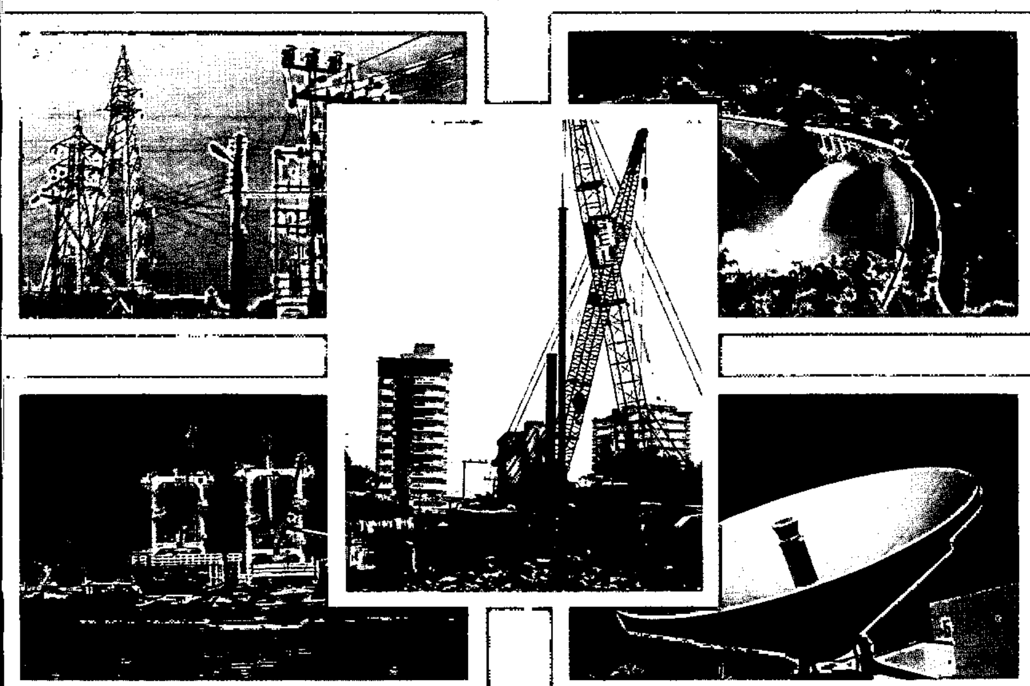
PUBLIC SECTOR AND MONETARY POLICY IN THE SEACEN COUNTRIES

Edited by

Maria L. Fres-Felix



The South East Asian Central Banks (SEACEN)
Research and Training Centre
Kuala Lumpur, Malaysia

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FOREWORD

Development literature in the 1950s emphasized the role of the government in economic growth. This has led to an enlargement of the public sector in most developing countries, including SEACEN members. Lately, however, emphasis has shifted to privatization. Nevertheless, the considerable size of the public sector in the SEACEN countries makes the sector a dominant player in their respective economies. Public sector expenditures which ranged from about a fifth to two-fifths of gross domestic products as well as revenues which were just slightly lower, made them very influential in their economies. The deficits implied by these resource gaps, though not necessarily undesirable per se, would have effects on the national debt, the level of economic activity, the inflation rate and the current account deficit.

One component of the public sector, which also has far-reaching effects on the economy, is the public sector enterprise category. In view of the fact that public sector enterprises (PSEs) in the SEACEN countries are engaged in a wide variety of business activities, the microeconomic implications are also vast. Subsidies granted to PSEs as well as their own procurement and production practices send signals to the market economy, thereby influencing the kind of goods produced and consumed in the country. While the presence of PSEs is felt in most of the SEACEN countries, there is a scarcity of region-wide data on their activities and size.

This paper is an attempt to address that scarcity by presenting an overview of the public sector, including the PSEs in the SEACEN region. It examines the nature of the public sector as well as gives an idea of the size of the public sector in the SEACEN countries covered. Some discussion is also devoted to one component of the public sector, namely, the PSEs in which the various definitions and evolution of PSEs are presented. Their sectoral distribution is also described. The role of the entire public sector in the context of economic development is duly analyzed.

The research project is a collaborative effort between the member central banks and The SEACEN Centre. Six member banks participated in this project, namely, Bank Indonesia, Bank Negara Malaysia, Nepal Rastra Bank, the Central Bank of the Philippines, the Central Bank of Sri Lanka and the Bank of Thailand. Each member central bank made available at least one researcher in preparing the respective country studies which form the contents of Part II. The SEACEN

Centre in this respect wishes to express its sincere gratitude to the participating member central banks for their close cooperation and strong support in contributing to the successful completion of this project.

The SEACEN Centre for its part coordinated the whole project. In this regard, Mrs. Maria L. Fres-Felix, Research Economist, was responsible for the research design and the coordination among the country researchers. She edited the country chapters and also prepared an overview on the public sector in the SEACEN countries. The overview chapters form Part I of the study.

At various stages of the project, Mrs. Fres-Felix was kindly assisted by Miss Sally Ho, who provided the necessary research support and proofread the chapters. Secretarial assistance of Miss Karen How is also gratefully acknowledged. Mrs. Fres-Felix would also like to thank the Publications Committee for its publication assistance.

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.

Dr. Vicente B. Valdepeñas, Jr.
Director
The SEACEN Centre

Kuala Lumpur, Malaysia
September 1992

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Part I

THE PUBLIC SECTOR AND MONETARY POLICY IN THE SEACEN COUNTRIES

Introduction

The public sector (including public sector enterprises) plays a major part in economic development. In third world countries particularly, the government assumes the role of the main engine of progress and is thereby heavily involved in economic activities. As newly independent nations, these countries were faced with a dearth of physical and social infrastructures necessary for growth and modernization, as well as low levels of savings and investment. On the positive side, was the availability of concessional foreign funding for public projects. Hence, governments in these countries provided, aside from basic government services (national defense and peace and order), investments in a variety of areas like research and development, basic education and health care which were not attractive to private investors but which nevertheless were vital to development. This gave rise to the so-called public sector enterprises (PSEs).

Significance

The drain imposed by these PSEs on government resources both in terms of budgetary appropriations and loan guarantees, in tandem with other recurrent contractual government expenditures, particularly debt-related obligations bloat the government's spending requirements. These, alongside escalating expenses of the governments and drastic revenue shortfalls owing to depressed oil and commodity prices in the past few years, brought about the persistent deficits recently experienced by all member countries with the exception of Indonesia which follows a balanced budget policy.

Hence, the public sector in SEACEN countries are closely associated with budget deficits.

The size of the shortfall and its source of financing have far-reaching impact on the economy. Deficits of the size observed in the region are harder to manage than moderate, cyclical imbalances and leave governments with little room for manoeuvre.

The World Bank in its World Development Report 1988 noted that large deficits are often at the root of both external and internal macroeconomic imbalances. External imbalances express themselves as current account deficits, capital flight and rapidly expanding external debt. Internal imbalances take the form of high real interest rates, falling private investment and rising inflation. Current worldwide preoccupation with deficits also extends to the developed world as even the United States is grappling with this problem.

Most studies on the subject, however, usually cover only those imbalances incurred by central and local governments. For the SEACEN region, where as discussed earlier PSEs account for a significant portion of the budgetary shortfalls, a study of deficits which includes those attributable to PSEs as well, is warranted.

Scope

This research project will examine the implications of financing the public sector (including PSEs) budget deficits through the financial system, and look into the corresponding monetary policy measures adopted and instruments used in counteracting the scheme's potentially destabilizing impact. It is conceived to provide a wide range of information which member central banks and monetary authorities would find useful for planning purposes.

It covers six participating SEACEN member countries, namely, Indonesia, Malaysia, Nepal, the Philippines, Sri Lanka and Thailand.

Objectives

As approved in the Board of Governors' Meeting in Singapore in January 1988, following are the basic objectives of this study:

(1) To review the components of the public sector deficit and source of public sector financing in the SEACEN countries;

(2) To investigate the factors that make public sector financing a source of excessive money creation;

(3) To analyze the contribution of public sector borrowing to domestic credit expansion; and,

(4) To study the implications of credit and monetary expansion on monetary policy.

Research Design

This study was approved as a collaborative project. The report will be composed of two parts: Part I will be an overview of the country studies and will present a comparative and regional analysis based on the data provided by the country chapters, while Part II will consist of the country chapters to be contributed by researchers designated by the member central banks and monetary authorities.

Methodology

The study will make use of both qualitative and quantitative analysis. The methodology proposed for the empirical investigation draws heavily on the approaches used by Aghevli and Khan in their study on *Government Deficits and the Inflationary Process in Developing Countries* and Clive S. Gray in his paper *Evaluation of Public Enterprise Performance*.

Due to scarcity of data on the consolidated public sector, this study on the whole, relied heavily on qualitative analysis by country researchers which were quantitatively supported by appropriate statistical series.

The estimations were made based on the available data and it is recognized that when the database for the public sector in the member countries shall have developed further, then other attempts at estimation could in the future be undertaken.

Chapter 1

AN OVERVIEW OF THE PUBLIC SECTOR INCLUDING PUBLIC SECTOR ENTERPRISES IN THE SEACEN COUNTRIES

I. Nature of the Public Sector

Economic development ranks high in the priority lists of governments all over the world. All countries, whether rich or poor, strive to achieve economic growth, the former to ensure that the living standards currently enjoyed by their citizens continue to rise and the latter to close the gap between the income levels of their populace with those of the advanced countries. The demonstration effect raised the aspirations of people in developing countries and led to the desire to break the insidious circle of poverty, low productivity and stagnation which victimized them during the years of colonial rule. These individual aspirations for an improved way of life merged into national aspirations for more rapid economic development.

The nations which gained independence after the second world war, including a number of SEACEN member countries were handicapped by the legacies of colonial rule in the form of a bias for trading activities rather than for manufacturing, reliance on primary commodity exports and concentration of economic activities in the national capitals. To set the path for development entailed huge investments in various commercial activities some of which have long gestation periods and are not profitable from a private businessman's viewpoint, but which are nevertheless crucial to development.

In an effort to telescope the growth which developed countries achieved in centuries into just a couple of decades, developing countries, including SEACEN members looked towards the government as the engine of growth which would propel their fledging nations into the path of progress and prosperity. Government, with its access to concessional financing for funding public projects seemed to be the logical choice of an agent to undertake activities involving tremendous capital outlays.

Hence, over the years, the governments in the region had moved from the purely governmental realm such as safeguarding national security, providing infrastructure and maintaining peace and order, to engage in areas which can be considered socioeconomic in nature, such as research and development, education and health care. Govern-ments believed that in this manner, they can fast-track resources into the areas critical to growth.

These economic imperatives, along with other reasons such as ideological predilection, acquisition and consolidation of economic/ political power, and historical heritage and inertia brought forth the birth of PSEs which are organizations engaged in commercial activities and are managed or controlled by the government.

Development literature in the recent past stressed government intervention in economic management, giving rise to the concept of economic planning. In this manner, government has evolved into what is now known as the public sector, encompassing the central government, the local government and the PSEs.

Chart 1.1 shows the general form of the public sector in the region. The national government exercises both managerial and fiscal controls over PSEs. It is also responsible for disbursing funding to the local governments. Individual countries have slightly varying set-ups which will be subsequently presented and discussed.

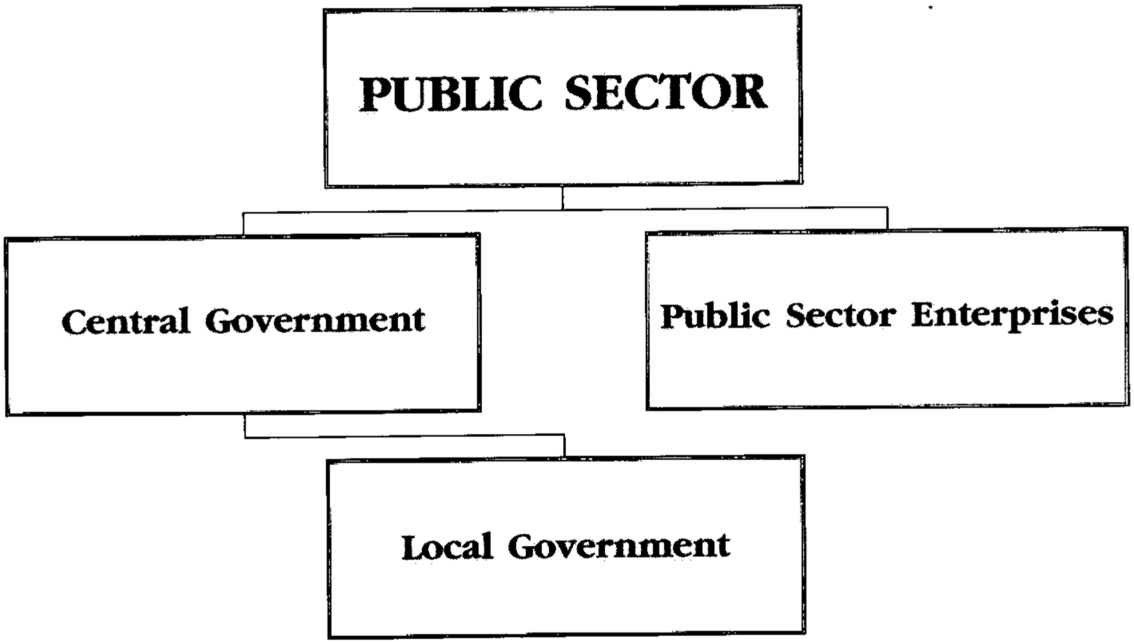
1.1 Public Sector in the SEACEN Countries

In Indonesia, the public sector is composed of the central government, the local/regional government and the PSEs. Included in central government are the ministries and central government institutions financed by the state budget. Local governments on the other hand are local/regional institutions financed by the regional budget. PSEs are organizations in which the government owns at least 50 percent equity interest and/or controls the business activities.

The public sector in Malaysia comprises the federal government, the 13 state governments, 14 public authorities and the PSEs. The federal government consists of 24 ministries and the Prime Minister's Department. It is primarily responsible for promulgating government policies. The role of the state governments is limited because of their likewise limited revenue-raising capabilities. The public sector includes such

Chart 1.1

The Public Sector in the SEACEN Countries



Sources: Member Central Banks

huge public agencies like the Petronas, Sabah Gas Industries, and Sabah Energy, to name a few. Most of these entities depend on the federal government for grants, equity or loans.

The central government, the local governments and PSEs comprise the public sector in Nepal. The local governments are administered by 14 zonal commissioners under the direction of the Central government, which in turn works through ministries, departments and government institutions. The most basic administrative unit is the panchayat. There are town (municipal) panchayats and village panchayats. These are financed by the central government and at the same time have the power of taxation.

In the Philippines, the public sector is made up of the national government, the local governments and the government- owned and/ or controlled corporations and their subsidiaries also known as public sector enterprises (PSEs). The national government pertains to all entities and agencies charged with the political administration of the country. It has three major branches, namely the executive, the legislative and the judiciary. Also included are several executive departments, to name a few: Public Works and Highways, Labor and Employment and Trade and Industry. Local governments are composed of the governments at the provincial, municipal and city levels. The PSEs in the Philippines enjoy a degree of fiscal freedom in terms of ability to borrow independently, establish revolving funds and the like.

Components of the public sector in Sri Lanka include the central government, the provincial councils and local governments. It also includes public enterprises, government-owned businesses and public institutions. The central government is made up of the Presidency, Parliament, Judiciary, 24 cabinet ministries, 4 project ministries and 25 district ministries which were superseded by 8 provincial councils in 1987. The central government is composed of 130 departments and 23 institutions and statutory boards. The local government consists of 12 municipal councils, 39 urban councils and 24 district development councils. The municipal and urban councils have their own revenue sources. The rest of the local government sector is mainly funded by central government grants.

There are four major components of the public sector in Thailand. They are the central government, local governments, PSEs and departmental agencies. The central government is composed of 13 ministries, the Office of the Prime Minister and 5 public agencies. The central government is charged with general government tasks, including defense, health and education. The local governments are made up of provincial governments and local government bodies. The representatives and officers of the former group are appointed by the central government which also funds the activities of the local governments. The departmental agencies are parts of the departments under the central government, whose main function is the delivery of specific public services such as social services, health and education.

II. The Size of the Public Sector

The public sector in the SEACEN countries is a formidable presence. Due to its size and scope of operations, it is very influential, especially as it plays a major role in economic development in the member countries. Latest available data contained in Table 1.1 and Chart 1.2 show that the public sector in the SEACEN region accounted for an average expenditure equivalent to about 27 percent of GDP in the past 12 years ending 1989. This compares with the World Bank's findings that in the recent years, the public sector in developing countries on the average spent around 10 percent of GDP while those in developed countries spent about 30 percent of GDP. Hence, it could be said that among developing countries, the public sector in SEACEN members is comparatively large.

On a country specific basis, Sri Lanka spent the biggest portion at an average expenditure of 35.0 percent of GDP from 1978-1988. It was followed by the Philippines with an average of 32.4 percent from 1978-1989. Malaysia comes third with an average of 30.0 percent of GNP from 1978-1989, followed by Indonesia which spent 23.5 percent from 1978-1989, and Thailand with 22.6 percent expenditures. Surprisingly, Nepal whose government is actively involved in almost all the commercial/economic activities of its people, posted the lowest expenditure to GDP ratio of 17.9 percent for the period 1979-1988.

On the revenue side, average revenue to GDP ratios using latest available data would show that public sector receipts were in the neighborhood of around one-fifth of GDP. The Philippines registered a revenue to GDP ratio of 30.5 percent for the period 1978-1989. Indonesia chalked up an average of 23.6 percent for 1978-1989, representing PSE revenues only. Sri Lanka's central government revenues averaged 20.7 percent of GDP from 1978-1988.

