEN countries failed to pass both the Mckinnon's openness and the capital market criteria. Moreover, elasticity pessimism is a fact of life for most of the commodities exported by the SEACEN countries (Rana, 1981). Black (1976) also noted that the successful adoption of a freely floating exchange rate system "may require abandonment of exchange controls, greater stability of domestic policies, development of a forward exchange market, abandonment of pegged interest rates in the domestic securities markets, and development of a network of brokers and dealers in securities and foreign exchange." However, such changes would involve economic, social and political costs in terms of the required commitment of both financial and human resources to bring about the pervasive change in both the economic and financial systems. In the short- and medium-terms, it would be rather difficult for most of the SEACEN countries to fulfil such basic requirements, although, there are signs that the SEACEN countries in general are moving towards this direction. For instance, in a number of the SEACEN countries the liberalization of the financial system such as the adoption of more liberal exchange controls, the freeing of domestic interest rates, the development of forward markets are underway in earnest.

Devaluation used to be a traditional tool to cushion off external shocks under the Bretton Woods system. Under the present generalized floating exchange rate system, some of the SEACEN countries continued to use this measure to relieve pressure on domestic currencies, and also to improve export competitiveness in the international market. Of the seven countries under study, only Malaysia and Singapore have not adopted such measure since 1970. Indonesia had devalued its currency three times between 1970 to 1984. In the same period, Nepal had devalued its rupee against the U.S. dollar four times and revalued against the same currency once. Sri Lanka revalued its currency by 20 per cent against a basket of currencies in March 1977, but devalued by 86 per cent against the U.S. dollar and pound sterling in November of the same year. Since then, Sri Lanka has not devalued nor revalued its currency. As for Thailand, the country had devalued its currency twice against gold in the early 1970s and revalued once against the U.S. dollar in 1973. Between 1981 to 1984, Thailand devalued its currency against the U.S. dollar three times.

For the devaluation or revaluation to be effective, several conditions have to be met. First of all, the Marshall-Lerner condition must be fulfilled. The Marshall-Lerner condition states that devaluation will improve the current account provided that the sum of the price elasticities of export demand and import demand must exceed one.

However, in the SEACEN countries, most of the trade and capital flows are not denominated in domestic currencies but rather in such key currencies as the United States dollar, the pound sterling and the Japanese yen. In this instance, the export elasticity of demand is therefore largely irrelevant. In fact, the devaluation will raise the domestic currency price of exports and, hence, the profitability of exporters. The price elasticity of export supply together with the price elasticity import demand will be in this case a crucial factor in determining the success of devaluation. In addition, the devaluing countries must also ensure that domestic inflation would not run out of control as to erode the export competitiveness and stimulus gained from devaluation. The need for a well-developed foreign exchange market in the devaluation case is minimal. This explains why developing countries such as those in the SEACEN region where exchange markets are not well-developed tend to adopt such an exchange rate policy to cushion off external shocks.

2. Changes in External Reserves

Apart from changes in exchange rates, a central bank may also intervene in the foreign exchange market to cushion off external shocks. In a freely floating exchange rate system, an external shock will cause the exchange rate to fluctuate violently. In order to stabilize the exchange rate, the central bank may intervene in the exchange market by drawing down or accummulating its external reserves to defend a certain level of exchange rate. However, such an intervention will dilute the central bank's control over domestic money supply. Unless sterilization is undertaken simultaneously so that no change in the money supply ensues, the external shocks tend to be transmitted into the domestic economy through simultaneous changes in money supply. In order to sustain the intervention operation, the central bank must be equipped with adequate external reserves.

Intervention in the exchange market may be categorized into two types. Type one involves daily announcement of the exchange rate under which the central bank is fully committed to buy and sell foreign currencies in the market. This type of intervention is conducted in countries where the foreign exchange markets are not fully developed. Countries like Indonesia, Nepal, Sri Lanka and Thailand normally undertake this form of intervention.

The other type of intervention requires a certain degree of foreign exchange market development. In this case, the central bank through its exchange brokers buys and sells foreign currencies, in the hope that signals are transmitted to market participants of its intention to move the exchange rate in the desired direction. In addition to intervention in the spot market, the central bank may also intervene in the forward market by influencing the forward premium or discount, as the case may be. The central bank may not only intervene in the domestic foreign exchange market but also in any other exchange markets which are closely connected with the domestic market. Among the SEACEN countries, Malaysia, the Philippines and Singapore conduct their intervention policies through this method. However, none had intervened in the forward market so far.

3. A Combination of Exchange Rate and Reserve Changes

A combination of exchange rate and reserve changes as a measure to cushion off exchange market pressure is the most common practice in the world, under the generalized floating exchange rate system. Even those countries which have declared officially the adoption of an independent float had intervened occasionally in the foreign exchange market to "smooth out" fluctuations in exchange rates. For the

other countries, foreign exchange intervention resulting in changes in the exchange rate and external reserves is part and parcel of their exchange rate policy. The purpose is to fine-tune the exchange rate in the desired direction, to "lean against the wind" or to stabilize exchange rate movements.

In implementing this policy option, some countries may put more weight on external reserve changes while others may prefer tilting towards exchange rate changes. Still, others prefer external reserve changes during certain situations and exchange rate changes in the other. The flexibility of implementing this policy option will increase significantly if a country has adequate external reserves as well as a fairly well-developed foreign exchange market.

III. Exchange Market Pressure and Central Bank Reaction

As noted in Section I, the SEACEN countries had experienced economic instabilities attributed to external factors such as the breakdown of the Bretton Woods system, the two oil crises and the volatility of exchange rates of key currencies. These external disturbances were, to varying degrees, transmitted to the SEACEN economies. The purpose of this section is to conduct a simple empirical test on the central bank reaction to such external disturbances, particularly during the period 1973-84.

This empirical study applies a modified version of the Girton and Roper monetary model of exchange market pressure on the SEACEN countries. The version used in this section was developed by M. Connolly and J. D. Silveira[1] in an effort to conduct an empirical test on exchange market pressure in post-war Brazil. N. C. Modeste also used this version to conduct the same study on Argentina[2].

This version of the Girton – Roper monetary model is particularly relevant to the SEACEN countries for two reasons. First, with the advent of generalized floating exchange rates since March 1973, the SEACEN countries are permitted to vary their exchange rates as part of the macroeconomic policy package. Indeed, throughout the period 1973-84, the SEACEN countries had experimented on various exchange rate policies involving both exchange rate and/or external reserve changes. Secondly, the monetary model requires the assumption of purchasing power parity which is not an unreasonable assumption for the SEACEN countries. This is in view of the fact that most of the SEACEN countries are small and open economies with high trade dependency ratios.

1. A Simple Version of the Girton-Roper Model

The object of the Girton – Roper Model[3] is to examine the reaction of a central bank in response to exchange market pressures. According to the monetary approach to the balance of payments, any disturbance, be it domestic or external, will be translated eventually into imbalances in domestic monetary condition. Such imbalances will in turn exert pressure not only on the exchange rate (price) but also

[1] Connolly, M. and Silveira, J. D., "Exchange Market Pressure in Post War Brazil : An Application of the Girton – Roper Monetary Model," *American Economic Review,* (June 1979), pp. 448-454.

[2] Modeste, N. C., "Exchange Market Pressure During the 1970s in Argentina : An Application of the Girton – Roper Monetary Model," *Journal of Money, Credit and Banking,* Vol. 13 No. 2 (May 1981).

[3] Girton, L. and Roper, D., "A Monetary Model of Exchange Market Pressure Applied to the Post-war Canadian Experience." *American Economic Review,* LXVII (September 1977), pp. 537-548.

on the foreign exchange reserves (quantity) under a generalized floating rate regime. Girton and Roper termed such pressure as "exchange market pressure". The basic theoretical proposition of the model is that any excess supply of money or any excess demand for money can be relieved by a change in exchange rate, a change in foreign exchange reserves or, in the context of managed floating, some combination of the two.

The formal monetary model as expounded by Girton and Roper and subsequently modified by Connolly and Silveira[1] can be formulated as follows:

$$L = kPY \quad (1)$$
$$M = m.MB \quad (2)$$
$$P = EP^* \quad (3)$$
$$MB = NFA + NDC \quad (4)$$
$$L = M \quad (5)$$

where L is the demand for broad money;

k	is the fraction of income people wish to hold in the form of money balances;
P	is the domestic prices;
Y	is the real income;
M	is the supply of money;
MB	is the monetary base or reserve money;
m	is the money multiplier
NFA	net foreign assets of the central bank;
NDC	net domestic credit of the central bank;
E	is the exchange rate,expressed in terms of the number of units of domestic currency per unit of foreign currency; and,
P^*	is the foreign price

Equation (1) is a money demand function with the Cambridge k being constant. Equation (2) is the money multiplier model. Equation (3) is the purchasing power parity. Equation (4) is an identity, while equation (5) is the equilibrium condition for the monetary sector.

Substitute equation (3) into (1) and equate to equation (2), as required by the equilibrium condition as indicated by equation (5), as follows:

$$kEP^*Y = M \quad (6)$$

Take log throughout:

$$lnk + lnE + lnP^* + lnY = 1nM \quad (7)$$

Take total differential:

$$\frac{dE}{E} + \frac{dP^*}{P^*} + \frac{dY}{Y} = \frac{dM}{M} \quad (8)$$

[1] Connolly M. and Silveira, J.D., *op. cit.*, pp. 448-454.

Substitute equation (2) into (8) and treat m as constant to give:

$$\frac{dE}{E} + \frac{dP^*}{P^*} + \frac{dY}{Y} = \frac{dMB}{MB} \qquad (9)$$

From Equation (4),

$$\frac{dE}{E} + \frac{dP^*}{P^*} + \frac{dY}{Y} = \frac{dNFA}{MB} + \frac{dNDC}{MB} \qquad (10)$$

Denote $\frac{dE}{E} = e$

$\frac{dP^*}{P^*} = p^*$

$\frac{dY}{Y} = y$

$\frac{dNFA}{MB} = r$

$\frac{dNDC}{MB} = d$

and rearrange equation (10) as follows:

$$r + (-e) = -d + p^* + y \qquad (11)$$

Equation (11) states that in a generalized floating exchange rate system, exchange market pressure arising from changes in d, p^* and y which directly cause disequilibrium in the monetary sector may be relieved by a change in r, a change in e or a combination of the two, depending on the kind of exchange rate regime prevailing in a country. Equation (11) can be written as follows:

a) Under freely floating exchange rate regime:

$r = o, -e = -d + p^* + y$

b) Under rigidly fixed exchange rate regime:

$e = o, r = -d + p^* + y$

c) Under pegged exchange rate system:
$\propto < \hat{e} < ß$ where $\propto$ and ß are lower bound and upper bound respectively of a prescribed band.

$r + (-\hat{e}) = -d + p^* + y$

d) Under managed float system:

$$\left.\begin{array}{l} \hat{e} > \propto \\ \hat{e} < ß \\ \propto < \hat{e} < ß \end{array}\right\} r + (-\hat{e}) = -d + p^* + y$$

Originally, the model was applied to countries under managed floating. However, the model can also be applied to a broad category of fixed exchange rate systems especially those pegged to a single currency, SDR or a basket of currencies. In

such a fixed exchange rate system, there is still some flexibility for the exchange rate to move but within prescribed bands. Except for the system which is solely determined by the state and whose rate is fixed for a long period, the fixed exchange rate system generally does allow some flexibility in exchange rate movement. Moreover, some countries may also adopt a crawling peg system where exchange devaluation and revaluation are used frequently in response to the prevailing balance of payments situation in the country. In this respect, exchange rate changes therefore provide an additional tool for economic management.

2. Results of the Estimation

After the collapse of the Bretton Woods system in March 1973 and the ensuing emergence of the generalized floating exchange rate system, central banks and monetary authorities have gained an additional tool for macroeconomic stabilization. Under the new system, the exchange rates were allowed to float and, hence, exchange rate changes became an instrument for economic stabilization, in particular the balance of payments disequilibrium. For the period 1973-84, the SEACEN countries had adopted some kind of managed floating system although they officially declared various types of exchange rate regimes. In other words, in the face of external shocks, the SEACEN countries are expected to use a combination of exchange rate and external reserve changes to relieve exchange market pressure. The empirical results of the Girton-Roper model could help determine the extent of each of these changes.

In this empirical study, the equation using $\langle r + (-e)\rangle$ as dependent variable will be estimated first to test whether the SEACEN countries had reacted to exchange market pressure by a combination of exchange rate and external reserve changes. A high explanatory power (high $\bar{R}^2$), with independent variables having the correct signs and being significant at 95 per cent confidence level will suffice to support the above hypothesis. The second stage of the empirical study is to determine whether the equation with $\langle r + (-e)\rangle$ as dependent variable is sensitive to its composition between r and $-e$. It begs the question whether r and $-e$ have the same weights (50 per cent each) in its composition. In this connection, an independent variable, Q, is introduced into the equation. Q is defined specifically as $(-e-1)/(r-1)$. If the equation increases its explanatory power after introducing Q, and Q is also significant at 95 per cent confidence level, this implies that in the decomposition of changes, $-e$ and r do not carry the same weight. In other words, if different weights are applied each to $-e$ and r, the explanatory power of the new equation will increase significantly.

To further test the efficacy of the monetary model of exchange market pressure, it is useful to determine whether using r or $-e$ as the sole dependent variable, instead of the sum $\langle r + (-e)\rangle$, would yield a better general fit. The empirical results of these two equations are then used to compare with the first equation using $\langle r + (-e)\rangle$ as dependent variable. If the equation with r as the dependent variable has the better fit than the $\langle r + (-e)\rangle$ equation, this means that the countries apply more external reserve changes than a combination of both exchange rate and external reserve changes in response to external disturbances. The reverse is true if the $\langle r + (-e)\rangle$ has the better fit. If the equation with $-e$ as the sole dependent variable has the best fit, this implies that the central bank in that country has been floating its exchange rate in response to external shocks. The definition of variables and proxies and the sources of data used in the estimation are shown in Table 3.1.

The empirical results of the Girton – Roper model for the seven SEACEN countries under review are generally not satisfactory. The unsatisfactory results are

Table 3.1

DEFINITION OF VARIABLES AND PROXIES AND DATA SOURCES FOR ESTIMATION

Variable	Definition	Source
r	The difference of net foreign assets of central bank over monetary base, $\frac{NFA - NFA(-1)}{MB}$	IFS
e	Percentage change in bilateral exchange rate of domestic currency vis-a-vis the US dollar	IFS
d	The difference of net domestic assets of central bank over monetary base, $\frac{NDC - NDC(-1)}{MB}$	IFS
p^*	Percentage change of trade weighted foreign wholesale price indices of major trading partners of the SEACEN countries	IFS Direction of Trade Yearbook
y	Gross domestic product at constant prices	IFS

Note : 1) P* for Singapore is the percentage change of the United State wholesale price index.

2) The quarterly GDP *(y)* is generated by Otani – Richael method except for Malaysia and Thailand where the same series are generated by quadratic passing through method.

possibly due to three major reasons.The first one is the distortion arising from the artificial generation of quarterly gross domestic product (y) by either the Otani-Richael method or the quadratic passing through method. This is evidenced by the low t values for y in most of the equations (except Malaysia and the Philippines). The second possible explanation for the poor fit in most of the equations is the other distortion arising from using the trade-weighted foreign price indices which are on bilateral basis rather than multilateral basis. The distortion can also arise from the exchange rates used in the calculation of trade-weighted foreign price indices. The other factor is the existence of multicolinearities among the explanatory variables, i.e., d, p^* and y.

Despite the unsatisfactory results, the estimation results still provide some revealing observations which are useful and indicative in terms of policy direction. For the first equation with *‹r + (e)›* as the dependent variable, the estimation results for Malaysia and Thailand, as compared to those of the other countries have the better fit with coefficients of independent variables having the correct signs. In the case of Malaysia, the coefficients of d and Y are significant at 95 per cent confidence level except the coefficient for P^*. In the case of Thailand, only d is significant at 95 per cent confidence level. For the other countries, Indonesia, Nepal and Singapore have a poor fit with $\bar{R}^2$ at below 0.4. The Philippines and Sri Lanka, on the other hand, have a better fit, although their $\bar{R}^2$ are still below 0.51 and the coefficients of some of the independent variables have the wrong signs. The empirical results are shown in Table 3.2 through Table 3.8.

The introduction of Q as an additional explanatory variable in the *‹r + (–e)›*

Table 3.2

INDONESIA: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	0.0174 (0.3476)	−0.7151 (−5.3081)*	0.5849 (0.6012)	1.3077 (0.4680)		0.3517	2.8925
r + (−e)	−0.2346 (−1.6434)	−0.5092 (−2.9806)*	0.4995 (0.5274)	4.3440 (1.3739)	0.1732 (1.8780)	0.3869	3.0849
r	0.09144 (2.5193)*	−0.6845 (−7.0106)*	0.4624 (0.6558)	−1.5937 (0.7870)		0.5030	2.0656
−e	−0.0740 (−2.1163)*	−0.0306 (0.3247)	0.1225 (0.1803)	2.9014 (1.4865)		−0.0069	2.8936

Note: *t* values of estimated coefficients are reported in parentheses.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson statistic.

Table 3.3

NEPAL: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	0.0188 (1.5764)	−0.5120 (−3,8111)*	−0.1174 (−0.5150)	0.0708 (0.1289)		0.1974	1.6003
r + (−e)	− 0.4129 (−4.9684)*	− 0.1832 (−1.4841)	0.0485 (0.2651)	0.0803 (0.1849)	0.4043 (5.2282)*	0.4979	1.5069
r + (−e) #	0.0315 (2.7920)*	0.5512 (−4.3373)*	−0.2021 (0.9373)	0.0575 (0.1106)		0.2540	1.8772
r	0.0370 (2.9032)*	−0.6250 (−4.3507)*	−0.2380 (−0.9763)	0.0630 (0.1073)		0.2557	1.9065
−e	−0.0182 (−3.1855)*	0.1130 (1.7537)	0.1206 (1.1027)	0.0078 (0.0295)		0.0186	1.8360

Note: *t* values of estimated coefficients are shown in parenthesis.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson statistic.

\# This is a weighted *(r + (−e))*. Inclusion of dummy variable to take into account the devaluations improves $\bar{R}^2$ to 0.4050 with D.W = 1.7368.

Table 3.4

MALAYSIA: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	0.0154 (−0.5751)	−0.1023 (−11.7852)*	0.0746 (0.1177)	3.0271 (2.2310)*		0.7516	1.7267
r + (−e)	−0.0253 (−0.9347)	−0.2236 (−2.8400)*	−0.0002 (−0.0003)	2.7362 (2.0286)*	0.0191 (1.5496)	0.7592	1.7771
r	−0.0201 (−0.8512)	−0.1017 (−13.2587)*	0.1133 (0.2024)	3.1099 (2.5934)*		0.7943	1.8903
−e	0.0047 (0.4905)	−0.0006 (−0.1860)	−0.0387 (−0.1694)	−0.0828 (−0.1689)		−0.0651	1.3128

Note: *t* values of estimated coefficients are reported in parenthesis.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson statistic.

Table 3.5

THE PHILIPPINES: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	−0.1039 (−2.8726)*	−0.7516 (−5.4517)*	−0.1308 (0.2359)	5.5987 (2.7678)*		0.5077	2.0893
r + (−e)	− 1.0254 (−7.8848)*	− 0.1841 (−1.5055)	0.2300 (0.6091)	3.3956 (2.4089)*	0.9150 (7.1260)*	0.7722	1.6091
r + (−e) #	−0.0271 (−1.3943)	−0.4358 (−5.8995)*	0.2571 (0.8644)	2.4353 (2.2454)*		0.5235	2.0238
r	−0.0644 (−1.9335)	−0.6918 (−5.4559)*	−0.0338 (−0.0661)	4.0481 (2.1745)*		0.4761	2.1824
−e	−0.0396 (−3.9806)*	−0.0593 (−1.5678)	0.1646 (1.0806)	1.5506 (2.7912)*		0.2165	1.8309

Note: *t* values of estimated coefficients are shown in parenthesis.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson statistic.

\# This is a weighted ‹ *r + (−e)*.›

Table 3.6

SINGAPORE: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	0.0766 (2.3864)*	−0.1574 (−4.0470)*	0.4193 (0.6907)	0.0380 (0.0259)		0.2294	1.3507
r + (−e)	− 0.7377 (−5.9851)	− 0.0127 (−0.3675)	0.1420 (0.3316)	1.7086 (1.6095)	0.7224 (6.7202)*	0.6198	1.7683
r + (−e)#	−0.1269 (−5.5436)*	−0.1268 (−5.7946)*	0.2174 (0.5094	−0.6708 (−0.6927)		0.3674	2.0107
r	0.0955 (3.7488)*	−0.1503 (−4.8700)*	0.3450 (0.7166)	−1.0033 (−0.8609)		0.3144	1.4426
−e	−0.0188 (−1.5581)	−0.0072 (−0.4897)	0.0743 (0.3249)	1.0413 (1.8815)		0.0245	1.7086

Note: *t* values of estimated coefficients are shown in parenthesis.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson Statistic.

\# This is a weighted ‹ *r + (−e)* ›. The equation has also been corrected for autocorrelation.

Table 3.7

SRI LANKA: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	0.0739 (−1.4236)	−0.5634 (−5.4722)*	−0.3694 (−0.4046)	−4.5951 (−1.2429)		0.4031	1.7993
r + (−e)	0.0532 (0.4661)	−0.5626 (−5.4000)*	−0.3199 (0.3353)	−4.5718 (−1.2225)	0.0185 (0.2048)	0.3898	1.7903
r	−0.0838 (1.7177)	−0.3266 (−3.3761)*	−1.3528 (−1.5768)	−2.6366 (−0.7590)		0.2075	1.5787
−e	−0.0099 (−0.2165)	−0.2368 (−2.6164)*	0.9834 (1.2253)	−1.9585 (−0.6027)		0.1262	1.2825

Note: *t* values of estimated coefficients are shown in parenthesis.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson Statistic.

Table 3.8

THAILAND: REGRESSION RESULTS OF THE EMP MODEL

Dependent variables	Estimated constant	Coefficients d	of p*	Independent y	Variables Q	$\bar{R}^2$	D.W.
r + (−e)	−0.0034 (−0.1180)	−0.7464 (−10.7826)*	0.0637 (0.6074)	1.2642 (0.7708)		0.7156	1.8408
r + (−e)	−0.6363 (−8.5573)*	−0.2407 (−3.3712)*	0.0329 (0.5056)	1.7267 (1.7340)	0.5990 (8.7564)*	0.8954	1.3573
r + (−e) #	0.0044 (0.1947)	−0.6020 (−11.0280)	0.0461 (0.5579)	0.7502 (0.5801)		0.7236	1.9499
r	0.0085 (0.2966)	−0.7545 (−10.9504)*	0.0556 (0.5333)	0.8289 (0.5078)		0.7202	1.9676
−e	−0.0119 (−1.2234)	0.0081 (0.3454)	0.0080 (0.2266)	0.4353 (0.7859)		−0.0501	1.2896

Note: *t* values of estimated coefficients are shown in parenthesis.
Those with asterisks mean that the coefficients are significant at 95% confidence level.
D.W. denotes Durbin-Watson Statistic.

\# This is a weighted ‹ *r + (−e)*›.

equation shows interesting but diverse results. For countries like Nepal, the Philippines, Singapore and Thailand, the coefficient of *Q* is significant at 95 per cent confidence level, indicating that these countries use different proportions of exchange rate and external reserve changes to counteract exchange market pressures. The estimation of the weighted ‹*r + (−e)*› equations for these countries do indicate that their explanatory ability improved significantly. In all these cases, external reserve changes *(r)* have a large weight of at least 90 per cent, the remaining being accounted for by *(−e)*. For the other countries such as Indonesia, Malaysia and Sri Lanka, the coefficient of *Q* is not significant at the 95 per cent confidence level. In other words, the measure ‹*r + (−e)*› is not sensitive to the distribution between the exchange rate and external reserve changes.

The estimation results for the equation using *r* as the sole dependent variable are also not satisfactory, except for Malaysia and Thailand. In the case of Malaysia, the *r* equation has a better fit than the ‹*r + (−e)*›, indicating that the central bank uses external reserve changes very much more than exchange rate changes to cushion off external shocks. In Thailand, the explanatory power of *r* equation is slightly greater than the ‹*r + (−e)*› equation but also slightly smaller than the weighted ‹*r + (−e)*›. This implies that the central bank uses a combination of exchange rate and external reserve changes, with more emphasis on external reserve changes to smooth out external disturbances.

Indonesia and Nepal both register a better fit for the equation with r as the sole dependent variable than with the ‹*r + (−e)*‹ equation, indicating that these two countries tend to resort to external reserve changes to cushion off external shock. On the other hand, Sri Lanka displays a different result, with the *r* equation showing poorer fit than the ‹*r + (−e)*› equation. This is in line with the Sri Lankan official exchange rate policy of managed floating. For the Philippines and Singapore,

these two countries also conduct managed floating in exercising their exchange rate policy. This is evidenced by the empirical results, with the weighted ‹*r* + (−*e*)› equation producing the better fit than the *r* equation and the ‹*r* + (−*e*)› equation.

As expected, the estimation results for the equation with −*e* as the sole dependent variable for all the seven countries show the poorest fit. The coefficients of the explanatory variables in almost all cases are not significant at 95 per cent confidence level. Furthermore, in most cases, the coefficients carry the wrong signs. These results indicate that the seven SEACEN countries had totally discarded the floating exchange rate system as a viable alternative to cushion off external shocks. They appear to prefer to use a combination of external reserve and exchange rate changes rather than purely adjusting through exchange rate changes.

However, if dummy variables were introduced into the −*e* equation to take into account devaluation, the explanatory value of the equations for five countries (excluding Malaysia and Singapore) sharply improves. This indicates that the SEACEN countries, with the exception of Malaysia and Singapore, resorted to devaluation on several occasions during the period 1973-84.

The empirical results presented in the foregoing clearly indicates that the seven SEACEN countries as a whole tend to resort to a combination of exchange rate changes and external reserve changes, or to external reserve changes to cushion off external shocks. Only when exchange market pressures arising from unavoidable external shocks intensify rapidly do they (except Malaysia and Singapore) have no alternative but to resort to devaluation to relieve these pressures. In normal times, these countries do not take to a floating exchange rate system as useful and effective to insulate their economies from external disturbances. They put more value to exchange rate stability, with their central banks and monetary authorities always ready to intervene in the foreign exchange markets to smooth out any serious fluctuations in the exchange rate. This is particularly so in view of the bare fact that the SEACEN countries are open economies with high trade dependency ratios as noted in Chapter 1. A large part of their trade depends significantly on the export of a limited range of primary commodities and the import of a wide range of consumer and investment goods from abroad to sustain their economic activities. Stability in exchange rates is important to the SEACEN countries in another respect. Nearly all the SEACEN countries depend largely on foreign investment in implementing their industrialization programmes. Exchange rate stability has become part and parcel of a set of general incentives to induce long-term foreign investment.

IV. Concluding Remarks

Recourse to external reserve changes rather than exchange rate changes in relieving exchange market pressure is common among the SEACEN countries. In some cases, some combination of *r* and *e* are used but the change in *e* refers mainly to devaluation. The main reason for the SEACEN countries in resorting to exchange reserve changes is the relatively low level of development in their financial sector (except Singapore). As a result of an underdeveloped financial sector, there is therefore a low degree of substitutability between domestic and foreign financial assets. Even for countries like Malaysia and the Philippines, where financial development is well ahead of the others (except Singapore), domestic financial assets are still not perfect substitutes for foreign assets. This low substitutability, coupled with a thin market for domestic financial assets and a poor network of securities brokers and

dealers in the SEACEN region, have resulted more often than not, in capital outflow. This one-way capital flow is not only undesirable from the national point of view, but also amounts to a destabilizing factor in their foreign exchange markets.

As a result of a tendency towards capital outflow, the domestic interest rates must rise high enough or the forward discount on domestic currency must be reduced significantly so that short-term capital inflow becomes feasible. However, in most of the SEACEN countries, domestic interest rates have been significantly pegged by policy design or controlled by a cartel in the banking system. Although the deregulation of interest rates in the SEACEN countries has made significant headway in recent years, interest rate movements are still not sensitive enough and do not respond immediately to changes in international financial markets. On the other hand, the reduction of the forward discount depends very much on the market participants' expectation and confidence in the respective currencies. The lower the confidence, the bigger is the forward discount for domestic currency. As a result of this high forward discount, the cost of forward cover on domestic currency-denominated assets becomes prohibitive to foreigners. Hence, any speculation arising from such a kind of foreign exchange transaction is bound to be destabilizing as well. This destabilizing speculation in turn exerts tremendous downward pressure on domestic currency.

Working under a tendency towards capital outflow and destabilizing speculation, most of the SEACEN countries had resorted to exchange control, prohibition of speculation and active intervention in foreign exchange markets to stabilize the exchange rate. In the long run, the SEACEN countries have to strengthen and improve their balance of payments position. Once this is done, capital flows will be stabilized, as shown in the cases of Singapore and Malaysia, where the former had dismantled its exchange control and the latter had significantly liberalized its exchange control regime.

Despite its well-developed financial and foreign exchange market, Singapore had not used oftenly exchange rate changes to cushion off exchange market pressure. The main reason is that Singapore does not meet the openness criteria as discussed in Chapter 1. Secondly, Singapore depends largely on external trade where international competitiveness must be sustained to acquire a bigger market share. In this regard, Singapore will intervene in the foreign exchange market as and when its currency appreciates too fast, in order not to erode its competitiveness. Lastly, monetary policy in Singapore is implemented largely through open market operations in foreign exchange. Success in bringing down domestic inflation will depend very much on an appropriate intervention in the foreign exchange market.

From the foregoing analysis, it is observed that the development of the foreign exchange market is crucial in enhancing the effectiveness of monetary and exchange rate policies in two ways. One is that a well-functioning foreign exchange market provides the other option of exchange rate changes in cushioning off external shocks. The other advantage of having a well-developed foreign exchange market is that the central bank will have an extra instrument in implementing monetary policy, i.e., open-market operations in foreign exchange. Of course, the other benefits of a well-developed foreign exchange market include facilitating trade and capital flows as well as inflow of foreign investment. However, as discussed in Chapter 2, the foreign exchange market can only be developed provided that the macroeconomic constraints, especially the balance of payments problems and the under-development of the financial sector, are first resolved to a significant extent. This kind of endeavour will involve huge economic and social costs, which can only be met over

a long period. At this stage of their development, it is still preferable for most of the SEACEN countries to continue to maintain the stability of exchange rates. At the same time, efforts must continue towards structural adjustment, to improve their balance of payments, as well as towards financial development, to enhance the effectiveness of exchange rate and monetary policies. □

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Chapter 4

THE FOREIGN EXCHANGE MARKET IN INDONESIA *

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I. Exchange Rate and Control System

Developments in Indonesia's exchange rate and control system can be classified into two distinct periods, namely, the period under a tightly controlled foreign exchange system which had been adopted up to mid-1971 and the period under a liberal foreign exchange system which is currently in operation. On the evolution of the exchange rate system, Indonesia had adopted a fixed exchange rate system with either single exchange rate or multiple exchange rates. Effective from November 1978, Indonesia adopted a managed floating exchange rate system.