Table 1.1

AVERAGE EXPENDITURES AND REVENUES OF THE PUBLIC SECTOR IN SELECTED SEACEN COUNTRIES

(For periods indicated)

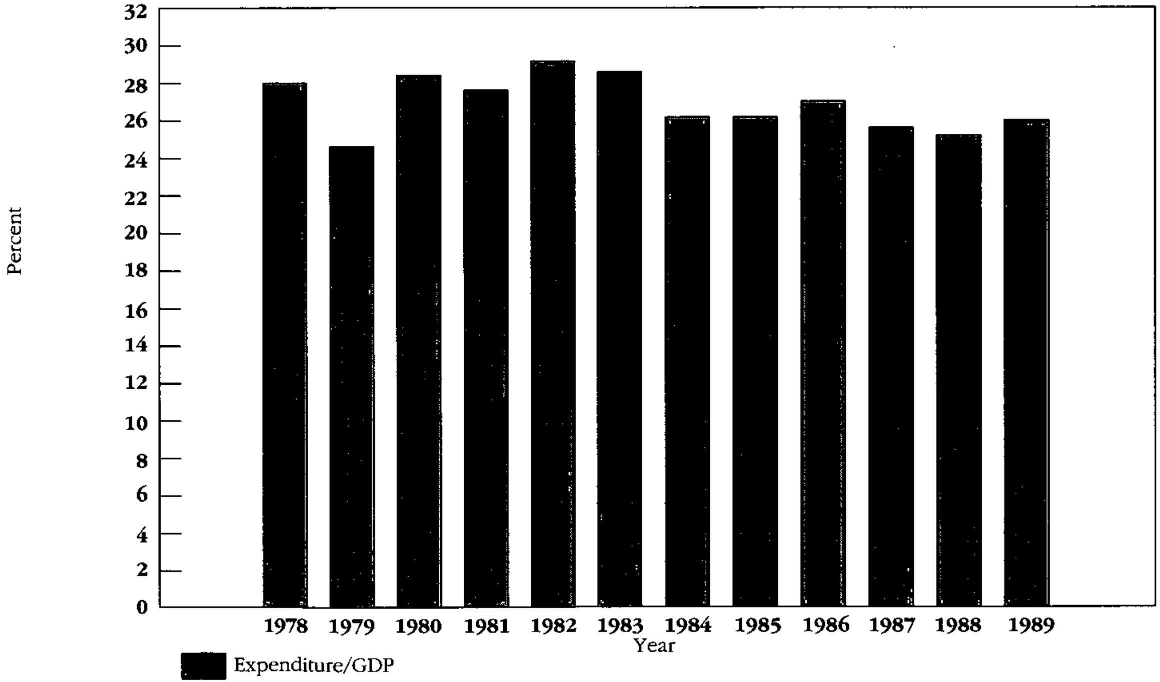
Country	**Expenditures as % of GDP**	**Revenues as % of GDP**
Indonesia [1]	23.5	23.6
Malaysia [1*]	30.0	n.a.
Nepal [2]	17.9	11.8
Philippines [1]	32.4	30.5
Sri Lanka [3]	35.0	20.7
Thailand [3]	22.6	17.6
Regional[4]	**27.1**	**21.5**

1 For the period 1978-1989.
2 For the period 1979-1988.
3 For the period 1978-1988.
4 Based on yearly regional averages from 1978-1989.
* Ratio to GNP.

Sources: Appendices 1 and 2.

Chart 1.2

Average Public Sector Expenditure in the SEACEN Region
Based on Selected SEACEN Countries (% of GDP)



Source: Appendix 1.

The public sector in Nepal posted a ten-year (1979-1988) revenue/ GDP figure of 11.8 percent, while Thailand's public sector received an average of 17.6 percent of GDP during the period 1978-1988.

Asset-wise, the public sector in the region is also rather large. In the Philippines, the only member country from where data for the whole public sector is available, average asset to GDP ratio was 160.1 percent from 1977-1987, even reaching an all-time high of 192.00 percent in 1986.

In Indonesia where only data for PSEs is available, these entities held vast assets averaging 117.3 percent from 1983-1988, with the highest point reached at 137.6 percent which, like the Philippines, was also in 1986. Thailand's PSEs on the other hand have a comparatively more modest asset holding averaging 24.8 percent of GDP from 1977-1988, which peaked at 32.2 percent, also in 1986. From all indications, the public sector in the other countries from which no data is available also have sizable asset holdings.

The enormity of the public sector in the region can also be gleaned from its investment profile. In the last couple of years, the public sector invested as much as a fifth to over one-half of the gross fixed capital formation in member countries (please refer to Table 1.3). This is reflective of the fact that the public sector is often involved in capital intensive activities which private businessmen find too risky and daunting at times. It could also be because of conscious pump-priming efforts of the governments to prop up the economy during periods of sluggish growth when recessionary impulses become apparent.

In Indonesia, the public sector accounted for 21.7 percent of gross domestic capital formation from 1984-1989. Malaysia averaged 42.7 percent of the total from 1978-1988. Similarly, Nepal posted 42.2 percent during the period 1978-1988. The Philippines, from which only data for the public sector's construction activities is available, registered a 12-year average of 18.6 percent from 1978-1989. Sri Lanka's public sector has so far the largest proportion at 51.8 percent from 1978-1988. Thailand's public sector also accounted for a sizable 30.9 percent from 1978-1988.

The public sector's investment as a percentage of GDP is also rather high among the participating SEACEN countries. In Indonesia, it became as large as 25.7 percent from 1980-1984. In 1989, it was 21.6

Table 1.2

PUBLIC SECTOR ASSETS AS PERCENTAGE OF GDP IN SELECTED SEACEN COUNTRIES

(For periods indicated)

Year	Indonesia [1]	Philippines	Thailand [1]
1983	115.1	182.0	26.5
1984	116.9	164.0	28.3
1985	129.3	172.0	30.6
1986	137.6	192.0	32.2
1987	105.6	180.0	29.9
1988	99.1	-	28.5
Average	117.3 [2]	147.2 [3]	24.8 [4]

1 Refers only to PSEs.
2 For the period 1983-1988.
3 For the period 1977-1987.
4 For the period 1977-1988.

Sources: Country Chapters.

Table 1.3

SHARE OF THE PUBLIC SECTOR IN GROSS DOMESTIC CAPITAL FORMATION IN SELECTED SEACEN COUNTRIES (For periods indicated)

Year	Indonesia[1]	Malaysia[2]	Nepal	Philippines[3]	Sri Lanka	Thailand
1978	20.5	33.3	-	19.2	55.2	27.2
1979	-	30.8	34.9	19.7	48.9	27.9
1980	-	38.2	39.8	18.3	59.5	33.7
1981	-	46.1	42.4	19.3	53.2	34.0
1982	-	50.0	45.5	20.4	52.1	35.0
1983	-	49.7	44.7	17.6	53.4	31.2
1984	25.7	47.4	45.4	21.0	53.9	33.8
1985	22.5	46.9	38.6	21.1	51.3	37.7
1986	20.2	45.5	42.3	21.2	48.1	34.6
1987	20.3	41.0	43.8	16.9	48.6	24.3
1988	19.7	40.4	44.5	14.4	45.4	20.9
1989	21.6	-.	-	13.8	-	-
Average	**21.7**	**42.7**	**42.2**	**18.6**	**51.8**	**30.9**
	(84-89)	**(78-88)**	**(79-88)**	**(78-89)**	**(78-88)**	**(78-88)**

1 Investments/GDP.
2 Investment as a percentage of the total.
3 Refers to share of the public sector in construction only.

Sources: Country Chapters.

percent. In Sri Lanka, public sector investment was around 13.6 percent of GDP from 1978-1988, while it was 7.9 percent in Thailand for the same period. In Nepal, investment to GDP ratio averaged 7.4 percent from 1977/78 to 1987/88. In the Philippines, the figure was 3.9 percent of GDP from 1978-1989, although this includes only the construction sector as the other data are not available.

The public sector in the region is also one of the biggest employers in the member countries. In Sri Lanka, the public sector employed 10 percent of the labor force in 1968, which figure ballooned to 15 percent in 1988. This does not include employees in state-owned plantations and temporary and casual workers. Their inclusion would swell the ranks of public sector employees to 1.2 million or 17 percent of the country's total labor force. Similarly, as of 1989, the public sector in the Philippines was estimated to employ a total of 1.5 million people, roughly 6.2 percent of the country's total work force. Likewise, in Nepal, the public sector employed a total of 128,000 workers comprising 1.6 percent of the total labor force in 1988. In Thailand, available data for PSEs show that PSEs employed a total of 300,000 employees or about 1 percent of the aggregate work force.

Among the major components of the public sector, the PSEs have in recent years, spawned to such a magnitude that the public sector in these countries now accounts for a sizable portion of economic activity. Most PSEs are valued more for their social benefits than for their economic contributions and are thus allowed to operate, some albeit unprofitably, as long as they are perceived to enhance social welfare.

III. The Public Sector Enterprises: Definitions, Evolution and Rationale

3.1 Definition

Broadly, PSEs are defined as entities which are: (a) government-owned and/or controlled; and, (b) engaged in business activities. Jones 1984, postulated that government control need not be synonymous with majority ownership. Another additional attribute of a PSE is the existence of a policy that revenues should cover at least a substantial portion of costs.

Table 1.4

PUBLIC SECTOR INVESTMENT AS A PERCENTAGE OF GDP IN SELECTED SEACEN COUNTRIES (For periods indicated)

Year	Indonesia	Nepal	Philippines	Sri Lanka	Thailand
1978	-	-	5.3	11.1	7.6
1979	20.5[1]	5.1	5.7	12.6	7.6
1980	-	6.3	5.3	20.1	8.9
1981	-	6.7	5.4	14.8	8.9
1982	-	8.0	5.4	16.0	8.1
1983	-	8.7	4.4	15.4	8.1
1984	25.7[1]	8.0	3.2	13.9	8.4
1985	22.5	8.2	2.6	12.2	9.1
1986	20.2	7.8	2.4	11.4	7.6
1987	20.3	7.7	2.4	11.3	6.3
1988	19.7	7.9	2.3	10.5	5.8
1989	21.6	-	2.4	-	-

1 Preceding 5-year average.

Sources: Country Chapters.

International organizations like the IMF have also formulated their own concepts of PSEs. In its Manual on Government Finance Statistics, the Fund divides PSEs into the following two components:

(1) Public Financial Institutions; and,

(2) Non-Financial Public Enterprises.

SEACEN member countries also have slightly varying definitions for PSEs. Some even refer to them merely as public enterprises, or narrow down the concept to include only non-financial public enterprises. Following is a summary of the various definitions used by the different countries covered in this study. In the discussions following the summary of definitions however, for the sake of uniformity, the term "Public Sector Enterprise" or PSE will be used.

In Indonesia, PSEs are specialized bodies created by virtue of Section 33 of the 1935 constitution which requires that all economic activities concerning the basic needs of the people should be operated and controlled by the government. These entities are those wherein the government owns at least 50 percent equity interest or exercises control over their activities.

The PSEs in Malaysia could either be non-financial public enterprises (NFPEs) or public financial institutions (PFIs). The NFPEs are statutory authorities that buy and sell goods and services to the public on a large scale. The term also refers to government-owned or controlled companies. The NFPEs were established under various legislation, namely, the Parliament Act, State Enactment and the Companies Act. They may also be established with the Minister of Finance incorporated as a shareholder.

The public financial institutions are government-owned entities engaged in either acceptance of demand, time or savings deposits, or incurring liabilities and acquiring financial assets in the market. For statistical and other reasons, the PFIs are not included in the following discussions and analysis of the public sector and PSEs in Malaysia.

In Nepal, the definition of PSE is a "productive entity or organization which is owned or controlled by the public authorities and whose output are marketed". A productive entity in turn refers to an "identifiable decision-making unit with an explicit or extractable budget and which produces goods or services". Ownership refers to at least 50 percent equity and may be direct or indirect. Control pertains to the involvement in management decisions. Output is considered marketed if sales cover more than half of current costs.

PSEs in the Philippines consist of government-owned and controlled corporations and their subsidiaries. These were "created by law and are not conferred with functions of a political nature and in addition are distinguished from other governmental bodies in that they enjoy a degree of financial autonomy". The Commission on Reorganization defines PSEs as "corporate bodies, stock or non-stock, owned and controlled by the government and created by special law under the corporation law for the purpose of performing governmental or proprietary functions which are socio-economic in nature". Proprietary functions are those that are predominantly economic and are believed to be peculiar in the private sector because they are essentially of the commercial type and are particularly suited to the profit motive; whereas governmental functions are those that are the prerogative of government because, while not attractive to the private sector, are destined primarily and directly to serve the public at large.

In Sri Lanka, where a large number of PSEs exist in various legal forms, it is difficult to draw a line between public and private enterprise. For the purposes of this paper, PSEs are defined as "any industrial, commercial or other activity, in which government or other government-controlled agencies have an ownership stake that is sufficient to ensure controls over the enterprise regardless of how the control is exercised". These enterprises may take a variety of legal forms of organizations, such as departmental enterprise, statutory or state corporations or state or mixed ownership companies.

In Thailand, PSEs are defined by two acts, namely the National Economic and Social Development Act and the Budgetary Procedure Act, both of 1959. The former act defines PSEs as "activities in which the government holds capital of more than 50 percent of the total equity". The latter act defines PSEs as: (a) an organization or business owned entirely by the government; (b) a company or registered partnership of which more than 50 percent of the capital is contributed by the government agency; and, (c) a company or registered partnership of which more than 50 percent of the capital is contributed by government agency or another public sector enterprise or both.

3.2 Evolution of PSEs

As mentioned in the foregoing, Indonesia's 1945 Constitution provided that all economic activities concerning the basic necessities of the people should be operated by the government. Accordingly, PSEs in sectors considered vital and strategically important to the daily needs of the people were established. In 1959-1966, when the government pursued a "confrontation policy" and a strong "guided economic system", British and Dutch firms including their subsidiaries operating in Indonesia were appropriated and transferred to the existing government enterprises, thus further broadening the scope of PSEs.

With the windfall gains from the oil price hikes in the 1970s, the PSEs expanded further, and were given added mandates in terms of contributing to economic development and state revenues, providing basic goods and services to the public, as well as engaging in pioneer activities. Consequently, three legal forms of PSEs came into operation, namely the "Perjan" which operate in strategic public utilities sector and are under the direct control of a ministry, "Perum" which also operate in the services sector, and are autonomous although they are fully owned by the government, and the "Persero" or limited companies which are mostly appropriated foreign firms and their subsidiaries which are wholly subject to civil law.

PSEs in Malaysia were primarily aimed at eradicating poverty in the country. Public investment was channeled to rural development programs which sought to modernize and expand the rural sector. The PSEs that were established up to the late sixties with a few exceptions did not engage in the production of goods and services. They were mainly aimed at the provision of credit, extension services and infrastructure facilities supply of agricultural inputs and regulation of the market for rural produce.

In the 1970s, the government launched its "New Economic Policy" (NEP) which sought to "foster national unity and nation building, through the eradication of poverty, irrespective of race, and the restructuring of society to eliminate the identification of race with economic function and geographical location".[1] Hence, there was a phenomenal increase in PSEs, particularly in the area of producing industrial commodities set up to inject indigenous participation in commerce and industry. A number of PSEs were recently created to spearhead the country's heavy industries program. They included the Heavy Industries Corporation of

1. Fifth Malaysia Plan, p. 5.

Malaysia (HICOM) and its subsidiaries, Perwaja Terengganu Sdn. Bhd. (PERWAJA) and the National Automobile Industry (PROTON). Hence, PSEs in Malaysia now include those which are oriented towards support and extension services to the rural sector as well as to lead firms in the heavy industries sector, reflective of the country's thrust in development.

In Nepal, due to its size and stage of economic development, the government sought to spearhead growth. Formal economic planning started in the 1950s with the launching of the First Five Year Plan. Conditions were such that the economic infrastructures were not yet in place, so that the government had to pioneer in all commercial activities with the aim of spurring private sector participation once the initial activities have been carried out. PSEs in Nepal were aimed at providing basic goods and services, encouraging private sector participation and ensuring effective control over all economic activities. PSEs produced a variety of commodities such as cement, brick and tile, agricultural tools and textiles, to name a few.

In the financial sector, almost all banks and non-bank financial institutions are also owned by the government. In fact, the first PSE was a bank, the Nepal Bank which was established as early as 1937 and converted into a PSE in 1957. This was done so that the government can have control over financial institutions, and hence steer them towards supporting national development objectives.

PSEs in the Philippines were organized to provide support facilities and services aimed at accelerating and integrating development efforts. This means the establishment of key agricultural, industrial and infrastructure projects, in order to accelerate rural and urban development, achieve energy self-reliance through exploration and development of indigenous power sources, generate employment, and promote technical research, scientific and cultural endeavors. In the past two decades, PSEs expanded tremendously. Manasan, 1988, attributes this to: (a) the major role PSEs play in economic development; and, (b) the fact that the government corporate form represents a venue by which regular government agencies could escape supervision and control of such government regulatory agencies as the Commission on Audit, the Civil Service Commission and the Compensation/ Position Classification Bureau. Due to the second reason, some government entities performing purely regulatory functions are not under the government corporate heading and why some ministers have sought to increase the number of government corporations attached to them.

Under the Philippine set-up, PSE parent corporations spawned subsidiaries which in some cases gave rise to their own subsidiaries. The PSEs became engaged in private sector activities like petroleum refining and trading, transportation, banking and even hotel operation. These gave rise to practices such as the regulation by some PSEs of their own competitors as was the case with the National Food Authority, and the collection of levies by agencies such as the Philippine Coconut Authority and the Philippine Tourism Authority.

In Sri Lanka's case, the government already held ownership over railways, telecommunications, electricity and water supply when it gained independence in 1948. Then to spur the country's industrializations, the government also established industries such as cement, steel and trading activities in the early 1950s. The government also created a large number of institutions to undertake research and development in almost every important field. It likewise established statutory boards to undertake government capital investment projects mainly funded externally.

Successive legislation further expanded PSEs through the years. The Corporation Act of 1955 enabled PSEs to perform on a commercial basis, to rid them of bureaucratic red tape. The Industrial Corporation Act No. 49 of 1957 empowered the government to set up or take over industrial activities to be carried out under government-owned corporations. Hence, private enterprises such as transport, cargo and petroleum were nationalized. Sectoral coverage of PSEs extended from industrial and trading activities to construction and development. In December 1970, the Business Acquisition Act was passed, further enlarging the scope of PSEs. In 1977, public sector expansion virtually halted with the ascent to power of a new government.

Thailand's government held most economic activities under its control as far back as before the second world war. This was due to "economic nationalism" which aimed to rid the Thai economy of excessive foreign influence. After the war, the government continued on this strategy by adopting an economic policy based on PSEs. About one-fifth of the PSEs currently in existence were established in the 1950s. During that period, PSEs in areas such as public utilities and services, ports, manufacture of food, glass and others were established for purposes of national security and domestic consumption.

Generally, PSEs were created for the following reasons: (a) enable monopolistic state enterprises to control product quality, stabilize prices and generate government revenue; (b) support strategically important state enterprises; and, (c) engage in new enterprises requiring large investments, infrastructure and national resource development which the private sector cannot undertake. After the 1960s, there was a shift in the Thai economy marked by the expansion of the private sector.

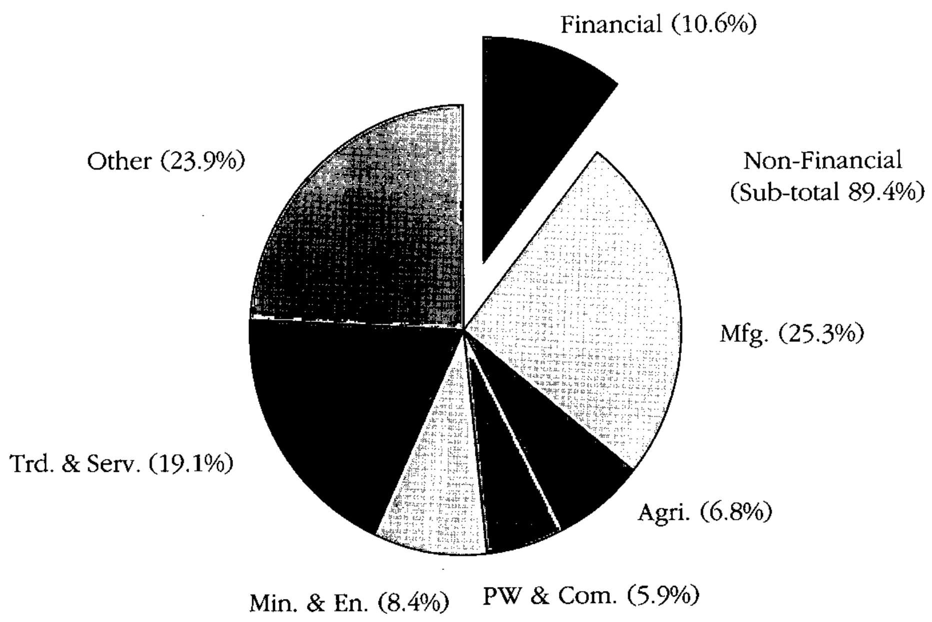
IV. Sectoral Distribution

PSEs in the region are engaged in a very wide range of activities spanning food production to aircraft manufacturing as well as service-oriented areas such as tourism and hotel management. Chart 1.3 shows that out of a total of 1,792 PSEs in the member countries covered in the study, manufacturing emerged as the single biggest sectoral grouping with 454 PSEs or 25.3 percent of the aggregate. The classification "Others" posted 428 or 23.9 percent, but this included such disparate undertakings as plantations and real estate development. This classification arose due to the unavailability of disaggregated data for some countries. Trade and services, with 343 entities or 19.1 percent followed, while financial agencies posted 190 or 10.6 percent. Surprisingly, agriculture, with 122 PSEs accounted for only 6.8 percent of the total, despite the fact that the agricultural sector is a major component in the economies of a number of SEACEN countries. Mining and energy with 150 firms comprised 8.4 percent of the aggregate. Public works and communications with 105 PSEs or 5.9 percent of the total was the smallest single sector in terms of number of agencies. These rankings however do not reflect the asset sizes of the respective sectors as public works and communications, while small in the number of entities may well account for the bulk of the PSEs assets, revenues and expenditures. On the other hand, trading agencies may number quite high, but their capitalization may be very small compared to the former sector.

In all the countries, the non-financial PSEs accounted for the lion's share of the entire PSEs. In Indonesia, there is a total of 189 PSEs of which 163 or 86.2 percent are NFPSEs. Of the said number of NFPSEs, the biggest subsector is agriculture, which has 41 PSEs or 21.7 percent of the aggregate PSEs, followed by manufacturing with 40

Chart 1.3

Sectoral Classification of PSEs, 1989
(Selected SEACEN Countries)



Source: Table 1.5

Table 1.5

SECTORAL CLASSIFICATION OF PUBLIC SECTOR ENTTERPRISES IN SELECTED SEACEN COUNTRIES

Country	Total PSEs	Financial	Sub Total	Non-Financial					
				Mfg.	Agri.	PW& Com.	Min & Ener.	Trd. & Serv.	Others
Indonesia[1]	189	26	163	40	41[1]	39	8	17	18[2]
Malaysia	1171	115	1056	335	23	4	32	303	359[3]
Nepal	53	8	45	20	[4]	16	-	9	-
Philippines	202	22	180	27	35[5]	18	100[6]	-	-
Sri Lanka	115	12	103	21	17	12	3	6	44
Thailand	62	7	55	11	6	16	7	8	7
Regional Aggregate	1792	190	1602	454	122	105	150	343	428

1 Includes Forestry.
2 Includes Public Health, Defence, Manpower, Education and Culture.
3 Includes Construction, Property Development, Plantation and Transport.
4 Included in Manufacturing and Trade.
5 Includes Trade & Services.
6 Includes "Others".

Sources: Country Chapters and Survey Forms.

entities or 21.2 percent. There are 39 firms engaged in public works and communications, accounting for 20.6 percent of the aggregate. In Malaysia, there are 1,171 PSEs of which 90.2 percent or 1,056 are NFPSEs. Among these non-financial PSEs, manufacturing entities numbering 335 or 28.6 percent account for the biggest single subsector. The "Others" subsector which posted more entities at 359 or 30.7 percent is very large, but that is because it also includes such disparate activities as construction (36), projects development (93), plantation (94), and transportation (70). Trade and services with 303 PSEs accounted for 25.9 percent of all PSEs. Agriculture, with only 23 PSEs made up a mere 2.0 percent of the aggregate.

Nepal's PSEs aggregated 53 enterprises of which 45 or 84.9 percent are non-financial. Manufacturing, which also includes some agriculture-based entities, tops the list with 20 firms or 37.7 percent of the total. Public works and communications with 16 or 30.2 percent follows, while trade and services with 9 firms accounts for 17 percent of the total.

In the Philippines, which, next to Malaysia has the biggest number of PSEs at 202, the non-financial PSEs also make up the bulk with 180 entities or 89.1 percent of the total. Like Malaysia, disaggregated data is also lacking, hence, its mining and energy sector includes "Others" and is rather large at 100 entities or 49.5 percent of all PSEs. Excluding "Mining and Others", the single biggest subsector is agriculture under which are classified 35 entities or 17.3 percent of the total. It is followed closely by manufacturing with 27 organizations or 13.4 percent of the aggregate. Lastly, there is the public works and services with 18 entities or a share of 8.9 percent.

In Sri Lanka, the 115 PSEs are composed of 12 financial PSEs or 10.4 percent of the total, and a much bigger NFPSE component numbering 103 or 89.6 percent. Among the NFPSEs and again excluding "Others", manufacturing with 21 establishments or 18.3 percent of the total took the lead, trailed by agriculture with 17 or 14.8 percent share and public works and communications with 12 or 10.4 percent of the total. Trade and services and mining and energy accounted for 5.2 percent and 2.6 percent, respectively.

In Thailand, its 62 PSEs are mostly non-financial, with this kind of enterprise aggregating 55 or 88.7 percent. Among them, public works and communications with 16 PSEs tops the list of all government-owned/

controlled corporations capturing 25.8 percent of the aggregate. Second is manufacturing with 11 establishments accounting for 17.7 percent. Trade and services posted 8 or 12.9 percent. Mining and energy and "Others" had 7 entities each for a share of 11.3 percent apiece, while agriculture with 6 accounted for 9.7 percent of the aggregate.

V. The Role of the Public Sector in Economic Development

As discussed earlier on, the public sector in the SEACEN countries played a major role in each nation's development efforts. Government often spearheaded a number of commercial activities which involved substantial capital investments which the private sector was not ready to undertake. Government presence in such sectors as research and development which are vital to technological progress and productivity improvement has also been felt. This involvement resulted in growth gains for the countries and economies involved. Indeed, the very act of planning a country's growth puts the public sector on center stage in the development effort. Government has the powers to give the necessary incentives to desirable economic activities and on the other hand, to provide deterrents to those which are considered inimical to the country's interests.

The public sector in Indonesia has provided growth impetus to most of the various sectors in the economy through its numerous five-year plans. Most economic and commercial activities are state-led. The government has poured development funds into the agricultural sector, which is the economy's largest sector. Development projects such as the "Bimas", "Inmas" and "Insus" were launched to boost rice production. The same involvement is evident in the mining sector, where the state-owned Pertamina holds monopoly over all aspects of oil and gas production, including control over exploration, development, production, and refining of oil and natural gas in the country. The government is also very active in the mining and manufacturing sectors. Since the law stipulates that only the state can mine certain minerals, the public sector dominates the mining industry. In the manufacturing sphere, the government owns and operates a sizable number of firms engaged in cement, paper, steel, and fertilizer manufacturing. It has even organized an aircraft company which produces airplanes and helicopters. Hence, it can be said that the public sector also pioneered in areas where private business dared not venture. The government also participates in the financial sector through its ownership of a number of financial institutions including five major commercial banks.

In Malaysia, government presence in commerce and industry is not as pervasive as that in Indonesia, but is nevertheless as significant. Like its next door neighbor, Malaysia adheres to economic planning and in the recent past has followed a New Economic Policy discussed previously. By merely looking into the expenditures of the public sector, it will be evident that the PS is a major driving force in the Malaysian economy, which, while still providing assistance to the rural sector, helped stream Malaysia into the area of industrial manufacturing. It owns the national oil company, Petronas and its subsidiaries. It has also placed Malaysia in the forefront of heavy industries in the region, with the organization of Perusahaan Otomobil Nasional Sdn. Bhd. (Proton) which manufactures the so-called "national car", the Proton Saga.

The public sector in Nepal plays a dominant role in the country's economy. It could be termed as a "mover" of the economy, responsible for the provision of basic goods and services, steering the country into development and mobilizing external and internal resources. Its revenues account for more than one- fifth of GDP. Successive economic development plans in the country have underscored the importance of the public sector by highlighting the catalytic role to be played by the PSEs in the growth process. Specifically, government was to engage in the implementation of activities which showed signs of "greater public welfare when they are undertaken by the government, and also those which failed to attract private investment".

In the Philippines, the public sector is looked upon as a provider of basic services such as the peace and order, national security and utilities like water, electricity and infrastructure. It also provides some sort of a guidance in the commercial activities undertaken in the country. For instance, in the Medium Term Development Plan for 1987-1992, the thrust is on the promotion of regional development, poverty eradication and maintenance of peace and order in the country side. The government thus initiated an employment-oriented and rural-based strategy for development. It also encouraged the dispersal of industry to the regions. In cognizance of the value of an educated and skilled citizenry, the public sector has also been supportive of the skills and manpower development of the people. Just recently, universal free secondary education for all Filipino citizens was approved by the legislature. All in all, the public sector in the Philippines has been supportive of economic growth and to some extent, has helped to buoy up the private sector, as is the case when the government steps in to rescue ailing financial institutions and sometimes in taking over their operations if only to forestall a loss of confidence in the predominantly private-owned banking and financial sector in the country.

In Sri Lanka, the early years of independence saw the public sector taking command of the economy and its development. It was the belief of the government that the growth of the country can not be achieved by reliance on the private sector. Instead, it believed that it was the public sector's task to take command over the development process. Consequently, the public sector undertook activities that ranged from manufacturing, to trading, to services. In late 1977, a policy change took place, shifting the emphasis from public sector-led growth to more private sector involvement in the development process. Despite this, efforts to denationalize PSEs were initiated only in 1987, the results of which remain to be seen. Meantime, the public sector in the country remains large and influential.

In Thailand, the public sector, particularly the PSEs were used as a vehicle of development after the first world war. This strategy, however was unsuccessful.[2] In the 1960s, government strategy shifted as reflected in the First Economic Development Plan (1961-1966) which provides that the government committed not to establish PSEs which would compete with the private sector, resulting in the decline in the number of PSEs. This however, did not signify a waning of the public sector as their activities continued to be significant in the economy as evidenced by their revenue, expenditure and asset sizes which as discussed previously remained considerable.

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2. *Financing Public Sector Development in Selected Countries: Thailand,* Krongkaew, et.al., ADB, Manila, 1988, p. 86.

Chapter 2

THE PUBLIC SECTOR DEFICITS

All of the six member countries, with the exception of Indonesia which has adopted a balanced-budget policy for the central government, had sustained budget deficits. Thailand which managed to stage a turnaround and post a surplus in 1988 was deficit-prone for the previous periods. Doubtless the considerable size of the public sector in those countries have caused such a condition. Chart 2.1 shows the deficit to gross domestic products (GDP) ratios of the four countries where data is available in the periods indicated. Malaysia, where yearly GDP ratios are not available, also had sizeable deficits, reaching 19 percent of GNP in 1982.

I. Causes of Deficits

Deficits may at times occur as the outcome of deliberate anti-cyclical policy measures. In most developing countries, however, the phenomenon is likely the result of unplanned imbalances between government revenue and expenditure. Furthermore, inflation, which is common in developing countries is now seen as both a cause and effect of deficits. Developing countries are also hampered by inefficient tax collection and some faulty tax structures.

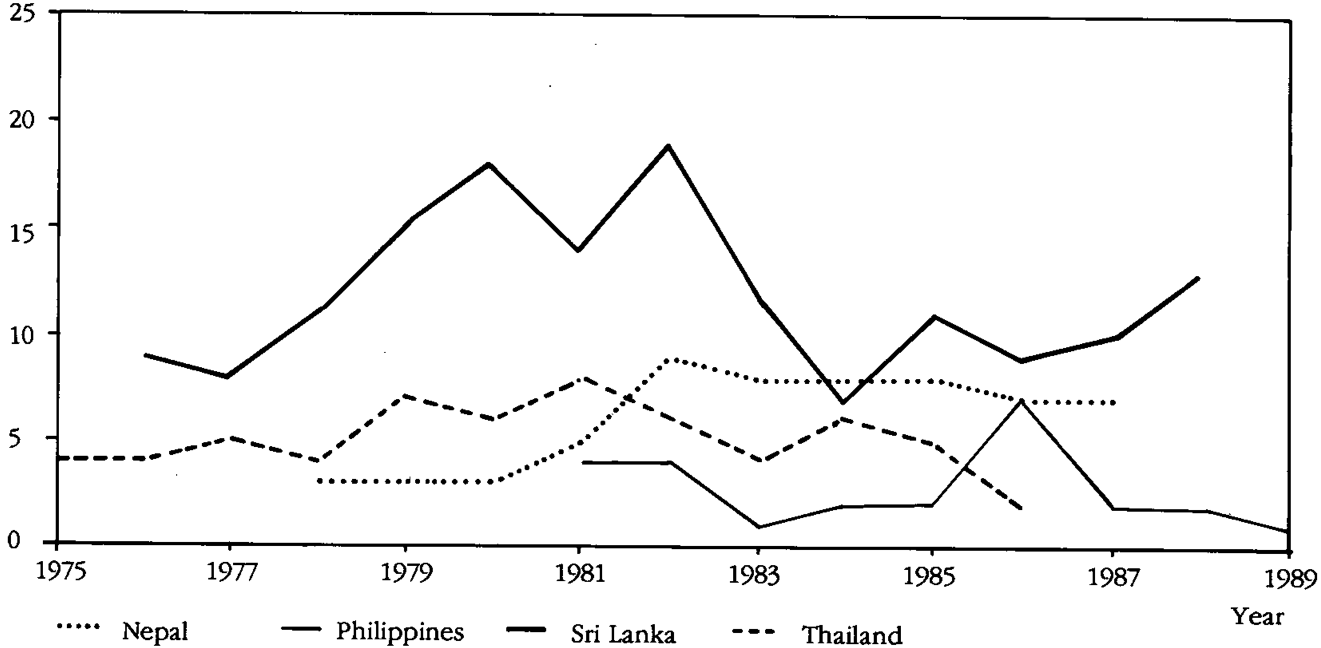
Assuming an initially balanced budget, deficits could arise due to the following:

(1) Government expenditure increases while revenue remain unchanged or lags behind. As the government succumbs to pressure for greater public sector services or benefits without a matching expansion in revenue source, expenditure increases. Rising debt-servicing burdens, particularly for foreign loans borrowed at commercial rates also push up expenditures. Increasing inefficiencies of public sector enterprises (PSEs) may also give rise to a hike in expenditure, while revenue remains constant.

(2) Government revenue decreases while expenditure remains unchanged. Slumps in prices of basic commodity exports cause tax revenue to fall. Generally low tax receipts arising

Chart 2.1

Deficit to GDP Ratios in Selected SEACEN Countries



Based on latest available data.

Source: Appendix 3

from sluggish business activities and inefficient tax collection also result in decreased revenues.
Shrinking profits of PSEs or outright losses in extreme cases, lead to a similar decline in government revenues.
At the same time, government has to meet its contractual obligations and recurring expenses, hence, expenditure is not automatically downward adjusted even in the face of dwindling revenues.