I.1 Historical Development of the Exchange Rate and Control System

Looking back at the history of Indonesia's foreign exchange system, it can be observed that during the 1950s to the first half of the 1960s, the Old Order Government maintained a tightly controlled foreign exchange system due primarily to the prevailing bleak economic conditions at that time. Economic condition worsened further during the period 1962-1966, with real GDP registering an annual growth of 2 per cent which was evidently less than the percentage increase in the population, consequently leading to a decline in real per capita GDP over this period. In the meantime, growing government budget deficits also brought about hyper-inflation of 635 per cent in 1966. The country's balance of payments also continued to deteriorate with a rapid decline in the foreign exchange reserves. Under such economic circumstances, the government imposed increasingly tighter restrictions in the use of foreign exchange in the face of dwindling foreign exchange reserves.

As stipulated under the Foreign Exchange Law No. 32 of 1964, all foreign exchange receipts must be surrendered and contributed to the Foreign Exchange Fund which was administered by Bank Indonesia (the Central Bank). The Foreign Exchange Council was entrusted with the setting up of the Foreign Exchange Fund and the allocation of foreign exchange in accordance with an exchange budget. The conduct of daily operations was further delegated to the Bureau for Foreign Exchange Transactions (BLLD) which was directly under the supervision of Bank Indonesia.

Prior to 1966, exports must be paid in foreign exchange at the delivery price set under the conditions prescribed and published by the Managing Board of BLLD. The delivery price of exports was designed to let the exporter know how much foreign exchange currency he must surrender to the Foreign Exchange Fund. These exchange proceeds must be ultimately surrendered to Bank Indonesia. On the other hand, imports payable in foreign exchange acquired from the Foreign Exchange Fund required general or special licences issued by the BLLD. Except when licensed by

* Sincere appreciation is extended to our colleagues in Bank Indonesia for their invaluable support and comments. However, all views expressed in this paper are those of the authors.

the BLLD, the import and export of domestic currency and export of gold and foreign exchange notes were strictly prohibited. Furthermore, under Law No.32, 1964, it was illegal to hold foreign exchange without specific permission.

Under the controlled foreign exchange system, direct control and rationing the uses of foreign exchange were the common practice. Different exchange rates were applied for different uses of foreign exchange. In other words, a multiple exchange rates system was implemented until its abolition in August 1971.

During 1966-1969, several changes in foreign exchange regulations took place towards a less restricted exchange system. Exporters were allowed to hold a certain percentage of their export proceeds in the form of non-negotiable foreign exchange in a Bonus Export Account with their authorized banks. This foreign exchange, referred to as the Export Bonus (BE), could be used to import goods listed in the Commodity Import Program List (BE list). Another change in the system was that export proceeds were required to be surrendered on the basis of f.o.b. net price or "posted price" for each commodity, instead of the delivery price as stipulated by BLLD. If the actual price charged is higher than the "posted price" the excess "over-price" may be retained by the exporter or sold to an authorized bank. Export proceeds resulting from "over-price" could also be held abroad by the initial holder or be deposited as Complementary Foreign Exchange (DP).

In May 1967, the Foreign Exchange Bourse was established to facilitate inter-bank market transactions. Under the new system, exchange rates were fixed by the Government for three different categories of uses, i.e., (a) *Kurs BE Umum* or general purpose export bonus rate applicable for all imports of goods listing in the BE list and all services connected with trade and capital transactions; (b) *Kurs BE* credit or export bonus credit rate for imports of goods and services financed by foreign exchange derived from foreign credits; and, (c) *Kurs DP* or rate for supplementary foreign exchange applicable for all imports of goods which were not listed in the BE list but were permitted to be imported.

In the Bourse, three calls for foreign exchange were conducted each week under the supervision of Bank Indonesia. Under this scheme, Bank Indonesia was fully committed to deal with any willing buyer or seller at the going rate. Representatives of the Bourse's members notified Bank Indonesia of their supply of and demand for foreign exchange, and each presented a bid for his total requirements at a particular rate. Bank Indonesia cleared the market at the intervention rate.

The establishment of the Foreign Exchange Bourse was an integral part of a stabilization programme conducted by the New Order Government in order to restore financial stability and to provide a better climate for economic recovery.

I.2 Existing Exchange Rate and Control System

Although the embryo of a free foreign exchange system was already introduced in 1967, the system was still a controlled one featuring a rather complex set of provisions. Up to April 1970, exporters were required to surrender their foreign exchange earnings to Bank Indonesia in exchange for rupiah at a rate fixed by the Government.

With the introduction of a free foreign exchange system under Government Regulation No.16 of 1970, the holding, selling and purchasing of foreign exchange were no longer subject to restrictions. In the initial stage of the system's implemen-

tation, exporters must sell their foreign exchange earnings to a foreign exchange bank although nothing prevented them from buying an even larger amount of foreign exchange at the same time. The foreign exchange banks, in turn, must sell the amount of foreign exchange acquired to Bank Indonesia. On the other hand, importers and those who need foreign exchange for whatever purposes must buy foreign exchange from a foreign exchange bank which, in turn, acquired the foreign exchange from Bank Indonesia.

The purposes and main features of Government Regulation No. 16/1970 were as follows: [1]

a) to provide higher exchange proceeds for economic activities in the productive and trade sectors;

b) to reduce or eliminate various kinds of levies which had been imposed upon businessmen, especially on those engaged in the export and import trade;

c) to simplify export and import procedures, and the manner of banking and other services related thereto;

d) to simplify the system and procedure of foreign exchange payments transactions; and,

e) to maintain free trade in foreign exchange.

Under the new regulation, Bank Indonesia was fully in-charge of supervising foreign exchange payments transactions.

By virtue of the above regulations, the distinction between BE and DP exchange was abolished. Only two kinds of foreign exchange under the new system were identified, namely:

a) General foreign exchange or *Devisa Umum,* i.e.,foreign exchange proceeds of export executions, the selling of services or from transfers.

b) Aid foreign exchange or *Devisa Kredit,* i.e., the foreign exchange in the form of loans and/or grants originating from aid extended by donor countries, and which were formerly referred to as export bonus credit exchange (credit BE).

In August 1971, the multiple exchange rate system was discontinued and a single foreign exchange rate was established. Bank Indonesia announced the daily rate at which it was willing to buy and sell foreign exchange from/to authorized foreign exchange banks. On 16 November 1978, the exchange rate of the rupiah was devalued from Rp 415 to Rp 625 per U.S.$ and the link with the U.S. dollar, the intervention currency, was severed. Since that date a system of managed floating exchange rate has been adopted.

On 19 January 1982, the foreign exchange system was further liberalized as stipulated under Government Decree No. 1 of 1982. Thenceforth, exporters were no longer required to sell their foreign exchange proceeds to banks. Likewise, foreign exchange banks were not required to sell such foreign exchange to Bank Indonesia. Under this new system, rupiah holdings were easily convertible into foreign exchange and vice-versa. In addition, private individuals and companies were also free to borrow off-shore. Off-shore borrowing by state companies and state-owned entities, however, was subject to the approval of the Minister of Finance. A 15 per cent reserve requirement was imposed on the foreign currency liabilities of foreign exchange banks.

[1] Bank Indonesia, *Report for The Financial Year 1970/71,* p.39.

I.3 Effects of the Present System on the Foreign Exchange Market

A free foreign exchange system as implemented in Indonesia to date, provides individuals and corporate entities with a tremendous freedom of action in the management of their financial assets and liabilities. Investors have the option of holding their assets in local currency, foreign currencies or in a combination thereof since practically there is no clear distinction between the domestic money market and the offshore money market. Interest rate differentials and exchange rate expectations are therefore important considerations for both depositors and investors in their portfolio investment decisions. The same considerations are taken into account by borrowers, as they have the option of borrowing domestically, offshore, or both.

As far as the exchange rate is concerned, the Government continues to adhere to the principle of maintaining a "realistic" exchange rate by applying a managed floating exchange rate system. A "realistic" exchange rate is one which can assure the maintenance of the competitiveness of Indonesian products sold abroad as well as those competing with imported products sold in the domestic market and the maintenance of overall monetary stability. It is important to stress that based on the experience of many countries including Indonesia, monetary instability such as high inflation rate and high interest rate not only hinder healthy economic activities but also widen the gap in the distribution of income among various groups in the society. In the context of Indonesia's foreign exchange system, the absence of restrictions on outward and inward flow of foreign exchange also has a direct impact upon domestic money supply and interest rate in the sense that:

a) When a feeling of uneasiness prevails in the domestic money market, holders of rupiah deposits are often inclined to instruct their banks to convert their balances into U.S. dollar. When this happens, reserve money is drained off and domestic interest rates will tend to move upward; and,

b) When foreign exchange banks have a temporary rupiah liquidity shortage, they may either borrow rupiah overnight or sell dollars to Bank Indonesia. Consequently, there will be an increase in reserve money, and interest rates could move downward.

II. Structure and Functions of the Foreign Exchange Market

This part is intended to describe the development of Indonesia's foreign exchange market within the framework of exchange systems laid down in Part I. The brief outline on the development of the foreign exchange market during the period under a tightly controlled exchange system is intended to serve this purpose. The emphasis will be put on the existing structure and characteristics of the market and its role in facilitating international trade and capital transactions. In this study, the term *foreign exchange market* is defined as the collection of foreign exchange and money market traders who are connected with each other around the world via telephones and telexes.

II.1 Early Developments in the Foreign Exchange Market

Up to November 1978, calls for exchange in the Bourse were conducted three times a week, and since then changed into daily under the management of Bank Indonesia. Members of the Bourse were restricted to the authorized foreign exchange banks, non-bank financial institutions and authorized money changers. However, in practice, only foreign exchange banks and Bank Indonesia could actively

Table 4.1

INDONESIA: MIDDLE RATE OF RUPIAH AGAINST U.S. DOLLAR

Year				
1970	$1	=	Rp	360.67 *
1971	$1	=	Rp	398.67
1972	$1	=	Rp	415.00
1973	$1	=	Rp	415.00
1974	$1	=	Rp	415.00
1975	$1	=	Rp	415.00
1976	$1	=	Rp	415.00
1977	$1	=	Rp	415.00
1978	$1	=	Rp	450.00
1979	$1	=	Rp	625.27
1980	$1	=	Rp	626.94
1981	$1	=	Rp	632.25
1982	$1	=	Rp	662.58
1983	$1	=	Rp	932.56
1984	$1	=	Rp	1,029.42
1985	$1	=	Rp	1,111.83

* Average rate of general foreign exchange.

Source: Bank Indonesia

participate in the Bourse in accordance with Banking Law No. 14 of 1967. Non-bank financial institutions and authorized money changers were still not allowed to carry out export or import businesses. The Bourse participants in 1970 totalled 21 and increased to 27 since 1978. The developments in the number of participants and their turnover during the period 1970-1984 is shown in Table 4.2

Before August 1971, foreign exchange market operations were carried out in such a way that the foreign exchange banks which were in excess of foreign exchange would notify Bank Indonesia of their supply to the market and for those banks which needed foreign exchange would bid for their total requirements at various exchange rates. Bank Indonesia then cleared the market at the intervention rate. Only suppliers of foreign exchange who offered a particular rate not higher than the buying rate fixed by Bank Indonesia, and participants who bidded at a rate not lower than the selling rate set by Bank Indonesia could carry out transactions.

However, the procedure in determining the exchange rate for U.S. dollar was changed in August 1971 as stipulated in Bank Indonesia Decision No. 4/14. Under the new system, Bank Indonesia was committed to deal with any willing buyers or sellers at the pre-set rate. The exchange rates for other currencies were determined on the basis of the rupiah rate per U.S. dollar and the rates in international markets for the currencies concerned.

Outside the Bourse, foreign exchange banks also traded among themselves in interbank markets as well as dealt directly with customers.

II.2 Present Structure of the Foreign Exchange Market

There has been no major change in the structure of the foreign exchange Bourse since it was established in 1967. Bank Indonesia continues to stand ready to trade unlimited amounts of foreign exchange (U.S.dollar) at its intervention rate for the day. Besides, Government Regulation No. 16 of 1970 had elevated the role of foreign exchange banks to the effect that they could act now as traders in foreign exchange vis-a-vis their customers. In addition, Bank Indonesia also offers authorized banks and non-financial institutions a swap facility for transaction in the U.S.dollar to hedge themselves and their customers against foreign exchange risk related to off-shore borrowing. Under the swap facility, the banks and non-bank financial institutions are permitted to sell spot dollars to Bank Indonesia and buy them back forward.

Since 1978, foreign exchange transactions in the Bourse have been conducted by 27 foreign exchange banks, i.e., six state banks, ten Indonesian private banks, 11 foreign banks and Bank Indonesia. It is important to note that Bank Indonesia participates in the Bourse not as a trader but as a monetary authority to maintain a "realistic" exchange rate. The Governor of Bank Indonesia emphasized the commitment of the Government to maintain a "realistic" exchange rate by stating that:

> "..... the exchange rate of the rupiah was to be realistically determined within the system of a managed float which takes into account, inter alia, export promotion objectives and the movement of the U.S. dollar vis-a-vis other currencies."[1]

[1] Address of the Governor of Bank Indonesia at the 7th Asia Pacific Foreign Exchange Assembly, 31 October 1985, p-7.

Table 4.2

INDONESIA: NUMBER OF BOURSE PARTICIPANTS

Year	State Banks	Private National Banks	Foreign Banks	Total
1970	6	4	11	21
1971	6	4	11	21
1972	6	5	11	22
1973	6	5	11	22
1974	6	7	11	24
1975	6	7	11	24
1976	6	8	11	25
1977	6	9	11	26
1978	6	10	11	27
1979	6	10	11	27
1980	6	10	11	27
1981	6	10	11	27
1982	6	10	11	27
1983	6	10	11	27
1984	6	10	11	27
1985	6	10	11	27

Source: Bank Indonesia.

Table 4.3

INDONESIA: FOREIGN EXCHANGE TRANSACTIONS

(in Million U.S. Dollars)

Year	Supply			Demand		
	In the Bourse	Outside the Bourse	Total	In the Bourse	Outside the Bourse	Total
1970	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1971	799.3	192.0	991.3	987.5	212.0	1,199.5
1972	873.4	806.5	1,679.9	735.5	612.4	1,347.9
1973	1,548.9	937.3	2,486.2	1,401.9	1,125.0	2,526.9
1974	2,174.2	2,373.5	4,547.7	2,857.9	1,120.8	3,978.7
1975	1,777.5	4,154.1	5,931.6	3,786.6	2,946.0	6,732.6
1976	2,398.0	5,564.8	7,962.8	3,640.3	3,472.4	7,112.7
1977	3,353.9	7,380.3	10,734.2	4,718.3	5,191.2	9,909.5
1978	3,986.0	7,882.4	11,868.4	6,438.3	5,570.8	12,009.1
1979	5,173.5	9,949.7	15,123.2	6,985.7	6,562.8	13,548.5
1980	5,432.4	14,812.5	20,224.9	9,704.2	7,625.4	17,329.6
1981	3,871.0	18,270.5	22,141.5	12,683.7	9,525.2	22,208.9
1982	1,236.0	22,515.6	23,751.6	11,715.1	12,878.8	24,593.9
1983	1,102.1	19,127.0	20,229.1	5,696.9	14,930.5	10,627.4
1984	1,527.8	24,727.5	26,255.3	6,061.2	18,043.8	24,105.0
1985	1,607.1	22,698.2	24,305.3	5,409.6	18,913.3	24,322.9

Source: Bank Indonesia

Table 4.4

INDONESIA: SWAP TRANSACTIONS

(in Million U.S. Dollars)

Year	Supply	Demand
1970	n.a.	n.a.
1971	n.a.	n.a.
1972	222.4	191.3
1973	157.3	138.9
1974	140.7	164.9
1975	28.7	50.8
1976	58.4	57.4
1977	76.2	235.1
1978	8.5	19.4
1979	1,515.5	1,174.8
1980	1,349.3	1,368.7
1981	2,234.2	1,865.1
1982	6,854.1	5,318.2
1983	6,094.0	6,470.6
1984	11,249.9	10,478.6

– Supply indicates Bank Indonesia bought the dollars and demand indicates Bank Indonesia sold the dollars.

Source: Bank Indonesia

The Governor further reasserted the importance of maintaining a "realistic" exchange rate, in his Banker's Dinner address on 14 January 1986 by stating that:

> "..... the Government will continue to adhere to the principle of maintaining a realistic exchange rate ..... A realistic exchange rate is one which can assure the maintenance of the competitiveness of our products sold abroad as well as those competing with imported products sold in domestic market,and the maintenance of overall financial stability."[1]

Apart from transactions carried out in the Bourse, there are at least three other types of foreign exchange transactions conducted outside the Bourse, namely:

a) transactions between foreign exchange banks and their customers;

b) transactions between exporters and importers; and,

c) interbank transactions.

Due to their connection with the international money markets, foreign exchange banks have equipped themselves with computerized dealing rooms since the early 1980s so that they can deal in the international money markets. Besides operating for its own account, a foreign exchange bank could also handle transactions on behalf of its clients. Nowadays, this type of international transactions is still confined to major currencies and in relatively small amounts. Bank Indonesia, on the other hand, deals with commercial banks and security houses abroad by purchasing or selling currencies and other financial assets for various needs of the Government or as a way of diversifying its investment portfolio. These foreign exchange transactions are performed by Bank Indonesia in order to manage and organize the gold and foreign exchange reserves owned by the Government, as stipulated under the Central Bank Act, number 13 of 1968. Bank Indonesia has been encouraging the development of domestic foreign exchange market through buying foreign currencies domestically to serve the Government's needs, provided the rate is competitive.

III. Role of the Central Bank in the Foreign Exchange Market

Bank Indonesia plays a crucial role in Indonesia's economic development. The main task of Bank Indonesia is to assist the Government:[2]

a) To regulate, to safeguard and to maintain the stability of the value of the rupiah; and,

b) To promote the smoothness of production and development as well as to expand employment opportunity, in order to improve the standard of living of the people.

In order to perform its duty, Bank Indonesia is vested with powers to implement monetary policy, supervise banks and develop the foreign exchange market. This part is intended to describe the role of the Central Bank in institution-building of a foreign exchange market. In addition, it tries to relate the specific roles played by the Central Bank in coordinating various policies, in particular exchange rate policy, monetary policy and fiscal policy to achieve overall macroeconomic objectives.

[1] Address of the Governor of Bank Indonesia at Banker's Dinner (Jakarta, Bank Indonesia 14 January 1986), p-10.

[2] Act of The Republic of Indonesia, Number 13,1968, on The Central Bank, Article 7.

III.1 Institution-building and Overall Supervision

As has been described in Part I, the establishment of the Foreign Exchange Bourse in 1967 by Bank Indonesia was an indication of a gradual departure from a tightly controlled foreign exchange system to a more liberal one. It was for the first time that foreign exchange transactions could be carried out in a bourse. The basic purpose of the Bourse is to facilitate foreign exchange transactions and to maintain the stability of the value of the rupiah in order to promote economic development. The U.S.dollar has been used as the intervention currency.

As a monetary authority Bank Indonesia offers authorized banks and non-bank financial institutions a facility for swap transactions in U.S. dollars.

Meanwhile, Bank Indonesia also supervises banks involved in foreign exchange transactions. Under the current banking practice, commercial banks are required to maintain a minimum reserve requirement of 15 per cent of current liabilities payable in foreign exchange and rupiah. Interest on foreign currency deposits is subject to withholding tax. Bank Indonesia supervises the implementation of foreign exchange regulations by checking on the spot and examining bank reports.

III.2 Central Bank Intervention and Techniques

For the fiscal period 1974/75 – 1978/79 as a whole, the Indonesian government had succeeded in achieving high economic growth, at an annual growth in GDP of 7.2 per cent. Despite this success, the Indonesian economy was plagued with high inflation rate, more than that of her trading partners. This high inflation rate had effectively eroded the competitiveness of Indonesian exports in the international market. In particular, the non-oil sector was severely affected. It was against this background that the government decided to devalue the rupiah from Rp 415 to Rp 625 against the U.S. dollar on 15 November 1978. In addition, the Jakarta Exchange Bourse conducted daily transactions, as compared with three times a week previously. In order to effectively implement exchange rate policies, the Government also adopted an exchange rate system of managed floating, using an effective exchange rate derived from a trade-weighted exchange rates of a basket of trading partners' currencies. These policy measures proved to be effective. In 1979, the balance of payments registered a surplus of U.S. $2.13 billion, as against a surplus of U.S.$ 0.39 billion in the previous year (See Table 4.5).

With the onset of global world recession in 1981/1982, demand for oil weakened while the prices of non-oil export commodities also continued to fall. With exports declining substantially and imports growing substantially, the balance of payments deteroriated rapidly resulting in a current account deficit of U.S. $ 5.5 billion in 1982 as against a surplus of U.S. $ 2.8 billion in 1980.

In order to contain the further deterioration in the balance of payments, the rupiah was devalued by 27.6 per cent in terms of the U.S. dollar to Rp 970 per U.S. dollar on 30 March 1983. The devaluation had restored at least the competitiveness of the traded goods sector to about the same level prevailing immediately following the November 1978 devaluation (in terms of the trade weighted real effective exchange rate)[1]. As a result, the overall balance of payments surplus increased to $1.7 billion in 1984 while the current account deficit declined to $2.0 billion.

[1] International Monetary Fund, *Indonesia – Recent Economic Developments,* SM/85/25, 24 January 1985.

Table 4.5

INDONESIA: BALANCE OF PAYMENTS, 1969 – 84

(In Million of U.S. Dollars)

	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
1. Exports, f.o.b.	1,173	6,869	8,615	10,761	11,020	15,907	22,609	23,665	19,747	18,689	20,751
Oil	434	5,052	6,081	7,177	6,900	9,347	14,461	16,955	13,459	11,413	11,755
LNG	–	–	–	73	461	981	2,069	2,279	2,410	2,283	3,224
Non oil & non LNG	739	1,817	2,534	3,511	3,659	5,579	6,079	4,431	3,878	4,993	5,775
2. Import, f.o.b.	– 1,116	– 5,468	– 6,819	– 7,473	– 8,382	– 9,946	– 13,456	– 16,542	– 17,854	– 17,726	– 15,017
Oil	– 92	– 870	– 1,609	– 1,595	– 1,564	– 2,449	– 3,268	– 4,234	– 4,298	– 3,672	– 2,688
LNG	–	–	–	– 8	– 38	– 75	– 123	– 120	– 135	– 158	– 249
Non oil & non LNG	– 1,024	– 4,598	– 5,210	– 5,870	– 6,780	– 7,422	– 10,065	– 12,188	– 13,421	– 13,896	– 12,110
3. Services	– 487	2,565	2,747	– 3,360	– 4,072	– 5,009	– 6,399	– 7,622	– 7,351	– 7,405	– 7,677
Oil	– 216	– 1,261	– 944	– 1,200	– 1,402	– 1,862	– 2,238	– 3,126	– 2,623	– 2,462	– 2,516
LNG	–	–	–	– 25	– 218	– 430	– 710	– 867	– 916	– 821	– 1,096
Non oil & non LNG	– 271	– 1,304	– 1,103	– 2,135	– 2,452	– 2,717	– 3,451	– 3,629	– 3,812	– 4,122	– 4,065
4. Current Account (1 + 2 + 3)	– 430	– 1,164	– 951	– 72	– 1,434	952	2,754	– 499	– 5,458	– 6,442	– 1,970
Oil	126	2,921	3,528	4,302	3,934	5,036	8,955	9,505	6,538	5,279	6,551
LNG	–	–	–	40	205	476	1,256	1,292	1,359	1,304	1,879
Non oil & non LNG	– 556	– 4,085	– 4,479	– 4,494	– 5,573	– 4,560	– 7,347	– 11,386	– 13,355	– 13,025	– 10,400
5. Special Drawing Rights	35	–	–	–	–	64	65	62	–	–	–
6. Official Transfer & Capital	407	1,854	1,743	1,933	2,221	2,446	2,828	2,739	5,030	5,760	4,058
a. IGGI	407	854	1,532	1,540	1,735	1,978	2,664	1,964	2,892	4,087	3,399
– Program Aid	323	98	329	124	149	145	192	84	18	60	73
– Project Aid	84	756	1,403	1,416	1,586	1,833	2,472	1,880	2,874	4,027	3,326
– ODA	(84)	(474)	(554)	(562)	(853)	(1,067)	(1,277)	(979)	(1,263)	(1,790)	(1,521)
– Non ODA	(–)	(282)	(849)	(854)	(733)	(766)	(1,195)	(901)	(1,632)	(2,237)	(1,805)
b. Non IGGI (Project Aid)	–	1,000	211	393	486	468	164	765	2,138	1,673	659
– ODA	(–)	(–)	(22)	(78)	(155)	(192)	(74)	(168)	(194)	(169)	(27)
– Non ODA (including export credit facilities	(–)	(1,000)	(189)	(315)	(331)	(276)	(90)	(597)	(1,944)	(1,504)	(632)
7. Official Debt Repayments	– 46	– 76	– 111	– 536	– 730	– 721	– 624	– 766	– 913	– 984	– 1,193
8. Private Capital (net)	75	– 1,493	237	– 72	333	– 611	– 630	148	1,639	1,826	757
a. Foreign Direct Investment	97	497	370	233	272	227	180	133	225	292	222
b. Others	– 22	– 1,990	– 333	– 305	61	– 838	– 810	15	1,414	1,534	535
9. Total (4 through 8)	41	– 879	918	1,253	390	2,130	4,393	1,674	298	160	1,652
10. Errors & Omissions	– 6	– 104	– 182	– 55	– 233	– 566	– 2,057	– 2,069	– 2,229	494	– 709
11. Monetary Movements	– 35	983	– 736	– 1,198	– 157	– 1,564	– 2,336	– 395	1,931	– 654	– 913
Memorandum item: Official Reserves	93	489	1,225	2,423	2,500	4,144	6,480	6,085	4,154	4,808	5,751

Source: Bank Indonesia

Apart from devaluation, Bank Indonesia also intervenes in the Foreign Exchange Bourse on a day-to-day basis in the sense that Bank Indonesia sets the exchange rate for the day and it stands ready to trade foreign exchange at its intervention rate for that day.

The exchange rate movements have an impact on monetary stability. As experienced in 1984, there was a steady appreciation of the U.S. dollar vis-a-vis other major currencies during March – July 1984. The Indonesian rupiah also depreciated sharply against the U.S. dollar in August and early September. The sharp depreciation while improving external competitiveness, had a destabilizing effect on foreign exchange and money markets. In fact, a serious liquidity shortage was experienced by some banks due to the large withdrawal of rupiah deposits converted into U.S. dollar-denominated deposits in anticipation of further appreciation of the U.S. dollar. The tight liquidity situation resulted in a marked increase in interbank and short-term money market rates to as high as 90 per cent per annum. However, the government had finally succeeded in neutralizing the impact of liquidity shortage by injecting funds into the banking system as part of the sterilization process.

III.3 Co-ordination of Macro-economic Policies

Macro-economic policies are well co-ordinated in Indonesia. Of the macro-economic policies, the most important are monetary policy, fiscal policy and exchange rate policy. In this regard, Bank Indonesia has at its disposal two policies, i.e, monetary and exchange rate policies. However, the three policies are well-coordinated as the Monetary Board is composed of the Minister of Finance, the Minister of Trade, and the Governor of Bank Indonesia. Therefore, any macro-economic policy that is implemented by Bank Indonesia will be in line with the general policy stance.

In the field of monetary policy, prior to the adoption of deregulation policy in 1 June 1983, Bank Indonesia used to intervene in the monetary situation directly by setting credit ceilings and interest rates. Following the 1 June 1983 Policy, credit ceilings were abolished, and banks were freed to stipulate their interest rates both on deposits and loans. Instead, the implementation of monetary policy was conducted through discount rate policy, moral suasion, and the issuance of Bank Indonesia's Certificate (SBI) and money market securities (SBPU). At the end of 1985, the value of SBIs in circulation amounted to Rp 806 billion while outstanding SBPUs amounted to Rp 503 billion. In view of the acceptance of these securities, open market operations have been used to influence the supply of money as a policy instrument in the sterilization programme.

As far as foreign exchange policy is concerned, the government continues to maintain a "realistic" exchange rate based on a basket of currencies so as to prevent the erratic fluctuations of foreign exchange rates while maintaining the competitiveness of Indonesian commodities in the domestic as well as international markets.

In the field of fiscal policy, the Government has adopted the balanced budget policy whereby the Government tries to gradually limit its total expenditures and generate more revenue. In addition, the authorities also restructured the domestic tax system so as to strengthen non-oil revenue, widened the tax base, reduced tax avoidance, improved the tax administration as well as introduced a new value-added tax (VAT) which became effective from 1 April 1985.

To strengthen Government efforts in coping with the balance of payments

problems, on 4 April 1985, a Presidential Instruction was launched especially to increase the efficiency of ports and shippings handling of goods, and to promote competitiveness of non-oil commodities exports. Coupled with a major tax reform and austerity drive in government spending, the above measures have resulted in a further decline in current account deficit to U.S.$ 2.0 billion and an overall balance of payments surplus of U.S.$ 0.7 billion in 1984/85.

At the end of 1985/86, the drastic decline of oil prices had an unfavourable impact on the Government budget, which directly affects domestic economic activities. In the face of this situation, coordination of economic policies becomes increasingly important. By implementing a harmonious set of economic policies such as bank deregulation in June 1983, the tax reform system, Presidential Instruction No.4 of April 1985 and other measures, it is expected that all the recent economic problems could be overcome in the near future. □

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Chapter 5

THE FOREIGN EXCHANGE MARKET IN MALAYSIA *

by
Awang Adek Hussin

Introduction

This paper attempts to describe the foreign exchange market and its development in Malaysia. It will feature the basic structures and characteristics of the exchange market and touch on the role of the Central Bank of Malaysia in developing the market. The discussion below will be organized into three major sections: one on the exchange rate and control system; the other on the structure and functions of the foreign exchange market; and the third one is on the role of the Central Bank that is pertinent to the exchange market.

I. Exchange Rate and Control System

I.1 The Present System and Objective

With regard to the Malaysian exchange rate system, the value of the ringgit is presently determined in terms of a composite basket of currencies which reflects the importance of Malaysia's major trading partners and the major currencies used in international settlements. The "basket" valuation, which was used since September 1975, ensures that the ringgit is not pegged directly to any one international currency, thereby making the ringgit independent of the fluctuations in the selected base currency. The composite basket exchange rate system mitigates to some extent the impact of wide fluctuations of a few foreign currencies on the external value of the ringgit.