(3) Revenue falls while government expenditure rises. Any combinations of the reasons cited in (1) and (2) above leading to expenditure hikes and revenue contraction.
In the SEACEN region, data for countries covered in the study show that public sector expenditures always outpaced revenues as shown in Chart 2.2 which depicts the average expenditure revenue gap from 1978-1988. The causes of this gap and hence, the deficits, run the range from deliberate pump priming of the economy to rigidity of the tax structure and several points in between, as are discussed on a country specific basis in the succeeding sections.

The public sector in Malaysia has been sustaining deficits since the 1960s, ranging from 2 percent to 11 percent of gross national products (GNP) from 1960-1980. It peaked in the early 1980s, rising as high as 20 percent of GNP in 1981, before tapering off in the succeeding years with a notable through in 1985 at 4 percent and henceforth fluctuating in the following years.

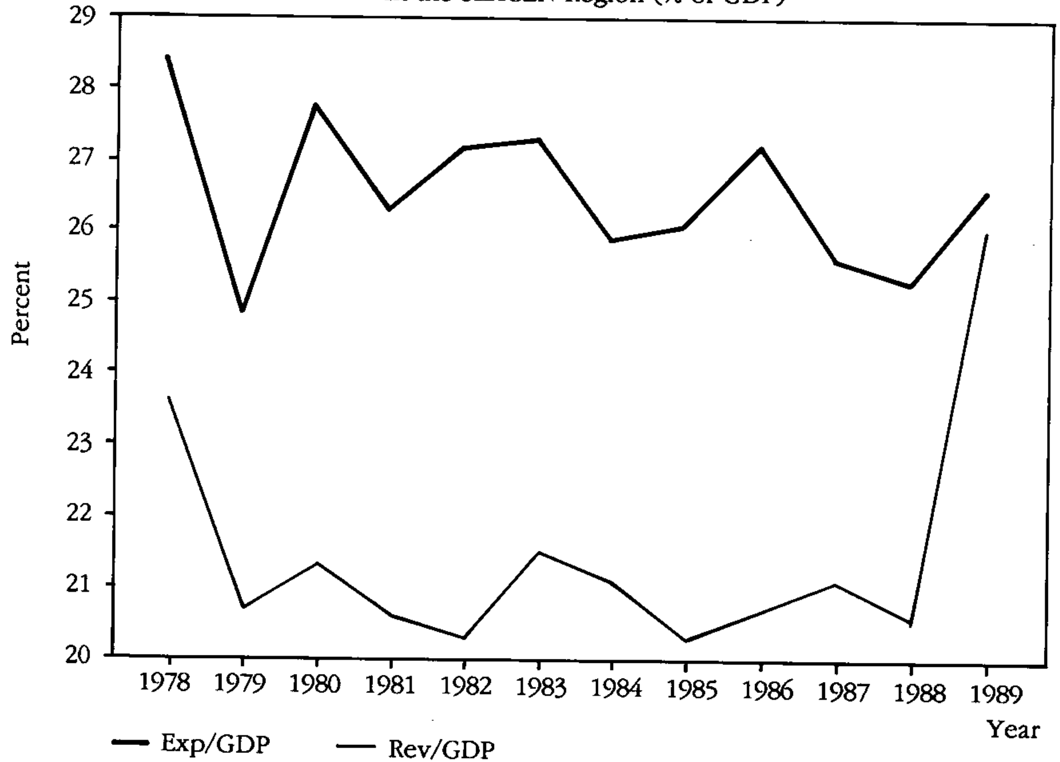
This upsurge in deficits stemmed mainly from massive increases in operating and development expenditures of the general government which was unmatched by revenues. This expansion in the public sector was part of the counter cyclical measures implemented in 1980-1981, and since it also engendered deficits in the current account, the government cut down on public sector expenditures and so reduced the budget during the period 1983-1985.

The two most important sources of deficits are the federal government and the PSEs. The federal government alone accounted for about three quarters of public sector expenditures during the review period.

Although the current account remained in surplus for most of the review period, posting positive balances of M$ 83 million in 1959 to

Chart 2.2

Average Revenue - Expenditure Gap
In the SEACEN Region (% of GDP)



Sources: Appendix 1 and 2

M$ 234 million in 1980, net development expenditure also expanded rapidly. From 1961-1980, it rose at an average annual rate of 21.9 percent. As a consequence, the overall budget was in deficit during the said two decades. In the early 1980s, when government attempted to revitalize the economy, expenditure growth escalated to an annual rate of 31.1 percent.

On the other hand, revenue expansion lagged because of the liberalization of taxes and the dampening effect on income and commodity prices of the global recession.

The 1985 recession had a similar upward effect on deficits, as depressed business activities resulted in government revenue shrinkage. As the economy recovered and the expenditure cut-backs and other structural adjustments took place, the public sector started to make improvements in its financial position, bringing down deficits to 8 percent of GNP in 1989.

Activities of PSEs also add on to the overall deficit burden. In the early 1980s, deficits of the PSEs ranged from M$ 1.2 million in 1981 to M$ 5.3 million in 1984. This is attributable to the unbridled growth in development expenditure, which averaged 40.7 percent during the period. Bulk of said expenditures went to the electricity, oil and gas, transportation and communications sectors, as large amounts were needed for infrastructure to support said sectors.

Nepal's budget deficit was around 2.7 percent of GDP in 1978/1979 peaking at 9 percent in 1982/1983 and settling at 6.9 percent in 1987/1988. Annual movements of the deficit fluctuated widely, running the range from a 2.7 percent decline in 1978/1979 to an unprecedented expansion of 110 percent in 1981/1982.

Deficits stem from the perennial gap between revenues and expenditures owing to the more vigorous growth in expenditures with revenues lagging behind. During the review period, expenditures were about 13.6 percent to 20.7 percent of GDP, while revenues were merely 11 percent to 14 percent of GDP.

Tax revenues which make up the bulk of the total grew at a sluggish rate, reflecting the reverses suffered by the economy, such as low agricultural production due to droughts and other acts of nature.

Even as revenue sources remained small, government was unable to contain the surge in expenditure resulting from the expansion of the government machinery and salary increases of civil servants. Moreover, development expenditures continued to escalate owing to the building of infrastructure and the extension of social and other services deemed necessary for economic development.

The aforementioned sharp increase in deficits in 1981/1982 prompted the adoption of cautious expenditure management and revenue-raising initiatives in the form of tax administration, broadening the tax base and generally reforming tax measures.

The PSEs also constituted a drain on the budget and thus exacerbated the deficits. Operational losses of these enterprises are borne by the government, which still kept on investing in these losing entities, thereby enlarging the public sector's resource gap.

During the decade under review, government transfers to PSEs ranged from 18.4 percent to 42.1 percent of the budget deficit.

In the Philippines, the public sector started to sustain deficits from 1981-1989. Prior to that, available data show that from 1977-1980, it registered surpluses. Deficits in 1981 were 3.5 percent of GDP, escalating to 7.1 percent in 1986 and tapering off to 1.1 percent in 1989.

These deficit figures are reflective of the government's expanded expenditure program started in the mid-1970s on to the early 1980s designed to stimulate the economy, despite the paucity of government revenues. The period of rapid expenditure escalation (1981-1989) when growth averaged 14.2 percent with the highest rate registered at 24.1 percent, coincided with the time when national government revenues as a ratio of GDP was on a downtrend. From its highest level of 33.9 percent of GDP in 1980, it went down to 27.3 percent in 1985 although by 1989, the ratio improved slightly to 28.8 percent.

Deficits were also the result of the crisis situation generally believed to have occurred from 1983-1986, during which time PSEs sustained heavy losses, thereby adding more burdens to the budget. From 1980-1986, PSEs incurred losses ranging from ₱ 2.6 billion in 1984 to a staggering ₱ 9.4 billion in 1986.

As a result, the national government (NG) had to provide subsidies ranging from ₱ 1 billion in 1981 to ₱ 2.5 billion in 1987. Another drain on the NG budget was caused by the transfer in 1986 of non-performing assets of government banks to the NG, in an effort to enhance the performance of PSEs and rationalize their operations. Hence, government equity and net lending reached ₱ 27 billion in 1986, compared to ₱ 15 billion in 1985 and ₱ 2 billion in 1977. Net lending alone accounted for 13 percent of total expenditures in 1986, from a mere 1.9 percent the previous year.

Clearly, PSEs strained the national government budget, not only because of the aforementioned adjustments but also because of the huge outlays needed for implementing major development projects, necessitating capital investments, subsidies and advances for debt servicing of guaranteed and relent loans to PSEs. Additionally, the lack of monitoring systems on performance of the PSEs specially regarding expenditures and financing contribute to the deficits. Recent wage increases for government employees also widened the deficits.

On the revenue side, Manasan found that tax administration was poor, aggravated by the tax leakages and low or negative real GNP growth during the crisis years.

The public sector deficits in Sri Lanka are a regular phenomenon. From 1976-1988, deficits after grants averaged 11.95 percent of GDP. In 1982, it peaked at 18.92 percent and the latest available data, that for 1988, place it at 13.31 percent of GDP. Due to lack of data on expenditures and revenues of PSEs, the following discussions are based mainly on central government data.

The deficits in Sri Lanka stemmed mainly from high government outlays which continuously outstripped revenue collections, despite the relatively high revenue to GDP ratio of 20 percent (in relation to per capita income). The flaw, however, rests in the low elasticity of the overall tax structure which reflects a lack of growth in revenues. In view of the low overall tax revenue elasticity of 0.4, government frequently imposed ad-hoc adjustments in taxes to meet target revenue levels. However, these did not address the basic problem of raising the tax/GDP ratio progressively and hence, revenue growth was not stimulated.

The availability of a wide range of tax exemption has also undermined government revenue growth. These come in varied forms among which are tax holidays, exemption from income taxation of public sector employees and the like, all of which have the effect of narrowing the tax base. Tax evasion also comes into play, further limiting revenue collections.

On the expenditure side, government outlays have been growing at a tremendous rate of 33 percent during 1978-1980. This is due to the vast magnitude of the public sector in the country, requiring massive expenses. Notable among the expenditure items is interest expenses which was 27 percent of total current expenditures in 1988, almost double its 14 percent level in 1978. Defence expenditure also accounted for a considerable portion of total outlays, rising from 3.2 percent in 1978 to 11 percent in 1988.

Another factor that added to the deficits is the transfer of funds to PSEs which incurred losses. Meanwhile, a sizeable number of PSEs continue to rely on government for budgetary support for operational expenditures.

Wage increases of public sector workers also compounded the problem of deficits. There was also an overall deterioration in expenditure controls and monitoring of fiscal performance and cash management. The approval of supplementary expenditure provisions over and above original or voted provisions also exacerbated the problem.

In the case of Thailand, national government deficits are planned so as to build the necessary infrastructure for development. But insufficient savings and poor revenue collection resulted in actual cash deficits exceeding their planned levels. This was aggravated by the two previous oil shocks which brought about inflation and induced a salary increase for public servants.

The PSEs in Thailand also incur deficits due to low revenue levels on the one hand and high expenditures on the other. This is due to price controls imposed on goods and services of most PSEs.

In Indonesia, the central government budget does not reflect either a surplus or a deficit owing to the previously discussed balanced budget policy. Under the balanced budget policy, government sets its expenditures to equal revenues. In the event that expenditures exceed domestic revenues, the government supplements the shortfall with project aid and program assistance. Since this foreign source of financing is scheduled, or programmed, the government does not regard it as a deficit.

The state budget does not include the budget of the 25 provincial governments, local governments and PSEs. This is because these entities are considered to be part of the private sector. Nevertheless, the government still subsidizes some of their activities. The PSEs utilize three fund sources, namely loans from the central government, the banking system and external sources.

In the following analysis for Indonesia, the government sector includes only the central government, which is composed of the ministries, institutions and bodies financed by government budget (APBN). This is because the country researchers were faced with data availability problems from the regional budget and public enterprises.

The central government in Indonesia always realizes a surplus on its routine budget since routine outlays such as wages, salaries, subsidies to regional government, etc., are always sufficiently covered by domestic revenues. This constitutes government savings. On the other hand, the development budget tends to result in deficit since development expenditures for construction of primary schools, roads, market places and the like, exceed development funds. Under the balanced budget policy however, this shortfall is covered by government savings from the routine budget and from receipts from foreign grants, aids and loans which are termed as development receipts. Hence, it is the development receipts which, in this context, is the closest approximation of the deficit.

II. Sources of Financing the Deficits

As previously mentioned, the size of the budgetary shortfall and its source of financing have far-reaching impact on the economy. Deficits may be financed by direct borrowing from the CB, borrowing from the bank and non-bank private sector and through foreign borrowings. Each of the aforementioned modes of financing have different effects on the economy as will be discussed later.

The sources of financing vary from country to country and at times, from period to period for any one country. The choice of financing source depends on a country's economic conditions, the options open to it and the government's assessment as to which particular financing scheme or combinations thereof will prove most beneficial to the country.

In the 1970s, member countries chose to finance budgetary imbalances with foreign loans due to a number of reasons, among which are easy access to credit and the relative inadequacy of domestic savings. However, with the eruption of the international debt crisis and the consequent slowing down of credit flows, these countries were forced to look for domestic sources of finance, mainly from the financial system.

Chart 2.3 and Appendix 8 show that for the four SEACEN member countries (Malaysia, Nepal, Philippines and Sri Lanka) with data available, domestic funds source made up an average of 61.4 percent of deficit financing from 1980-1988, while foreign sources accounted for the remaining 38.6 percent. Among the aforesaid four countries, only Nepal registered a predominantly foreign sourcing at 60 percent for the period. Malaysia's net foreign borrowings accounted for about 16.2 percent, the Philippines about 34.8 percent, and Sri Lanka about 43.4 percent. More detailed country discussions follow.

In Malaysia, the government has relied more on domestic sources to finance deficits. Chart 2.4 and Appendix 4 show that on the average, from 1976-1989, federal government deficits were mainly financed from net domestic borrowings (44.7 percent), public authorities surplus (22.1 percent), government surplus (18.7 percent) with net foreign borrowings accounting for only 12.5 percent, and use of reserves for 2.0 percent.

Net domestic borrowing consists mainly of funds from non-inflationary sources like the Employees' Provident Fund (EPF) which accounted for an average of about half (50.9 percent) of net domestic borrowings for the period.

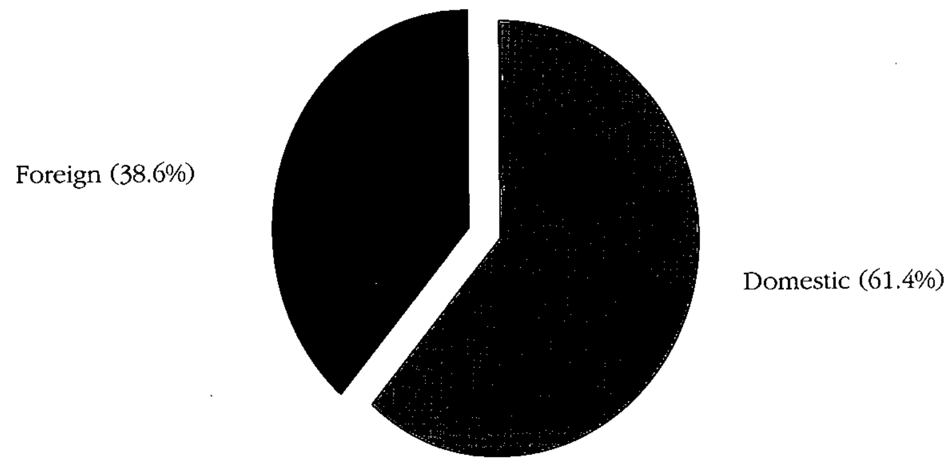
The government borrows internally through the flotation of long-term securities, such as 3 to 21-year government securities as well as short-term investment certificates and Treasury bills.

So, while the federal government tapped domestic and foreign sources for deficit financing, the state governments relied in turn on loans and grants from the federal government. Similarly, the PSEs were principally funded by federal government loans and grants in combination with foreign borrowings, usually with government guarantees.

Foreign financing of the deficits expanded in the early 1980s, in response to the inadequacy of domestic sources of finance as

Chart 2.3

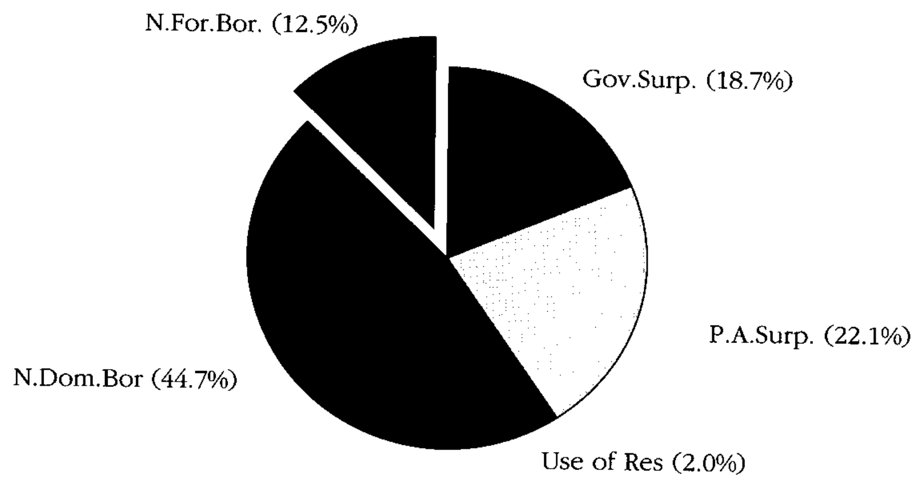
Sources of Deficit Financing
Selected SEACEN Countries (1980-88)



Source: Appendix 8.

Chart 2.4

MALAYSIA: Sources of Financing
1976-89, in Percentage



Source: Appendix 4.

development expenditure increased rapidly despite weak revenue growth. Hence, net external borrowings rose to around 36 percent in 1981-1983, compared with 19 percent in the 1970s. Nevertheless, in the latter part of the 1980s net foreign borrowings tapered off, such that from 1986-1989, it registered a negative 10.9 percent.