It is important to note that although the value of the ringgit is determined in terms of a composite basket of currencies, the value can fluctuate relative to the basket, depending on prevailing conditions in the foreign exchange market. Indeed, variations in exchange rates have been allowed to occur consistent with the Central Bank's declared policy of fundamental non-intervention – intervening in the foreign exchange market, as and when necessary, only to moderate fluctuations in the value of the ringgit and not to prevent the exchange rate from reflecting the underlying trend in the balance of market supply and demand.

One major objective of the present exchange rate system is to allow the exchange rate to reflect the underlying trends and to find its own level in the market so that the international competitiveness of the nation's exports would be maintained, thereby supporting fundamental adjustment in the external payments position. As a matter of policy, the Central Bank will continue to intervene only when necessary to avoid expectations of excessive changes in the exchange rate, to maintain orderly conditions and to provide the appropriate counterpart for the continuous operation of an efficient two-way market.

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Consistent with the policy of allowing market forces of supply and demand to determine the exchange rate of the ringgit, the present exchange control regime in Malaysia can be characterised as liberal and applies uniformly to transactions with all countries, except South Africa and Israel, for which special restrictive regulations apply. The main objectives of exchange control policy in Malaysia are to ensure that the export proceeds in foreign exchange are received promptly in Malaysia and generally, to institute an effective mechanism to record, monitor, and supervise the movement of funds in international transactions.

Exchange control is administered by the Central Bank in accordance with the provisions of the Exchange Control Act, 1953. The main purpose of the Act is to provide for the recording, monitoring and supervising of the movement of funds, particularly payments to non-residents, and also to protect the country's foreign exchange position should the need arises. Authority for approving payments, both current as well as capital, is delegated to all the commercial banks as authorised banks for exchange control purposes.

The present exchange control regime allows a free two-way flow of funds with the rest of the world. As a matter of policy, capital outflows are permitted so long as these are not financed by borrowing in Malaysia. Basically, residents can do whatever they want with their own money. Capital outflows should not be undertaken with borrowed money, since Malaysian savings ought to be put into use to raise new productive capacity in Malaysia. This policy works to encourage inflows of foreign direct and portfolio investments into the country. Some of the major exchange control regulations are given in Appendix 5.1

I.2 Historical Development

As is expected, the development of Malaysia's exchange rate and control system is closely related to the development of its foreign exchange market. And the development of a distinct foreign exchange market in Malaysia is of fairly recent origin as operations in the market, up to June 1967, were dominated by the Board of Commissioners of Currency, Malaya and British Borneo (the Currency Board). Under the Currency Board system, the exchange rate of the Malayan dollar was fixed at 2s. 4d. sterling. The Currency Board, which was also the sole currency issuing authority in Malaysia, assumed the role of converting sterling into Malaysian dollars and vice versa at a small administrative charge of 1/8d. During this period, sterling was the premier currency not only for foreign exchange settlements in Malaysia, but also for holding as reserves. Sterling was the preferred vehicle currency with which other foreign currencies were bought or sold and London was the centre for switching from one currency to another. Thus, requirements for other currencies were therefore reflected in corresponding requirements for sterling. Moreover, most of the country's imports and exports were conducted by the British trading agencies and settled in sterling, and the bulk of the international trade financing was channelled through the British banks. For all practical purposes, the rate for sterling was therefore virtually the only exchange rate that mattered, and interbank foreign exchange operations were conducted solely in Malayan dollars for foreign currencies and almost always for sterling. Dealings in foreign exchange by the commercial banks, viz., their non-bank customers were based on rates agreed among the former.

The first effective step towards an independent foreign exchange market in Malaysia was taken when the Central Bank assumed the sole power to issue currency on 12 June 1967. The par value of the old Malayan dollar (established at

0.290299 grammes of fine gold) was maintained for the new Malaysian dollar. Consequently, the Malayan dollar was redeemed in exchange for the Malaysian dollar at par. Following the devaluation of sterling by 14.3 per cent in November 1967, however, the Malayan dollar was automatically devalued to the same extent, resulting in the exchange rate for the Malaysian dollar to equal 2s. 8.67d. instead of 2s. 4d. previously, so that the Malayan dollar was equal to only 85.71 cents of the Malaysian dollar. The Central Bank's new support rates for the Malaysian dollar were fixed at 32.7761d and 32.5573d. = M$1, representing a margin of 0.3348 per cent either side of the par.

The outbreak of a series of international gold and exchange crises between 1968 and 1973 saw some changes in the exchange rate of the ringgit (the new legal name for the Malaysian dollar). For example, in March 1968 the Central Bank increased the margin of its support rates from 0.3348 per cent to 0.5 per cent either side of the par. In November 1968, the margin was widened further to approximately 0.77 per cent on either side of the parity. Following the suspension of the convertibility of the U.S. dollar to gold in August 1971, the Central Bank again increased the margin to the full one per cent on either side of the parity, coinciding with the maximum exchange rate limit allowed by the International Monetary Fund (IMF). As the Smithsonian Agreement took effect in December 1971, the parity of the ringgit remained unchanged in terms of sterling at M$7.3469 = £1, but the parity in terms of the U.S. dollar was changed from M$3.06122 = US$1 to M$2.81955 = US$1, in response to the devaluation of the U. S. dollar by 7.89 per cent. The Central Bank, however, maintained the previous margin of one per cent and not increased it to 2.25 per cent on either side of the par which was the new exchange rate limit allowed by the IMF. With the floating of sterling and dismantling of sterling area, Malaysia adopted the U.S. dollar as the intervention currency in place of sterling in June 1972. This historic event marked the severance of the close link with the sterling which had existed since 1899. Later in the month of June, the Central Bank adopted for the first time the wider margin of 2.25 per cent, while maintaining the parity of the ringgit at 2.81955 = US$1. Finally, the parity was changed to 2.5376 and the support rates were established at 2.4805 and 2.5947, following the 10 per cent devaluation of the U. S.dollar in February 1973 (the official price of gold was raised from US$38 = one troy ounce to US$42.22).

Even after the Central Bank of Malaysia had assumed the sole currency issuing power in June 1967, Malaysia continued to maintain the currency interchangeability arrangement with Singapore and Brunei. Such an arrangement, in effect, meant that the three currencies, to all intents and purposes, were "one currency". In the case of Malaysia and Singapore, there continued to be a common Association of Banks, which issued common "best agreed merchant rates" for foreign currencies in Malaysia and Singapore. The interchangeability arrangement continued until 8 May 1973, when the Malaysian Government announced two major decisions pertaining to the foreign exchange market:

i) the exchange control regulations would cease to discriminate between countries in and outside of the sterling area and instead would apply uniformly on all countries outside Malaysia; and,

ii) the Singapore dollar would no longer be regarded as interchangeable at par with the Malaysian currency.[1]

[1] The Brunei Currency Board terminated the interchangeability of the Brunei and Malaysian currency notes and coins on 22 May 1973.

In the face of continuing uncertainty in the international foreign exchange markets, the ringgit was allowed to float upwards on 21 June 1973. This new arrangement implied that the Central Bank was no longer bound to buy U.S. dollars with ringgit at the floor rate of M$2.4805 for U.S.$1. Moreover, the Association of Banks ceased to issue best agreed merchant rates, and each bank was free to determine its own exchange rates in respect of any foreign currency, including the Singapore dollar, for any amount.

On 27 September 1975, the Malaysian Government adopted a new exchange rate regime since it was no longer desirable for the Central Bank to determine the rate of exchange of the ringgit in terms of the U.S. dollar alone and to buy and sell the U.S. dollar in order to maintain an exchange rate so determined. Instead, the value of the ringgit would be determined in terms of the currencies of those countries which are significant trading partners of Malaysia.

I.3 Effects of the Present System on the Foreign Exchange Market

The two major monetary changes in 1973 altered radically the nature and depth of foreign exchange operations in Malaysia. The termination of the interchangeability arrangements and the floating of the Malaysian dollar opened the way for the ringgit to pursue an independent course in the foreign exchange market so that the ringgit exchange rates would reflect more closely the conditions and prospects in Malaysia in relation to the rest of the world. For the commercial banks, the abolition of the "best agreed rates" system of quoting exchange rates in favour of a system of free competition, in which each bank was left to quote its own rates, opened up new opportunities for the banks as a whole to expand significantly their commitment of resources in foreign exchange operations.

The generalized floating of major international currencies since March 1973, the floating of the ringgit and the Singapore dollar in June 1973, the establishment of joint-venture foreign exchange brokers with direct dealing links to other international exchange centres, and the appointment of full-time money and exchange dealers in the commercial banks, were factors which have combined to stimulate the growth of the inter-bank foreign exchange market in Kuala Lumpur. The monthly average of foreign exchange business channelled through the foreign exchange brokers rose from less than M$300 million in the first half of 1973 to about M$600 million in the second half. By 1975, the monthly turnover had exceeded M$2 billion and it averaged about M$12.4 billion in 1982. During the first three months of 1986, the average was in the region of M$20 billion.

II. Structure and Functions of the Foreign Exchange Market

II.1 Market Participants

In Malaysia, all dealings in foreign currency are required to be conducted through any one of the 38 commercial banks, the only authorised dealers in foreign exchange under the Exchange Control Act, 1953. There are, however, 220 odd money-changers who are licensed under this Act to buy and sell foreign currency notes and coin.

The main customers of the commercial banks are the traders who remit funds in foreign currencies to pay for their imports and the exporters who need to convert their export proceeds in foreign currencies into ringgit. Because of the large turnover

of foreign trade, the foreign exchange market in Malaysia has basically evolved to meet the requirements of trade settlement. Corporations remitting profits to their head offices or dividends to foreign investors, businessmen wishing to pay for services rendered by enterprises abroad, travellers, and remittances to support education abroad are a few examples of other users of the foreign exchange market. Except for travellers buying foreign currency notes and coin before they leave or selling foreign currency notes and coin on their return, all foreign exchange dealings have to be made through the commercial banks. Exporters of goods shipped from Malaysia not only have to sell their export proceeds received in foreign currencies to commercial banks in Malaysia in exchange for ringgit, but they must do so within six months to comply with exchange control regulations.

The brokers can also be considered as participants in the foreign exchange market. At present, there are eight brokers in the Kuala Lumpur exchange market. However, they only act as intermediaries in the interbank market, and do not act as principals nor do they deal for their own account. They only charge a fee for the services that they render.

As the foreign exchange market in Malaysia expanded over the last few decades, foreign exchange activity has risen accordingly. However, it has not managed to attract many new participants in the market. The commercial banks are still the largest group in the market while the Central Bank may enter for some specific purposes such as intervening in the market to smooth out disorderly fluctuations. The brokers too, continue to perform a useful function in the exchange market.

II.2 Types of Markets

The foreign exchange market in Malaysia, as in most other countries, is basically two-tiered, namely the customer-based market and the inter-bank market.

As in the money market, dealings in foreign exchange among the commercial banks form the nerve-centre of the foreign exchange market. This inter-bank market is primarily wholesale. Transactions between the commercial banks in nearly all cases are in the form of telegraphic transfers and are contracted orally by telephone, subject to confirmation in writing. These transactions are usually in multiples of minimum amounts of 100,000 or 250,000 units of a foreign currency. Indeed, it is this inter-bank market in foreign exchange that is usually referred to as the "foreign exchange market".

The inter-bank market is made up of the dealers of the commercial banks. This market handles the transactions of the commercial banks, locally or abroad, and Bank Negara Malaysia. They deal directly among themselves or through the medium of foreign exchange broking companies. All the commercial banks in Kuala Lumpur have appointed full time dealers to handle their daily foreign exchange operations. The inter-bank foreign exchange business has also expanded from just purchasing and selling of foreign currencies in exchange for ringgit to more sophisticated cross-rate arbitrage transactions, whereby the U. S. dollar could be purchased and sold for other currencies in addition to the ringgit. Furthermore, the proportion of the inter-bank market has also increased over time.

The market between commercial banks and their customers, or the customer-based market, evolves from the exchange control requirement that all dealings in foreign currencies in Malaysia have to be conducted through any one of the 38

commercial banks. All payments and receipts from trade, investment and service transactions have to be transacted with commercial banks.

Exchange transactions on both "spot" and "forward" bases are undertaken in the foreign exchange market. The exchange rate applied to an exchange transaction is directly related to the agreed settlement date or "value date", that is, the date for the reciprocal transfer of funds. The basic exchange rate for any pair of currencies is the "spot" rate for the telegraphic transfer of funds on the second business day following the day of contract. The rates for all other "value dates" forward (that is, forward rates) are derived from the spot rate and these other rates basically reflect adjustments to take into account the difference in the interest rates obtainable in the respective money markets. In addition, it is not uncommon for "swap" transactions (which are specifically entered into as alternatives to transactions in the money market) to take place in the foreign exchange market. The rate applied to the spot transaction is usually a close approximation of the current spot rate and the agreed difference is added or subtracted, as appropriate, to arrive at the forward rate. The difference tends to offset the interest differential between the two currencies concerned.

The option market, though available, is still in its infancy stage in Malaysia as it started operating only last year. Thus, the market's activity is fairly low.

Malaysia does not have a futures market dealing in foreign exchange presently, nor does it have black markets as the country's exchange control system is very liberal.

II.3 Market Instruments

Apart from personal travel facilities such as currency notes and coin and travellers cheques, foreign currency is bought and sold largely in the form of telegraphic transfers (T.Ts), bills of exchange or bank drafts denominated in foreign currency. Bills of exchange form the bulk of the business between the commercial banks and non-bank customers.

In line with the nature of the exchange market discussed above, other instruments include swap operations, forward cover and option transactions. Swap transactions are the purchase (or sale) of one currency for one value date, usually spot, against the counterveiling sale (or purchase) of the same amount, for a later value date at an agreed difference in the exchange rates to be applied to the two transactions. The forward cover, on the other hand, is widely used by the non-bank customers of the commercal banks to limit the exchange rate risk involved in their foreign exchange dealings. Finally, the option instrument enables customers to purchase (at a fee) a right, but not an obligation, to buy or sell a particular amount at a certain price within a specified time period.

III. Role of the Central Bank in the Foreign Exchange Market

The main role of Bank Negara Malaysia in the foreign exchange market is to ensure orderly conditions and to protect the market from over-exposure to risks. The Central Bank regularly monitors developments in and the activities of the money and foreign exchange markets. The Bank also operates to ensure that conditions in the market are conducive to orderly trading of the ringgit, including the availability of continuous quotations, intervening whenever desirable to avoid expectations of exces-

sive changes in the exchange rate and to provide the necessary counterparts for the continuous operation of a two-way market.

Since dealings in foreign currencies in Malaysia are undertaken only by the commercial banks, the Central Bank regulates the "open" position of each bank, this position being defined as the amount in a foreign currency which a bank may bear an uncovered exchange risk. The rationale for regulating the open positions of the banks is to ensure that a measure of prudence prevails in the foreign exchange deals and to limit their holdings of foreign reserves consistent with their operational needs.

An "open" position limit for the ringgit vis-a-vis all currencies is set for individual banks by the Central Bank, taking into account a variety of factors, including the resources of the bank, the volume of its foreign exchange business and its expertise in foreign exchange dealings. In general, the limit on the open position to be maintained by each authorised bank in any one foreign currency is set at the equivalent of M$400,000. In practice, however, depending on the need, the open positions for some banks are normally set at more generous levels in order to provide sufficient flexibility for the banks to effectively "make" the market without undue restrictions on its exchange exposure, consistent with banking prudence.

III.1 Institution-building

The physical infrastructure of the foreign exchange market helps to facilitate the smooth functioning of the exchange market. Among other things, an efficient telecommunications is essential for effective operations in the market. In this case, Bank Negara Malaysia, in co-operation with the telecommunications department, assigned priority to the installation of a network of telephone and telex lines with the banking industry. A network of private speech circuits was also set up between the commercial banks and exchange brokers in Kuala Lumpur, and between the commercial banks and exchange brokers and Bank Negara Malaysia. This allows the Central Bank to keep track of rate movements and to obtain information from the market participants on the prevailing market conditions and their opinions on the current and future factors likely to affect the market.

Furthermore, Bank Negara Malaysia has encouraged the commercial banks to install such a system in their dealing rooms besides the Reuters Monitor Screen and automatic teleprinters which are connected to the Reuters or Dow Jones international news service. In this way, the banks can receive current financial news and development immediately. Aside from the steps taken to improve the telecommunication system, Bank Negara acted from the outset to encourage the banks to acquire the necessary expertise needed in order to be able to make independent judgements on the levels of various exchange rates and participate actively in the setting of rates. Increased management consciousness of the intricacies of foreign exchange dealing, the appointment of full-time dealers, and the reorganisation and increased staffing of the administrative structure were the first steps taken by most of the banks to adapt to the new market situation. In addition, Bank Negara has also taken steps to improve services by injecting market expertise through encouraging the setting up of joint ventures between Malaysian interests and reputable money broking enterprises from overseas.

III.2 Intervention Policy and Instruments

Bank Negara maintains an exchange rate policy of fundamental non-intervention. Interventions, if and when necessary, are undertaken only to smoothen out

excessive fluctuations in the value of the ringgit,as well as to provide the necessary counterparts for the continuous operation of a two-way market. Such interventions are normally done through the buying and selling of U.S. dollars (the intervention currency) in the spot market. The Central Bank does not intervene to prevent the exchange rate from reflecting the underlying trend in the balance of market supply and demand.

Since the Central Bank does not generally intervene in the foreign exchange market, sterilization has not been frequently undertaken in the context of Malaysia. However, due to the close links between the money market and foreign exchange market, a sterilization policy is required at times to neutralize the effects of occasional interventions by the Central Bank in the latter market, particularly when such interventions affect the liquidity in the economy. For example, there was an occasion in 1984 when this particular policy was implemented, following the excessive speculation on the ringgit in October 1984. In response, the Central Bank promptly diffused the pressure on the exchange rate and subsequently recycled a substantial amount of Government balances with the Central Bank to the banking system, easing considerably the tight money market conditions and reducing the high interest rates which had prevailed at the beginning of 1984. □

Appendix 5.1

MALAYSIA: EXCHANGE CONTROL REGULATIONS

The main exchange control regulations are as follows:

A non-resident controlled business in Malaysia may borrow up to a total of M$500,000 from all sources in Malaysia without the permission of the Controller of Foreign Exchange. For domestic borrowings in excess of M$500,000, the permission of the Controller is required, and such approval will be given based on the genuine needs. The amount which non-resident businesses are allowed to borrow should be such as are really needed for their operations in Malaysia, and the extent of such borrowings should be in keeping with the current monetary policy. However, non-resident controlled businesses are not allowed to resort to using domestic funds for the overwhelming majority of their financing requirements while bringing in only a nominal amount of capital of their own. This is to ensure that a non-resident controlled business brings in at least a reasonable amount of funds of its own to finance its business in Malaysia.

Permission from the Controller is required for borrowings by residents of $100,000 or more from non-residents. Such permission is readily given where the funds are used for productive purposes and the terms and conditions of the loans are reasonable. Permission for the remittance of loan repayments and interest on approved foreign loans is given readily by an Authorised Bank, if the remittances are in accordance with the approved terms and conditions. No specific exchange control permission is required for a non-resident to undertake direct or portfolio investment in Malaysia.

All export proceeds must be repatriated to Malaysia within the timing of payment specified in the commercial contracts (which in any case must not exceed six months from the date of export). The proceeds must be received in specified currencies (basically freely usable currencies) or in ringgit obtained from the sale of any of the specified currencies to a bank in Malaysia. Companies in Malaysia are allowed to maintain inter-company accounts with associated companies, branches or other companies outside Malaysia, provided they do not include any proceeds from exports and foreign loans.

The accounts of non-residents maintained in ringgit with banks in Malaysia are designated as External Accounts. There is no restriction on debits to such accounts. Credits to these accounts are freely permitted, subject only to the completion of a simple form for amounts of more than M$10,000 each.

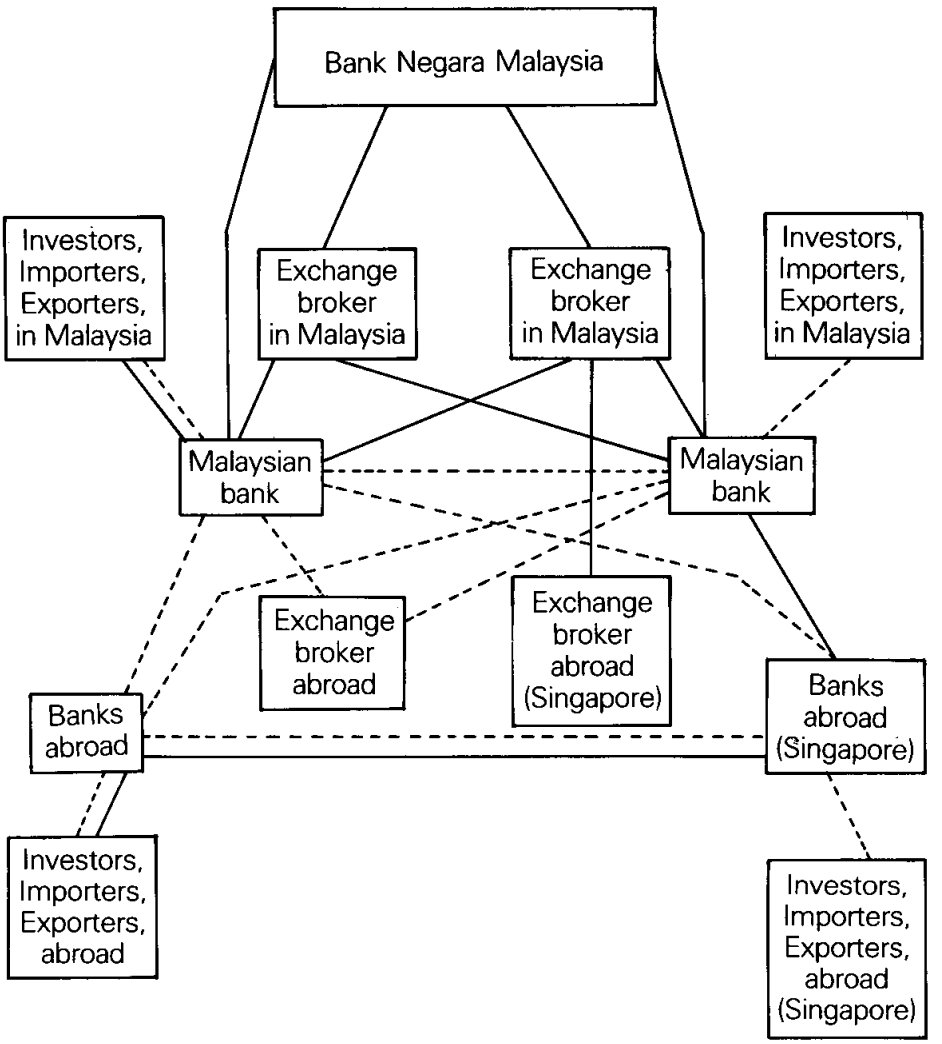
All payments, including the repatriation of capital, remittances of profits, dividends, etc. are freely permitted. No permission need be sought and no form need be completed for all payments up to M$10,000. Where an individual payment exceeds the equivalent of M$10,000, a form has to be completed and approved before the payment can be effected. The commercial banks are permitted to approve the forms, provided that:-

a) in the case of payments of interest or repayments of principal on borrowings from non-residents, the borrowings have been obtained with the general or specific permission of the Controller, and the payments are consistent with the approved terms and conditions of the borrowing; or

b) in the case of payments for the purchase of shares or immovable property, the payments are not financed with funds borrowed in ringgit in Malaysia.

Appendix 5.2

ORGANISATION OF MALAYSIAN FOREIGN EXCHANGE MARKET



Note : Unbroken lines show continuous telephone contact through private speech circuits.

Broken lines show intermittent telephone contact through public exchange lines.

Chapter 6

THE FOREIGN EXCHANGE MARKET IN NEPAL

by
Keshav P. Archarya

I. Exchange Rate and Control System

I.1 The Present System

Since June 1986, the Nepalese rupee (NRe) has been pegged to a basket of currencies. The basket comprises the currencies of its major trading partner countries. Since this form of exchange rate regime has been introduced very recently, it is too early to assess its impact on the operation of the foreign exchange market. The shift in favour of pegging to the basket instead of pegging to a single major currency was necessitated by the need of ensuring the market-determined real value of the Nepalese rupee and thereby on the competitiveness of Nepal's tradeable goods in the international market; hence, on the balance of payments.

I.2 Historical Development

Prior to 1960, Nepal was in an era of so-called dual currency system where the Indian and Nepalese currencies were circulating simultaneously. There was no control over the exchange rate of the Nepalese rupee vis-a-vis the Indian rupee, even though the exchange rate moved erratically. In 1956, Nepal Rastra Bank was established as the central bank of the country. The focus of Nepal Rastra Bank was directed at legalising as well as popularising the use of Nepalese rupee throughout the Kingdom.

During this period, whatever convertible reserve currencies (U.S.dollar, pound sterling, etc.) Nepal had were managed by the Reserve Bank of India.

In April 1960, the Exchange Control Act was introduced. Under the Act, foreign exchange operators were required to obtain licences from the Central Bank to operate foreign exchange business. It was made mandatory for them to deal in only at the rate fixed by the authorities. In the same year, Nepal entered into a trade and payments agreement with India under which Nepal Rastra Bank was given full control over its foreign exchange reserves.

In order to promote geographic diversification of its international trade, Nepal adopted a multiple exchange rate regime in 1962. This regime was called Exporters' Exchange Entitlement (EEE). In this framework, the exporters exporting to "other" countries were allowed to retain a specified proportion of their export receipts which had to be utilised for importing "essential consumer" as well as "development" goods from countries other than India. The proportion of entitlement (also called bonus rate) varied depending on the nature of exports. Exports of indigenous and priority products such as raw jute and jute goods, and handicrafts were given a higher entitlement compared to other products with higher import content. There were frequent adjustments in the bonus rate depending on the domestic as well as international demand/supply position for the export item under consideration.

In the first few years of its operation, some success was noted in regard to the diversification of international trade. Some products that were originally exported

to India got diverted to "other" countries without significantly lessening the inelastic nature of imports from India. Especially after the first oil shock in 1973/74, the balance of payments imbalance with India worsened persistently for many years. It was solved by (1) stand-by borrowing agreement with India, and (2) drawing down reserves of convertible currencies. In the meantime, the problem of over-invoicing of exports to "other" countries also emerged. The convertible currencies acquired through "over-invoicing" were used for luxury and semi-luxury imports which were re-exported to India to fetch a higher price.

During this period, Nepal also followed a practice of double pegging its currency independently to the Indian rupee and the U. S. dollar, simultaneously. In the mid-Seventies, there arose a problem of broken cross rate between the triangular exchange rates among the Nepalese rupee,the Indian rupee and the U. S. dollar. In the face of fixing the exchange rate of the Nepalese rupee to the Indian rupee independently to that of the U.S. dollar, the existence of broken cross rate was but a natural consequence, particularly when there occured some realignment between the other two rates.

The following is a chronology of exchange rate changes between 1960 and 1978:

a) Nepal established the par value of its currency with the IMF in 1967 at NRe 10.125: U.S. dollar 1 (= 0.08777000 grams of fine gold per rupee);

b) In June 1966, the Nepalese rupee appreciated by 57.5 per cent vis-a-vis the Indian rupee when India devalued its currency by 36.5 per cent and Nepal did not adjust its exchange rate accordingly. The new NRe/IRe exchange rate was set at Rs. 1.0125;

c) In the same year, licensing to individuals to deal in foreign exchange was cancelled;

d) In December 1967, the Nepalese rupee was devalued by 24.8 per cent against the Indian rupee following the devaluation of the pound sterling. The new exchange rate worked out at NRe. 1.35 per Indian rupee;

e) Following the realignment of currencies in the world market in 1971, the exchange rate of the Nepalese rupee was devalued vis-a-vis the Deutsche mark, Japanese yen and the Indian rupee. The new NRe/IRe rate worked out at NRe 1.39 per Indian rupee;

f) In July 1972, the exchange rate of the rupee was let to float against the pound sterling.

g) Following the devaluation of the U. S. dollar in February 1973, the NRe/US$ exchange rate was also revised at a slightly devalued rate. The Nepalese rupee floated against the Deutsche mark, Swiss franc and the Japanese yen; and,

h) In October 1975, the NRe devalued by over 18 per cent against the U.S. dollar. The new exchange rate was NRe 12.45: U.S. $1.

To eradicate the problem of broken cross rate without losing the objective of trade diversification, the exchange rate of the Nepalese rupee was devalued by 4 per cent against the Indian rupee and revalued by an equivalent percentage against the U. S. dollar in March 1978. During the period 1978-81, Nepal had a dual exchange rate regime against the U.S. dollar. In this regime, two rates were quoted for the U.S. dollar, namely (1) the "basic" exchange rate and (2) the "second" exchange rate. The "basic" rate was quoted at NRe 12 per U.S. dollar and applied to transactions

involving settlement of official debt and imports of "essential" as well as "developmental" goods, whereas the "second" rate quoted at NRe 16 per dollar was applicable to exports of priority items and for imports not covered by the "basic" rate. This regime was also motivated by the implicit objective of promoting exports of domestically produced goods and also by the goal of import substitution. Import trade was liberalised with the introduction of this regime. In this way, the government was indirectly subsidising exports. The loss arising from the difference between the two rates was borne by the Treasury. With the subsequent increase in exports, the pressure on the exchequer mounted. In February 1980, the "second" exchange rate was revalued from NRe 16: U. S. dollar 1 to NRe 14: U.S. dollar 1, and the number of items eligible for imports at the basic rate was reduced drastically.

The regime of dual-exchange rates introduced in March 1978 also failed to generate a sustainable export base. It also failed in the transformation of the commodity structure of exports. Like the previous exporter exchange entitlement regime, the new regime's effect was also confined to diverting exports to "other" countries, without at the same time reducing imports from India, thus resulting in a perpetually adverse BOP with India. The problem was further aggravated by the outbreak of the second oil shock.

In October 1981, the exchange rate with the U.S. dollar was unified at NRe 13.20 to U. S. dollar 1, without any change in the exchange rate for the Indian rupee. This change in exchange rate was accompanied by a fiscal measure of subsidising specified export items. The excess liquidity in the economy continued to grow further owing mainly to the monetization of ever-growing government deficit financing. The escalation in the amount and proportion of deficit financing was also attributed to a declining trend in overseas aid inflow. This liquidity exerted further pressure on the exchange rate of the Nepalese rupee. Consequently, the rupee was devalued by 7.7 per cent against the U.S. dollar in December 1982. The exchange rate for the Indian rupee was, however, kept intact.