In contrast, Nepal relied more heavily on foreign rather than domestic financing for its deficits, funding an average of 60.4 percent of deficits from 1978/1979 to 1987/1988 (Chart 2.5 and Appendix 5). Its lowest level was 32 percent in 1982/1983 and its highest at 86 percent in 1980/1981. The proportion of foreign financing fluctuated throughout the period but was generally more than half of the total, except for three years - 1981/ 1982, 1982/1983 and 1984/1985. In 1987/1988, it again rose sharply to 82 percent from 64 percent the year before.

Financing of the deficits in the Philippines shifted from mostly foreign sources in the 1970s to heavier reliance on domestic funding in the 1980s.

Data for the national government (NG) show that from 1980-1989, the NG financed an average of 66.54 percent of its deficits from domestic sources and 33.46 percent from foreign sources (Chart 2.6 and Appendix 6). Domestic sources comprise domestic borrowings and use of cash balances, which refers to either net additions (negative sign) to outstanding cash balances, or net withdrawals (positive sign) from outstanding cash balances of the government.

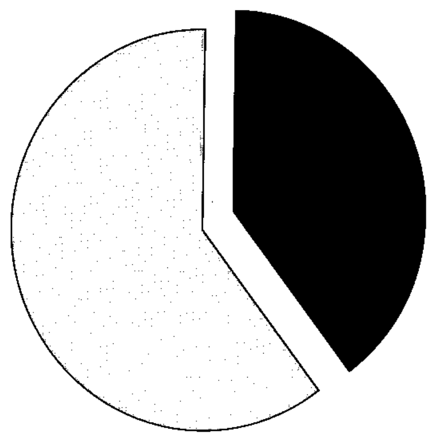
Earlier on in 1977, domestic sources accounted for 91.4 percent of the deficits, which declined to a mere 15.3 percent in 1983 during which time reliance was mainly on foreign sources. Subsequently, the share of domestic borrowings rose to between 61 percent and 106 percent from 1984-1989.

It is notable that in 1979, net domestic financing posted a negative value of ₱ 2.8 billion, indicating a net build-up in NG cash balances emanating from foreign borrowings. This was deposited with the Central Bank of the Philippines with a view to dampening aggregate demand and inflation.

Domestic financing is derived from the flotation of government securities at market-determined interest rates. While this was consid-

Chart 2.5

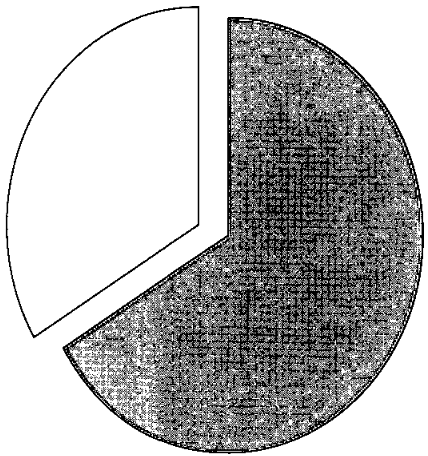
NEPAL: Sources of Financing
1979-88, in Percentage



Source: Appendix 5.

Chart 2.6

PHILIPPINES: Source of Financing
1980-89, in Percentage



Source: Appendix 6.

ered a non-inflationary method, some critics claim that it has prompted a hike in domestic interest rates. With regard to foreign borrowings, a sound debt management strategy was followed, aimed at among other things, availment of longer-term concessional loans.

The 14 major non-financial PSEs which accounted for 52 percent of expenditures of the 202 audited PSEs, also sourced deficits through a combination of domestic and foreign borrowings. In 1985, net domestic borrowing of ₱ 10,730.4 million was more than sufficient to cover the ₱ 7,997.9 million deficit, allowing for net external debt repayment. In contrast, in 1989, the deficit of ₱ 3,208.9 million was financed primarily by net external financing of ₱ 2,578.9 or 80.4 percent, while net domestic financing accounted for only ₱ 630 million or 19.6 percent. This development is a counterpoint to the experience of the NG which registered a shrinkage in foreign financing of its deficits in the previous years.

Activities of local governments generally resulted in surpluses. In cases of deficits, they relied mostly on regular aids and allotments from the NG, supplemented by borrowings from the monetary system.

In Sri Lanka, the deficit is generally financed in roughly equal portions from domestic and foreign sources. From 1978-1988, on average, domestic borrowings accounted for 55.2 percent of deficit financing, while foreign borrowings made up 44.8 percent (Chart 2.7 and Appendix 7). Domestic sources are composed of domestic banks, 37 percent, and domestic non-banks, 17 percent. It may be mentioned that bulk of the foreign borrowings by the central government are on concessionary terms, such that the grant element of foreign loans reached about 30 percent of total foreign borrowings. However, PSEs had to borrow on commercial rates, increasing overall public sector borrowings. Consequently, commercial borrowings were restricted. This was done to prevent the imbalances which could result from debt-service problems arising from large foreign borrowings.

On the domestic side, non-bank sources of finance are usually the so-called "captive funds", such as the Employees' Provident Fund (EPF) and the national savings banks. While these are considered non-inflationary sources because funding from such institutions does not lead to monetary expansion, the question of crowding out arises.

CB financing of the deficit is also utilized. From 1978-1988, the public sector borrowed an average of 3 percent of GDP from the banking system, most of it from the CB. In 1980 alone, borrowings from the banking system registered at 10 percent of GDP or nearly half of the deficit. These funding through credit and money creation are hypothesized to be inflationary.

The public sector in Thailand relies to a large extent on the banking system for deficit finance. The banking system is made up of the Bank of Thailand and the commercial banks. In fiscal years 1980/1981 and 1981/1982, borrowings from the BOT reached 70 percent and 47 percent respectively, of total domestic borrowings. Since fiscal year 1984/1985 however, there was a shift in reliance on the non-bank sector, the government savings bank, the finance companies and the households. Nevertheless, commercial banks remained the major source of financing.

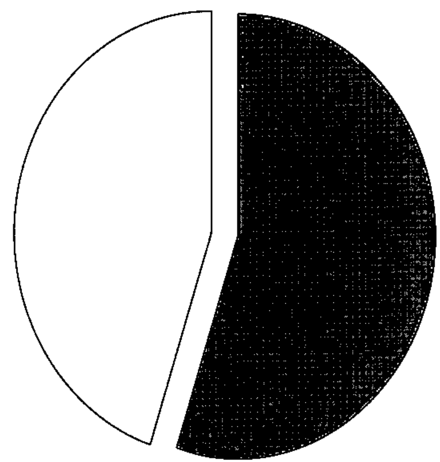
In Indonesia, where the balanced budget policy is adhered to, the closest thing to a central government deficit would be traceable to development expenditures. Some parts of the deficit is financed by government savings and the remainder by foreign receipts. An expansionary pressure may occur when foreign project aid is used to finance development expenditures in domestic currency.

For fiscal year 1989/1990, development receipts were fixed at Rp. 11,325 billion, of which 15.9 percent or Rp. 1,799 billion was in the form of program aid and 84.1 percent or Rp. 9,526 billion in project aid. This would finance 86.2 percent of development expenditures fixed at Rp. 13,130 billion. Government savings of Rp. 1,805 billion will finance the residual 13.8 percent.

Indonesia follows a prudent foreign borrowing policy. All borrowings are made by the government, whose agencies, including PSEs are required to obtain prior approval of the Ministry of Finance. It is notable that borrowings of PSEs are not guaranteed by the government. External debt consists mainly of long-term credits. As of 31 March 1989, outstanding long-term and medium-term debt of the government aggregated US$ 40,520.2 million. PSE debts as of the same date amounted to US$ 910.6 million or 4.2 percent more than its year-ago level of US$ 873.8 million.

Chart 2.7

SRI LANKA: Source of Financing
1978-88, in Percentage



Source: Appendix 7.

Chapter 3

I. Effects of Financing Public Sector Deficits through the Financial System

The effects of budget deficits on the economy are the subject of debates among economists in both the industrialized and developing countries. Generally, there are three schools of thought regarding the economic impact of budget deficits, namely, Neoclassical, Keynesian and Ricardian. A summary description of the three schools of thought follows:

(1) The neoclassical view regards consumers as farsighted individuals who are able to plan consumption over their own life cycles. Budget deficits are deemed to raise total lifetime consumption by postponing taxes to the next generations. In a full employment economy, this increase in consumption implies a decrease in savings. Therefore, interest rates must rise to bring capital markets to balance. Hence, persistent deficits "crowd out" private capital accumulation.

(2) The Keynesian view regards a significant fraction of the population as possessing a very high propensity to consume out of disposable income. Hence, a temporary tax reduction would have an immediate and quantitatively significant impact on aggregate demand. Assuming that initially the resources of the economy are underemployed, national income rises, thereby generating second round effects and the Keynesian multiplier. Savings and capital accumulation need not be adversely affected inasmuch as deficits are seen as stimulating both consumption and national income. Therefore, deficits occurring at the approporiate times have beneficial effects.

(3) The Ricardian view suggests the presence of intergenerational linkages among successive generations, manifested in altruistically motivated transfers of resources. This would imply that consumption is a function of the total resources of an individual and all his descendants. Under this view, deficits merely shift the payment of taxes to future generations.

Therefore, the total resources of the individual and all his descendants are on the aggregate unaffected. This being the case, the individual would be indifferent to deficits.

Hence, it would appear that one can find support for any position taken on the effects of budget deficits be it detrimental, beneficial or irrelevant. The effects would of course depend on the particular circumstances faced by the individual countries.

As previously stated, the size of the deficit as well as its source of financing determine the impact of budgetary shortfalls on the economy. Direct borrowing from the CB is regarded as inflationary, while borrowing from the bank and non-bank private sector may induce increases in interest rates or may crowd out private business. Foreign borrowings will have implications on the balance of payments (BOP). Implications of the first two modes of financing are the major concerns of this study.

The following sections discuss the implications of budget deficit financing:

1.1 Effects of Monetization of Deficits on Money Supply and Prices

Theoretically, financing of budgetary shortfall through borrowing from the CB results in money creation (printing money) which increases high-powered money stock, all things being equal. This initial increase will have a multiplier effect and so cause inflation by fueling an increase in aggregate demand and consequently output and prices. A one-year deficit as well as a permanent one, if financed by the CB, would permanently increase prices and fuel inflation. This is because in the case of a one-year deficit, the increase in money stock resulting from CB financing of the shortfall will remain even after the government spending falls back to the initial level. Since output in the long run will not be affected by the money-financed transitory government spending, such deficit will lead to a once-and-for-all permanent increase in price levels.

Dornsbusch and Fischer, 1978,[1] provide an excellent discussion and graphical presentation of how a permanent deficit financed by the CB

1. Rudiger Dornsbusch and Stanley Fischer, *Macroeconomics*, McGraw Hill Book Co., New York.

quickens the nominal money stock growth and moves the economy's equilibrium point such that both inflation rate and output rise.

From the foregoing, we can see that deficits can pose inflationary pressures through money supply growth.

To measure the impact of public sector deficit on money supply and its subsequent transmission to prices, the equations of the Aghevli-Khan model were adopted with slight modifications.[2]

1.1.1 Money Supply

The supply of money (M) can be multiplicatively related to the stock of high powered money (H) through the multiplier (m):

$$M_t = m_t H_t \tag{1}$$

From the asset side, high powered money is composed of net domestic assets (NDA) and net foreign assets (NFA) of the CB:

$$H_t = NDA_t + NFA_t \tag{2}$$

Net domestic assets is composed of net CB credits to the public sector (CB), net CB credits to the private sector (CPr) and net other items (NOI):

$$H_t = (CB_t + CPr_t + NOI_t) + NFA_t \tag{3}$$

Since we are interested in the effects of monetization of the deficit represented by CB_t, on the money supply, we can consider CPr and NOI as one composite variable E:

$$E_t = CPr_t + NOI_t \tag{4}$$

Hence,

$$H_t = CB_t + NFA_t + E_t \tag{5}$$

---

2. Bijan B. Aghevli and Moshin S. Khan, "Government Deficits and the Inflationary Process in Developing Countries", Staff Papers, International Monetary Fund (Washington), vol. 25 (September 1978), pp. 383-416.

Net CB credit to the public sector (CB_t) is that part of the government deficit which is monetized, that is, the CB lends money to the government. The net foreign assets (NFA) will account for the effect of converting foreign currency borrowings into local currency.

An increase in government deficit financed by the CB would thus affect high-powered money, and consequently money supply. The money supply equation can then be written as:

$$M_t = m_t \, (CB_t + NFA_t + E_t) \tag{6}$$

Since this equation will be used with the price equation and considering the convenience of working with linear models from an estimation point of view, we approximated equation (6) by a relationship linear in logarithms, which was obtained by linearizing about sample means. The result is as follows:

$$\log M_t = \log m_t + a_0 + a_1 \log CB_t + a_2 \log NFA_t + a_3 \log E_t + e_t \tag{7}$$

where e_t is the error term.

While this is an identity equation, it is deemed sufficient for our purposes as we are not testing the relationship among the variables, but rather the extent to which the exogenous variables, particularly government deficit, affect money supply.

1.1.2 Prices

Price is a function of money supply (M), income (GDP) and inflationary expectations (I):

$$P_t = f \, (M, GDP, I) \tag{8}$$

Money supply affects prices through its effect on aggregate demand. An increase in money supply will result in increased demand for goods and services, as they become more scarce relative to money. It is thus expected to have a positive relation to prices.

In the same manner, income measured by GDP affects prices positively. An increase in income also increases aggregate demand and consequently prices.

Inflationary expectations also impact on prices. They are self-fulfilling. When wages increase because inflation is expected, costs increase and result in inflationary pressure as firms pass on such cost increases to consumers through higher prices. Hence, the estimated coefficient for inflationary expectation is also expected to have a positive sign. The inflation rate of the previous period will be used as a proxy for expected inflation rate.

Expressed in log-linear form, the regression equation for price is:

$$\log P_t = b_0 + b_1 \log M_t + b_2 \log GDP_t + b_3 \log I_t + e_t \tag{9}$$

where e_t is the error term.

To minimize the misspecifications, the participating researchers were encouraged to include such other variables as they deemed necessary.

Both Equations (7) and (9) form the basis on which empirical findings of this project could be obtained. However, they were derived and specified in the general sense. Should conditions in their countries warrant a different explanation, the country researchers had to specify their own country equations. Such specifications would appear in the individual country chapters.

1.2 Estimation Results

The estimation results varied across countries and were not entirely satisfactory. This may be due to three main reasons. First is the lack of data on the whole public sector. Second is the generally short time period for which whatever scant data (mostly annual) is available and third is the propensity of the governments in the countries covered to resort to monetary policy measures during the period covered to neutralize increases in money supply and inflationary tendencies as was discussed in the previous sections.

All of the countries reported generally good fits for both equations, with $\bar{R}^2$ and $\bar{R}^2$ at about 95 percent or better, the exception being Thailand and Indonesia which reported $\bar{R}^2$ levels of 78 percent and 65 percent respectively, in their money equations. These however, are still considered acceptably good fits, being above 60 percent.

Statistical significance of the explanatory variables was the norm rather than the exception. While most of the Durbin-Watson Statistics fell within the inconclusive region with only a few falling within the region of acceptance, other quantitative and qualitative discussions/ explanations validated the results. In tandem with foregoing explanations regarding data scarcity, it is thus felt that the results may be accepted.

Tables 3.1 to 3.6 summarize the results of the estimation in which the following notations in addition/variation to those previously discussed, were used:

Indonesia

CB	-	CB credits to the public sector
Y_t	-	Level of income

Malaysia

N Debt	-	Holdings of government securities by the CB minus government deposits with the CB

Nepal

CLPS	-	Net CB claims on the public sector
WPII	-	Wholesale Price Index of India

Philippines

NCPMA	-	Nominal net credits of the public sector from the CB
NFAMA	-	Net Foreign Assets of the Monetary Authorities
GDPrMA NOIMA	}	Residual items
GDPr	-	Real GDP
FXR	-	Peso-US dollar exchange rate

Sri Lanka

PSC	-	Public sector borrowings from the banking system

Thailand

NCGX	-	Net claims of the Bank of Thailand on government (from monetary base)
NFAP	-	Monetary base minus NCGX
PIX2	-	Non-oil import price
RPPP	-	Retail price of petroleum products.

Hereunder is a discussion of the highlights of the results. Detailed discussions are contained in the respective country chapters. Nepal, the Philippines and Sri Lanka reported generally good results.

In Indonesia, narrow money is significantly affected by foreign borrowings (FB) but the effect of CB credits to the public sector (CB) which had a larger coefficient is not statistically significant. It may be mentioned that in the estimation, only CB credit to the PSEs was included as it was the only one deemed to affect high powered money. The equation had an R^2 of 65 percent and a Durbin-Watson Statistic of 0.9028 which places it in the inconclusive region. However, in the light of the previous explanation, we may accept the result, as it was pointed out that during the review period 1978-1989, borrowings from the CB indeed accounted for a very minimal portion of deficit financing while FB were the main sources thereof. Some measurement problems may also be inherent in the Indonesian case as the country follows a balanced budget policy and hence there are no deficits as such.

Prices in Indonesia were found to be significantly influenced by level of income (Y_t), foreign borrowing (FB) and lagged real narrow money $(M_1P)_{t-1}$. Money supply had the strongest influence followed by income with FB registering a feeble 0.0003 coefficient. The equation's R^2 is 96 percent and its Durbin-Watson Statistic is 2.22.

The money equation of Malaysia had a good fit with an $\bar{R}^2$ of 95 percent and a Durbin-Watson Statistic of 2.294 which places it within the region of acceptance. Money supply (M_3) was not significantly affected by net holdings of government securities by the CB (NDebt). Only the dependent variable lagged one period had a statistically significant effect. This is attributable to the fact that during the period under review (1975-1988), government deposits placed with the CB exceeded the CB's holdings of government securities. This implies that there has been no significant monetization of the deficit and by extension, money supply was virtually unaffected by deficits.