With effect from 1 June 1983, the Nepalese rupee has been pegged to a trade-weighted basket of its major trading partners' currencies. The rupee was also pegged to the Indian rupee. The exchange rate between the Nepalese rupee and the Indian rupee remained unchanged since 1977, despite a sharp depreciation of the Nepalese rupee in terms of effective exchange rate movement.

Between 1983 to May 1986, the exchange rate of the Nepalese rupee vis-a-vis the U.S. dollar has depreciated sharply from NRe 14.20 to as high as NRe 22, whereas the exchange rate for the IRe has been kept intact at NRe 1.45. During the same period, foreign capital was not flowing in satisfactorily and the current account of the BOP was also deteriorating at a faster pace. By mid-1985, the foreign exchange reserves could hardly cover two to three months' imports compared with the norm of covering about six to eight months' imports. The pressure on Indian (inconvertible) currency reserves became more acute. In the period July-November 1985, Indian currency reserves flowed out of the banking system in anticipation of a sharp devaluation of the Nepalese rupee vis-a-vis Indian rupee. In 30 November 1985, the rupee was devalued vis-a-vis the Indian rupee by over 17 per cent and against other convertible currencies by over 14 per cent. As a result, there was an encouraging improvement in foreign exchange reserves, presumably due to the return of Indian rupees that were withdrawn from the banking system earlier, apart from the positive effects on the balance of trade.

1.3 Exchange Control

There is no exchange control over the inconvertible Indian rupee except some restrictions on bank deposits denominated in this currency. This is because Nepal has over a 1,000 km. long open border with India, making any administrative restriction with this country ineffective . In regard to trade and payments with "other" countries, there are various exchange controls. Exporters are required to surrender their export receipts within six months of transactions. Foreign exchange for all purposes is rationed. The trading parties in need of foreign exchange are required to obtain licence from the Ministry of Commerce and approval from the Ministry of Finance before approaching a bank. Investment on bank accounts and securities abroad is also subject to regulation. Any foreign nationals visiting Nepal have to declare foreign exchange in their possession if it exceeds U.S. $2,000 and on their return, they cannot bring back with them beyond a certain proportion of the initial declaration. All transactions involving foreign exchange have to pass through the banking system. Apart from banks, agencies involved in the tourism industry, such as hotel, air lines, travel and trekking agencies, can purchase foreign currencies from foreign nationals at the rate fixed by Nepal Rastra Bank. They are, however, not authorised to sell except to the commercial banks again at the fixed rate. Even commercial banks are not allowed to invest foreign exchange abroad in any form, e.g., time deposits, securities and the like. However, they can hold up to 30 per cent of their foreign currency earnings in the form of demand deposits in their agency balance abroad. For the remainder, they are required to credit to the Nepal Rastra Bank agency accounts. Moreover, all the agencies dealing in foreign exchange are required to submit periodic statements of their foreign exchange operations to the central bank. Borrowing abroad by any party is subject to prior approval from the concerned authorities.

II. Structure and Functions of the Foreign Exchange Market

The foreign exchange market in Nepal is still in the formative stage. Under the stringent exchange controls, only the commercial banks and those enterprises in the export, import as well as the tourism industries are allowed to deal and transact in foreign exchange. There is little inter-bank foreign exchange market activity as all banks are required to deal with Nepal Rastra Bank to square their positions. The exchange market is mainly a customer-based market. The exchange rate is also fixed daily by Nepal Rastra Bank so that market forces have little role to play in the foreign exchange market.

II.1 Market Participants

The foreign exchange market in Nepal consists mainly of Nepal Rastra Bank, the commercial banks and the customers comprising mainly export and import business enterprises, and those companies involved in the tourism industry. Nepal Rastra Bank acts as the custodian of external reserves as well as the supplier of last resort for foreign currencies. The commercial banks, on the other hand, operate like a clearing house between the users and the earners of foreign exchange. The commercial banks have become active participants in the foreign exchange market in terms of the proportion of the total foreign exchange reserves held by them. This was evidenced by a rapid increase in their reserves-holdings, from just 8 per cent in 1970 to 39 per cent in 1984. This trend was more noticeable from 1979 onwards. It was due mainly to the liberalisation of foreign trade following the adoption of a dual exchange rate system in March 1978. Other factors explaining for the increase in

commercial banks' holdings of exchange reserves were the increase in the number of bank branches, more widespread distribution of trade points as well as growing reliance on the banking system for trade transactions.

In fact, the number of participants in the foreign exchange market depends very much on government rules and regulations concerning international trade and tourism manifested through quota restrictions, licensing, customs and tariff policy and the like. As the foreign exchange market is still in its infancy, international exchange brokers and corporate treasurers are almost non-existent in Nepal. However, in recent years, there has been encouraging developments in regard to the setting up of international banks. As at end of 1986, there were four commercial banks of which two were joint ventures with foreign banks.

II.2 Market Structure

The foreign exchange market in Nepal is mostly customer-based with minimal volume of transactions in the inter-bank market. The major form of inter-bank transactions is between the central bank and the commercial banks. Transactions among the commercial banks themselves are minimal; even if they exist, these are not direct transactions. They acquire some claims or liabilities from each other to facilitate customers' transactions in the international trade. Banks which are authorised to deal in foreign exchange cater to the needs of customers on the basis of the broad guidelines provided by Nepal Rastra Bank. Although the policy infrastructure for forward cover in U.S. dollar has already been created since August 1983, forward transaction so far is nil.

II.3 Market Instruments

The major market instruments are telegraphic transfers, bills of exchange,drafts and demand deposits. In the case of tourism and travel business, cash notes and travellers' cheques are mostly used. However, the latter instruments do not form a sizeable proportion in the total transactions.

Apart from the Indian rupee, foreign currencies acceptable in the market include the U. S. dollar, pound sterling, Deutsche mark, Canadian dollar, Australian dollar, French franc, Italian lira, Austrian schilling and Swedish kroner, with the U.S. dollar dominating market transactions.

II.4 Black Markets

Although data on the volume of transactions and the premium on convertible currencies traded in the black market are not available, the existence of the black market is rather pervasive. Normally, the premium is expected to range between 20-30 per cent over the official market rate. During the dual exchange rate regime (1978-1981), however, the black market rate did not deviate much from the "second" rate. The reasons for the existence of a black market can be broadly classified into domestic and external factors. The domestic factors contributing to the existence of a black market were financial as well as commercial controls on foreign exchange. Financial controls operate by controlling the use of foreign currencies. Banks may refuse to exchange domestic currency into convertible currencies for certain activities. Alternatively, they may make the use of money more expensive than others by controlling the availability of credit, interest rate, margin rate and through other instruments. Commercial controls, on the other hand, operate more directly on the physical goods side of the transactions through quota, licensing, tariffs and

subsidies. If there is a growing demand for imported goods and services, the supply will respond through unofficial channels. The impact of control on the black market is more glaringly visible in Nepal. There is no black market for the Indian currency which is readily available and convertible in Nepal.

An external factor contributing to the existence of a black market is the Indian connection. It emanates from the nature of trade controls in India. Relatively speaking, India is a more protected economy. It is more so in connection with the imports of luxury and exports of essentials. These items are either banned or in insufficient supplies in the Indian market and are brought there from third countries through Nepal. Other reasons responsible for the existence of a black market in foreign exchange include interest rate and inflation rate differentials between Nepal and its trading-partner countries other than India. Although this factor might be more applicable to private capital movements across frontiers (which is not large in Nepal), it also applies to the trade account through price expectations regarding goods to be imported in the future.

II.5 Link with International Financial Centres

The major source of link of Nepal's foreign exchange market with international financial centres is through agencies. Both the central bank and the commercial banks have their agency balances with major banks in the international trading centres. The commercial banks facilitate the transactions of their customers by debiting or crediting their balances with the agency banks. The central bank does the same for the commercial banks, corporations and the government. The central bank, moreover, also operates its portfolio of foreign securities and account balance through these agency banks.

III. Role of the Central Bank in the Foreign Exchange Market

III.1 Institution-building and Overall Supervision

Nepal Rastra Bank is the pioneer architect of the Nepalese financial system, of which the foreign exchange market is a part. Prior to its establishment in 1956, there was only one commercial bank providing banking services to a few industrial and commercial centres of the Kingdom. After its establishment, Nepal Rastra Bank undertook a vigorous drive in extending general banking services by operating its own branches throughout the country. This process continued until the late Sixties when another commercial bank came into operation under the Bank's initiative. After its establishment, the central bank gradually handed over this commercial banking business to commercial banks themselves. Nepal Rastra Bank also trained commercial bank employees in foreign exchange transactions by deputising its own employees and by offering training facilities to these banks at home and abroad. The Bank actively assisted the government in drafting and implementing the Foreign Exchange Act. Apart from commercial banks, Nepal Rastra Bank also supervises the foreign exchange operations of other agencies, especially those in the tourism industry.

Lately, under the central bank's leadership, banks have been gaining access to the international financial markets through media and computer links. With a view to imparting healthy competition in the financial as well as foreign exchange markets, the Bank has been following an open door policy towards the foreign banks.

As regard to foreign exchange transactions, all transactions are spot transactions, although forward transactions denominated in the U.S. dollar were intro-

duced since July 1983. With the Nepalese rupee pegged to the basket (including the Indian rupee) effective since June 1986, there is bound to be pressure for developing a healthy forward market.

Nepal Rastra Bank is also charged with the responsibility of implementing exchange controls, as discussed earlier. Under existing regulations, the Bank conducts periodic supervision of the agencies dealing in foreign exchange through its specialised department. Use of foreign currency in domestic transactions is deemed to be illegal and is subject to legal prosecution.

III.2 Intervention and Techniques

In the context of the Nepalese foreign exchange market, there have been two distinct goals regarding the price of foreign currencies. Because of geographic and economic compulsions, the authorities have aimed at stabilising the rate and let the quantity to float in regard to the inconvertible currency. With regard to convertible currency, on the other hand, the policy stance seems to be stabilising quantity with more frequent price variations. It is presumably in this light that the authorities opted to peg the currency to the Indian rupee effective from June 1983 and also on the rate prevailing since the last five years (March 1978). From 1980 to June 1983, there had been three revisions in the exchange rate of the Nepalese rupee vis-a-vis the U.S. dollar, whereas no single revision had occured with regard to the exchange rate of the NRe vis-a-vis the IRe.

Nepal Rastra Bank fixes the exchange rates for the day not only for wholesale transactions between the Bank and the commercial banks but also the retail transactions between the commercial banks and their customers. As foreign exchange transactions are fully under control of Nepal Rastra Bank, there is no central bank intervention in the exchange market as practised in other SEACEN countries.

Nepal Rastra Bank intervenes only in the spot market by altering the exchange rate rather than the foreign exchange reserves itself. However, in times of comfortable reserves position, the authorities relax the restrictions by releasing foreign exchange for specified purposes, and tighten them when there is adverse pressure on the reserves. Nepal Rastra Bank always attempts to bring back the depleting reserves to a desirable level through bilateral as well as multilateral aid (financing) negotiations. In the foreign exchange market, the authorities virtually do not have any control over the inflow of foreign exchange except the official capital flows. They can influence the market only by exercising control over its allocation of funds.

The Nepalese central bank has never spelled out its exchange rate target. What is taken into account is the avoidance of broken cross rates particularly in the case of discrepancies between the NRe/IRs/US$ exchange rates. Even in this case, the Bank does not intervene directly by altering the volume of its foreign exchange reserves. However, in the process of altering the exchange rates, the factors taken into consideration include competitiveness of export products, effect on domestic supply and interest rate as well as inflation differential between Nepal and her trading partner countries.

III.3 Macro-economic Policy Co-ordination

As Nepal Rastra Bank does not intervene in the foreign exchange market as practised in other countries, the question of sterilization does not arise in this case. However, efforts have been made by the Nepalese government to co-ordinate

various macro-economic policies, in particular exchange rate, fiscal, and monetary policies.

When there is excess liquidity which is beyond the absorptive power of the economy, there tends to be an increase in demand for imports. In the absence of a corresponding growth in exports (and also capital inflow), the excess liquidity exerts demand pressures on the existing stock of exchange reserves in the market. In this situation, the Nepalese monetary authorities attempt to equilibrate the foreign exchange market by curbing domestic credit expansion through various monetary instruments. On the price front, the rates of interest are also adjusted upwards such that borrowings for unproductive purposes become more costly. On the other hand, if the foreign exchange inflow exerts pressure on the monetary base, the authorities then attempts to relieve this by means of liberalising imports credit through interest rate adjustments. Similarly, reserve requirements and margin requirement are also used to relieve pressures on foreign exchange reserves.

In the Nepalese context, the major factor influencing monetary variables and thereby the foreign exchange market seems to be the government's budgetary operations. Until 1973/74, over three-quarters of broad money was backed by net foreign assets (NFA). From then on, as the budgetary deficits began to accelerate, net domestic assets began to exceed the proportion of NFA in the broad money. In the final year of observation, i.e., 1983/84, NFA comprised less than a quarter of M2. During the 15 years period following fiscal year 1969/70, NFA increased at a compound growth rate of 7.2 per cent, whereas the corresponding growth rate for M2 was more than double, at 18.1 per cent. The budgetary operations of the government started to exhibit deficits from fiscal year 1970/71. In the remaining 13 year-period until 1983/84, this deficit increased at a compound rate of 40.2 per cent, most of which was financed through borrowing from the banking system, thus putting a net pressure on money supply.

Owing to supply bottlenecks, at least in the short run, the excess liquidity tends to get released through growing demand for imports, exerting demand pressure on the foreign exchange market. In this situation, the policy mix comprises of monetary and fiscal policies. On the fiscal aspect, tariffs on imports of luxury and non-essential items are raised, licence for some categories of imports is not issued and some categories of exports are encouraged through export duty reductions and subsidies. On the monetary front, interest rates on borrowing for some transactions are raised relative to other priority transactions. Margin rate on import credits of some types is also raised. In some cases, banks are directed to maintain their credit flows within certain limits. □

Table 6.1

NEPAL: RECEIPTS AND EXPENDITURE OF CONVERTIBLE FOREIGN EXCHANGE

(In Million Rupees)

	Receipts						Expenditures					Net Position
	Invisibles[1]	Merchandise Exports	Diplomatic Missions	Foreign Aid	Miscellaneous	Total	Invisibles[2]	Miscellaneous Imports	Diplomatic Missions	Miscellaneous	Total	Receipts-Expenditures
1968/69	78.6	136.8	6.3	1.9	32.6	256.2	10.9	76.2	12.2	17.3	116.6	139.6
1969/70	100.4	108.8	8.5	22.4	34.2	274.3	11.7	134.8	14.3	28.3	189.1	85.2
1970/71	106.4	104.4	11.4	7.8	41.3	271.3	13.6	86.6	13.7	64.7	178.6	92.7
1971/72	130.5	118.1	16.5	22.4	40.3	327.8	20.4	122.3	16.4	103.7	262.8	65.0
1972/73	153.7	160.5	18.8	36.4	47.6	417.0	32.5	222.7	16.3	52.7	324.2	92.8
1973/74	236.2	202.3	25.3	43.4	34.9	542.1	73.6	258.6	18.5	26.5	377.2	164.9
1974/75	299.1	151.3	22.4	26.5	65.3	564.6	79.9	567.8	16.0	239.7	903.4	− 338.8
1975/76	354.5	296.9	27.9	132.1	49.4	860.8	98.1	435.4	18.2	61.8	613.5	247.3
1976/77	447.9	385.7	54.2	161.0	46.8	1095.6	82.4	521.3	18.9	26.6	649.2	446.4
1977/78	570.5	557.6	104.8	211.2	18.4	1462.5	163.4	743.0	28.6	789.6	1724.6	− 262.1
1978/79	645.5	518.0	105.0	542.2	37.5	1848.2	143.2	909.3	35.1	554.0	1641.6	206.6
1979/80	811.2	717.8	159.2	623.5	59.4	2371.1	132.0	1218.1	39.4	1032.1	2421.6	− 50.5
1980/81	1001.2	642.0	263.7	622.8	122.3	2652.0	143.3	1868.5	51.3	644.2	2707.3	− 55.3
1981/82	926.0	513.5	196.6	563.3	89.2	2288.6	210.8	1849.5	54.1	51.8	2166.2	122.4
1982/83	944.7	305.0	128.6	798.6	84.3	2261.2	342.9	2650.9	61.7	29.4	3084.9	− 823.7
1983/84	951.3	427.0	229.4	1150.6	88.5	2846.8	445.3	2222.2	95.4	45.0	2807.9	38.9

* On payments basis; data based on foreign exchange records.
[1] Remittances, tourists' expenditures and interest receipts.
[2] Interest payments and other services payments.

Source: Nepal Rastra Bank

Table 6.2

NEPAL: INTERNATIONAL RESERVES

(Thousand U.S. Dollars)

	Gold[1]	SDRs[2]	IMF[2] Reserve Tranche Position	Total	Foreign Exchange		Total
					Con-vertible	Inconver-tible	
1968/69	8180	–	2427	69124	51897	17227	79731
1969/70	8154	–	2443	80923	56925	21298	91520
1970/71	4914	1070	2682	93595	71198	23297	102261
1971/72	5161	2404	3132	100175	82495	17680	110872
1972/73	5493	2671	3721	111658	99204	12452	123541
1973/74	5493	2672	3722	119225	110972	8253	131112
1974/75	5493	2682	3738	100655	88690	11965	112568
1975/76	5493	2512	–	112311	101073	11238	120316
1976/77	5605	2356	–	137370	128737	8633	145331
1977/78	6164	1690	–	132748	118219	14529	140602
1978/79	6276	2487	3252	167798	142262	25536	179813
1979/80	6388	3723	3992	172866	156437	16249	186969
1980/81	6388	830	6474	182148	127242	54906	159839
1981/82	6388	508	6183	219489	149771	69718	232568
1982/83	6388	707	6048	149951	67840	82111	163094
1983/84	6388	130	5809	110804	68331	42473	123131

[1] Valued at:

a) up to mid-December 1971: US$35 per troy ounce.
b) Mid-January 1971 – mid-January 1973 US$38 per troy ounce.
c) Mid-February 1973 to 1984: US$42.22 per troy ounce.

[2] Valued at month-end US$/SDR rate.

Source: Nepal Rastra Bank

Table 6.3

NEPAL: FOREIGN ASSETS AND LIABILITIES OF THE MONETARY AUTHORITIES

(In million NRe.)

	Gold[1]	SDR[2]	IMF Reserve Tranche Position[2]	Total	Foreign Exchange		Total Foreign Assets	Foreign Liabilities	Net Foreign Assets
					Convertible	Inconvertible			
1968/69	82.6	–	24.6	698.1	524.1	174.0	805.3		
1969/70	82.4	–	24.7	817.3	602.2	215.1	924.4	–	924.4
1970/71	49.6	10.8	27.2	945.3	719.1	226.2	1032.9	52.9	980.0
1971/72	52.1	24.3	31.7	1011.8	833.2	178.6	1119.9	37.6	1082.3
1972/73	57.7	24.3	34.3	1172.4	1041.7	130.7	1288.7	54.9	1233.8
1973/74	57.7	24.3	34.3	1251.8	1165.2	86.6	1368.1	102.9	1265.2
1974/75	57.7	24.3	34.3	1056.9	931.3	125.6	1173.2	275.3	897.9
1975/76	68.4	31.5	–	1398.3	1258.4	139.0	1498.2	152.6	1345.6
1976/77	69.8	29.2	–	1710.3	1602.8	107.5	1809.3	111.0	1698.3
1977/78	73.4	19.9	–	1579.7	1406.8	172.9	1673.0	107.9	1565.1
1978/79	74.7	29.3	38.3	1996.8	1963.0	303.8	2139.1	345.3	1793.8
1979/80	76.0	43.5	46.7	2057.1	1861.6	195.5	2223.3	476.6	1746.7
1980/81	76.0	10.5	81.8	2167.6	1514.3	653.3	2335.9	599.8	1736.1
1981/82	83.7	7.0	84.9	2875.3	1692.0	913.3	3050.9	660.0	2390.9
1982/83	92.0	10.3	88.1	2159.3	976.9	1182.4	2349.7	448.3	1901.4
1983/84	104.1	2.1	93.9	1806.1	1113.8	692.3	2006.2	463.5	1542.7

1 Valued at:
- a) US$ 35 per troy ounce up to mid Dec. 1971.
- b) US$ 38 per troy ounce mid Jan. 1972 - mid Jan 1973.
- c) US$ 42.22 per troy ounce mid-Feb. 1973 onwards.

2 IMF gold tranche and SDRs holdings valued at:
- a) Rs. 7.619 per SDR up to mid-Nov. 1967.
- b) Rs. 10.125 per SDR mid-Dec. 1967-mid Dec. 1971.
- c) Rs. 10.9929 per SDR mid-Jan. 1972-mid Sept. 1975.
- d) Rs. 14.7580 per SDR mid-Oct. 1975-mid-Apr. 1976.
- e) Rs. 14.3837 per SDR mid-May 1976-mid-Apr. 1977.
- f) Rs. 14.5276 per SDR mid-May 1977-mid-Apr. 1978.
- g) Rs. 14.7131 per SDR mid-May 1978-mid-Apr. 1979.
- h) Rs. 15.2723 per SDR mid-May 1979-mid-Apr. 1980.
- i) Rs. 15.5369 per SDR mid-May 1980-mid-Apr. 1981.
- j) Rs. 14.3829 per SDR mid-May 1981-mid-Apr. 1982.
- k) Rs. 14.9117 per SDR mid-May 1982-mid-Apr. 1983.
- l) Rs. 15.4674 per SDR mid-May 1983-mid-Apr. 1984.
- m) Rs. 16.4921 per SDR mid-May 1984 to year end.

3 Since mid-July 1972 foreign exchange is valued at Nepali month-end floating rate.

Source: Nepal Rastra Bank

Table 6.4

NEPAL: FOREIGN ASSETS AND LIABILITIES OF COMMERCIAL BANKS

(In million NRe.)

Fiscal Year	Foreign Exchange[1]			Foreign Liabilities	Net Foreign Assets
	Convertible	Inconvertible	Total		
1968/69	39.3	61.3	100.6	11.6	89.0
1969/70	42.2	50.4	92.6	9.8	82.8
1970/71	40.0	36.4	76.5	13.9	62.6
1971/72	57.0	61.5	118.5	21.7	96.8
1972/73	93.7	73.9	167.6	18.4	149.2
1973/74	112.4	96.8	209.2	22.9	186.3
1974/75	91.7	147.1	238.8	107.6	131.2
1975/76	175.6	196.9	372.5	143.1	229.4
1976/77	260.0	163.4	423.4	246.5	176.9
1977/78	274.2	182.6	456.8	238.6	218.2
1978/79	397.6	268.9	666.5	172.3	494.2
1979/80	356.3	226.4	582.7	97.5	485.2
1980/81	484.4	314.6	799.0	120.6	678.4
1981/82	467.6	392.7	860.3	153.8	706.5
1982/83	572.0	330.0	902.0	192.0	710.0
1983/84	741.0	466.4	1207.4	210.3	997.1

[1] Since mid-July 1972, foreign exchange valued at month-end floating rates.

Source: Nepal Rastra Bank

Chapter 7

THE FOREIGN EXCHANGE MARKET IN THE PHILIPPINES *

by
Diwa C. Guinigundo

I. Exchange Rate and Control System

I.1. Historical Development of the Foreign Exchange Market

Under the provisions of the Philippines' Central Bank Act (R.A. 265, 1948), the principal objectives of the Bank are to maintain monetary stability, preserve the stability of the international value of the peso and its convertibility into other freely convertible currencies and to promote orderly growth in production, employment and real income. To achieve these goals, the Central Bank was vested with, among other functions, the administration of operations involving gold and foreign exchange as well as the control of receipts and disbursement of foreign exchange.

I.1.1 Pre-1970 scenario: control and decontrol years

The Philippines foreign exchange market had its early beginning in the post-war period of import control. Restrictions on imports were first introduced in January 1949 and these were applied on luxury and non-essential commodities. Exigencies also accounted for the adoption of exchange controls starting in December 1949. The purpose of instituting controls was to conserve the country's foreign exchange reserves which were being depleted by increasing imports of consumer goods, raw materials and capital equipment as required by the post-war economy when emphasis was on the reconstruction and restoration of the country's productive capacity.

Producer-goods imports were permitted to expand while consumer-goods imports, particularly those with close domestic substitutes and those classified as non-essentials, were drastically curtailed. Exports, while not restricted quantitatively, were required to be licensed/registered to ensure the receipt of export proceeds. Certain restrictions on the export of strategic materials were, however, implemented in the interest of national security. Purchases of foreign exchange for services were likewise restricted. However, to attract foreign investments, the Central Bank relaxed its restrictions on the remittance of capital earnings.

The official exchange rate was allowed to remain at P2.00:$1.00 during the 1950s. This rate had prevailed since 1949 and was deemed to be the free market rate at that time. However, the trade balance during the period deteriorated due partly to unfavourable export prices and massive spending in the election of 1949. To avert a balance of payments crisis, a no-dollar import law was passed by the government. This law encouraged exports to a certain extent since exporters of specific goods were allowed to use their dollar proceeds to import goods on the basis of an authority from the Central Bank. However, foreign exchange for some industries, specifically the newly-established industries, remained insufficient.

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In the beginning of the 1960s, non-exchange rate adjustment measures proved inadequate in correcting the serious trade imbalances as strong pressures to devalue started to mount from the traditional export sector. In response, the monetary authorities adopted a multiple exchange rate system starting April 1960 which paved the way for a de facto devaluation of the peso. This launched a gradual decontrol programme aimed at ultimately removing the restrictions on exchange transactions imposed in the 1950s and at promoting a free foreign trade and payments system.

Under this system, multiple exchange rates based on an official rate and a free market rate existed for imports and invisible payments and exports and invisible receipts. Exporters were allowed to surrender only 75 per cent of their foreign exchange receipts at the official rate while the remaining 25 per cent was valued at the free market rate. The price of foreign exchange also varied depending on whether the buyer would use the foreign exchange to purchase essential or non-essential imports, the latter being charged the free market conversion rate. In November 1960, the decontrol programme was expanded such that the share of the transactions valued at the free market rate rose to 50 per cent of all foreign exchange receipts.

The sluggish inflow of foreign exchange receipts coupled with the onerous system of foreign exchange payments prompted the monetary authorities to accelerate decontrol so that by 2 March 1961, 75 per cent of exchange transactions was allowed at the free market rate.

On 21 January 1962, the very stringent and complicated exchange controls were lifted and the peso was largely freed from the unworkable and widely-evaded mixed rate system. Exporters were permitted to sell 80 per cent of their export proceeds to the banks at the free market rate. The decontrol was, however, not complete as the remaining 20 per cent was required to be sold at the controlled rate. Furthermore, certain restrictions governing residents' dealings in foreign exchange and securities had remained until 8 November 1965, when the decontrol programme was completed. The effects of devaluation were, at best, mixed. While devaluation stimulated traditional exports, it also adversely affected the import-dependent manufacturing sector. Even the positive effects of the devaluation proved transitory. Imports, which fell dramatically in 1962, rose quickly thereafter while exports, which was on the uptrend up to 1966, performed erratically starting 1967. The external trade sector was indeed in a precarious situation at the close of the 1960s.

I.1.2 Post 1970 situation: liberalization years

On 21 February 1970, the Philippines adopted a floating rate system. The freely floating rate was made applicable to all foreign exchange transactions except the surrender of export receipts of the four leading export products, namely, logs, centrifugal sugar,copra and copper concentrates. Of their total export proceeds, 80 per cent was sold at the established par value while 20 per cent was converted at the prevailing free market rate. On 1 May 1970, the 80 per cent surrender requirement was replaced by an export tax. Under the floating exchange rate system, most exports received the full measure of peso value while import-dependent industries paid the full cost of import dependence.

Many restrictions on foreign trade and investments were removed with the declaration of martial law on 21 September 1972. Certain nationality requirements in the establishment of certain industries were suspended and immigration policies for

potential investors were relaxed. Moreover, the rules on repatriation of profits were liberalized. The tariff structure was also revised and the number of tariff rates was trimmed down from 34 to 6. A subsequent phased general tariff reduction programme and the liberalization of the importation of previously banned goods were also undertaken in the early 1980s.

To push the export promotion programme, a number of incentives were also granted to such labour-intensive industries as textiles, garments and electronics. In addition, financial and technical assistance was granted to major foreign exchange earners in agriculture such as the coconut, sugar, and banana industries.

The exchange rate system operative at that time, however, was one of managed float rather than one of completely free float. In accordance with the IMF Articles of Agreement, the Central Bank was officially committed to intervene only when needed to maintain orderly conditions in the exchange market and to reduce short-term volatility. In addition, the Central Bank observed bands or margins around the guiding rate within which the peso was permitted to float. Before April 1972, the band was 3/4 per cent above and 1 per cent below the guiding rate. After this date, the band was widened to 4-1/2 per cent below and above the guiding rate.

In 198l, as the external financing situation became more difficult with the international economic slowdown and the burgeoning debt problem of the less developed countries, the Central Bank opted to rely more on reserves drawdown than on substantial realignment of the exchange rate. It was only on 23 June 1982 and again on 5 October 1983 that the exchange rate depreciated significantly. The resulting exchange rate level was de facto fixed particularly because trading in the foreign exchange market was suspended on 14 October 1983 in view of the highly destabilizing balance of payments crisis which started in 1983.

External sector policies aimed at improving the country's balance of payments position and short-term economic measures geared toward reducing foreign exchange payments for imports and increasing foreign exchange receipts from exports and services were instituted[1]. These broad policies were carried over to the latter part of 1984 even as gradual relaxation of restrictive foreign exchange policies was adopted.

On 15 October 1984, the Central Bank sought to implement an open foreign exchange trading system by allowing commercial banks to keep their foreign exchange receipts and trade among themselves, which process would serve as the basis of market rates. The highlights of these liberalization efforts were the convergence of official and parallel market exchange rates and the relative stabilization of the Philippine peso after two years of dramatic depreciation. Since December 1984 the Philippines' foreign exchange system has been classified by the International Monetary Fund under the "independent float" category.

I.2 Features and Objectives of the Present System

The exchange rate system operative since 13 December 1984 to the present

[1] A 90-day moratorium on principal repayments on certain maturing obligations was declared on 17 October 1983. A system of direct exchange controls was instituted essentially to guarantee the availability of critical imports. Between 4 November 1983 and 6 June 1984, domestic banks were required to sell 100 per cent of their foreign exchange receipts to the Central Bank for placement in a pool where payments were made according to a priority system which provided for import requirements of export industries, essential imports for vital industries, servicing of multilateral development assistance loans and interest payments on bank loans.

could be characterized as a "free" float of the peso as contrasted to the "managed" float in the 1970s through 1983. Under this regime, the Central Bank did away with the guiding rate in determining the international value of the peso against the U.S. dollar. Commercial banks are allowed to trade directly among themselves and to freely quote their buying and selling rates. Meanwhile, recent regulations on foreign exchange transactions have been generally geared toward further liberalizing import and service payments and enhancing the effectiveness of operational procedures in directing greater foreign exchange into the banking system.

The present exchange and trade system in the Philippines is one of the major anchors of the new government's economic recovery program[1]. A market-oriented exchange rate is deemed essential to the goal of achieving a rapid and efficient adjustment of the country's external payments position. With the "free" float of the peso, changes in the official exchange rate are expected to occur more promptly, automatically and continuously. Relative price distortions and external imbalances are therefore expected to be minimized and adjustments are also expected to be less disruptive. The policy of liberalizing regulations on trade and non-trade transactions is an indication of the serious efforts of the monetary authorities to allow the peso to seek its real value in the foreign exchange market. Moreover, the free float system is seen as a mechanism that would encourage the expansion of the export sector and promote the efficiency of domestic industries by exposing them to international competition.

I.3 Effects of the Present System on the Foreign Exchange Market

The nominal peso – U. S. dollar exchange rate remained fairly stable in 1985 notwithstanding the liberal exchange rate policy adopted towards the close of 1984, the initial impact of which was expected to be adverse. After appreciating substantially during the first two months of 1985, the peso showed a relatively gradual but definitely weakening trend against the U. S. dollar in subsequent months. However, the declining trend was not sufficient to erode the initial gains made by the peso early in 1985. At year-end, the exchange rate closed at P19.032 to the U. S. dollar, a 3.7 per cent nominal appreciation from the end-1984 rate of P19.760. (Table 7.1).

Table 7.2 shows that while in the 1970s the Central Bank was generally a net purchasers of foreign exchange, the commercial banks came out as net purchasers in 1980-83, the years prior to the outbreak of the foreign exchange crisis. In 1984-85, the Central Bank remained a net purchaser of foreign exchange. However, the liberal foreign exchange trading started in the closing months of 1984 through the present proved inadequate to generate the necessary foreign exchange. To minimize illegal capital outflows, the Presidential Anti-Dollar Salting Task Force (PADSTF) was created in early 1984 when the peso was under massive speculative attack resulting from the political crisis in the second half of 1983 and the economic difficulties that followed. Briefly, PADSTF sought to "stabilize" the local currency by devising various modes of arresting capital flight, black market regulation among them, and making foreign exchange much more available.

Although the regulation of the black market could have contributed to the

[1] This is in the spirit of discussing in the present tense: the new government of President Corazon C. Aquino was installed by a popular revolt in February 1986. The new government has recently come out with a recovery programme that seeks to achieve "people-powered development" within the next two years, 1986-87. The programme is committed to the existing free exchange and trade system.

Table 7.1

PHILIPPINES: PESOS PER U.S. DOLLAR RATE
1970-85

Period	Average	End-of-Year
1970	6.0246	6.4350
1971	6.4317	6.4350
1972	6.6748	6.7810
1973	6.7563	6.7300
1974	6.7879	7.0650
1975	7.2479	7.4980
1976	7.4403	7.4280
1977	7.4028	7.3700
1978	7.3658	7.3750
1979	7.3776	7.4150
1980	7.5114	7.6000
1981	7.8997	8.2000
1982	8.5400	9.1710
1983	11.1127	14.0020
1984	16.6987	19.7600
1985	18.6073	19.0320

Source: Department of Economic Research-International, Central Bank of the Philippines.

strength of the peso from early 1984-85 to February 1986, the following economic developments were more decisive: a) import controls in 1983; b) steep rise in domestic interest rates; c) moratorium on foreign debt payments; and, d) industrial dislocation, rendering the continued operation of the black market unnecessary.

Yet another significant development following the free float of the peso was the narrowing down of the rate differential between the official and parallel markets for foreign exchange. From an absolute difference of P7.498 in December 1983, representing 53.55 per cent of the official rate, the differential narrowed to P0.11 in December 1984 and P0.58 in December 1985. While the large differential in 1983 was associated with a substantial shortfall in both the current account and the overall BOP, the narrowing of the differential was accompanied by some gradual improvements in the external payments position in 1984 and 1985. Considering the origins of these improvements (lower imports, loans rescheduling), it is not unreasonable to state that the flexibility of the peso was demonstrated in reflecting the sluggish domestic demand, less pressure on the foreign exchange market and the resulting strength of the peso itself. The authorities have expressed confidence that the present system would continue to strengthen and ensure the free flow of foreign exchange for both trade and capital transactions in the medium term.

II. Structure and Functions of the Foreign Exchange Market

After the severe foreign exchange crisis had settled on more stable ground, the monetary authorities sought to revert to the open foreign exchange trading sys-

Table 7.2
PURCHASES AND SALES OF FOREIGN EXCHANGE BY THE CENTRAL BANK OF THE PHILIPPINES
(In Million U.S. Dollars)

Period	PURCHASES					SALES				
	Total	Commercial Spot	Banks Swap	Other Entities	Others	Total	Commercial Spot	Banks Swap	Other Entities	Others
1970	495.2	162.6	133	58.5	141.1	444.3	85.8	87.7	112.4	158.4
1971	708.4	119.3	160.9	121.9	306.3	521.2	53.7	98.5	143.2	225.8
1972	776.8	135.1	129.9	173.6	338.2	620.2	157.6	63.5	166.5	232.6
1973	1244.3	692.6	76.9	140.1	334.7	783.2	246.4	109.0	103.1	324.7
1974	1524.8	766.7	307.2	51.3	339.6	1414.3	639.0	156.5	20.4	598.4
1975	2013	814.4	282.8	207.5	708.3	2544.3	833.8	220.4	86.1	1404.0
1976	2199.2	885.3	286.9	231.1	795.9	2224.1	460.8	239.4	107.4	1416.5
1977	1776.3	1012.6	311.4	153.2	299.1	1724.9	289.7	218.9	181.9	1034.4
1978	1989.8	1396.4	432.5	90.7	70.2	2213.1	667.9	236.7	53.5	1255.0
1979	3794.9	2068.2	878.4	455.8	392.5	4309.6	1553.9	707.8	24.8	2023.1
1980	6720.8	2687.6	1180.1	1242.3	1610.8	7322.0	2880.9	705.5	263.2	3472.4
1981	12864.2	3756.0	1448.2	2242.8	5417.2	14399.0	2868.7	1438.0	52.6	10039.7
1982	20250.7	3793.0	2147.5	2297.4	12012.8	22145.3	3168.5	1950.3	2249.8	14776.7
1983	26972.9	7534.4	1897.8	–	17540.7	28086.4	6610.7	1564.1	–	19911.6
1984	6086.2	4437.9	–	–	1648.3[a]	5524.2	1351.4	105.7	–	4067.1

[a]Data for 1983 – 1984 include other entities: 1984 purchases include transactions relative to 1) foreign currency deposits of commercial banks and 2) exports of secondary gold per Cir. 502, 1984 sales include transaction relative to 1) withdrawal from foreign currency deposits of KBS and 2) deliveries on forward commitments (i.e., oil, NSC NFA, Cir. No. 970, etc).

Source: Central Bank Statistical Bulletin and DER-International
Central Bank of the Philippines

tem starting 15 October 1984. Since then, more and more measures were adopted for implementation to firm up the basis of an independently free floating foreign exchange rate system.

In the 1970s and early 1980s, purchases and sales of foreign exchange were generally conducted at the Foreign Exchange Trading Center of the Bankers Association of the Philippines (BAP) from 3:45 p.m. to 4:15 p.m. every banking day. It was a requirement for commercial banks to sell/dispose daily to the Central Bank at the prevailing exchange rate, an amount of foreign exchange equivalent to the difference between their respective foreign exchange holdings plus their other real assets, and their outstanding regular sight letters of credit[1]. A guiding rate which was equal to the weighted average of the exchange rates for all sales made in the preceding business day was used.

This trading arrangement was suspended during the foreign exchange crisis in October 1983. In the following month, the Central Bank required banks to surrender 100 per cent of their foreign exchange receipts from merchandise exports, services, transfers, over-the-counter transactions and other similar receipts.

Since 15 October 1984 to the present, the foreign exchange trading system has been on an open basis, with commercial banks being able to keep their foreign exchange receipts and trade among themselves based on market-determined rates of exchange. The interbank guiding rate was dispensed with, and what has been used is the BAP reference rate, the weighted average of all spot transactions for the day.

II.1 Number of Participants in the Market

Table 7.3 presents the number of entities engaged in foreign exchange operations.

At present, the foreign exchange market is dominated by the commercial banks operating in the country, all of which are members of the Bankers Association of the Philippines, and the Central Bank. Other participants in the market include the authorized foreign exchange dealers, some thrift banks/savings and loan associations, some development banks and some rural banks. Their transactions, however, constitute a relatively insignificant share in the total volume of foreign exchange transactions.

II.2 Entry of New Participants

Before 1983, both local and international exchange brokers operated in the country. However, their operations ceased with the foreign exchange crisis which started in late 1983. In general, restrictions on entry of new participants are non-existent. Nominal operating requirements have just to be complied with.

II.3 Types of Markets

There are basically two types of sub-markets in the foreign exchange market:

[1] This ruling was subsequently revoked by Circular No. 1073 dated 14 August 1985 which fully liberalized foreign exchange holdings by abolishing the limits on the allowable foreign exchange retention.

Table 7.3

PHILIPPINES: ENTITIES INVOLVED IN FOREIGN EXCHANGE OPERATIONS 1970-1985

Entities	Number				Growth Rate (In Per Cent)	
	1970	1975	1980	1985	1975-80	1980-85
1. FCDUs[1]	–	n.a.	11	12	–	9.01
2. Expanded FCDUs[1]	–	–	26	30	–	15.38
3. Commercial Banks	41	33	–	–	–	–
4. Thrift Banks/Savings & Loan Associations	n.a.	7	15	26	114.29	73.33
5. Development Banks	n.a.	2	3	16	50.00	433.33
6. Rural Banks	n.a.	54	101	174	87.04	72.28
7. Foreign Exchange Dealers (Non-Banks)	n.a.	n.a.	n.a.	74	–	–
Offshore Banking Units	–	–	20	26	–	30.00

[1] For 1975 to 1985, commercial banks and thrift banks which have foreign currency deposit units established under Circular Nos. 343/547 are classified under FCDUs and Expanded FCDUs, respectively.

n.a. Data not available.

Source: Foreign Exchange Department, Central Bank of the Philippines

the customer market and the interbank market where foreign exchange transactions take place with individuals and banks, respectively.

Another classification of the foreign exchange market is between the bourse foreign exchange market (which refers to the specific gathering place for traders in foreign exchange) and over-the-telephone foreign exchange market (where, as the term implies, foreign exchange trading is done by telephone).

II.4 Patterns in the Sub-Markets

The interbank market has consistently dominated the purchases and sales of foreign exchange in the country as Table 7.2 shows, even though transactions involving other entities have gradually improved from 1970 through 1985.

II.5 Market Instruments and Their Development

Market instruments include telegraphic transfers (the bulk of transactions are effected through telegraphic transfers and the BAP reference rate is based solely on transactions involving this instrument), notes, demand deposits and futures/swaps. Spot telegraphic transfers and demand deposits have been the major instruments since 1970. Swaps were also relatively in wide use in foreign exchange transactions. The other instruments in purchase transactions include those under the foreign

currency deposits (FCD) of commercial banks and export bills relative to export of secondary gold per Central Bank Circular 602 (1978). On the other hand, foreign exchange sales transactions include withdrawals from foreign currency deposits of commercial banks and deliveries in forward commitments covering oil and food imports, etc.

Foreign currencies acceptable in the system include the U.S. dollar, Japanese yen, Deutsche mark, pound sterling, Swiss franc, French franc, Canadian dollar, Netherlands guilder, Austrian schilling, Singapore dollar, Belgian franc and other acceptable foreign exchange considered part of the country's international reserve.

II.6 Development of the Forward Market

There is no full-fledged domestic forward market in the Philippines although forward cover is made available to certain sectors of the economy, as follows:

a) Energy sector

Under Monetary Board Resolution (MBR) 1905 dated 19 November 1971 as amended by MBR 630 dated 4 April 1975 the Central Bank may provide local oil companies, through their respective authorized commercial banks, forward exchange cover for the importation of crude oil and related oil products, including materials and supplies, as well as interest payments on the companies' outstanding obligations in excess of 30 days.

b) Food sector

The Central Bank may likewise grant forward cover for the importation through letters of credit of wheat, corn, soybeans and other feed grains and their substitutes by the National Food Authority.

c) Infrastructure sector

Forward cover for the importation of hot-rolled steel by the National Steel Corporation and the Pasig Steel Corporation is also authorized by the Central Bank.

Aside from the above-mentioned sectors, the Central Bank has, since 1983, extended the forward cover facility to other sectors which are in critical need of financing, whether they are trade-related or not. These special facilities cover the following: loans, airline and shipping revenues, matured swaps, L/Cs, interest on swaps, O/A and D/A (all under Circular 970) and the foreign exchange obligations of the national government and other government-owned or controlled corporations.

Premia and discounts on forward exchange transactions are, in principle, left to the interplay of market forces. The volume of forward exchange transactions, over the years, has been observed to depend *inter-alia* on the firmness (or the lack of it) of the spot rate.

With the moratorium and the foreign exchange crisis which erupted in October 1983, the forward cover facility has been suspended except for the servicing of certain matured or maturing foreign debts which could not be settled due to the scarcity of foreign exchange. At present, there is a Central Bank subsidiary, offering forward facilities, which is charged with the task of implementing the private corporate sector debt restructuring programme. This, however, still does not make for a true forward market in view of its selective character.

II.7 Changes in the Laws and Regulations Governing the Market

With the foreign exchange crisis going into full steam in the last quarter of 1983, a system of direct controls was put into effect. Local commercial banks were required to sell to the Central Bank beginning 4 November 1983 all their foreign exchange receipts for placement in a pool out of which payments were made on the basis of officially set priorities. At the same time, certain measures were adopted by the monetary authorities to ensure that the rationing of the limited foreign exchange resources under the allocation system would not disrupt the importation of other crucial but of lesser priority items. These included (1) an expanded coverage of importations on a no-dollar basis, (2) treatment of certain imports as equity investment, (3) payment of imports through export deduction; and, (4) pre-payment of import letters of credit. Additionally, the Central Bank committed itself to provide forward cover for servicing certain matured or maturing foreign debts which could not be settled due to foreign exchange scarcity.

With the imposition of the foreign exchange surrender requirement, interbank trading of foreign exchange was suspended with the nominal exchange rate *de facto* fixed at P14.002:$1.00. The peso was subsequently allowed to depreciate by 28.6 per cent in nominal terms during the reopening of the foreign exchange market on 6 June 1984 or a day after the surrender requirement was reduced by the Central Bank to 80 per cent and the commercial banks were allowed to retain the remaining 20 per cent of their foreign exchange earnings. Due to the tightness in the foreign exchange position of these banks, trading remained inactive thereafter and the rate of exchange stood unchanged at its new level of P18.002:$1.00 up to October. At the same time, new taxes and surcharges were imposed on specific foreign exchange transactions, resulting in a multiple exchange rate system with effective rates of P16.80 for exports, P18.00 for imports and P19.80 for service payments.

As conditions gradually improved, the system of direct exchange controls was abolished in mid-October 1984. A liberal import and exchange regime was ushered in as formerly prohibited importations were allowed, and the foreign exchange surrender requirement and allocation scheme was abolished. Banks were permitted to resume keeping their foreign exchange receipts, free interbank trading of foreign exchange was restored, and a more independent float of the peso was established.

The authorities continued liberalizing the allowable foreign exchange retention by banks by expanding further the allowable deductions from their net spot and net forward exchange positions such that by August 1985, the monetary authorities had lifted the ceiling in the amount of allowable foreign exchange holdings, thus permitting a market-based exchange rate determination..

II.8 Existence of the Black Market for Foreign Exchange

Black or open-market dealings in foreign currencies have existed since monetary controls were established in 1949. This market has developed as a result of the unsatisfied demand for foreign exchange arising from the imposition of quantitative restrictions and controls on capital flows and foreign trade. Since the supply of foreign exchange is made available to this market illegally by various entities, the conversion rates are generally higher, and thus from the point of view of sellers of foreign exchange, more attractive.

Two sets of prices are usually quoted in the black market: one for the selling rate and another for the buying rate. Black market rates are exclusive of taxes; however, telegraphic transfers are normally charged cable fees.

Currencies which are actively traded in the parallel market are the U.S. dollar and the Japanese yen, with the U.S. dollar clearly dominating the market. However, the Canadian dollar, pound sterling, Swiss franc, Deutsche mark, Hongkong dollar and other currencies which are bought and sold by official banking institutions are also traded. From empirical observation, the chief centres of parallel market in the Philippines are located in the following areas: Escolta, Binondo, Cubao, Makati (all in the Metropolitan Manila area), and Angeles (Pampanga). Hongkong became a strong foreign black market in foreign currencies in consideration of Philippine pesos particularly with the establishment of the Binondo "Central Bank" in early 1984. With the emergence of overseas contract worker remittances as a substantial portion of foreign exchange inflows, the market has become more dispersed, reaching most provinces.

As may be expected, there is a dearth of data on the volume of parallel market transactions. However, data on the levels of official and black market rates are available (Table 7.4).

The experience of the Philippines with the fixed and flexible exchange rate systems may be distinguished by the developments in the parallel market. During the periods when the fixed exchange rate system was in place, speculators had ample opportunities to gain from anticipating the eventual devaluation of the peso. As devaluation became imminent and inevitable, speculators possibly bought as much dollars in the black market as possible in the hope of gaining at some future time when the peso is eventually devalued. Their concerted action, in fact, hastened the rise of the price of black market dollars. That this speculation did exist is evident from the consequent increase in the variance between the official and unofficial rates.

When the country adopted the flexible exchange rate system in 1970, changes in the exchange rate were made more frequently and the changes were relatively smaller. Moreover, under a flexible exchange rate system, movements of the peso are unexpected. During the flexible exchange rate period, the ratios of the black market rates to the official rates were smaller compared to those which were registered during the fixed exchange period. However, in October 1983, when the foreign exchange reserves of the official banking system reached alarmingly low levels and when foreign exchange trading was suspended, black market activity staged an upsurge anew. With the independent floating of the peso starting in October 1984, the margins between the official and the black market rates have declined (Table 7.4).

II.9 Link with the World Financial Centres

The Philippine foreign exchange market is tied with the world foreign exchange market through the network of correspondent banks established by Philippine commercial banks and the Central Bank. Sophisticated communication devices are used by various traders throughout the country who are tuned in to world activities that exert impact on the foreign exchange market.

a) Central Bank

As a matter of principle, the Central Bank does not engage in foreign

Table 7.4

PHILIPPINES: OFFICIAL AND PARALLEL MARKET EXCHANGE RATES AND THE BALANCE OF PAYMENTS

Period	Official Exchange Rate (Pesos/US$)	Parallel Exchange Rate (Pesos/US$)	Absolute Difference (Pesos/US$)	Abs. Difference As Percent of Official Rate (%)	BOP Surplus/ (Deficit) (US$M)	Current Account Surplus/ (Deficit) (US$M)
1983 Jan	9.2865	9.9007	.6142	6.61	383	(329)
Feb	9.4644	10.075	.6106	6.45	(5)	(177)
Mar	9.6057	10.0968	.4911	5.11	(52)	(227)
Apr	9.8693	10.2394	.3701	3.75	(344)	(196)
May	10.0316	10.9886	.957	9.54	(262)	(145)
Jun	10.3846	11.789	1.4044	13.52	(401)	(238)
Jul	11.0017	11.6083	.6066	5.51	(104)	(75)
Aug	11.0016	12.1309	1.1293	10.26	(308)	(232)
Sep	11.0018	12.4	1.3982	12.71	196	(294)
Oct	13.7016	22.05	8.3484	60.93	(463)	(400)
Nov	14.002	22.01	8.008	57.19	(465)	(327)
Dec	14.002	21.5	7.498	53.55	(243)	(115)
1984 Jan	14.002	22.98	8.978	64.12	(241)	(310)
Feb	14.002	19.95	5.948	42.48	247	(112)
Mar	14.002	16.389	2.387	17.05	(212)	(62)
Apr	14.002	18.735	4.733	33.80	131	(91)
May	14.002	21.91	7.908	56.48	100	(30)
Jun	17.402	23.4115	6.0095	34.53	(189)	(193)
Jul	18.002	22.67	4.668	25.93	275	(134)
Aug	18.002	21.62	3.618	20.10	93	(10)
Sep	18.002	20.92	2.918	16.21	(237)	(216)
Oct	19.1482	20.8622	1.714	8.95	34	61
Nov	19.959	20.176	.217	1.09	248	52
Dec	19.8593	19.97	.1107	0.56	9	71
1985 Jan	18.9794	19.0895	.1101	0.58	256	29
Feb	18.2557	18.4028	.1471	0.81	(18)	19
Mar	18.4778	18.5119	.0341	0.18	(81)	(21)
Apr	18.4841	18.55	.0659	0.36	219	(57)
May	18.48	18.55	.07	0.38	281	101
Jun	18.4727	18.55	.0773	0.42	1920	(121)
Jul	8.581	18.6	.019	0.10	197	15
Aug	18.6047	18.65	.0453	0.24	301	(3)
Sep	18.6157	18.69	.0743	0.40	(391)	(204)
Oct	18.7039	18.7404	.0365	0.20	(342)	95
Nov	18.7368	19.0205	.2837	1.51	(50)	17
Dec	18.8963	19.4721	.5758	3.05	97	53

Source: Department of Economic Research-International, Central Bank of the Philippines

exchange speculation. However, it deals with international financial centres in cases when 1) its position in certain currencies are not enough to cover its requirements (in which case, it deals with its various correspondent banks abroad); 2) when it enters into swap arrangements; 3) when it undertakes borrowings or when it requests for changes in its borrowing agreements; and, 4) when it has excess liquidity and would like to deal in foreign currencies and foreign securities. Where appropriate, the Central Bank deals with foreign banks and/or foreign securities dealers.

b) Commercial Banks

Commercial banks in the Philipines transact with the following instruments in their dealings with international financial centres: 1) demand deposit accounts (before a commercial bank can sell foreign exchange, e.g., to make out a bank draft, it must have balances in its demand deposit account in the foreign correspondent bank); 2) bank notes and coins; 3) travellers' cheques; and, 4) dividend warrants and interest coupons and other instruments. Based on the need of the Philippine banks to fulfil customer's demand and to sustain and equilibrium position in foreign currencies as well as the need of banks in foreign countries to fulfil their own customer's demand and to maintain positions according to their bank policy, the foreign exchange markets of the Philippines and the international financial centres are tightly joined in trading and exchange of information.

At present, local commercial banks deal with international financial centres whenever their positions in certain currencies are not sufficient to meet their requirements for their commercial transactions. In addition to trade financing and transactions in commodity options, the following is a listing of the usual business transactions of local commercial banks with international financial centres:

a) Spot transactions – which refer to foreign exchange purchased or sold which has to be delivered and paid for within two business days.

b) Swap transactions – which refer to the sale of any foreign exchange for pesos by a bank to another bank on the condition that the latter will sell back the same foreign exchange to the former at a fixed future date. This may involve specific exchange rate at the time of delivery (close-ended) or at the rate prevailing at the time of delivery (open-ended).

c) Forward transactions – which refer to the purchase or sale of foreign exchange for delivery at a specified exchange rate and future date. The rate at which the transaction is to take place is fixed at the time of the sale but payment is not made until the time the exchange is delivered/received by the seller/buyer.

d) Options – which refer to the buying and selling of foreign currencies in the future with the payment of an option fee with the stipulation that the buyer/seller has the option in the future not to go through with the contracted transaction.

e) Commodity futures – which refer specifically to transactions involving gold and other metals.

III. Role of the Central Bank in the Foreign Exchange Market

The Central Bank of the Philippines, as the monetary authority, plays a major role in the development of the Philippines' foreign exchange market. Empowered by law to engage in operations involving gold and foreign exchange, the Bank's Monetary Board, with the approval of the President of the Philippines, may 1) temporarily suspend or restrict foreign exchange sales; 2) subject all transactions in both gold and foreign exchange to licensing requirements; and, 3) require the surrender of foreign exchange to the Bank or to any of its designated agents.

This authority is meant to allow the Bank the full range in pursuing the broad objectives of maintaining monetary stability in the Philippines and fostering monetary, credit and exchange conditions conducive to a balanced and sustainable growth of the economy.

III.1 Institution-building and Overall Supervision

The years 1970-85 saw the Bank shaping the broad contours of the foreign exchange market along the needs of the country's external trade and payments position. Growth objectives not only required a vigorous export sector but also were achievable when importation of essential goods and services was accessible to producers and manufacturers.

Towards this end, the Central Bank sought to broaden and deepen the extent of the foreign exchange system. In 1972, savings and loan associations, rural banks, hotels and tour operators were allowed to qualify as authorized foreign exchange dealers. The Central Bank also extended this authority to department stores, business establishments and recruitment agencies.

At the same time that more establishments qualified as foreign exchange dealers, with their authority being expanded at several points during the 15-year period, their operations were more closely monitored and regulated by the Central Bank to prevent leakage of foreign exchange and ensure that transactions were within legal bounds. Foreign exchange dealers could only buy, but not sell, foreign exchange; their over-the-counter purchases had to be receipted. Only commercial banks in addition to the Central Bank, could sell U. S. dollars and other currencies.

Institution-building had a major take-off in 1972 when the foreign currency deposit system was established to permit the deposit of foreign currencies, other than those from traditional sources such as mechandise trade, invisibles and transfers, into the country's financial system. The system allows any individual, person, association or corporation, whether resident or non-resident, regardless of nationality, to deposit/withdraw foreign exchange arising from earnings/savings of Filipinos permanently residing abroad, etc. This additional banking facility which was meant to attract more foreign exchange into the system was later on expanded to include lending/borrowing/investing privileges, swap transactions and servicing of letters of credit.

The offshore banking system was established in 1976 and became operational in mid-1977, giving export-oriented, Central Bank/Board of Investment – certified firms access to foreign funds. Offshore to onshore lending has been a major activity of the offshore banking units (OBUs). In the 1980s, the 5 per cent tax on the net offshore income of these units was abolished and the OBUs since then, have been authorized to arrange the importation of resident borrowers who are recipients of Central Bank approved long-term loans.

To further increase the flow of foreign exchange into the official banking system, a special credit window was made available to commercial banks which sell or deposit their U. S. dollar holdings and other acceptable foreign exchange to the Central Bank. "Operation Greenbacks" was launched in 1982 to curb widespread illegal trading in the black market. Related to this was the liberal authorization of establishments to qualify as foreign exchange dealers. Local banks were also allowed to establish correspondent banking and foreign exchange arrangements in major cities of the world where overseas Filipinos are concentrated. OBUs were also allowed to open and maintain peso deposit accounts with domestic banks to service inward remittances of Filipino overseas workers.

To strengthen the link of the domestic banking system with the international financial markets, the Central Bank and the commercial banks hooked up to the

Society for Worldwide Interbank Financial Telecommunications (SWIFT) on 21 May 1984. With this, the Central Bank and the commercial banks have begun utilizing the electronic facilities of SWIFT to transfer funds to/from foreign banks in major financial capitals and obtain financial information at high speed.

In terms of general supervision, the Central Bank continued to issue and implement guidelines on the parameters of authority of commercial banks and other authorized foreign exchange dealers, ensuring at every point, that the purchased foreign exchange is duly remitted to the Central Bank particularly during the foreign exchange crisis in 1983-84. Shipping/airline companies and recruitment agencies were closely monitored in their foreign exchange-related operations.

III.2 Central Bank Intervention and Techniques

In the sense that the Central Bank has promulgated various issuances that tend either to encourage or discourage foreign exchange movement into the banking system, the Central Bank may be said to be influencing indirectly the consequent adjustment in the exchange rate.

Much of Central Bank's effort towards liberalization in the 1970s has been fruitful in exchange rate stabilization. From 1970-79, the end-of-period peso – U.S. dollar rate moved up from P6.435 to a dollar to P7.4150 to a dollar, a nominal depreciation of 15.2 per cent. In terms of its real effective exchange rate (December 1980 = 100), the peso hardly showed any movement at all; the index declined from 96.35 index points to 95.94 index points, a slight depreciation of 0.4 per cent. With Central Bank reserves at a comfortable level and stand-by credit facilities available, the local currency kept its strength vis-a-vis the U. S. dollar.

It may be cited that six months after the adoption of a floating rate system in February 1970, the Central Bank had to establish the Central Bank Foreign Exchange Stabilization Fund, the mechanism which enabled the Central Bank to buy or sell foreign exchange in a manner that was to lead into "dirty" float. The Central Bank required all authorized banks to set aside 10 per cent of their export proceeds to be sold to the Central Bank to fund the Central Bank Foreign Exchange Stabilization Fund, within three business days at the prevailing free market rate. The Fund was discountinued in 1976 and agent-banks were allowed to retain 100 per cent of their foreign exchange receipts.

In the 1970s therefore, the Central Bank's foreign exchange operations were mainly limited to its institutional responsibilities. The Foreign Exchange Investment Management Unit was organized during this period primarily to manage the Central Bank's foreign exchange assets in line with maximising income at minimum risk while maintaining the necessary amount of liquidity to ensure the availability of funds for normal demands of the growing economy in various major currencies. As evidence, the Central Bank's purchase transactions were generally higher than its sales transactions in terms of dollar value.

Managed floating was most pronounced before and after April 1972. Before, foreign exchange transactions were to observe a band of 3/4 per cent above, and 1 per cent below, the guiding rate. Since then up to the suspension of foreign exchange trading at the Bankers Association of the Philippines foreign exchange trading floor, the band had been widened to 4 1/2 per cent below and above the guiding rate.

Direct intervention in the foreign exchange market became a matter of necessity only during the 1983-84 balance of payments crisis in the Philippines. With mounting pressure from heavy external debt servicing requirements, lower export receipts and a disturbed financial market, foreign exchange trading was suspended and all foreign exchange receipts were surrendered to the Central Bank for priority disbursement. The resulting exchange rate system was a de facto fixed exchange rate regime, considering that the peso – U.S. dollar rate kept a constant level at P11.0015 – P11.0020 to a dollar for four months in 1983, P14.002 to a dollar for three months in 1983 and five months in 1984, and P18.002 to a dollar for four months in 1984. Considering the unstable situation, the policy thrust was to maximize the availability of all foreign exchange resources to help effect an early economic recovery.

It became apparent, however, that the rigid system of controls had given rise to market inefficiencies and distortions which hindered a vigorous drive to recovery. The differential between the official and parallel market rates had widened substantially as unsatisfied demand grew unaccommodated in the official market.