Price-wise, real broad money supply and lagged CPI have statistically significant influence on prices. The equation has a high explanatory power reflected in its $\bar{R}^2$ of 99 percent. It appears to suggest that inflation rate is led by money supply growth. However, since the deficit does not significantly affect money supply due to the absence of monetization, the effect of the deficit on inflation is very weak.

Table 3.1

INDONESIA: REGRESSION RESULTS

Money Eqn.	Dependent Variable	Estimated Constant	Coefficient of Independent Variables				R^2	DW
			CB	FB				
	M_1	5.6277 (1.43)	0.3421 (0.69)	0.0002 (2.47) *			0.6485	0.9028
Price Eqn.	**Dependent Variable**	**Estimated Constant**	**Coefficient of Independent Variables**				**R^2**	**DW**
			Y_t	FB	$(M_1/P)_{t-1}$			
	P_t	0.9982 (0.79)	-0.1706 (-2.82) *	0.0003 (2.51) *	0.6529 (4.75)*		0.9641	2.2200

Note: The t values of the estimated coefficients are shown in parenthesis.
An asterisk (*) denotes significance at 95 percent confidence level.
D.W. denotes the Durbin-Watson Statistic.
Variables are in log form.

Nepal's narrow money (M_1) was significantly affected by net CB claims on the public sector (CLPS) and net foreign assets (NFA) with the former having a more considerable effect. The R^2 is 97 percent and while its Durbin-Watson Statistic of 1.28 places it in the inconclusive region, in view of the short period coverage (n = 10) and the previous discussions supporting the outcome of this equation, we may accept the regression results.

With regard to the price equation, prices as represented by CPI were found to be significantly affected by money supply (M_1) and the wholesale price index of India (WPII) with which the mountain kingdom shares a long open border. GDP has a statistically insignificant impact, although it registered the expected sign. Overall the equation had a powerful explanatory force with an $\bar{R}^2$ of 99 percent.

In the Philippines, it was found that for the period 1977-1989, narrow money (M_1) was significantly affected by nominal net credits of the public sector from the CB (NCPMA) and net foreign assets of the monetary authorities (NFAMA) with the latter exerting a stronger influence. The coefficients had the right signs and the equation had an $\bar{R}^2$ of 99 percent. Its Durbin-Watson Statistic of 2.14 falls within the region of acceptance.

Prices in the Philippines are shown to be significantly affected by gross domestic product, foreign exchange rate (e.g., the peso-dollar exchange rate) and lagged narrow money. Although lagged narrow money M1(-1) and real Gross Domestic Product (GDPr) are statistically significant regressors, their coefficients of 0.002 and 0.001 respectively, are quite low. The peso-dollar exchange rate (FXR) is the strongest variable with a coefficient of 15.34 and possessing the largest t statistic among the explanatory variables.

This result is supported by the movements in the factors affecting inflation (Tables 9.3 to 9.5 of the Country Chapter and Fig. 33a) which show that during the period 1980-1983, 1986 and 1989 or half of the review period, growth in public sector credits from the monetary system expanded, contributing to money supply growth and inflation. In between, actions of the monetary authorities to sop up excess liquidity dampened the growth of money supply.

The peso-dollar exchange rate which is the most significant factor contributing to inflation, was on a downtrend during the review period.

Table 3.2

MALAYSIA: REGRESSION RESULTS

Money Eqn.	Dependent Variable	Estimated Constant	Coefficient of Independent Variables				$\bar{R}^2$	DW
			N Debt	M_{3t-1}				
	M_3	6247.909 (2.273)	0.682 (1.056)	0.973 (17.074) *			0.950	2.294
Price Eqn.	**Dependent Variable**	**Estimated Constant**	**Coefficient of Independent Variables**				$\bar{R}^2$	**DW**
			$(M_3/P)_t$	CPI				
	CPI_t	1.694 (5.357)	0.200 (3.736) *	0.396 (3.011) *			0.987	0.636

Note: The t values of the estimated coefficient are shown in parenthesis.
An asterisk (*) denotes signigficance at 95 percent confidence level.
D.W. denotes the Durbin-Watson Statistic.
Variables are in log form.

Table 3.3

NEPAL: REGRESSION RESULTS

Money Eqn.	Dependent Variable	Estimated Constant	Coefficient of Independent Variables				$\bar{R}^2$	DW
			CLPS	NFA				
	M_1	2.003 (3.38) *	0.571 (15.99) *	0.247 (3.40) *			0.970	1.280
Price Eqn.	**Dependent Variable**	**Estimated Constant**	**Coefficient of Independent Variables**				$\bar{R}^2$	**DW**
			GDP	**WPII**	M_1			
	CPI	1.851 (0.89)	-0.297 (-1.1) **	0.253 (2.14) *	0.618 (6.01) *		0.990	1.450

Note: The t values of the estimated coefficient are shown in parenthesis.
An asterisk (*) denotes significance at 95 percent confidence level; and, two asterisks (**) denote significance at 85 percent confidence level.
D.W. denotes the Durbin-Watson Statistic.
Variables are in log form.

The peso considerably depreciated against the dollar for three times, the third being in December 1984 when the peso entered the "free float".

Sri Lanka's regression results show that public sector borrowings from the banking system (PSC) and net external assets in the banking system (NFA) significantly affected money supply. While PSC has a larger coefficient than NFA, it has a smaller t statistic. The equation has an $\bar{R}^2$ of 94 percent and a Durbin-Watson Statistic of 1.5 which falls within the region of acceptance at 90 percent confidence interval.

Based on the price equation, Sri Lanka's prices are influenced by real broad money supply $(M_2/P)_t$ and price index lagged one year $(P)_{t-1}$ as a proxy of expected inflation. Both are statistically significant. The equation has an $\bar{R}^2$ of 99 percent and its Durbin-Watson Statistic of 2.2 falls within the region of acceptance at both the 5 percent and 1 percent levels.

In Thailand's case, the equation has an $\bar{R}^2$ of 97 percent and while both net claims of the Bank of Thailand on government (NCGX) and monetary base less NCGX (NFAP) significantly affect broad money (M_2), its Durbin-Watson Statistic of 0.6132 is exceedingly low.

Nevertheless, it was stressed that during this study period, the public sector recorded a large deficit and there was a considerable increase in public debt. It was also noted that since public sector expenditures is domestic goods-oriented, a strong influence of public debt on money supply was observed.

Regarding prices, they were found to be significantly affected by broad money (M_2), non-oil import price (PIX2) and retail price of petroleum products (RPPP). The biggest influence comes from PIX2 because Thailand has a small open economy. This, plus the fact that the country is dependent on imported oil, accounts for the higher coefficient of RPPP compared to M_2. The equation has an $\bar{R}^2$ of 99.7 percent and a Durbin-Watson Statistic of 1.25.

II. Effects of Public Sector Borrowing from Private Banks and Non-Banks on Credit Creation and Interest Rates

Public sector borrowing from banks and non-banks may either "crowd out" the private sector if their borrowings displace private

Table 3.4

PHILIPPINES: REGRESSION RESULTS

Money Eqn.	Dependent Variable	Estimated Constant	Coefficient of Independent Variables				$\bar{R}^2$	DW
			NCPMA	NFAMA	GDPrMA	NOIMA		
	M_1	10522.60 (4.48)	0.56 (4.69) *	0.64 (6.37) *	0.70 (6.39) *	0.66 (9.58) *	0.99	2.14
Price Eqn.	**Dependent Variable**	**Estimated Constant**	**Coefficient of Independent Variables**				$\bar{R}^2$	**DW**
			$M_{1(-1)}$	GdPr	FXR			
	CPI	-147.49 (-1.84)	0.002 (1.56) * *	0.001 (1.50) * *	15.34 (7.61) *		0.98	2.09

Note: The t values of the estimated coefficients are shown in parenthesis.
An asterisk (*) denotes significance at 95 percent confidence level; and, two asterisks (**) denote significance at 90 percent confidence level.
DW denotes the Durbin-Watson Statistic.

Table 3.5

SRI LANKA: REGRESSION RESULTS

Money	**Dependent**	**Estimated**	**Coefficient of Independent Variables**					
Eqn.	**Variable**	**Constant**	**PSC**	**NFA**			$\bar{R}^2$	**DW**
	M_2	3.489 (4.08)	0.408 (1.74) * *	0.358 (3.50) *			0.940	1.500
Price	**Dependent**	**Estimated**	**Coefficient of Independent Variables**					
Eqn.	**Variable**	**Constant**	$(M_2/P)_t$	P_{t-1}			$\bar{R}^2$	**DW**
	P	-0.329 (0.97)	0.554 (2.43) *	0.676 (5.77) *			0.990	2.200

Note: The t values of the estimated coefficients are shown in parenthesis.
An asterisk (*) denotes significance at 95 percent confidence level; and, two asterisks (**) denote significance at 90 percent confidence level.
DW denotes the Durbin-Watson Statistic.
Variables are in log form.

Table 3.6

THAILAND: REGRESSION RESULTS

Money Eqn.	Dependent Variable	Estimated Constant	Coefficient of Independent Variables				$\bar{R}^2$	DW
			NCGX	NFAP				
	M_2	-1.9018 (-2.77)	0.3486 (6.35) *	0.9663 (10.81) *			0.9686	0.6132
Price Eqn.	**Dependent Variable**	**Estimated Constant**	**Coefficient of Independent Variables**				$\bar{R}^2$	**DW**
			M_2	PIX2	RPPP			
	P_t	-1.4602 (-5.64)	0.1437 (6.47) *	0.3580 (6.01) *	0.2225 (8.91) *		0.9974	1.2500

Note: The t values of the estimated coefficients are shown in parenthesis.
An asterisk (*) denotes significance at 95 percent confidence level.
DW denotes the Durbin-Watson Statistic.
Variables are in log form.

borrowings or lead to credit creation if they are accommodated in addition to the existing loan portfolio of banks. If the banks rediscount these lendings with the central bank (CB), then this becomes indirect CB lending which, additionally, has the implications discussed above. Borrowing from the private sector also exerts an upward pressure on interest rates.

Borrowing from private sources to fund deficits or deficit financing (as opposed to monetization or accommodation by the CB) in a closed economy leads to crowding out of investment. As government needs more and more debt, it has to pay increasing premia in the form of higher interest rates. These increased rates reduce investment in the short run as private investors will find it difficult or unprofitable to compete with government for funds in the money market.

In a small, open economy with internationally mobile capital, net exports are crowded out instead. Deficits push interest rates attracting an inflow of foreign funds. Assuming a flexible exchange rate, the home country's currency appreciates, blunting the competitive edge of its exports in the world market.

Obtaining deficit finance from the private sector tends to drive up interest rates as competition between government and private borrowers for funds emerges. As the government needs to float more bonds to finance deficits, the law of supply and demand will come into play and so funds will command a higher price (interest).

Some economists, Phelps (1985) and Rutledge (1982) argue that increased flotation of government bonds may be absorbed by a small reallocation in the portfolio of households. However, Tanzi (1985) pointed out that this argument does not recognize the considerable transaction costs that an individual incurs when he converts one type of asset (i.e., stocks, buildings, land, etc.) into another (i.e., government bonds).[3] These costs may come in the form of brokers' commissions, transfer taxes and the like. Consequently, the supply schedule that the government faces at any moment is upward sloping and the slope increases the more the government tries to borrow.

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3. Vito Tanzi, "Fiscal Deficits and Interest Rates in the United States", *Staff Papers, International Monetary Fund (Washington),* vol. 32 (December 1985), pp. 551-576.

Transaction costs are very small when bonds are purchased out of current net savings; the deficits may therefore have less of an effect on interest rates in high savings rate countries such as Japan. However, in most of the SEACEN countries, the savings level may not be high enough to make transaction costs negligible such that deficit financing may still lead to interest rate hikes, in the absence of rate ceilings.

Hence, from Figure 3.1, it is shown that the government will have to pay a higher rate of interest (i_2) when it increases its flotation of bonds from Q_1 to Q_2.

In a study reviewing the controversy on whether deficits affect interest rates, Tanzi (1985) found that US interest rates are positively influenced by fiscal deficits and (possibly) by levels of public debt. The empirical results showed that if the U.S. fiscal deficit had been lower, other things being equal, interest rates would also have been lower. It also points out that there may have been other factors which push up interest rates such as deregulation of the financial markets and mergers to name a few.

As the debate on the impact of deficits on interest rates continues, the SEACEN countries also register varying experiences. In this paper, the effect of deficit financing on interest rates is traced through its effects on credit creation and borrowing levels.

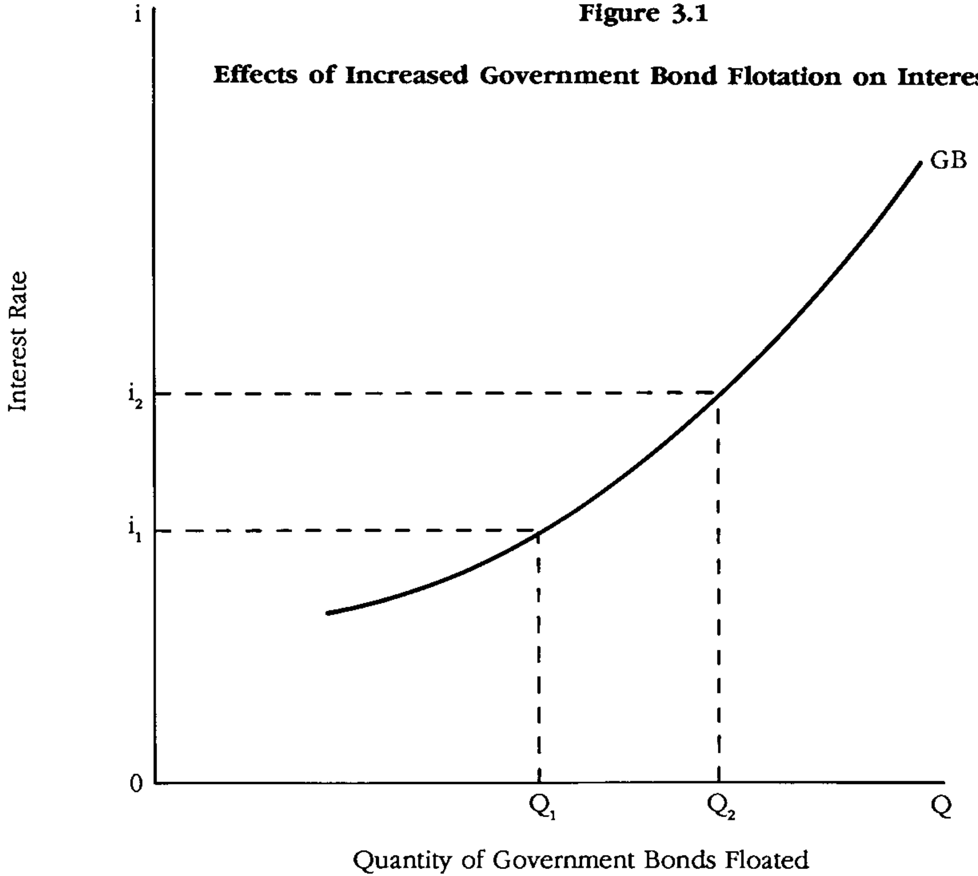
It is hypothesized that if budget deficits are financed through borrowing from banks and non-banks without increasing the original levels of the banks' loan portfolios, private investment is crowded out. If the government deficit is accommodated in addition to the existing loan portfolio, there is credit creation. In both instances, interest rate pressures are present. If the banks in turn rediscount these lendings to the government with the CB, it will amount to monetization of the deficit and hence will lead to money supply growth and the other effects previously discussed.

To assist in appraising if there was indeed a contribution to credit expansion coming from the budget deficit, we used an arithmetic formula based on Floyd's (1984) model. The public sector's (including PSEs) share in real credit expansion from period t to t_{-1} could be measured as follows:

$$SPS = \frac{\dfrac{NC_t}{P_t} - NC_{t-1}}{\dfrac{TC_t}{P_t} - TC_{t-1}}$$

Figure 3.1

Effects of Increased Government Bond Flotation on Interest Rates



where:

SPS = Share of public sector in real credit expansion

NC_t = Net bank and non-bank credits to public sector in period t

P_t = Consumer price index in period t

TC_t = Total credits in period t

The proportional share of public sector credit to total credit should be computed, using the following:

$$PSPS = \frac{NC_t}{TC_t}$$

If SPS>PSPS or the public sector's share in real credit expansion is larger than the proportional share of public sector credit to total credit, then the public sector accounts for an unusually large portion of new debt creation. Hence, it contributes to money supply increments in the event it is accommodated by the CB (through the previously mentioned rediscount mechanism). As an approximation of crowding out, the PSPS may be used as an indicator by analyzing its behavior during the review period. If it shows progressive increments at the expense of other sectoral borrowers, then there may be crowding out.

In Indonesia, the public sector is not allowed to borrow from private non-banks. Their shortfalls are financed through foreign loans and borrowings from the banking system. The country researchers found that these methods of financing do not have any direct impact on interest rates.

Even with regard to new credit creation, the country's public sector did not contribute significantly to new credit creation from 1979-1989. As shown in Chart 3.1, SPS exceeded PSPS only in one year, namely 1979. Regarding crowding out, data also shows a shrinkage in PSPS during the same period such that apparently, there is no case of crowding out.

In Malaysia, the deficits were also found not to have a significant impact on credit creation. From 1978-1988, SPS exceeded PSPS only four times as shown in Chart 3.2. There was a period from 1980-1982 when SPS outpaced PSPS for three consecutive years during which time public development expenditure increased rapidly. Hence, financing the deficits through private bank and non-bank sources did not appear to exert undue pressure on Malaysia's credit markets.