In this regard, the Central Bank drew up a structural adjustment programme in close collaboration with the International Monetary Fund, its Paris Club creditors and commercial bank lenders. Before this, the system of controls had to be dismantled, foreign exchange trading had to be resumed, and foreign exchange holdings by commercial banks had to be liberalized. Moreover, tax exemptions and subsidies were withdrawn and rediscount rates were aligned with market rates. These accompanied the programme's restrictive monetary and fiscal policies that sought to curtail what was believed to be excessive domestic demand.

The monetary authorities in effect caused the shifting of the adjustment from the foreign exchange market to the monetary/fiscal sectors. The peso was able to show some stability vis-a-vis the U.S. dollar owing to a high interest rate policy, a lower reserve money target and lower fiscal deficits. Domestic demand was consequently reduced but with significant output and employment costs that told on the foreign exchange market in terms of lower demand for foreign exchange.

Although the aggregate foreign exchange purchases and sales transactions of the Central Bank during the 1983-85 period indicated a close balance, sales in 1985 and in the first quarter of 1986 showed a significant amount of intervention through higher sales of foreign exchange.

In early 1984 to the first two months of 1986, a declining trend in the demand for dollars was observed. All told, the forces underlying this trend included the stringent import requirements, slack in economic activity (due in turn to import compression, industrial dislocation and financial crisis) and rise in domestic interest rates (which siphoned off excess liquidity), and the moratorium on foreign debt payments. In addition, there was the reported regulation of the illegal foreign exchange market by close monitoring of the volume of transactions and the rate at which these transactions were conducted. These factors resulted in the virtual convergence of the exchange rates in the official and parallel markets.

III.3 Policy Co-ordination in the Sterilization Process

With flexible exchange rate system, the "sterilization" process served only to promote a more orderly movement in the exchange rate even as flexibility would have tended to water down the impact of various monetary measures. Since the Central Bank has retained administrative supervisory powers over all financial institu-

tions engaged in foreign exchange operations, "sterilization" here is to be used rather loosely, only in the sense that the foreign exchange, monetary, and fiscal policies evolved were meant to manage the impact of adverse local and international developments on the broad objectives of attaining price stability, sustainable external payments position and economic growth.

The Central Bank in general has followed the financial programming approach in its design and conduct of policies. At the same time that credit policies were restrictive due to balance of payments imbalances, appropriate changes in the exchange rate were undertaken. The notable exception to this was during the balance of payments crisis of 1983-84 when foreign exchange trading was suspended and a de facto fixed rate system came into effect. Reserves drawdown/accumulation was also a necessary measure in the management of external adversities.

It is crucial to note that exchange rate adjustments and/or reserves changes were not sufficient by themselves in handling domestic pressures particularly high demand, excess liquidity and other requirements for structural adjustment and financial institution-building, the major concerns in the Philippines in both the "normal" years of the 1970s and the "turbulent" years of the 1980s.

As the monetary authority, at the same time as fiscal agent of the national government, the Central Bank has made full use of open-market operations in regulating the level of overall liquidity in addition to periodic changes in reserve requirement, liberalization in interest rate policy and other administrative regulations. These operations entailed the buying and selling of government securities and the Central Bank's own instruments. Included among these government securities are Premyo Savings bonds, Treasury bonds, Treasury notes, Public Estate Authority bonds, Export Processing Zone Authority bonds, etc. The Central Bank has also engaged in marketing its own instruments namely the Central Bank Certificate of Indebtedness (CBCIs) and the most recent Central Bank bills which fetched high interest rates in the last quarter of 1984. As a consequence, Central Bank bills together with Treasury bills contributed in siphoning off a great deal of domestic liquidity, and shifting the demand for foreign exchange from the dollar to peso-denominated securities, in the process reducing the pressure on the peso.

Although these instruments provided profitable alternative shelter against high inflation, market rates – which have been liberalized in the early 1980s – followed the same upward trend, thus completing in the process an open loop of inflation – interest rate feedback. Unfortunately, these efforts at keeping credit and liquidity within programmed levels did not result in an equally desirable changes in credit distribution. The crowding-out effect of public borrowings worked against the private borrowers. However, the crowding-out effect could not have been significant because of the relatively low demand for loans by the private sector as a result of the slump in business activity.

The Central Bank also devised the mechanism of peso blocked account of commercial banks with the Central Bank to hold in pesos the equivalent foreign exchange differentials arising from the renewal of swap contracts. This also helped a lot in neutralizing the liquidity effect of these transactions.

Another important adjustment area to which the Central Bank has great access was the monetary capital account. Even as the overall balance of payments account showed persistent imbalances specifically in the 1970s, these imbalances

failed to exert a significant pressure on the peso because the Central Bank has time and again engaged in compensatory borrowing. With large reserves, speculation on the peso was averted and banks felt confident in their daily foreign exchange operations. Central Bank compensatory borrowings have been balance of payments imbalances-oriented and within the parameters of the programme.

At present, policy coordination has been ensured with the strong emphasis on macroeconomic planning whereby policies were to be designed on the basis of a consistent set of macroeconomic assumptions including those on real GNP growth, inflation, monetary aggregates, etc. In these planning exercises, all the relevant government agencies have been duly represented particularly the Central Bank as the monetary authority. The Ministry of Planning coordinates and reconciles the overall policies. □

Appendix 7.1

SELECTED PHILIPPINE ECONOMIC INDICATORS 1970-1985

	Item	1970	1975	1980	1985
1.	Real GNP (In Billion Pesos)	49.86	68.28	92.53	88.43
	Growth Rate (In Per Cent)	3.91	5.80	4.96	– 3.80
2.	Real GNP (In Billion US$)	8.28	9.42	12.32	4.75
	Growth Rate (In Per Cent)	– 32.40	– 0.92	3.10	– 13.66
3.	Inflation Rate (CPI. 1978 = 100) (In Per Cent)	14.0	6.7	18.2	23.1
4.	Exports of Goods (In Billion US$)	1.06	2.29	5.79	4.63
5.	Imports of Goods (In Billion US$)	1.09	3.46	7.73	5.11
6.	Trade Balance (In Billion US$)	– 0.03	– 1.17	– 1.94	– 0.48
7.	Current Account Balance (In Bilion US$)	– 0.05	– 0.89	– 1.90	– 0.08
8.	Current Account Balance As Per Cent of GNP	– 0.75	– 5.65	– 5.41	– 0.24
9.	Overall BOP Position (In Billion US$)	0.02	– 0.52	– 0.38	2.39
10.	Overall BOP Position As Per Cent of GNP	0.34	– 3.30	– 1.08	7.47
11.	External Debt (Non-Monetary) (In Billion US$)	2.14	3.40	12.19	19.84
12.	External Debt As Per Cent of GNP	31.56	21.53	34.61	62.03
13.	Debt Service Ratio (Fixed-Term Credits) (In Per Cent)	34.0	16.2	18.7	17.8
14	Money Supply Growth Rate (In Per Cent)	4.56	14.51	19.60	6.53
15.	Gross Domestic Savings (As Per Cent of GNP)	19.85	22.81	25.52	19.26
16.	Gross Domestic Investments (As Per Cent of GNP)	20.34	29.57	30.68	16.23

Sources: Department of Economic Research-International Department of Economic Research-Domestic
Management of External Debt Department, Central Bank of the Philippines and National Economic and Development Authority.

Chapter 8

THE FOREIGN EXCHANGE MARKET IN SINGAPORE

by
Eddie Lee

I. Exchange Rate and Control System

I.1 The Development of the Foreign Exchange Market: An Overview

The origins of the foreign exchange market in Singapore stems from its traditional role as an entrepot trade and regional financial centre. Foreign banks were attracted into the country primarily for financing trade between Pan-Malaya[1] and the metropolitan countries and dominions. These banks formed the first link between the money and foreign exchange markets of Pan-Malaya and London. Competition in the foreign exchange market in the early years was, however, inhibited by the cartel system of exchange rate quotation. The structure of the market thus remained relatively rudimentary – with the banks' transactions largely confined to the regaining of their positions against customers' sales and purchases.

The development of the foreign exchange market to its present state actually began in 1972 with the floating of the pound sterling, and the ceasing of the cartel system of exchange quotation. The unstable international currency situation and the floating exchange rate regimes that the major industrial countries eventually resorted to in early 1973 provided the catalyst for the rapid development of the foreign exchange market in Singapore. It has since taken an added dimension with the government's aim to develop Singapore as a financial centre. The abolition of fixed exchange rate quotations motivated greater competition and increased awareness on the need to develop expertise in an environment where wide exchange rate fluctuations may be expected. The scope for foreign exchange activities expanded considerably with the increased expertise introduced by the admission of more foreign banks and brokers. Third currency trading became the dominant foreign exchange transaction with the creation of the Asian Dollar Market and in 1984, futures trading was formally established with the formation of the Singapore International Monetary Exchange. Total turnover in the foreign exchange market has increased rapidly from an average daily turnover in 1974 of U.S.$0.37 billion to an average daily turnover of U.S.$19.3 billion for the first quarter of 1986.

I.2 The Exchange Rate Structure

Prior to 1967, Singapore and Malaysia shared a common currency which was fixed at 2s 4d sterling for one Malayan dollar. The sterling was the most widely traded foreign currency in Singapore as it was not only used as the intervention currency, but the British forces' spending in Singapore also contributed to a substantial portion of Singapore's GNP. In June 1967, separate currencies for Singapore and Malaysia were introduced although the new currencies of the two countries were freely interchangeable at par and without charge, but were not legal tender in any but their own country. The initial par value of the Singapore dollar was established with the International Monetary Fund at 3.06122 Singapore dollars per U.S. dollar, equivalent to 0.290299 gram of fine gold. A clearing system was also established to interchange Malaysian and Singapore currencies physically, two to three times a week by the two currency authorities (Bank Negara Malaysia and Singapore Currency Board)

[1] Pan-Malaya encompasses Peninsula Malaysia and Singapore.

but accounts were settled once a week. When the pound sterling was devalued in 1967, the Singapore dollar did not follow the devaluation but maintained the gold parity, thus changing the exchange rate to 7.3469 Singapore dollars per pound sterling. The devaluation tended to push the Singapore Currency Board to further diversify its holdings of foreign currencies as far as possible – as it tried to hold less pound sterling and more U.S. dollars and other freely convertible currencies. When the pound sterling was floated in 1972, Singapore did not move to float the Singapore dollar but instead changed the intervention currency from sterling to U.S. dollars, and pegged the Singapore dollar to the U.S. dollar at 2.8196 Singapore dollars per U.S. dollar. In February 1973, by keeping the gold parity unchanged, the par value was changed to 2.53760 Singapore dollars per U.S. dollar. The decision to float the Singapore dollar in 1973 was forced upon the authorities due to the unstable international currency situation, and particularly the continued weakness of the U.S. dollar – which was felt to have severely reduced the authorities' room for manoeuvre. Singapore was beginning to accumulate a disproportionate amount of U.S. dollars, as massive amounts of speculative funds moved in, but was unable to diversify the composition of its assets into other strong currencies at the time since they were either floating or restricted as a result of the exchange controls regulations. Moreover, it was also feared that the excessive liquidity was aggravating inflationary problems.

Under the cartel system of exchange rate quotations, prior to 1972, the Association of Banks fixed both the buying and selling of exchange rates for members in their dealings with their customers. For interbank transactions, banks had to quote in minimum changes of S$0.0025. In addition, member banks were not allowed to deal with their overseas correspondents or branches at better than S$0.0025 of the best agreed merchant rates.[1] Whilst this fixing of rates provided an orderly market, it stifled competition among banks as no member was permitted to quote better rates. As a result, it was not necessary for banks to engage the services of specialized dealers and thereby the development of the market was not nurtured.

When the cartel restrictions on interbank rates were abolished together with the floating of the pound sterling in 1972, banks were allowed to quote freely on transactions exceeding S$250,000. After the Singapore dollar was floated in 1973, banks were entirely freed from the cartel of fixed rates imposed by the Association of Banks. These measures have instilled exchange rate consciousness not only among banks but also in the business community. More importantly, they have stimulated competition among banks so that finer rates for spot transactions are obtainable in the Singapore market without necessarily going to London. As a measure of the keener competition, the spread for U. S. dollar/Singapore dollar interbank quotations has narrowed from 40 points in July 1973 to about 8 points in 1986. This development was greatly facilitated by the entry of foreign banks and brokers into Singapore, particularly since they were largely responsible for injecting expertise into an otherwise rudimentary market – new banks opening branches in Singapore were required to bring in foreign exchange dealers with at least two to three years' experience. Today, foreign exchange dealers are highly trained and are able to deal in many currencies, and participate in arbitraging in the spot, forward and futures markets.

I.3 Exchange Control System

The exchange control system also underwent major changes. In line with the

[1] In practice, however, this rule could not be strictly enforced and hence banks with overseas branches were better able to compete for inward remittances from these countries.

policy to develop Singapore as a financial centre, Singapore completely liberalized its exchange control regulations on 1 June 1978. Originally the exchange control laws of the U.K. were applied to Singapore as part of the sterling area countries.[1] The objective of the exchange control was to conserve capital within the sterling area countries. This was replaced in 1953 by the Exchange Control Ordinance, which was subsequently changed to the Exchange Control Act in 1970 (after the attainment of independence from the British and the separation from Malaysia). Prior to the complete liberalization of the exchange controls in 1978, the Exchange Control Act was already being progressively liberalized in stages. For example in 1976, apart from increasing the investment limits, the types of currencies in which investments were permitted were extended to all currencies of countries outside the sterling area countries, instead of being restricted to specified currencies only. Apart from this, unauthorized capital outflow could actually be conducted – via the leakage channel whereby funds could be remitted freely to the non-sterling area countries via the sterling area countries. (since there is a free flow of funds from Singapore to the sterling area countries). This, together with the ease which multinational companies (with their international linkages) can transfer their funds worldwide tended to nullify the objectives of the exchange controls. Hence, in the light of the existing loose exchange controls and the continued favourable performance of the Singapore economy and its strong balance of payments position, exchange controls were completely liberalized in 1978.

The complete liberalization of exchange controls did not result in any abnormal outflows of funds from Singapore. In fact, an increase in Singapore's balance of payments surplus was recorded in 1978.

II. Structure and Functions of the Foreign Exchange Market

II.1 Organization of the Market

The Singapore foreign exchange market at present comprises 136 banks, 180 Asian Currency Units, non-bank customers, the Authority[2], eight international money brokers and a number of local ones. In 1984, a further dimension was added to the market with the establishment of the Singapore International Monetary Exchange for financial futures trading. Given its strategic location, Singapore has a time zone advantage compared to other financial centres, and dealers are able to transact with all major financial centres on the same day. The phenomenal increase in the number of participants in the foreign exchange market is traced in Table 8.1 below.

Along with the policy-objective to develop Singapore as a financial centre, foreign expertise was brought in with the entry of international money brokers and offshore banks. In the '70s and '80s, they have also broadened the institutional framework of the foreign exchange business. From Table 8.1 we may recall that while in 1970 there were no offshore banks nor international money brokers, by 1975 there were already 21 offshore banks and five international money brokers. This number has almost doubled to 85 offshore banks and eight international money brokers by March 1986.

[1] When the pound sterling was floated in 1972, the British monetary authorities redefined the sterling area countries to include only a few of its territories. Foreign exchange control was effectively imposed on all former sterling area countries, including Singapore. However, Singapore decided to retain the former broader concept of sterling area countries in order to continue the freedom of payments and capital flows.

[2] The Monetary Authority of Singapore will henceforth be referred to as the Authority.

Table 8.1

NUMBER OF FINANCIAL INSTITUTION PARTICIPANTS IN SINGAPORE

	1970	1975	1980	1986 March
Banks	37	70	97	136
Local[1]	11	13	13	13
Foreign	26	57	84	123
Full banks	26	24	24	24
Restricted banks	–	12	13	14
Offshore banks	–	21	47	85
(Banking offices including head offices and main offices)	(176)	(243)	(310)	(394)
Asian Currency Units	16	66	115	180
Banks	16	52	82	124
Merchant Banks	0	13	32	54
Others	0	1	1	2
International Money Brokers	–	5	7	8

[1] All local banks are full banks.

Source: The Monetary Authority of Singapore.

At present, the domestic banking system generates less than one-fifth of the foreign exchange business. Asian currency operations have increased so rapidly since their inception that they now dominate the foreign exchange business. Most of the Asian currency operations are done by the offshore banks.

II.2 Types of Foreign Exchange Markets and Currency Transactions

The foreign exchange market in Singapore essentially comprise:

- The spot market
- The forward market
- The swap market
- The futures market

In the spot market, foreign exchange transactions are effected two working days after the contract has been concluded.[1] In the forward market, it is possible to transact foreign exchange for delivery at some specified future date. When a forward contract is entered into, an exchange rate is fixed but no remittance is made until the agreed future date. In the swap market, spot transactions are made together with a forward contract. They are normally used by banks for hedging or by the Authority as an instrument to affect liquidity. Non-bank customers are not allowed to trade in the swap market. Finally, as in the forward market, the futures market also makes it possible to transact foreign exchange for delivery at some future date. The differ-

[1] Historically in the European foreign exchange market, remittances were sent by mail and this took two working days. This convention of two working days has remained despite the availability of modern telecommunication system.

ence of futures contracts from forward contracts is that while in forward contracts, specifications such as maturity, settlement date and so on have to be explicitly stated, such things are standardized in futures contracts – only the price is left to be determined at the time of trading. This facilitates quick transactions. Transactions in futures contracts are executed in an organized exchange through open outcry.

Most of foreign exchange transactions are on a spot basis, with swap and forward transactions making up the remainder. Although spot and forward trading have been expanding, swaps have increased most rapidly – particularly as more use is made of the swap market for funding banks' assets.

Traditionally, the Singapore foreign exchange market was biased in favour of the sterling. However, following the abandonment of the pound sterling and the switch to the U. S. dollar as the intervention currency, the U.S. dollar now dominates the foreign exchange market. Reflecting the internationalization of the foreign exchange market, third currency trading now dominates foreign business, occupying over two-thirds of the dealings. With the emerging importance of the Deutsche mark and the Japanese yen, third currency transactions between U.S. dollar/Japanese yen and U.S. dollar/Deutsche mark have become important than U.S.dollar/pound sterling.

The development of the foreign exchange market is linked to the development of the Singapore International Monetary Exchange (SIMEX), Asian Dollar Market (ADM), Domestic Money and Capital Market:

- *SIMEX* – Following its reorganization, the Gold Exchange of Singapore (GES) subsequently changed its name to Singapore International Monetary Exchange in 1984 to better reflect the expansion in its activities to include financial futures trading. The heart of SIMEX is the operation of the "mutual offset" system of trading with the Chicago Mercantile Exchange (CME). Such an arrangement would allow contracts executed in one exchange to be offset in the other. It introduced, for the first time, a round the clock trading in financial futures. When SIMEX opened in September 1984, two financial futures contracts were traded in Asia for the first time – a Eurodollar interest rate contract and a Deutsche mark/U.S. dollar currency contract. Later in the same year, a Japanese yen/U.S. dollar currency contract was introduced. For the year ending 31 March 1986, a total of 584,859 contracts was traded (giving a monthly average of 48,738 contracts). This is an over 200 per cent increase from the total number of contracts traded at the end of the same month a year ago. In terms of trading volume, the volume for Eurodollar interest rate contracts reached 305,263 lots while 200,720 lots were registered for U.S. dollar/ Deutsche mark currency contract. For the U.S. dollar/Japanese yen contract, 59,405 lots were traded. On 1 July 1986, the U.S. dollar/pound sterling currency contract was launched and SIMEX has plans to list the U.S. dollar/Swiss franc currency contracts by the end of 1986.

- *ADM* – The impetus to the development of the Asian Dollar Market in Singapore was provided when the Government abolished the withholding tax on interest paid to non-residents on their foreign currency deposits with approved banks, and when it created the Asian Currency Unit (ACU). Essentially, the ADM has served to mobilize funds, especially U. S. dollars, from Europe for financing productive activities in the Asian Pacific region. Offshore banks, in particular, have been courted largely in order to foster the development of the ADM. Since its inception, it has developed a structure closely resembling that of the London Euro-currency

market. As in that market, interbank deposits are predominant.[1] This partly reflects the use of Singapore as a funding centre for banks' international activities. It also reflects the use of the ADM by banks for interest arbitrage among financial centres and for deployment of their surplus funds. The medium or long-term equivalent of the ADM – the Asian Dollar Bond Market was initiated when the first Asian dollar bond issue was launched by the Development Bank of Singapore (DBS) in 1971. Since then, many other banks and corporations have begun to tap this new source of funds. Over the years, the Asian Dollar and the Asian Bond Markets have not only attracted new institutions from the international financial community but also saw the emergence of several new financial instruments – for example, the floating rate notes (FRN), the floating rate certificate of deposits (FRCD), the Asian commercial paper (ACP) and the revolving underwriting facility (RUF).

- *Money Market* – Closely linked to the foreign exchange market is the domestic money market. This market comprises the interbank market and the discount market, and deals in short-term funds and instruments. Liquidity is affected by short-term instruments issued, traded and redeemed in the money market – these include short-term commercial papers, Treasury bills and other government securities. Thus, the Authority may influence domestic liquidity by operating through the interbank and foreign exchange markets and also through its transactions with the discount houses via the traditional rediscounting mechanism and control of the weekly Treasury bills tender.[2] With the operation of the discount houses, net deficit or surplus among the banking institutions is reflected in the net position of the discount houses. A deficit would be adjusted by the Authority's lending to the discount house and a surplus would be absorbed through the selling of overnight Treasury bills. Indeed, it is through this mechanism that the Authority may to some extent sterilize their foreign exchange intervention operations.[3]

Table 8.2

SIZE OF SINGAPORE MONEY MARKET, MONTHLY AVERAGE
(in S$ million)

	1973	1978	1985
Interbank market[1]	378.5	546.6	786.6
Discount market[2]	12.6	25.0	93.5
Total	391.1	571.6	880.1

[1] Monthly average of amounts due from banks in Singapore.
[2] Monthly average of size of assets of discount houses.

Source: The Monetary Authority of Singapore

Table 8.2 shows the growth in the size of the money market, measured by the outstanding balances due from banks in Singapore for the interbank market, while for

[1] As at the end of March 1986, interbank deposits comprised more than two-thirds of the total sources of funds. Most of these funds were from banks abroad or from the ACUs themselves.

[2] Moral suasion is also used sometimes.
[3] Rather than through open market operations as is more commonly used in the developed countries.

the discount market, the size of assets is used. It can be seen that the interbank market is considerably larger than the discount market although the latter has increased its share to the money market since it was established.

- *Capital Market* – By comparison, the capital market is relatively underdeveloped and unlike in the industrialized countries, it is less related to the foreign exchange market. Essentially, the capital market in Singapore comprises the corporate securities market and the government securities market. The corporate securities market is dominated by equity issues while the government securities market is largely a captive market. Hence, open market operations as known in the industrialized countries is hardly used in Singapore. In relation to the size of the corporate securities market, the government securities market is small. Its main activity is in the primary market where the government absorbs the surpluses of the Central Provident Fund (CPF)[1] periodically by issuing various types of securities. Since these securities are traditionally held until maturity, the secondary market is relatively underdeveloped. In recent years, attention has been focused on the development of the capital market. For example, the market would certainly benefit from Singapore's intention to develop into a fund management centre and the implementation of the CPF Approved Investment Scheme (AIS) – which allows CPF members to use their retirement savings for approved investments in trustee stocks, shares and unit trusts approved by the Securities Industry Council and convertible loan stocks and gold. A proposed Unlisted Securities Market is scheduled to be launched by the end of the year and the authorities are examining various tax and regulatory issues – for example, tax incentives in the form of an investment allowance will be considered for market-makers and institutions which will readily deal in the secondary stocks.

III. Role of the Monetary Authority in the Foreign Exchange Market

III.1 Supervision and Institution-building

The major financial institutions in Singapore had emerged in the middle of the previous century on the basis of the booming entrepot trade in commodities and the thriving commercial activity. Since they were responding to commercial incentives, the British authorities did not see a need to adopt any explicit policies to encourage their development[2]. Since the late 1960s, however, an important pillar of Singapore's overall economic strategy has been to develop Singapore as an international financial centre in its own right, thriving on a global hinterland rather relying only on domestic and regional linkages. In line with this overall strategy, several policies have been directed towards fostering the development of the foreign exchange market:

- Tax incentives – for example, abolition of the withholding tax on interest paid to non-residents on their foreign currency deposits with approved banks in 1968. This removed the barrier in developing the Asian Dollar Market (ADM). Fees, interest or commissions received by ACUs for advising, confirming or re-financing offshore letters of credit and offshore income derived from operations other than exchange profits and transactions with domestic banking units and residents were drastically reduced in 1977 and 1978. Interest received by non-resident holders of approved Asian dollar bonds is exempted

[1] The CPF Scheme is a compulsory savings scheme where workers participate in for their retirement benefit. Under the scheme, all workers other than those self-employed are required to make monthly contributions to the Fund. Employers are also required to make a contribution to their workers' CPF.

[2] Central banking was not even practised until 1958.

from tax by virtue of the Income Tax (Amendment) Act passed in 1973. These fiscal incentives were instrumental in encouraging the development of the ADM.

- Removal of restrictive practices that hindered competition and growth – for example, foreign exchange controls were completely liberalized in 1978.

- Development of training institutions – for example, the establishment of the Institute of Banking and Finance (IBF).

- Since its inception, the IBF has conducted numerous courses on the practical aspects of banking and finance for its member institutions. It has also introduced a diploma course in banking and finance and drawn up elaborate training programmes to serve its members.

It should also be acknowledged that through Singapore's colonial past, it inherited an excellent domestic physical infrastructure and a wide network of contacts throughout the world. It has since strived to upgrade its physical infrastructure in order to facilitate and improve the smooth functioning of the foreign exchange market. For example, in 1979, SWIFT (Society for Worldwide Interbank Financial Telecommunications) was introduced in Singapore. Local banks can now connect into the SWIFT network via telex or the SWIFT Interface Device (SID) which provides high speed transmission of transactions and information with multiple security levels. In 1985, the domestic equivalent of SWIFT, SHIFT (System for Handling Interbank Fund Transfers) was introduced. This replaced the previous cumbersome practice of cheque issue at the end of the day with a high speed electronic interbank payment system.

With the take-off of the foreign exchange market following the demise of the cartel system of exchange quotations in 1972, the Foreign Exchange and Money Market Practices Committee was set up to:

- Monitor development in the foreign exchange and money market.
- Issue guideline on market practices.
- Investigate breaches of confidentiality and other rules of conduct.

In 1982, a comprehensive guide to conduct and market practice in foreign exchange and currency deposit transactions was published. In recognition of the need to further increase the breadth and depth of the foreign exchange market and the accompanying requirement to improve the professional and ethical standards, a new foreign exchange committee was set up in 1986 comprising of members from the commercial banks and the Authority.

III.2 Intervention, Techniques and Policy Objectives

No predetermined rate or range of exchange rates was established when the Singapore dollar was first floated in 1973. The exchange rate policy followed a "passive" interventionist attitude – which largely allowed the exchange rate to be dictated by market forces with the Authority's intervention only to smoothen out sharp fluctuations. By the mid-1970s, however, it was felt that the changing economic environment required a more "active" exchange rate policy. Hence, the exchange rate was managed within a trade-weighted basket of currencies of Singapore's major trading partners and targetted to fluctuate within a band with the twin objectives of maintaining a strong and stable Singapore dollar aimed at sustain-

ing confidence in the domestic economy, and mitigating external inflationary pressures, as well as safeguarding export competitiveness.

The Authority manages the float within the bands mainly through its foreign exchange operations. Swaps are also used to complement direct intervention operations. While permanent liquidity is injected into the market through direct intervention, swaps are normally used to offset any temporary or short-term fluctuations. The U.S. dollar remains as the main intervention currency. Owing to the compulsory Central Provident Fund (CPF) contributions and continued budgetary surpluses which drain liquidity from the domestic banking system, there is persistent pressure on the Singapore dollar to appreciate. Thus, intervention in the foreign exchange market generally tended to dampen the appreciation of the Singapore dollar and re-inject Singapore dollars into the system to meet domestic liquidity demands generated by economic activities. This is the basis on which the domestic banking system creates credit and hence monetary policy is, to a large extent, dependent on the exchange rate policy. □

Appendix 8.1

SINGAPORE: MAJOR ECONOMIC INDICATORS – AVERAGE ANNUAL GROWTH RATES FOR SELECTED PERIODS

	1966-70	1971-75	1976-80	1981-85
1) GDP at '68 factor cost	12.9	9.6	8.6	6.1
2) Consumer Price Index	1.2	9.7	3.7	3.3
3) General Wholesale Price Index	n.a.	n.a.	9.4	– 1.4
4) M1[1]	12.1	19.8	13.5	8.0
5) M2[1]	18.0	18.2	14.2	13.2
6) M3	n.a.	19.0	17.2	13.9
7) 3-month SIBOR[2]	n.a.	8.3	11.3	10.0
8) Prime Rate[2]	8.0	8.4	8.9	9.3
9) Exports	9.9	24.2	26.8	4.0
10) Imports	14.8	22.8	21.9	2.6

[1] M1 and M2 average annual growth rates for 1966-70 are based on end of period figures.
[2] Per cent per annum.
Source: Department of Statistics

Appendix 8.2

SINGAPORE: BALANCE OF PAYMENTS

(in S$ million)

	1970	1975	1980	1985 p
Current Account	– 1,750.8	– 1,385.2	– 3,227.3	– 555.8
Merchandise trade	– 2,619.4	– 5,692.7	– 8,994.5	– 6,677.8
Exports	4,428.3	12,117.5	38,969.6	47,303.2
Imports	7,047.7	17,810.2	47,964.1	53,981.0
Services	892.2	4,399.8	5,876.5	6,501.9
Freight and insurance	– 431.8	– 841.1	– 1,469.9	– 1,477.7
Travel	248.0	718.8	2,355.8	2,506.4
Investment income	114.0	81.8	– 918.9	545.3
Government n.i.e.	404.7	165.2	126.8	138.4
Other transportation and services n.i.e.	557.3	4,275.1	5,782.7	4,789.5
Transfer payments	– 23.6	– 92.3	– 109.3	– 379.9
Private	– 63.5	– 91.4	– 97.6	– 349.5
Government	39.9	– 0.9	– 11.7	– 30.4
Capital Account	532.6	1,374.4	3,388.3	1,530.1
Non-monetary sector	429.1	1,586.2	3,096.7	2,520.1
Private	349.9	1,565.3	3,129.4	2,545.2
Official	79.2	20.9	– 32.7	– 25.1
Monetary sector	103.5	– 211.8	291.6	– 990.0
Commercial banks' foreign assets	– 13.8	– 464.1	– 778.4	– 3,030.0
Commercial banks' foreign liabilities	117.3	252.3	1,070.0	2,040.0
Balancing Item	1,783.0	977.2	1,258.3	1,996.6
Overall Balance	564.8	966.4	1,433.8	2,970.9
Reserves (Net)	– 564.8	– 966.4	– 1,433.8	– 2,970.9
Special Drawing Rights	–	–	– 8.3	– 17.6
Reserve position in the IMF	–	–	– 64.3	– 26.0
Foreign exchange assets	– 564.8	– 966.4	– 1,361.2	– 2,927.3

p – Preliminary
Source: Department of Statistics

Chapter 9

THE FOREIGN EXCHANGE MARKET IN SRI LANKA

by
W. Bandaranayake

I. Exchange Rate and Control System

I.1 Major Changes in the System

The period under consideration splits evenly into two entirely different political regimes and associated economic policies. The first half of this period from 1970 to November 1977 constituted a controlled economy, strict exchange control regulations and a dual exchange rate system while the second half has been associated with liberalized economic policies, a corresponding relaxation of controls and unified exchange rate system, largely determined by market forces.

The exchange rate system and the controls that prevailed during the 1970-77 period were a result of the continuous drain of foreign exchange reserves in Sri Lanka during the 1960s. Except for a small surplus in 1965 brought about by stringent import controls and good performance in the export sector, the balance of payments continued to register a deficit during the period 1960-67. Although the rupee was devalued by 20 per cent in 1967 in order to adjust the external payments imbalances, it was not sufficiently realistic to liberalize imports. It was also felt that the devaluation was not adequate to improve the competitiveness of non-traditional exports of Sri Lanka in the international markets. Similarly, on the imports side, while a 20 per cent devaluation gave a sufficient mark-up in the costs of a wide range of essential imports, it was insufficient to permit an adequate liberalization of imports, especially for growing sectors of the economy. Hence, Sri Lanka felt the need for a multiple exchange rate system to solve the problems of its trade imbalances. It was found necessary to have at least two rates – one, an official exchange rate, applicable to essential imports and major exports, and the other rate, applicable to all other imports and exports. This second rate was linked to the "Foreign Exchange Entitlement Certificate" (FEEC) scheme and it was valued 65 per cent over the "official exchange rate" at the time of the unification of exchange rates in 1977.

In 1970, the rupee was pegged to the pound sterling and the officially fixed exchange rate was Rs 14.2857 per pound sterling. The exchange rate of the rupee against other currencies was based on this fixed rate and the value of other currencies relative to the pound sterling, was determined in the London market. Thus, the par value of the rupee was equivalent to Rs 5.9524 per U.S. dollar or 0.149 grams of gold per Sri Lanka rupee, and the value of a U.S. dollar under FEECs stood at Rs 9.23 or at 55 per cent over the official rate. Strict exchange control regulations ensured that scarce foreign exchange was not expended on a large current account deficit through import quota restrictions and restrictions on the utilization of foreign exchange for travelling, education abroad and other invisibles. The principle of this exchange rate and control system continued till November 1977. With the de facto floating of the U. S. dollar in August 1971 and the general resort by the monetary authorities to floating, it was necessary for Sri Lankan authorities to decide whether the exchange value of the rupee should be determined any longer by a fixed relationship to the sterling. Since the float of the U.S. dollar had to led its depreciation against the sterling, maintaining a fixed relationship between the rupee and the

pound sterling would have amounted to an appreciation of the rupee against the dollar. The consequences would then have been that Sri Lanka's exporters to dollar areas would have realized less rupees for their exports. This was not desirable from the point of view of the balance of payments. On the other hand, several countries which were in competition with Sri Lanka in the export market had moved their currencies with the U.S. dollar. Considering these factors, the Government decided to peg the Sri Lanka rupee with the U.S. dollar in November 1971 at the rate of Rs 5.9524 per U.S. dollar. The rates for other currencies were determined on the basis of the cross exchange rate quotations in the London market.

The rupee was re-linked to the pound sterling on 8 July 1972 at Rs 15.60 per pound, following by the decision of the British authorities to float the pound sterling in June 1972. At that time, account had to be taken of the fact that failure to re-link the rupee to the pound would adversely affect Sri Lanka's export trade with the sterling area. The re-link of the rupee to the pound sterling indirectly resulted in a mild depreciation of the rupee against major currencies. This depreciation afforded some much needed relief to the domestic exports, especially those exports which do not qualify in the FEEC scheme. The parity rates for the U. S. dollar and the Indian rupee stood at Rs 6.3953 and Rs 0.8298, respectively. The FEECs' rate increased from 55 per cent to 65 per cent over the official rate and the rupee value correspondingly increased to Rs 25.74 per pound, from Rs 24.18 per pound.

In May 1976, the exchange rate of the rupee was determined in terms of a basket of currencies, with the Central Bank utilizing pound sterling as the intervention currency. The FEECs' market rate continued to be 65 per cent over the official market rate. At the end of 1976, the rates for the pound sterling and the U.S. dollar were Rs 14.61 per pound and Rs 8.717 per dollar, respectively. The FEECs' rate was Rs 24.11 per pound. The Central Bank dealt in pound sterling, U.S. dollars and Indian rupees both on spot and forward basis with the commercial banks. This system continued till the major policy changes in 1977.

In November 1977, the dual exchange rate was abolished and the exchange rate was unified at a depreciated level. The currency was under a managed float, with the U.S. dollar as the intervention currency since the U.S. dollar had replaced the pound sterling as the major currency for international transactions of Sri Lanka.

The rates for the currencies of Sri Lanka's six major trading partners, namely, France, West Germany, India, Japan, U.K. and U.S.A. were fixed daily by the Central Bank on the basis of demand and supply conditions in Sri Lanka and also the movements of the U.S. dollar, the intervention currency in the international foreign exchange markets. Margins between buying and selling rates for customer transactions were also established by the Central Bank for all six currencies. However, forward cover is now provided by the Central Bank to commercial banks only for U.S. dollars, in order to activate the interbank foreign exchange market in keeping with the liberalized policies. Imports were significantly liberalized and public monopoly on the import of a number of commodities was terminated. Foreign exchange allocations for travel and education were also liberalized. From November 1982, the Central Bank commenced announcing only its buying and selling rate for U.S. dollars while commercial banks were allowed to determine their own margins for customer transactions in all currencies. This system has continued till the present time.

I.2 Main Objectives and Salient Features of the Present System

At present, the exchange rate of the Sri Lanka rupee takes into account both

movements in international exchange markets and developments in domestic prices relative to those of Sri Lanka's major trading partners. The U.S. dollar is the intervention currency. The exchange rate of the Sri Lanka rupee is adjusted periodically by the Central Bank and is characterized as a managed float. The Central Bank determines daily the spot buying and selling rate for the U.S. dollar against the Sri Lanka rupee for its transactions with the commercial banks. The Central Bank provides forward cover to commercial banks for their sales and purchases in U.S. dollars only; the period of such cover is up to three months.

Exchange rate policy has been directed towards producing a price structure favouring production for the external markets by adjusting the nominal rate regularly against an appropriate basket of currencies so as to off-set differential inflation rates at home and abroad. This system tends to minimize speculative pressures and avoids recourse to infrequent jumps in the parity long after loss in competitiveness has set in.

The Central Bank stands ready to buy and sell U. S. dollars, both spot and forward, in order to enable commercial banks to square their foreign exchange positions daily. Commercial banks are not allowed to borrow or invest in foreign currency. Limits are placed on their foreign currency balances abroad for their normal day-to-day business. Furthermore, exporters are required to sell forward the foreign exchange proceeds of exports exceeding Rs. 500,000 in value. Thus, commercial banks are required to purchase forward foreign exchange proceeds of exports and to cover such purchases by selling foreign currency forward to customers for imports of essential goods, interbank or to the Central Bank.

This exchange rate system, which has been followed since 1977, was part of a package of economic reforms intended to liberalize the economy. It was geared towards attaining equilibrium in the balance of payments. This policy is supported by monetary and fiscal policy measures.

In keeping with the liberalized policies introduced in 1977, the stringent exchange control system that had existed was greatly modified. However, all payments on transactions other than on merchandise and trade continued to be subject to restrictions. Exchange control sanction has to be obtained for both inward and outward flows pertaining to capital transactions.

I.3 Effects of the Present System on the Foreign Exchange Market

As discussed in the previous section, the Foreign Exchange Market in Sri Lanka is restricted due to exchange controls on invisibles and capital payments and the fact that the Sri Lanka rupee is not an international currency. Moreover, commercial banks are not permitted to participate in certain markets, namely the international money and capital markets, exchange traded options and financial futures markets. Therefore, there is no room for such sub-markets to have an impact on the exchange rate system in Sri Lanka.

On the other hand, since the Central Bank announces its spot buying and selling rate for the U.S. dollar against the Sri Lanka rupee on every working day and the Bank has a statutory obligation to buy any quantity of foreign exchange offered or sell any quantity of foreign exchange demanded by any commercial bank in Sri Lanka, the rates announced by the Central Bank remain as intervention rates on any working day.

II. Structure and Functions of the Foreign Exchange Market

Certain aspects of the foreign exchange market in Sri Lanka have changed considerably while others remained static during the 15-year period under consideration. In 1970, the market was limited to the Central Bank, 11 commercial banks and banking customers. The 11 commercial banks consisted of two state banks, two private local banks, three Indian banks, three British banks and one Pakistani bank. With the liberalization of the economy in 1977, other foreign banks and international money brokers were permitted to commence operations in Sri Lanka, and commercial banks were also permitted to establish off-shore banking units. This resulted in seven money and foreign exchange broking firms commencing operations. In addition, the number of commercial banks increased from 11 to 25 and each commercial bank had an off-shore banking unit as at end-1984.

The principal types of markets within Sri Lanka can be divided into three categories as follows:

II.1 Market between Commercial Banks and Customers

The customer market in Sri Lanka comprises all individuals and corporate bodies engaged in international trade and the services sectors. Banking customers are required to route all their foreign currency payments and receipts through the commercial banks. Individuals and non-commercial banking institutions are not allowed to open and maintain foreign currency accounts abroad. However, Sri Lankans working abroad and non-nationals working in Sri Lanka are allowed to open foreign currency accounts known as "Non-Resident Foreign Currency Accounts" and "Non-National Foreign Currency Accounts", respectively. These accounts may be maintained in the form of demand, savings or fixed deposit accounts with the banks in Sri Lanka.

II.2 Inter-bank Market

The majority of the turnover in the local interbank market originates from the requirements of the banking customers and therefore the bulk of the foreign exchange dealings in the local interbank market is conducted against Sri Lanka rupees. The commercial banks are free to deal directly with each other or through brokers in the interbank market.

The dealing of commercial banks in foreign exchange on non-customer based transactions or in other words taking "positions" in foreign exchange to generate profits is still in a stage of infancy partly due to the Central Bank's restrictions on foreign currency balances that could be held by the banks with their correspondents abroad. The commercial banks are also not allowed to invest or borrow foreign currency, and this restriction limits capital movements and also the determination of forward discounts/premiums on the basis of interest differential.

II.3 Market between Commercial Banks and the Central Bank

The commercial banks turn to the Central Bank when they cannot unwind their foreign exchange positions generated from transactions with customers. The Central Bank stands ready to buy and sell any amount of U. S. dollars against Sri Lanka rupees for both spot and up to three months on forward basis. The Central Bank also conducts two-way transactions in currencies handled under the "Asian Clearing Union" arrangement, both on spot and forward basis. The currencies trans-

acted under the "Asian Clearing Union" arrangement are the Bangladesh taka, Burmese kyat, Indian rupee, Iranian riyal, Nepalese rupee and Pakistani rupee.

The common instruments in all three markets are restricted to spot and forward transactions. But there is a substantial turnover in the transaction for settlement same day (cash), settlement following day (Tom) and on swap basis in the interbank market. The forward market is limited to six months by Central Bank regulations. Neither futures nor option market exists in Sri Lanka.

However, there is little information available at present on the relative proportions of the sub-markets; changes have indeed been taking place since the liberalization of the economy in 1977 but these magnitudes have not been monitored.

Although the economy has been liberalized in 1977, the basic restrictions remained constant on commercial banks' foreign exchange operations due to the limited availability of foreign exchange resources, and therefore neither the types of markets nor the market instruments in use expanded in number. The most significant development during the period is the commencement of off-shore banking units known as "Foreign Currency Banking Units (FCBUs)," and these FCBUs engaged mainly in financing projects in the Free Trade Zone, Euro-currency lending to approved residents and participating in Euro-currency syndications.

Prior to the unification of exchange rates in 1977, the Central Bank exclusively provided the forward cover for import/export business in U.S. dollars, sterling pounds and Indian rupees up to six months and the Central Bank was the major participant in the interbank forward exchange market. Since the beginning of 1978, the Central Bank restricted its forward operations to U. S. dollars in order to activate the interbank market. Since the gradual appreciation of Sri Lanka rupee against U.S. dollars during the period of November 1979 to January 1980 from Rs 15.7250 per U.S. dollar to Rs 15.5200 per U.S. dollar, exporters rushed to sell export proceeds forward and, on the other hand, most of the importers waited to settle their payments for imports by buying foreign exchange on spot basis, and therefore there was an excess supply of forward exhange in the interbank market. At this point, the Central Bank restricted its forward operations only to purchases of U.S. dollars up to six months.

The rate of exchange of Sri Lanka rupee vs. the U.S. dollar depreciated continuously throughout 1983, from Rs 21.35 per U.S. dollar on 3 January 1983 to Rs 25.00 per U.S. dollar as at end- 1983, or by 17 per cent. This led to a speculation by exporters, and the exporters preferred to delay the repatriation of export proceeds in order to enjoy handsome profits on exchange. On the other hand, there was an excessive demand for forward exchange from the importers. The imbalance in the forward market tended to move the forward rates sharply. In these circumstances, in March 1984, the Central Bank made it compulsory for every exporter to sell export proceeds forward to his bank if the shipment exceeds Rs.500,000.00. On the other hand, the Bank prohibited commercial banks from selling forward exchange to customers for non-essential imports. This restriction was the outcome of an increasing trade deficit in 1983 and was a measure taken to reduce Sri Lanka's non-essential import bill.

During the period under consideration, the changes in the laws and regulations governing the exchange market were minimal. Under the regime of fixed exchange rates, prior to November 1977, the Central Bank absorbed the profits realized and losses incurred by the commercial banks on their net assets and net liabilities in con-

vertible foreign exchange which resulted from changes in the parity of the Sri Lanka rupee. Since the unification of the exchange rates, the Central Bank has terminated this practice.

In November 1982, the Central Bank also discontinued its practice of fixing minimum buying and maximum selling rates for customers' spot exchange transactions, and the commercial banks were allowed to quote their own rates in order to improve competitiveness among the banks.

Prior to November 1977, release of foreign exchange was heavily controlled especially with regard to travel, education abroad while the release of foreign exchange for imports required a licence. Under these stringent exchange regulations, a black market for foreign exchange existed, especially for holiday travels abroad. Since the relaxation of such regulations, the black market has lost its significance.

The link of the local foreign exchange market with the international financial centres developed significantly since 1977. Prior to 1977, commercial banks were able to "cover" their foreign exchange position with the Bank in U.S. dollars, pound sterling and Indian rupee, which were the important currencies in Sri Lanka's import/export trade. Although international payments increased manifold in the second half of the period under consideration, the commercial banks preferred to deal directly with the Central Bank during the period 1977-82 since the Bank dealt exclusively in six major currencies on a spot basis for both purchases and sales at a single rate (middle rate of exchange) with the commercial banks. From November 1982, since the Central Bank restricted its spot transactions to U. S. dollars, the commercial banks had to cover their positions in other currencies mainly in the international financial centres.

At present, most of the commercial banks are able to have up-to-date information on exchange rates through the Reuter Monitor System and through the foreign exchange brokers. The recent improvements in communications, especially electronic telex and international telephone system, facilitated commercial banks' dealing in the international markets. Banks are in constant touch with all the Far Eastern and European financial markets.

Sri Lanka's current regulations do not permit Sri Lankan residents to participate actively in international money and capital markets. Commercial banks too are restricted to invest only in non-resident foreign currency funds in international markets. However, the Central Bank is able to invest its international reserves in international money and capital markets. On the other hand, foreign institutional investors do not participate in the local money and organised capital markets.

III. Role of the Central Bank in the Foreign Exchange Market

III.1 Institution-building and Overall Supervision

The need for a foreign exchange market in Sri Lanka exclusively depended on the extent of the country's international trade, especially during the period 1970 to 1977. During this period, Sri Lanka experienced large trade imbalances due to the sharp increase in the prices of imports, following the price hikes in petroleum, overall deterioration in the terms of trade and stagnation in the export-oriented agricultural sector; therefore, import controls were reintroduced and importation of goods was administered by a foreign exchange budgetary committee.

The liberalization of import and exchange controls in November, 1977 increased the volume of international trade of Sri Lanka, and therefore the Government and the Central Bank felt the need to expand banking and related services.

The Government has opened the doors for foreign banks in 1977 and since then 14 banks incorporated overseas opened branches in Colombo. The Central Bank also welcomed money and foreign exchange brokers to the city and, at present, seven such institutions are in operation. When the Government decided to establish a free trade zone under the Greater Colombo Economic Commission Law No.4 of 1978, the Central Bank encouraged the commercial banks operating in Sri Lanka to participate in the offshore banking scheme entitled "Foreign Currency Banking Units" (FCBUs) in order to provide banking facilities to the business enterprises in the Free Trade Zone.

With the growth of the market, it was necessary to improve the communication system in Sri Lanka. With this object in mind, the telex communication system underwent substantial improvements and in May 1980, the Overseas Telecommunication Services Department installed a new electronic telex exchange facility in order to have a more efficient telex service. Also, international direct dialling facilities were made available to telephone subscribers and the market participants were, therefore, also able to get in touch with the international financial centres very quickly. In November 1980, the Central Bank took an active role in the introduction of the "Reuter Monitor Money Rates Service" which enabled the Central Bank, commercial banks and money brokers to update themselves with market developments.

With the increase in the number of market participants, the Central Bank felt the need to set guidelines to the participants for the orderly functioning of the market. In order to achieve this object, the Central Bank constituted the Market Practices Committee in 1983, comprising of members from the Central Bank, commercial banks and money brokers. This Committee has drawn up guidelines and market terminologies for participants in the Colombo money and foreign exchange market. The Committee meets at regular intervals to discuss matters relating to the development of the local market. In addition, the Market Practices Committee investigates into the complaints on malpractices and unethical dealing activities conducted by the market participants and eliminates such behaviour in order to develop the dealing standard in the market.

The supervision of the commercial banks' foreign exchange operations mainly comes under the purview of the Bank Supervision Department of the Central Bank. However, commercial banks are required to report to the Chief Accountant of the Bank their foreign currency working balances and foreign exchange positions on a daily basis.

III.2 Central Bank Intervention and Techniques

The dual exchange rate system which prevailed during the period 1968-1977 was an attempt to provide incentives to selected sectors with export potentials and to infuse greater dynamism to import-competing industries. The objective in respect of import-competing industries was to assist in the achievement of long term viability of enterprises by basing the import of raw materials, machinery and technical know-how on a realistic price of foreign exchange and to ensure a smoother flow of imports for such enterprises by a progressive removal of quantitative controls and licencing procedure.

The Foreign Exchange Entitlement Certificate was the instrument designed under the dual exchange rate system to provide cash incentive to selected exports and invisible transactions and to impose an additional rupee cost on selected imports and invisible payments. All other payments and receipts with the outside world were transacted at the official exchange rate.

However, the external payments position began to deteriorate considerably following OPEC oil price hikes in 1973 and the adverse implications of these shocks were evident throughout the period 1973-1976. The current account deficit expanded sharply in 1974; import controls supplemented by a tightened monetary policy continued to be used as the major policy instrument.

The policies adopted until the latter part of 1977 were characterised by a regime of quantitative restrictions, and the exchange rate played a role in the external payments adjustments process especially after the first oil shock. All imports other than essential items were subject to stringent controls. The complex administrative procedures of this system caused delays in approving imports. Partly as a result of these difficulties, under-utilization of import allocations was evident during this regime. The shortage of inputs caused under-utilization of production capacity which had adverse implications on economic growth.

At present, the exchange rate of the Sri Lanka rupee is managed, taking into account movements of exchange rates in the international markets and developments in domestic prices, in particular those of Sri Lanka's major trading partners. The exchange rate policy has thus been directed to producing a price structure which favours production for the external market.

The Central Bank announces its spot buying and selling rates of U.S. dollars against Sri Lanka rupees every working day and stands ready to deal with commercial banks in any amount of U.S. dollars at the quoted rates. During a business day, interbank U.S. dollar/rupee transactions are conducted within the Central Bank's spread in the buying and selling rates, and at the end of the day commercial banks turn to the Central Bank for their uncovered positions.

The Central Bank's day-to-day intervention by quoting exchange rates on a daily basis, smoothens fluctuations of the exchange rates in the local foreign exchange markets.

III.3 Policy Co-ordination in the Sterilization Process

Sri Lanka is a small agricultural economy and its external trade is highly sensitive to external market conditions. During the period 1970 to 1977, administrative controls had been used to achieve internal and external balances. The sluggish growth in the export sector and the deterioration in the terms of trade in this period were not fully reflected in the balance of payments due to the severe contraction in imports resulting from quantitative restrictions. The devaluation of the Sri Lanka rupee to improve the balance of payments situation was considered unfavourable during that period since Sri Lanka is a price-taker in the import/export trade. The prices of Sri Lanka's exports were determined at the international markets and it was felt that exchange rate was not very affective in increasing external demand for Sri Lanka's major exports. Diversification of exports was considered to be the most appropriate measure to overcome external payments difficulties. On the other hand, imports were under quantitative restrictions and further disincentive to import through devaluation had decelerated internal economic growth due to the higher

cost of imported raw materials and intermediate goods. In order to achieve external balance, import-substituting industries were encouraged through imposition of import controls during the early Seventies. Tariff concessions were granted in the import of raw materials for industrial exports and for import- substitute industries. The expansion of such industrial activities was considered a major vehicle to promote economic growth as well as achieve a better balance in the external payments. In addition, higher tariffs were imposed on imports for which produciton capacity existed domestically. As a result of these measures, import payments fell by 10 per cent during the period 1970-1972.

On the other hand, various incentives for exports were introduced during this period. In order to diversify the export sector, a premium of 65 per cent over the parity rate was paid under the FEECs scheme on the f.o.b. value of non-traditional exports.

In July 1972, the Government introduced the Convertible Rupee Account Scheme (CRA) as an incentive to encourage export of non-traditional nature, particularly gems. Under the CRA Scheme, a percentage of foreign exchange earnings from exports of non-traditional or minor export products and some services were permitted to be credited in a convertible rupee account. Exporters of these items were allowed to use CRA funds for the payment of imports, travel abroad and to effect other foreign exchange payments such as for education and training abroad.

Although export growth in the non-traditional products had shown positive results, stringent controls were partly responsible for the deceleration in economic growth during this period.

The policy measures adopted during 1970-1977 in response to external shocks included import control, controlled prices and incentives to encourage non-traditional exports. Although certain measures had been taken to channel credit flows to priority sectors in the economy, there was no overall credit control for external payments adjustment until 1977.

The economic reforms of November 1977 were a radical departure from earlier policies. The country turned away from a predominantly inward looking, tightly-controlled, and welfare-oriented strategy to one aimed at achieving economic growth and generating employment. The economy responded immediately and favourably to the new measures.

During the period 1977-1984, exchange rate policy was supported by other economic policies in order to achieve a viable balance of payments. The balance of payments (BOP) was in overall surplus in 1978 and 1979 despite deteriorating terms of trade and liberalization of imports. The overall surplus was attained by the mobilization of a large inflow of foreign aid by the Government. In addition, Sri Lankan workers have benefitted from the employment boom in the Gulf states in 1978/1979. Their remittances also provided a large inflow of foreign exchange into Sri Lanka.

In times of BOP deterioration and high inflation, monetary policy was tightened and the exchange rate depreciated. For instance, the year 1980 was the worst experience in the inflation and BOP front. After the oil price hike in 1978/1979, the current account deficit increased from SDR 75 million in 1978 to SDR 507 million in 1980. The expenditure on import of petroleum itself increased from SDR 123 million in 1978 to SDR 376 million in 1980.

In addition, as public sector investment expenditure rose sharply domestic credit expanded. The terms of trade deteriorated and real interest rates turned negative. The resources available to finance the 1980 budget deficit were limited. In the absence of non-inflationary financing sources, the Government financed the residual gap by borrowing from the Central Bank. The Colombo Consumers' Price Index registered an increase of 26 per cent in 1980. Monetary aggregates also showed increases of similar magnitude. Money supply increased by 72 per cent despite the running down of external reserves. The resultant pressure on BOP led to a depreciation of the Sri Lanka rupee vis-a-vis major currencies.

Due to rising inflationary pressures and the declining trend in the rate of growth of domestic savings as a result of negative real returns, an upward revision of short-term interest rates were made in 1980. With effect from April 1980, the bank rate (the Central Bank's lending rate to the commercial banks as lender of last resort) was raised from 10 to 12 per cent per annum and the structure of penal rates of lending was increased from a range of 15 to 25 per cent to 20-30 per cent per annum. In connection with this revision, interest rates on deposits with the National Savings Bank were raised to a higher level. The commercial banks responded to these upward revision in interest rates. Accordingly, effective 2 May 1980, the deposit and lending rates of commercial banks were revised upwards.

In the subsequent years, improvements were achieved through better budgetary management which involved success in reducing expenditure. Resort to bank financing was curtailed significantly despite unfavourable external developments which caused a fall in government revenue. Direct credit controls were imposed in 1981; interest rates were raised upwards and domestic credit expansion was brought down. These monetary policy measures played a key role in containing inflationary pressures and providing relief to the BOP. The overall deficit in the BOP was reduced until it moved into surplus in 1983, partly as a result of high commodity prices. Throughout this period, the BOP was supported by large inflow of foreign aid, foreign commercial borrowings and workers' remittances from abroad.

In 1984, the overall BOP surplus increased to SDR 297 million from SDR 0.6 million in 1983 and the current account deficit reduced to SDR 11 million in 1984 from SDR 411 million in 1983. It was necessiated to achieve the monetary stability against a background of excess liquidity condition in the banking system resulting from the increase of external reserves during this period.

In order to maintain monetary stability, the Central Bank had taken measures to restrict credit expansion. The traditional general accommodation facility at the bank rate was withdrawn by the Central Bank. Credit control was also imposed on credits to all sectors other than agriculture and exports. Credit facilities for non-essential imports were prohibited. Accordingly, commercial banks were instructed that the total amount of their advances granted for the importation of goods other than food and foodstuffs, raw materials, components and intermediary goods, drugs and pharmaceuticals, books and pamphlets, capital goods and parts thereof, should not exceed the total amount of such advances granted and outstanding as on 23 March 1984. Furthermore, forward exchange cover facilities were not permitted for non-essential imports. Special statutory reserves were required to be maintained in the form of rupee desposits by commercial banks with the Central Bank. Such reserves were determined in respect of demand deposit liabilities, on the basis of the amount of increase over the level of such deposits as at 14 November 1984. In 1985, the reserve ratios were increased, from 8 per cent to 10 per cent on savings deposits, and 16 per cent to 18 per cent on demand deposits.

The sharp increase in liquidity which aggravated inflationary pressures, called for further corrective measures. Therefore, it was felt necessary to take action to mop-up liquidity from the banking system which otherwise would have accelerated the rate of monetary expansion. The Central Bank commenced issuing its own securities in 1984 as an instrument to mop-up liquidity. Rs 1,168.1 million-worth of such securities were issued and outstanding as at end December 1985.

In 1984, more policy measures were taken in order to raise export production and domestic savings. High priority was given to rehabilitate the tree crop sector as well as to promote other exports. The overall deficit in the budget was reduced in 1984, which involved a sizeable repayment of debt to the banking system.

Co-ordination of fiscal and monetary policies with exchange rate has played a major role in reducing the balance of payments deficit and bringing about a turn-around to a modest surplus in 1983. Following these policy measures, the trade deficit narrowed from SDR 801 million in 1983 to SDR 413 million in 1984. The overall balance of payments recorded a significant increase, from a surplus of SDR 0.6 million in 1983 to SDR 297 million in 1984. The marked improvement in the trade balance was primarily due to a considerable increase in prices of exports combined with a slowing down in the rate of increase of imports. Policy measures adopted also supported and strengthened the balance of payments. □

Table 9.1

TRADE INDICES OF SRI LANKA, 1970-1984

(1978 = 100)

Year	Exports			Imports			Terms[1] of Trade
	Volume	Price	Value	Volume	Price	Value	
1970	107	17	19	77	16	18	106
1971	104	17	19	68	17	16	98
1972	102	17	18	67	18	16	94
1973	103	20	24	60	24	18	82
1974	89	31	25	42	42	28	72
1975	107	29	32	52	49	34	58
1976	102	34	36	57	44	24	78
1977	94	55	51	73	54	31	102
1978	100	100	100	100	100	100	100
1979	101	109	109	123	152	140	72
1980	99	126	119	140	217	205	58
1981	102	129	132	145	282	208	46
1982	112	119	131	150	309	221	38
1983	109	165	155	180	375	241	44
1984	127	207	231	185	415	265	50

[1] Terms of Trade = $\frac{\text{Export Price Index}}{\text{Import Price Index}} \times 100$

Source: Central Bank of Sri Lanka.

Table 9-2

BALANCE OF PAYMENTS OF SRI LANKA, 1970-1984

(SDR Million)

	Item	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
1.	Merchandise	− 53	− 47	− 38	− 39	− 158	− 168	− 73	+ 29	− 144	− 362	− 758	− 693	− 890	− 801	− 228
	Export (f.o.b.)	339	314	284	309	425	464	484	651	675	759	818	903	918	993.	1428
	Imports (c.i.f.)	− 392	− 361	− 322	− 348	− 583	− 632	− 557	− 622	− 819	− 1121	− 1576	− 1596	− 1808	− 1794	− 1656
2.	Services	− 17	− 2	+ 2	+ 7	+ 10	+ 11	+ 12	+ 29	+ 6	+ 37	+ 40	+ 10	− 16	− 56	− 66
	Receipts	40	51	46	51	56	67	66	89	99	149	214	261	296	320	329
	Payments	57	53	48	44	46	56	54	60	93	112	174	− 251	− 312	− 376	− 395
3.	Goods & services	− 70	− 49	− 40	− 32	− 148	− 157	− 61	+ 58	− 138	− 325	− 718	− 683	− 906	− 857	− 479
4.	Transfers (net)	11	14	11	11	35	66	56	59	63	148	211	308	+ 387	+ 416	+ 468
	Private	− 1	1	− 3	4	..	2	6	12	17	37	105	172	240	256	270
	Official	12	17	15	11	35	64	50	47	46	111	106	136	147	160	198
5.	Current A/C Balance	− 59	− 35	− 29	− 21	− 113	− 91	− 5	+ 117	− 75	− 177	− 507	− 375	− 519	− 441	− 11
6.	Non-Monetary Capital	56	68	39	57	69	48	61	32	133	164	306	341	471	420	335
	Private Sector	− 1	− 4	− 5	− 1	− 1	− 4	− 11	− 12	8	43	181	116	240	160	2
	Public Sector	57	72	44	58	70	52	72	44	125	121	125	225	231	260	333
	Long-Term (Net)	32	65	39	44	63	67	68	58	133	121	125	225	231	260	333
	Short-Term (Net)	25	7	5	14	7	− 15	4	− 14	− 8	..	..	..	..	..	..
7.	Errors & Omissions	7	− 2	− 1	− 1	− 2	− 8	− 7	4	7	36	23	− 4	24	22	− 27
8.	SDR Allocation	13	10	10	..	..	..	..	..	..	12	12	12	..	..	..
9.	Overall Balance	+ 17	+ 41	+ 19	+ 35	+ 46	− 51	+ 49	+ 153	+ 65	+ 35	+ 166	+ 26	− 24	..	− 297
10.	Monetary Movements	− 17	− 41	− 19	− 35	− 46	+ 51	− 49	− 153	− 65	− 35	− 166	− 26+	24..		+ 297

Source: Central Bank of Sri Lanka.