Table 3.7

SHARE OF THE PUBLIC SECTOR IN TOTAL CREDIT

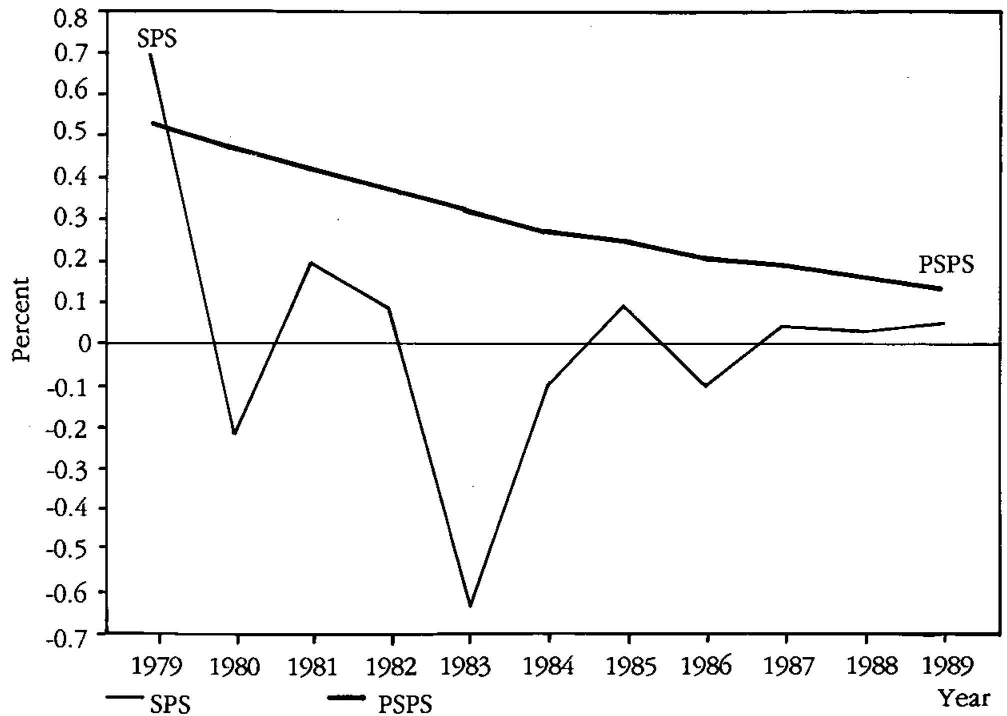
Year	Indonesia [1]		Malaysia [2]		Nepal [3]		Phili [4]		Sri Lanka [5]		Thailand [6]	
	SPS	PSPS	SPS	PSPS	SPS	PSPS	SPS	PSPS	SPS	PSPS	SPS	PSPS
1978	n.a.		-0.08	0.15	n.a.		0.17	0.32	6.24	-0.27	0.20	0.24
1979	0.71	0.53	-0.34	0.04	23.80	69.60	-0.01	0.25	1.35	0.56	0.09	0.23
1980	-0.22	0.47	0.21	0.08	-5.70	60.90	0.22	0.25	0.63	0.60	-5.87	0.28
1981	0.19	0.42	0.44	0.12	1.10	55.00	0.32	0.26	0.78	0.50	0.56	0.29
1982	0.08	0.37	0.43	0.15	102.70	58.20	0.51	0.30	0.17	0.52	0.47	0.31
1983	-0.64	0.32	-0.04	0.11	115.20	69.60	0.34	0.31	1.64	0.01	0.05	0.27
1984	-0.11	0.27	0.09	0.11	99.10	72.00	2.00	0.36	0.45	-5.08	0.21	0.26
1985	0.09	0.25	-0.30	0.06	66.70	71.10	-0.4	1.12	1.08	0.65	-0.02	0.24
1986	-0.10	0.21	0.34	0.08	54.30	69.30	0.16	0.51	0.79	0.51	0.48	0.25
1987	0.04	0.19	-5.19	0.11	64.20	69.10	4.49	0.35	0.72	0.62	-0.02	0.22
1988	0.03	0.16	-0.33	0.08	-4.80	63.90	0.15	0.33	0.52	0.58	-0.53	0.14
1989	0.05	0.13	n.a.		n.a.		0.45	0.35	n.a.		n.a.	

Note: SPS - Public Sector's share in real credit expansion.
PSPS - Proportional share of the public sector credit to total credit.
n.a. - Data not available.
Shaded areas indicate years when SPS exceeded PSPS.

Sources: *1 Table 8, Country Chapter.*
2 Table 14, Country Chapter.
3 Table 14, Country Chapter.
4 Table 3.8, Country Chapter.
5 Table XI, Country Chapter.
6 Table 16, Country Chapter.

Chart 3.1

Indonesia: Share of Public Sector
In Total Credit



Source: Table 3.7

The public deficits in Nepal was mostly financed through the CB (52.5 percent to 62.2 percent). Borrowings from the private sector remained insignificant at around 5 percent of total public sector borrowings. From Chart 3.3, note that from 1979-1988, SPS exceeded PSPS only three times. This, coupled with the fact that interest rates are fixed by the Nepal Rastra Bank meant that financing the deficit through private sector borrowing did not exert upward pressure on interest rates.

In the Philippines, the public sector credits from the monetary system generally outpaced private sector credits in the late seventies to the eighties, except for three years, 1987, 1988 and 1989. From 1978-1989, Chart 3.4 shows that SPS was greater than PSPS for six years, indicating that public sector deficit financing exerted pressures on the credit markets during half of the review period.

High yielding treasury bills used to finance deficits appeared to have shifted funds to the government. When the government set out to deliberately reduce its borrowings from the monetary sector, public sector credit declined in 1987 and 1988. Alternatively, it sourced its funds from deposit Money banks and also through flotation of treasury bills. Since these bills led interest rates in the Philippines, continued massive flotations exerted increases in domestic interest rates. The primary rate on TBS rose from 10.9 percent in 1978 to 19.68 percent in 1979 while the rate on secured loans on the average increased from 12 percent to 19.45 percent during the same periods.

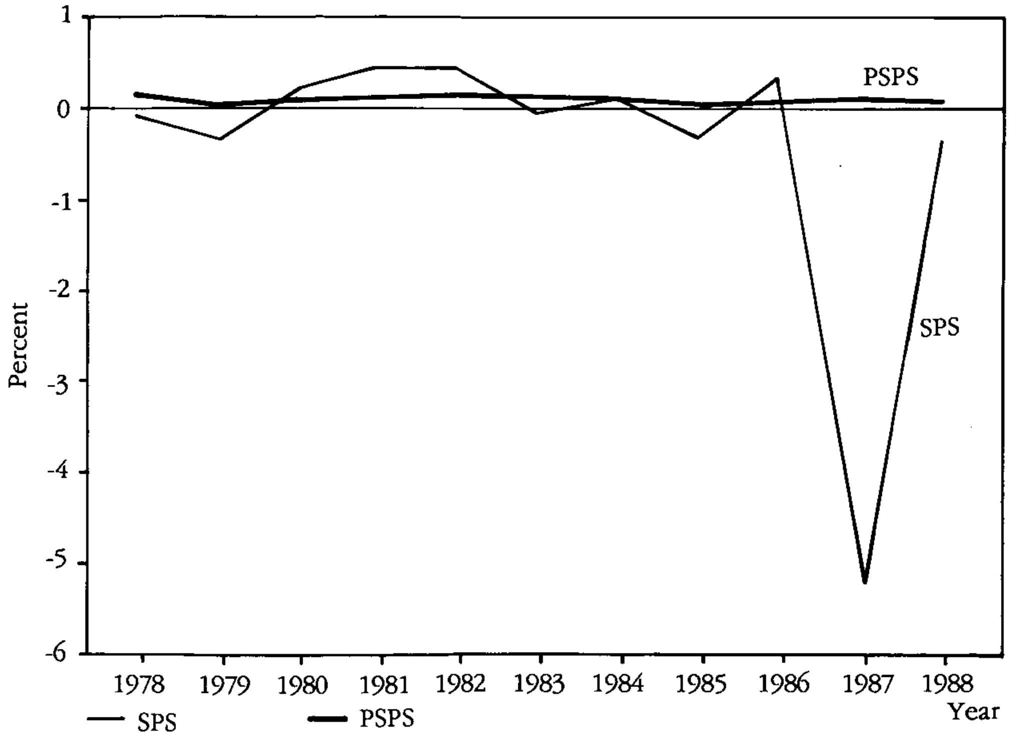
Public sector deficits in Sri Lanka exerted an even more sustained pressure on the credit markets as SPS was found to exceed PSPS in 10 out of 12 years from 1977-1988 (Chart 3.5). Public sector credit growth accounted for an average of 36 percent of M2 growth from 1976-1988.

This pressure was found to be reflected in interest rate movements during the period. The lending rates rose from 6.5 to 20 percent in 1977 to 9 to 30 percent in 1988. Interest rates on rupee loans increased from 9.5 percent to 13 percent, while Treasury bill interest rates soared from 9 percent to 20 percent during the same period. Some evidence of crowding out may be pointed out such as the reduction in private sector capital formation from 1983-1988.

In Thailand, the deficits were not perceived to exert any undue pressure on the credit market. SPS exceeded PSPS only in three years

Chart 3.2

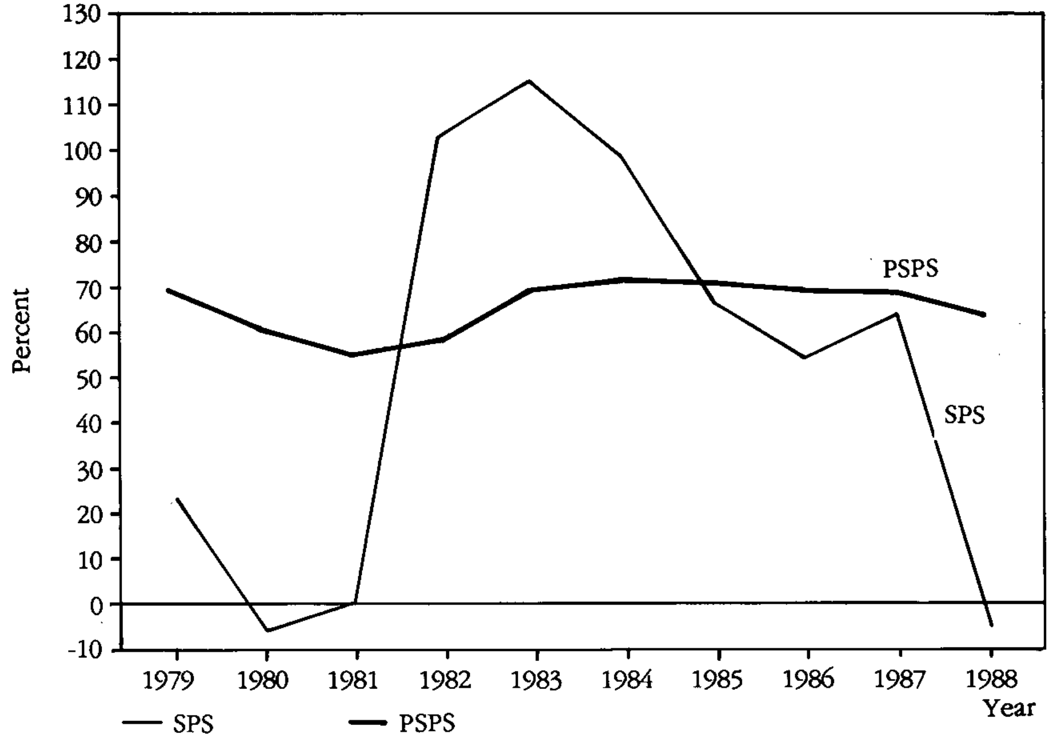
Malaysia: Share of Public Sector
In Total Credit



Source: Table 3.7

Chart 3.3

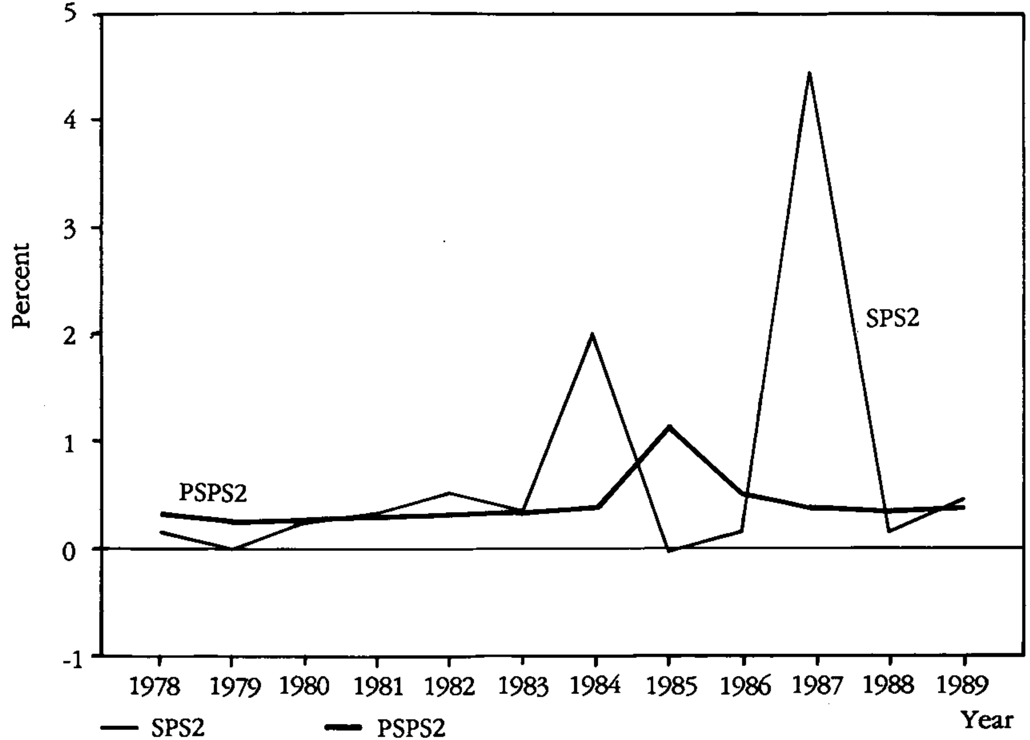
Nepal: Share of Public Sector
In Total Credit



Source: Table 3.7

Chart 3.4

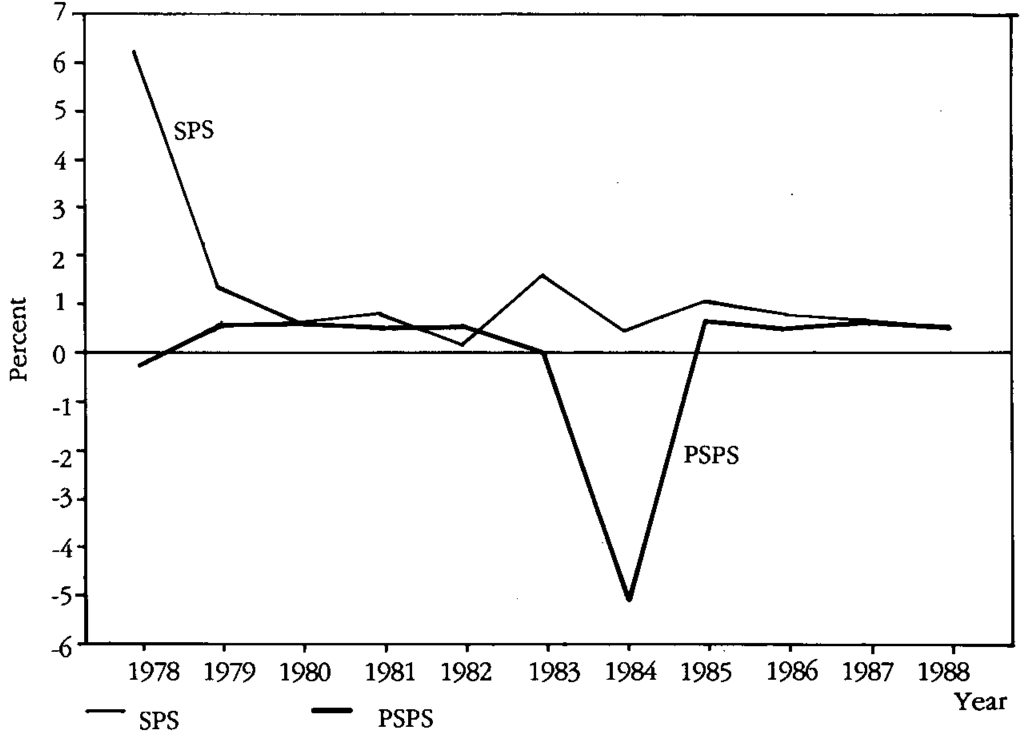
Philippines: Share of Public Sector
In Total Credit



Source: Table 3.7

Chart 3.5

Sri Lanka: Share of Public Sector
In Total Credit



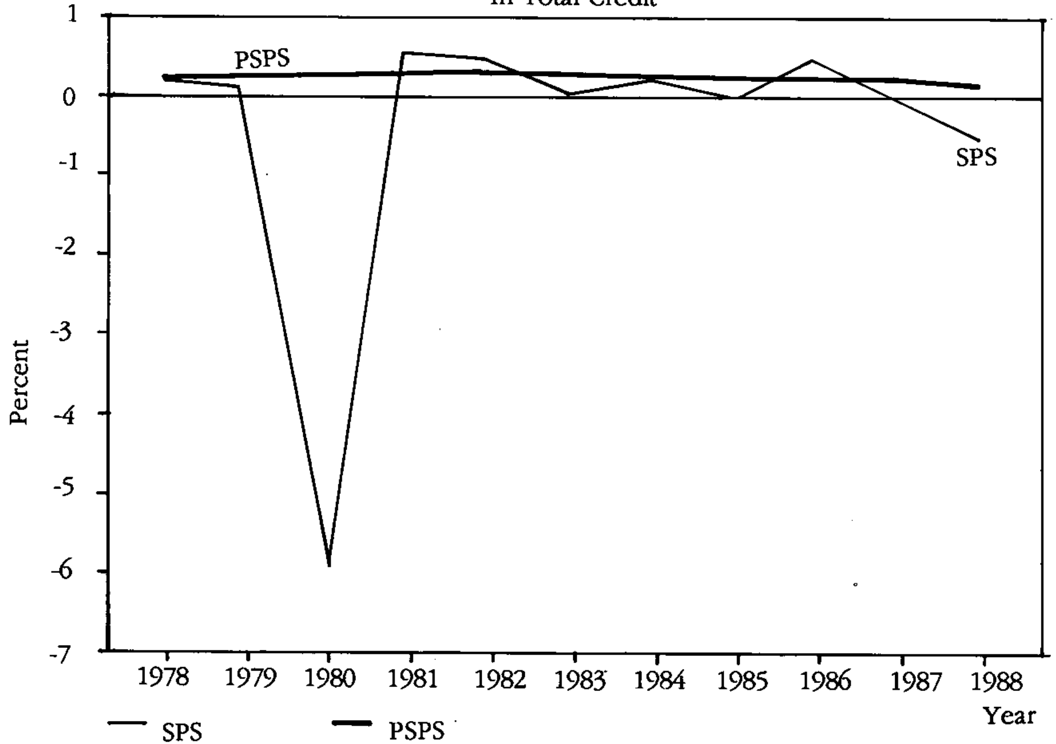
Source: Table 3.7

from 1978-1988 (Chart 3.6). This occurred in 1980, 1981 and 1986. Worldwide recession may have accounted for this incidence in 1980 and 1981 while the Thai economy's recession may have been the cause of the 1986 occurrence. No crowding out was also reported in view of the openness of the Thai economy and its ready access to foreign capital.