Table 9.3

SRI LANKA: COMPOSITION OF IMPORTS 1978-84

Category	SDR Million						
	1978	1979	1980	1981	1982	1983	1984
1. Consumer Goods	287	389	472	407	375	463	424
1.1 Food and Drink	211	239	298	216	155	214	191
1.1.1 Rice	35	44	49	44	40	30	8
1.1.2 Flour	112	84	85	1	3	4	2
1.1.3 Sugar	32	46	99	125	42	79	52
1.2 Textiles and Clothing	27	76	80	103	94	108	114
1.3 Other	49	74	99	88	126	141	119
2. Intermediate Goods	286	454	721	850	942	864	911
2.1 Petroleum	123	194	376	439	534	438	410
2.2 Fertilizer	13	33	62	53	24	25	42
2.3 Chemicals	23	25	25	29	32	33	39
2.4 Wheat	7	15	27	75	78	93	95
3. Investment Goods	172	271	379	351	505	480	467
3.1 Machinery and Equipment	94	144	196	171	173	209	205
3.2 Transport Equipment	50	80	113	98	241	152	116
3.3 Building Materials	8	18	28	23	24	47	28
4. Unclassified	30	7	6	6	4	5	22
Total Exports	774	1121	1578	1614	1826	1811	1823

Source: Central Bank of Sri Lanka

Table 9.4

SRI LANKA: COMPOSITION OF EXPORTS 1978-1984

Category	SDR Million						
	1978	1979	1980	1981	1982	1983	1984
1. Agricultural Exports	532	537	505	537	507	579	864
1.1 Tea	327	284	287	284	276	330	605
1.2 Rubber	103	124	120	127	101	114	127
1.3 Coconut	65	84	57	64	65	76	81
1.3.1 Kernel Products	50	65	35	45	44	56	59
1.3.2 Other	15	20	22	19	21	20	22
1.4 Minor Agricultural Products	37	44	41	62	65	59	52
2. Industrial Exports	97	184	270	322	322	360	351
2.1 Textile and Garments	25	56	85	133	152	188	289
2.2 Petroleum Products	48	96	145	149	143	107	126
2.3 Other	24	33	40	40	65	56	68
3. Mineral Exports	32	32	37	35	37	45	32
3.1 Gems	27	25	31	28	30	37	24
3.2 Other	5	7	6	7	7	8	8
4. Unclassified	13	7	5	35	30	23	53
Total Exports	674	759	818	928	934	998	1132

Source: Central Bank of Sri Lanka

Chapter 10

THE FOREIGN EXCHANGE MARKET IN THAILAND*

by
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I. Exchange Rate and Control System

I.1 Historical Changes in the Exchange Rate Regime

I.1.1 Par value system, 1970-1978

Thailand adopted a fixed parity or par value system after the Second World War till the beginning of 1978. During this period the external value of the baht was effectively tied to the value of gold or the U. S. dollar. Under the system, the Exchange Equalization Fund (EEF) determined the U.S. dollar rates at which it would buy from and sell to commercial banks. On the other hand, the Thai Bankers' Association determined the rates applicable to any exchange transactions between commercial banks and their customers in foreign currencies.

In the same period, the value of the baht was adjusted three times. The first adjustment occurred after the realignment of currencies by the ten major industrial nations on 18 December 1971, which entailed an effective devaluation of the U.S. dollar from $35 to $38 per troy ounce of fine gold. The Thai government decided to maintain the official exchange rate with the U.S. dollar at B 20.80 per U.S. dollar. However, the gold parity for the baht was officially changed from B 1 to 0.0427245 grammes of fine gold to 0.0393561 grammes when the U.S. devaluation was finally made official on 9 May 1972. For the year 1972 as a whole, the spot buying and selling rates for the U.S. dollar in the free market were therefore maintained at B 20.825 and B 21.00, respectively, the same rates as in 1971.

In the face of the first oil shock in 1973, the devaluation of the U.S. dollar by 10 per cent, and the floating of the major currencies of the EEC, the Swiss franc and the Japanese yen, the parity of the baht against the U.S. dollar was again maintained at B 20.80 per U.S. dollar, but the baht was devalued by 10 per cent in terms of gold on 10 April 1973.

The objectives of the two devaluations were, firstly, to prevent the deficits in the balance of trade and payments from further deterioration, and, secondly, to help exporters and farmers to maintain their earnings in terms of the baht. In addition, the devaluations would enable Thailand to be more competitive abroad. In the period following the devaluations of the baht, major currencies in Europe floated upward against the U.S. dollar resulting in further depreciation in the real value of the baht. Thus, on 15 July 1973 the Thai Government announced the revaluation of the baht by 4 per cent, making the baht equivalent to 0.0368331 grammes of fine gold, or B 20 per U.S. dollar. The objective was to restore the value of the baht vis-a-vis other currencies to its previous level, and to help prevent rising import costs as a result of the floating of certain currencies.

* The authors would like to thank the Foreign Exchange Analysis Section for its assistance in the preparation of this paper.

I.1.2 Pegged to a basket of currencies, March 1978 – November 1978

The Bretton Woods system which was adopted for almost 30 years began to show its weakness in the second half of 1977. The exchange rates of major currencies exhibited wide fluctuations and instability, with the U.S. dollar depreciating sharply. Many other currencies such as the pound sterling, the Netherlands guilder and the Deutsche mark, were allowed to float freely instead of trying to maintain their value against the U.S. dollar, as was previously the case. There were also considerable capital movements and speculations in the world foreign exchange markets. In 1978, the International Monetary Fund (IMF) finally endorsed the new generalized floating exchange rate system, which stressed on greater flexibility in the exchange rates and a reduction in the role of gold in the international monetary system.

On 8 March 1978, the Thai Currency Act was amended to be in line with the IMF agreement following which the fixed parity system was terminated. The baht was tied to a basket of currencies, i.e., a weighted average of the currencies of Thailand's major trading partners. The purpose of the change was to ensure greater stability in the baht value since it would no longer fluctuate with changes in the value of any particular currency. The U.S. dollar rate, however, was still determined by the EEF, but with a little more flexibility. On 7 August 1978, the EEF adjusted the buying and selling rates of the U.S. dollar by 1 per cent from B 20.375 and B 20.425 to B 20.175 and B. 20.225 per U.S. dollar, respectively. The objective was to prevent the baht value from falling excessively as a result of the depreciation of the U.S. dollar, with possible adverse effects on prices of imported goods and the domestic cost of living.

I.1.3 The daily fixing system, November 1978 – July 1981

In order to reflect more closely the market supply of and demand for foreign currencies and at the same time contribute to the development of the local foreign exchange market, the Daily Fixing System was introduced on 1 November 1978. Under this system, the U.S. dollar rate was determined in the daily fixing session by delegates from the EEF and commercial banks. Demand for and supply of U.S. dollars at various exchange rates were observed. The EEF would intervene by buying or selling at a certain rate, i.e., a fixing rate. Basically, the daily fixing rate was determined partly by the demand for and supply of foreign currencies in the foreign exchange market and partly by the EEF in an endeavour to maintain an orderly market condition. The U. S. dollar fixing rate was used as the base rate at which transactions between commercial banks and customers were conducted. Buying and selling rates applicable to customers' transactions in six other currencies were determined on the basis of the cross rates between the fixing rate for the U. S. dollar and the exchange rates of the currency concerned in international markets.

Since 1981, the value of the baht continued to decline against the U.S. dollar. This was due to the strong appreciation of the U. S. dollar compared to other major currencies following a restrictive monetary stance intended to arrest the inflationary trend. In order to keep the value of the baht stable against other currencies, the baht was devalued by 1.07 per cent and 8.7 per cent in terms of U.S. dollar on 12 May and 15 July 1981, respectively. The exchange rate adjustment was conceived as a means of boosting exports while deterring imports.

I.1.4 Fixed to U.S. dollar, July 1981 – November 1984

After the two devaluations of the baht, the value of the U.S. dollar in the inter-

national foreign exchange market continued to be high, thus forcing the EEF to release an unusual amount of dollars on to the market. In order to promote the country's financial stability and exports as well as relieve the trade and payments problems, the daily fixing system was discontinued on 1 July 1981. Under the new system, the EEF was solely responsible for the determination of the daily U.S. dollar rate. All other features remained the same as under the daily fixing system except that commercial banks no longer played any role in the exchange rate determination process and the EEF offered to buy or sell an unlimited amount of U.S. dollars at the intervention rate, which was fixed at 23.0 baht per U.S. dollar.

I.1.5 Pegged to a basket of currencies, November 1984 to the present

After maintaining a fixed exchange rate against the U.S. dollar for about three years, the continuous appreciation of the U.S. dollar abroad caused the Thai authorities to devalue the baht to 27.0 baht per U.S. dollar on 8 November 1981. The system of pegging the baht to a basket of currencies, once adopted during 1978, had been restored in order to give more flexibility to the baht. Otherwise, the upswing of the U.S. dollar abroad would lead to too strong an appreciation of the baht compared to other currencies. This would in turn deteriorate the balance of trade position. However, towards the end of 1985, the U.S. dollar began to depreciate rapidly after the intervention of G5. The baht, which was determined by the trade-weighted basket of currencies, appreciated strongly compared to the U.S. dollar. In view of these developments, the authorities thus changed the basket's composition from a trade-weighted basis to a currency-weighted basis. Under the new basis, the baht became closely related to the U.S. dollar. This was necessary for Thailand where around 80 per cent of trade payments was settled in terms of the U.S. dollar.

I.2 The Exchange Control System

Exchange control is administered by the Bank of Thailand on behalf of the Ministry of Finance. The bank delegates responsibility for most transactions to authorized agents (i.e., authorized banks and authorized companies) and to authorized persons. All incoming foreign exchange must be sold to authorized agents. All outgoing payments are subject to approval (given automatically to bona fide commercial transactions and other current payments). Certain inward capital transfers may also be subject to prior approval through Ministerial Notification. Imports of gold also require a licence issued by the Ministry of Finance. Certain other imports and few exports are subject to licensing by the Ministry of Commerce. There are no special requirements concerning the currency to be used for the settlement with foreign countries. However, most payments are made in U.S. dollars.

I.3 Effect of the Present System on the Foreign Exchange Market

The foreign exchange market in Thailand is rather restricted as a result of exchange controls. The foreign exchange market in Thailand serves only as a means to facilitate the foreign exchange transactions arising from international trade and foreign borrowings. Commercial banks, as authorised agents, are not permitted to hold excessive foreign currencies. On the whole, the present exchange rate system is more flexible than the previous systems so as to foster development of the exchange market while still ensuring control of commercial banks' open position. In addition, the EEF, as the foreign exchange authority, announces daily the spot buying and selling rates for the U.S. dollar against the baht. The EEF is obligated to buy and sell unlimited amount of U.S. dollars from and to commercial banks at the given rate.

Therefore, there is no room in this sense for market forces to influence the movement of the exchange rate of the baht, although they can have an indirect influence through the policy implemented by the EEF.

II. Structure and Functions of the Foreign Exchange Market

II.1 Characteristics of the Market

The foreign exchange market in Thailand is a uniform market, except during the daily fixing sessions. There is no market centre where sellers and buyers could meet as in some of the advanced markets such as France, West Germany and Belgium. Most of the foreign exchange dealings are conducted through brokers.

The Bangkok foreign exchange market can be divided into three sub-markets, as follows:

a) *The market between commercial banks and their customers.* This is the biggest segment of the market as a whole because it is comprised of all customers' foreign business transactions. All payments and receipts from trade, investment and service transactions are required to be transacted through commercial banks. Bills of exchange and telegraphic transfers are the general means of payments in this sub-market.

b) *The interbank market.* Most of the transactions are conducted for the purpose of compensating the shortage or reducing the surplus arising from transactions with customers amongst banks. Only a few of the transactions are for building up the commercial banks' own positions because of the limits imposed on foreign exchange open positions of commercial banks by the Bank of Thailand. Interbank dealings are transacted through brokers and a one-way price system is used for quotations. Thus, commercial banks which want to buy or sell U.S. dollars have to call their brokers informing them of the amount, rate and the side on which they want to deal. The brokers will then look for banks which want to reciprocate these offers. There may be many calls back and forth before the negotiation can be settled. All interbank transactions are effected by telegraphic transfers.

c) *The market between commercial banks and the EEF.* This is the smallest sub-market because commercial banks will turn to the EEF only if they cannot match their needs in the interbank market.

About 80 percent of transactions in the market between commercial banks and their customers is denominated in U.S. dollars. Almost all transactions in the interbank market are also in U.S. dollars. The EEF deals with commercial banks only in U.S. dollars.

The participants in the foreign exchange market comprises the following:

a) *Authorized agents.* These are the agents authorized by the Ministry of Finance to transact all businesses relating to foreign transactions and in this regard, they act on behalf of the Bank of Thailand to facilitate customers' international businesses. There are two types of authorized agents:

   i) *Authorized banks.* All commercial banks in Thailand are authorized banks. These banks play the most important role in the exchange market. They transact all businesses related to merchandise, capital and

service transactions such as the purchase, sale, loan or exchange of any foreign currencies including notes, coins, travellers' cheques, deposits and bills of exchange, etc. In 1984, there were 30 commercial banks of which 16 were Thai banks and 14 were banks incorporated abroad. It was the government policy not to allow the opening of new banks for the time being because the present number was considered to be sufficient to ensure competition in the market and also to concentrate efforts on improving the efficiency of the existing ones.

ii) *Authorized persons.* Most of the authorized persons or money changers are hotels and giftshops who are authorized to undertake foreign exchange business for the convenience of tourists. Their business is limited to buying and selling foreign currency notes and coins and buying travellers' cheques. All travellers' cheques must be sold to authorized banks within seven days from the date of purchase. The Bank of Thailand also encourages commercial banks to set up foreign exchange services in order to undertake the business of authorized persons. It is expected that these foreign exchange services of commercial banks will gradually replace the traditional money changers, and that they should be able to provide better rates and information for customers.

b) *Customers.* The customers who deal in foreign currencies consist mainly of importers, exporters and borrowers. Customers have to transact their business through authorized banks because they cannot hold any foreign currency except with the permission of the Bank of Thailand.

c) *Brokers.* There are seven brokers who act as intermediaries in the Bangkok interbank foreign exchange market. They do not, however, give any information about the market or any latest news concerning market situations like the ones in developed markets. They get a commission from the seller at the rate of 500-4,000 baht per 1 million-U.S. dollar deal. For swap transactions, the collected commission is 2,000 baht per 1 million-U.S. dollar deal from each party or as agreed.

d) *The Exchange Equalization Fund.* The Fund was established in 1955 for the purpose of maintaining the stability of the baht. It intervenes in the exchange market by fixing the daily exchange rate for the U.S. dollar to be used in its transactions with commercial banks and also determines the daily rates for seven major currencies to be used in transactions between commercial banks and their customers. The EEF also acts as the lender of last resort to the commercial banks which need to buy or sell U.S. dollars.

II.2 The Development of the Forward Market

After the adoption of a more flexible exchange rate policy on 5 November 1984, a number of market instruments had been developed in order to cover exchange risks. Examples are swap, forward, option and multi-currencies arranging techniques. Among these instruments, the forward transactions is the most simple and widely used.

During the period of fixed exchange rate system, Thailand's forward exchange market was relatively small as fluctuations in the exchange rate was reduced to a minimum. After the flexible exchange regime was implemented in 1984, day-to-day

changes in the exchange rate caused businessmen to become more aware of the exchange risks and to use more of the forward facilities to protect themselves against such losses. This could be considered as a crucial step in the development of the forward foreign exchange market in Thailand.

Generally, there are three kinds of participants in the forward market; they are commercial traders, arbitraguers and speculators. Commercial traders are still the most active group in the exchange market as the bulk of foreign exchange transactions comes from international trading. However, after the adoption of the present exchange rate regime, forward transactions by arbitraguers and speculators became increasingly important, especially at times of heavy speculation. Moreover, following the relaxation of the official restrictions in November 1984, (which allowed commercial banks to hold a "long net position" instead of a "long spot position" at the maximum of 20 per cent of their capital funds), commercial banks were able to invest more capital abroad, (provided that their forward position permitted them to do so), and also to gain profits on their foreign exchange positions.

The forward market could be divided into interbank and customer markets. Both markets are of almost the same size as measured by net volume of transactions. Major buyers in the interbank market are foreign banks whose head offices abroad usually order them to square foreign exchange positions so as to prevent any risk arising from each incoming foreign loans. On the contrary, Thai banks, which are not subject to this type of regulation, represent a major group of sellers. The advantages accorded to Thai banks in having many branches and familiarity with the Thai people enable them to have a bigger share in the forward market.

In the customer market, international traders are the most active group of participants. Forward transactions are essential when there is a need to settle payments for export and import bills at some future dates. Exporters represent major suppliers of foreign currencies while importers and foreign capital borrowers usually represent a large group of buyers in the markets.

The forward exchange market normally offers forward facilities with a wide range of maturities to their customers, from seven days up to a maximum of six months. In the interbank market, forward exchange contracts are largely with a very short period of maturity, usually less than a month. On the other hand, the maturities of forward contracts in the customer market vary depending largely on the credit terms in commodity transactions.

After the flexible exchange rate regime was introduced in November 1984, the volume of forward transactions in Thailand expanded dramatically.

On account of the inadequate number of suppliers in the forward foreign exchange market in Thailand, the forward rates charged are always at a premium in contrast to the interest rate differential. In the period 1984 to 1985, when there was widespread rumours of an impending devaluation of the baht, the forward premium climbed up from the normal level of 0.5 – 4.0 per cent to 10.9 and 12.8 per cent, respectively. At the end of 1984 and in the early part of 1986, rumours of a revaluation, however, turned the forward rate into a discount. Moreover, the fluctuations in the forward rate usually changed in the same direction as the movement of interest rate differential.

III. Role of the Central Bank in the Foreign Exchange Market

III.1 Central Bank Operations

The Exchange Equalization Fund determines daily the U.S. dollar/baht rate which is used for transactions with commercial banks. At this rate, the Exchange Equalization Fund will buy or sell unlimited amounts of U.S. dollars from and to any commercial bank.

When required and deemed appropriate in order to eliminate exchange risks for government agencies and government enterprises, the Bank of Thailand may purchase foreign currencies from government agencies or government enterprises at the daily rate set by the Exchange Equalization Fund with a promise to sell back at specified rates.

When government agencies or government enterprises need to convert any foreign currency, the Foreign Operations Division of the Bank of Thailand will call up commercial banks and ask them for the best buying rate. Normally, commercial banks will offer the Division a better rate than the one offered to general customers. The Division only acts as an agent for both sides and the transfer of funds has to comply consistently with exchange control regulations.

The Foreign Operations Division is also responsible for the management of international reserves. These external reserves are invested in various forms of assets such as gold, foreign currencies, foreign deposits, foreign government securities, etc.

III.2 Exchange Control

The exchange control in Thailand is merely a control through reporting. Most current transactions may be approved by authorized banks. Only a few transactions have to be referred to the Bank of Thailand for approval. It is the policy of the Bank to relax all rates and restrictions to facilitate all international business. In practice, only some capital payments that can affect the international reserves are under strict control.

Instead of controlling customers' business transactions, the Bank of Thailand now tends to control commercial banks' positions. Commercial banks are requested not to keep their long spot positions at over 20 per cent of their capital fund. The purpose is to prevent commercial banks from over-exposure to exchange risks. However, this measure is considered at present as being somewhat restrictive in that it does not really encourage the development of the foreign exchange market. The Bank of Thailand is thus considering new measures which would ensure control of commercial banks' position while fostering market development at the same time. One of the measures considered is for commercial banks to hold long net positions instead of long spot position, starting from 16 November 1984. The net position holdings by commercial banks should not exceed 20 per cent of their capital funds or ± 5 million U.S. dollars. Such a measure would provide commercial banks with an alternative, i.e., to be able to invest capital abroad if their forward position permits it.

III.3 Development of the Exchange Market

The introduction of the daily fixing system in 1978 might be considered as a crucial factor for the development of Thailand's foreign exchange market. It was the

first time that the private sector participated in the exchange rate determination process. The fixing session brought dealers together. These people were able to visualize the whole foreign exchange market and came to realize its importance. As a result, one could observe competition to improve dealing skills and expertise among dealers. In addition, the more flexible exchange rate regime also made commercial banks' top executives aware of the challenge in this field. Many commercial banks reorganized their international departments and initiated training programmes to prepare their officers to meet with this challenge. The Bank of Thailand also arranged several development courses on foreign exchange dealing with the assistance of professional dealers from well-known international banks. All commercial banks were invited to join these programmes in order to upgrade the dealing capability of their officers.

The daily fixing system greatly enhanced interest in the spot foreign exchange market even though it was lifted two years later after heavy speculation against the baht which arose from the strong appreciation of the U.S. dollar and the high interest rates abroad as well as a deficit in the balance of payments.

Shortly thereafter, the Bank of Thailand introduced, in September 1981, a U.S. dollar swap arrangement under which it stood ready to purchase foreign loans brought in by commercial banks or their customers with maturities of three months or less at its current spot buying rate, and agreed to sell forward at the same rate for the cover of these loans. Although this measure was aimed at inducing capital inflows and reducing speculation against the baht, it also helped in developing the forward market as it was the first time that the authorities intervened in the forward market. This measure had encouraged importers and borrowers to cover their exchange risks in their transactions. Since then, the awareness of foreign exchange exposure has become more common among all the people concerned, and a large percentage of commercial banks' customers tend to cover their foreign exchange risks.

At present, the general policy is to arouse awareness in foreign exchange business among the general public which would ensure better public understanding and acceptance of foreign exchange measures of by the Bank of Thailand. In the past, people were always shocked by an unexpected drop in the value of the baht. Thus, the authorities could not always adjust the exchange rate in accordance with the economic conditions of the country. Today, general foreign exchange information is provided through the mass media. In the near future, it is expected that the exchange rate will be more flexible, which will help develop the foreign exchange market.

Another mechanism which helps to develop the market is the establishment of a private organized group called the Thai Forex Club. The Club, comprising all foreign exchange dealers, provides a forum for exchanging ideas with regard to the development of the foreign exchange market. Some recommendations to this effect had been put forward by the Club to the Bank of Thailand which is an associate member of the Club. In 1982, the Bank encouraged the Club to grant membership to both foreign banks and money market dealers.

There are still some limitations on the development of the foreign exchange market structure. The following problems illustrate this:

a) There is a general lack of foreign currencies in the market arising from continuous trade and payments deficits thus inhibiting the growth of the foreign exchange market in Thailand. The external value of baht has been under downward pressure.

b) The rather restrictive exchange control in Thailand is considered to be one of the discouraging factors in foreign exchange market development. There is no opportunity for private investors to invest in the foreign exchange market. The foreign exchange market in Thailand serves only as a means to facilitate foreign exchange transactions arising from international trade and foreign borrowings.

c) There is imperfect competition in the foreign exchange market in Thailand. Most of the foreign exchange businesses are concentrated in only seven to eight leading banks (out of 30 banks).

d) The restriction on fund transfers between money markets (both domestic and international) and the foreign exchange market is also another factor detrimental to the development of the foreign exchange market in Thailand.

III.4 Techniques of Intervention

Under the pegging system adopted since November 1984, the EEF has been cautiously exercising the "managed float" system and also intervening in the exchange rate so as to alleviate undesirable effects on the economy. The rate is based on the following criteria:

a) The weights of foreign currencies in the basket;

b) The volume of foreign currency transactions; and,

c) The economic conditions, with special regard to export competitiveness and domestic inflation.

In addition, the stability of the exchange rate between the baht and the U.S. dollar is also an important consideration as international trade and capital flows may be facilitated with minimum exchange risks. During the latest adjustment on 2 December 1985, the authorities changed the weighting scheme from trade-weighting to transacted-currency-weighting in order to stabilize the relationship of the baht and the U.S. dollar.

In practice, the authorities can intervene in the market daily or as frequently as they desire in order to maintain the exchange rate stability in the short-run and balance of payments equilibrium in the long-run.

There is no complication in the intervention process in the case of Thailand. The EEF, as the foreign exchange authority, determines daily the exchange rate between the baht and the U.S. dollar. At this intervention rate, the EEF is responsible for buying and selling unlimited amounts of U. S. dollars from and to any commercial banks.

III.5 Policy Co-ordination in Sterilization Process

In consideration of the impact of exchange rate adjustment (directly to money supply and indirectly to the whole economy), the authorities usually implement some monetary and fiscal measures to offset such impact where necessary. After the two latest devaluations of the baht in 1981 and 1984, the authorities simultaneously introduced restrictive monetary measures to offset the devaluation effects and to prevent inflationary pressure on the economy. In addition, the authorities also adjusted domestic interest rates in line with foreign interest rates in order to prevent volatile capital movements. □

Table 10.1

THAILAND: KEY ECONOMIC STATISTICS

	1970	1975	1980	1983	1984[p]	1985[e]
1. GDP (billion baht)						
1.1 GDP at constant 1972 price	150.1	203.5	292.9	342.9	363.4	378.2
Agriculture	48.3	62.1	72.8	81.4	84.7	87.9
Nonagriculture	101.8	141.4	220.1	261.5	278.7	290.3
1.2 GDP at Current price	136.1	298.8	684.9	924.3	985.6	1046.1
2. Inflation rate						
2.1 CPI	603	96.0	152.7	187.9	189.5	194.1
3. External Account (in billion US$)						
3.1 Trade deficits	0.6	1.0	2.8	3.9	2.9	2.2
3.2 Current account deficits	0.3	0.6	2.1	2.9	2.1	1.4
(as % GDP)	(3.8)	(4.1)	(6.2)	(7.1)	(5.0)	(3.8)
3.3 Balance of Payments	−0.1	−0.1	−0.3	−0.8	−0.4	0.5
3.4 Official Reserve	0.9	1.8	3.6	2.5	2.7	3.2
(of which: Foreign Exchange)	n.a.	n.a.	n.a.	(1.6)	(1.9)	(2.4)
3.5 Total debt service ratio (%)	15.0	12.6	14.8	19.5	19.9	21.7
Public	3.7	2.6	5.3	10.3	10.1	10.9
Private	11.3	10.0	9.5	9.2	9.8	10.8
4. Government Finance (Fiscal year) (in billion baht)						
4.1 Revenue	18.7	38.3	92.1	136.4	147.8	159.2
4.2 Cash Expenditure	23.6	43.4	114.3	165.1	177.4	197.5
4.3 Cash deficit	4.1	4.4	21.8	26.7	34.9	34.5
(as % GDP)	(3.0)	(1.5)	(3.2)	(2.9)	(3.5)	(3.3)
5. Monetary Statistics (in billion baht)						
5.1 M1	19.4	35.0	69.7	83.8	93.4	90.1
5.2 M2	46.2	113.6	272.4	451.2	542.5	597.7
5.3 Domestic Credit	40.8	112.2	317.5	549.7	643.9	697.8
5.4 Deposits	31.5	85.6	214.1	402.2	494.0	553.2

[p] Preliminary
[e] Estimate
n.a. – not available

Source: General Economic Section

Table 10.2

THAILAND: FOREIGN EXCHANGE TRANSACTIONS

(Millions of U.S. Dollars)

		1978	1979	1980	1981	1982	1983	1984	1985
I.	**Spot Transaction**								
	Commercial banks and their customers: Bought	58485.0	8095.2	11304.0	11698.7	12257.6	12183.4	14845.2	13582.4
	Sold	6632.8	8663.5	11102.8	12054.3	12270.3	13034.8	14469.1	14057.8
	Interbank market: (bought/sold in the same amount)	2762.3	3364.4	4822.0	4730.9	4184.2	4742,3	5141.3	7219,6
II.	**Forward Transaction**								
	Commercial banks and their customers: Bought	n.a.	n.a.	3057.9	2667.6	1828.5	1405.4	5134.5	2956.8
	Sold	n.a.	n.a.	1146.8	1240.2	1581.0	2311.8	4343.5	4547.3
	Interbank market:	n.a.	n.a.	1147.6	971.9	1154.2	1469.5	2197.4	3033.6
III.	**Forward rates** (per cent per annum)								
	Interbank market[1] (1 month maturity) (range)	n.a.	n.a.	n.a.	n.a.	(+1.2) to (+3.8)	(+0.4) to (10.9)	(−4.0) to (+6.3)	(+1.8) to (+12.8)

[1] + represents forward premium.
− represents forward discount.

Appendix 10.1

Chronological Events Affecting the Baht during 1970-1984

9 May 1972	The baht was devalued by 7.9 per cent in terms of gold, but the par value of the baht vis-a-vis the U.S. dollar remained unchanged.
10 April 1973	The baht was devalued by 10 per cent in terms of gold, but par value of the baht vis-a-vis the U.S. dollar remained unchanged.
15 July 1973	The baht was revalued by 4 per cent in terms of U.S. dollar, and the exchange rate was changed from 20.8 to 20.0 baht per U.S. dollar.
8 March 1978	The fixed parity system was terminated. The baht was tied to a basket of currencies.
7 August 1978	The baht was revalued by 1 per cent in terms ofthe U.S. dollar.
1 November 1978	The daily fixing system was introduced. The U.S. dollar rate was determined daily by the EEF.
12 May 1981	The baht was devalued by 1.07 per cent in terms of U.S. dollars, and the exchange rate was changed from 20.7 to 21 Baht vis-a-vis the U.S. dollar.
15 July 1981	The baht was devalued by 8.7 per cent in terms of U. S. dollars and the exchange rate was changed from 21 to 23 baht per U.S. dollar. The daily fixing system was discontinued and the fixed system was introduced.
5 November 1984	The baht was devalued by 14.8 per cent against the U.S. dollar and the exchange rate was changed from 23.0 to 27.0 baht. The system of pegging the baht to a basket of currencies was again used. The Exchange Equalization Fund determines daily the exchange rate between the baht and the U.S. dollar.