Chart 3.6

Thailand: Share of Public Sector

In Total Credit



Source: Table 3.7

Chapter 4

IMPLICATIONS ON MONETARY POLICY

Budget deficits impinge on monetary policy because the fiscal-monetary policy mix, or the joint state of monetary and fiscal policy, influence the patterns of the business cycle, set up numerous imbalances in macroeconomic and microeconomic behavior and set the stage for future economic performance.

The policy mix may be that of loose fiscal-easy money; loose fiscal-tight money; tight fiscal-tight money; or, tight fiscal-easy money, depending on the objectives and conditions at hand. A loose fiscal-easy money policy is highly stimulative, since it consists of both budget stimulus and rapid growth in bank reserves. When inflationary pressures dominate, a tight fiscal-tight money policy may be adopted.

When the government runs up deficits and relies on the monetary authorities to counter inflation and interest rate hikes, the mix may be one of loose fiscal-tight money.

Other avenues of possible linkage between fiscal and monetary policy are through interest rate smoothing and the concept of "fiscal dominance".

When deficit financing through borrowings from the public sector results in interest rate pressures which the monetary authorities may deem appropriate to resist, they conduct "interest rate smoothing". This is carried out by persistently increasing the money supply. However, if this is sustained, it will in turn push up inflation. Hence, to the extent that market players believe that the monetary authorities will resort to interest rate smoothing, inflationary expectations rise. This will in turn cause higher inflation rate in the future.

As government debt accumulates and taxes are insufficient to cover payments thereof, the monetary authorities may be called upon to help by printing money. This accommodation means that the fiscal side is dominant and hence, the concept of "fiscal dominance" is manifested. This assumes that once the fiscal authority sets target expenditures and revenues, the monetary authority is forced to finance any resulting deficit by the creation of new money.

Public Sector and Monetary Policy

It is widely felt that if and when government deficits result in destabilizing effects on the economy and government cannot implement appropriate fiscal controls, the monetary authorities are charged with the task of countering these destabilizing influences. These may generally take the form of interest-rate related disturbances in the case of borrowing from the private sector or money supply related.

Budget deficits incurred by the public sector in Indonesia financed through borrowing from the CB contributed to high inflation rates during the 1960s. By 1966, inflation rate had reached an astronomic level of 635.36 percent, prompting the government to implement monetary and fiscal tools of control. On the monetary side, it took the form of selective credit controls and the development of a sound banking system. On the fiscal side, the principle of a dynamic and balanced budget was introduced. The balanced-budget policy was adopted to control inflationary pressures which might disturb economic stability, whereas the principle of dynamic budget was designed to encourage economic growth. Consequently, inflation was brought down to 8.9 percent in 1970.

Since the adoption of the balanced budget policy, all the shortfalls are financed through foreign borrowings/grants. Public sector enterprises are not allowed to borrow from private non-banks so the instabilities associated with debt monetization as well as borrowing from the non-bank private sector have been avoided. The question however, now, is the effect of the shortfalls on the country's balance of payments.

The oil boom of the 1970s however, rekindled inflationary pressures with inflation averaging 14.2 percent from 1978-1982. Price controls were imposed on essential commodities and the CB provided direct credit to the National Foodstuff Logistics Agency for price stabilization activities. High interest rates were also imposed.

In mid-1983, the government commenced the implementation of major reforms in the monetary sector. Financial reforms such as reduction of Bank Indonesia's liquidity credit through the removal of ceiling on net domestic assets and discretionary authority given to state banks to formulate their own lending policies. Henceforth, monetary control was carried out through indirect means, mainly through open market operations. The government introduced two instruments, the Bank Indonesia Certificate (SBI) and Money Market Securities (SBPU). Secondary market trading of these securities was also encouraged.

In Malaysia, during the early 1970s, liquidity in the banking system increased significantly, brought about by a booming export sector and expansionary fiscal policy. To safeguard monetary stability and forestall inflation, a number of monetary measures were implemented. The Malaysian dollar was allowed to go on a free float in June 1973. Then a tight monetary stance was followed involving a combination of instruments to restrain credit expansion, encourage savings and direct the flow of credit to raise productive capacity while discouraging the financing of projects that exacerbated supply shortages and loans for speculative purposes. Among the measures were interest rate hikes on both bank deposits and loans; raising of statutory reserves of commercial banks and finance companies to 10 percent and 7 percent respectively; and, raising of liquidity ratio of banks to 25 percent in August 1973. Complimentary to the foregoing measures, some fiscal restraint was also enforced. They included the flotation of government bonds to mop up excess liquidity and amendment of the system of issuance to one of open tender to ensure that their discount rates reflected market levels. Direct measures against inflation such as subsidies for essential food items, removal of import quotas and the like were also put in place.

However, in the face of continued fiscal expansion, monetary measures alone were insufficient to fend off inflation. So, in April 1974, a package of monetary and fiscal policy was implemented to reverse the trend. It involved two basic elements: higher interest rates and the imposition of a credit growth ceiling; and, more effective export taxes and fiscal restraint. Towards the end of the year however, the authorities deemed it necessary to resume fiscal stimulation. This left the monetary authorities in a dilemma -- inflation was still at an unacceptable level but counter cyclical measures were also called for. The monetary authorities took the middle course of gradually relaxing credit ceiling and reducing the statutory reserves. These were carried on in 1975/1976. This expansionary fiscal stance and an accommodative monetary policy persisted until 1980/1981.

Despite the foregoing, government deficits did not result into undue price pressures in Malaysia because of the Public Sector's willingness and commitment "to implement the necessary adjustment programs when the economy was not in a position to support any big spending by the public sector". This was manifested in 1982 when a public sector retrenchment was undertaken. Drastic cuts in expenditure allocation to the tune of $ 18 billion for five years was implemented. Subsidy programs were slashed despite the collapse of commodity prices in 1985. Thus, by the end of 1987, the public sector deficit was reduced to M$ 3.8 billion or 5.1 percent of GNP as compared to $11 billion in 1982. The year 1988 saw an even smaller deficit of M$ 3.4 billion or less than 4 percent of GNP.

In Nepal, the expansionary fiscal policy resulted in a series of internal and external instabilities, worsened by natural calamities. The internal instability manifests in inflationary situation. During the decade under review, inflation averaged 10.2 percent per annum. During seven out of the ten years, inflation was at double-digit levels. The large money supply also created external disequilibrium in the form of a higher trade deficit. Because of its openness and its long open border with India, monetary expansion boosts import demand and exerts pressures on the balance of payments position.

Monetary policies therefore were geared toward neutralizing the foregoing instabilities. Among the tools used are cash reserve management, imposition of credit ceilings, margin requirement on import credit and interest rate changes.

The CB uses a combination of the said instruments as the situations warrant. The most frequently used is the credit ceiling. It was imposed in 1978/1979, 1979/1980, 1986/1987 and 1987/1988. Stringent credit control measures in tandem with strict fiscal discipline had somewhat retarded inflation rates.

As it was, the monetary policy had only very limited efficiency in controlling the major factors which affected money supply (M1), namely net foreign assets and domestic credit. The former is not under the direct control of the CB since it is the result of interaction between the country's external demand and supply positions. The latter is made up of credit to government, public enterprises and private sector. Since credit to government is determined by fiscal agencies and since credit to PSEs is guaranteed by the government, the CB cannot control them either. Due to the fact that these two types of credit make up the bulk of domestic credit, the CB has control only over the very small pri-vate credit and hence, its control over money supply growth is also limited.

Therefore, monetary policy in Nepal is directed towards influencing the total volume and direction of credit to the private sector. Recently, however, there have been efforts to influence the credit flow to government and PSEs through the imposition of credit ceilings.

In the Philippines, numerous policy measures were undertaken to support economic growth, manage credit and fight inflation. During the early 1980s, supportive and moderately expansionary measures through demand stimulation were adopted. Interest rate ceilings on deposits and loans were deregulated and universal banking was introduced.

To finance the fiscal deficits incurred as a result of intensified public spending in the 1970s and high debt-service burdens in the 1980s, government securities were issued. In tandem with interest rate deregulation, the CB rediscount window was rationalized to curtail banks' dependence on cheap CB credit.

When inflationary tendencies heightened, restrictive monetary policies such as increasing the reserve requirement and extensive open market operations were implemented. Ceilings were also set to control reserve money growth, net domestic credits of the monetary system and public sector borrowings.

The sustained high level of public sector borrowing from the financial system (including CB) in Sri Lanka has compelled the CB to follow a tight monetary policy in order to achieve domestic price stability and maintain a satisfactory level of import reserves in the country. However, the growth of domestic credit or reserve targets were only marginally affected by monetary policy as the monetary system had to accommodate public sector deficits.

In some isolated instances when both monetary and fiscal policies sought to control inflation, price stability was achieved as was the case when the inflation rate of 26 percent in 1980 was brought down gradually to 1.5 percent in 1984.

As tight monetary policies affected only credit to the private sector, this led to the crowding out of the private sector. For instance, private sector capital formation gradually declined from 14.0 percent of GDP in 1981/1982 to about 12.0 percent of GDP in 1987/1988.

In Thailand, monetary policy has taken a complimentary role to fiscal policy, with a thrust towards economic stabilization. Recently, the role of monetary policy has expanded. With the shift in fiscal objective towards controlling public expenditures and limiting external borrowing, fiscal policy has been unable to take an expansionary stance. In its place, monetary policy has been used to induce economic expansion in addition to its traditional objective of maintaining external balance. This has complicated the conduct of monetary policy, as the need to stimulate economic activity has at times been inconsistent with the maintenance of exchange rate stability and adequate foreign reserves. Nevertheless, the Bank of Thailand has attempted to reach these divergent targets by a change in interest rate ceiling of deposits and loans, credit control and exchange rate adjustment.

When the public sector continuously runs up deficits, disturbances occur in the economy. As previously discussed, this may run the range from increased money supply, inflationary tendencies and in some instances, crowding out. The experiences of the SEACEN countries covered in this study are varied. While some countries like Nepal, the Philippines and Sri Lanka found some link between deficits and inflation as well as crowding out, in Indonesia, Malaysia and Thailand, there was no extensive evidence to support such hypothesis.

Concluding Observations

During the period under review, the SEACEN countries relied mostly on a combination of direct and indirect tools of monetary policy. Monetary policy was more often than not utilized to neutralize the destabilizing effects of an expansionary fiscal policy. In the Philippines, recourse to flotation of government securities as well as excess deposits by the national government with the CB was undertaken. In Sri Lanka, it was a combination of monetary and fiscal policies involving at times ad-hoc tax measures which in themselves could be destabilizing, as expectations are geared towards the consequences of such ad-hoc measures. In Nepal, more direct controls such as price controls were resorted to. Nevertheless, in all the aforesaid countries, it was recognized that public sector deficits impinge on monetary policy in that when expansionary fiscal policies are followed in line with huge public sector outlays, monetary policy is called upon to tighten its grip on the economy to minimize adverse effects.

As tight monetary policies are followed, it is of course the private sector which gets squeezed out. This crowding out however was not consistently evident in Indonesia, Malaysia and Thailand. This may be attributable to the fact that fiscal measures were undertaken in tandem with monetary measures. In the case of Indonesia, a balanced-budget policy for the central government was followed. In Malaysia, deficits were financed through non-inflationary captive sources and a massive retrenchment exercise was undertaken after the deficit ballooned in the early 1980s. In Thailand's case, the resolve not to create new PSEs somewhat eased budgetary pressures.

Hence, it could be concluded that close coordination between fiscal and monetary policies is needed to achieve the right kind of policy mix which will be conducive to growth but at the same time not engendering economic dislocations. Monetary policy alone is not sufficient to bring about stability if fiscal policy is working at cross purposes. There must be a balance between the two policies. In the case of developing countries, the monetary authorities are at times called upon to discharge tasks which are not strictly in the nature of monetary management, so as to support the fiscal side. Whether the emerging mix will be a loose fiscal-tight money, tight fiscal-easy money, loose fiscal-easy money or tight fiscal tight money would depend on the particular circumstances a country faces at a given point in time.

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PUBLIC SECTOR EXPENDITURE AS PERCENTAGE OF GDP IN SELECTED SEACEN COUNTRIES (Latest available period averages)

Year	Indonesia[1]	Malaysia	Nepal[2]	Philippines[3]	Sri Lanka[4]	Thailand[5]	Average
1978	23.3	26.1	-	29.7	40.3	20.2	27.9 [6]
1979	23.3	23.9	13.6	29.0	37.9	20.1	24.6
1980	24.8	29.2	14.9	33.7	42.4	23.3	28.1
1981	24.8	35.4	15.0	35.6	33.0	23.1	27.8
1982	24.8	38.3	17.3	36.0	33.8	24.0	29.0
1983	24.8	35.9	20.7	35.2	32.6	23.1	28.7
1984	24.8	32.0	18.9	30.9	31.1	23.8	26.9
1985	22.3	31.5	18.9	29.6	34.0	25.5	27.0
1986	23.5	31.0	19.4	35.9	33.0	24.1	27.8
1987	21.3	25.9	19.9	32.6	32.5	21.5	25.6
1988	21.6	24.6	20.8	30.1	34.3	19.8	25.2
1989	23.2	25.8	-	29.9	-	-	26.3 [7]
Average	**23.5**	**30.0**	**17.9**	**32.4**	**35.0**	**22.6**	**27.1** [8]
	(78-89)	(78-89)	(79-88)	(78-89)	(78-88)	(78-88)	

Sources: *1 Period averages prior to 1985, calculated from Table 5.4 of Country Chapter.*
2 First entry is 1978/79, Table7.7 of Country Chapter.
3 Table 8.5 of Country Chapter.
4 Central Government only, Appendix 9.2 of Country Chapter.
5 First entry is 1977/78, Table 10.4 of Country Chapter.
6 Excludes Nepal.
7 Includes only Indonesia, Malaysia and Philippines.
8 Based on yearly regional averages for the period 1978-89.

PUBLIC SECTOR REVENUE AS PERCENTAGE OF GDP IN SELECTED SEACEN COUNTRIES (Latest available period averages)

Year	Indonesia[1]	Nepal[2]	Philippines[3]	Sri Lanka[4]	Thailand[5]	Average*
1978	23.3	-	30.0	26.4	14.7	23.6[6]
1979	23.3	10.9	30.4	23.2	15.5	20.7
1980	24.9	11.5	33.9	20.2	16.0	21.3
1981	24.9	12.0	32.1	17.4	16.5	20.6
1982	24.9	11.9	32.2	16.3	16.3	20.3
1983	24.9	11.6	34.3	19.2	17.5	21.5
1984	24.9	10.9	28.8	22.2	18.8	21.1
1985	22.3	10.9	27.3	22.3	18.9	20.3
1986	23.5	11.5	28.8	20.7	19.0	20.7
1987	21.3	12.6	31.0	21.4	19.4	21.1
1988	21.6	13.9	28.1	18.7	20.6	20.6
1989	23.2	-	28.7	-	-	26.0[7]
Average*	**23.6**	**11.8**	**30.5**	**20.7**	**17.6**	**21.5**[8]
	(78-89)	(79-88)	(78-89)	(78-88)	(78-88)	(78-89)

Sources: *1 Period averages prior to 1985, calculated from Table 5.4 of Country Chapter.*
2 Table 7.7 of Country Chapter.
3 Table 8.5 of Country Chapter.
4 Central Government only, computed from Appendix 9.2 of Country Chapter.
5 First entry is 1977/78, Table 10.4 of Country Chapter.
6 Excludes Nepal.
7 Includes only Indonesia andPhilippines.
8 Based on yearly regional averages for the period 1978-89.
** Average based on available data.*

DEFICIT TO GDP RATIOS IN SELECTED SEACEN COUNTRIES
(For period indicated)

Year	Nepal[1]	Philippines[2]	Sri Lanka[3]	Thailand[4]
1978	n.a.	S	12.5	5.2
1979	2.7	S	17.6	4.4
1980	3.4	S	22.4	7.0
1981	2.9	3.5	17.6	6.1
1982	5.4	3.7	22.3	7.7
1983	9.0	0.9	14.6	5.6
1984	8.0	2.1	8.8	4.5
1985	8.0	2.3	12.7	6.1
1986	7.9	7.1	11.4	4.6
1987	7.4	1.6	11.9	1.5
1988	6.9	2.0	16.3	S
1989	n.a.	1.1	n.a.	S

Note: n.a. - Data not availabe.
S - Surplus.

Sources: 1Table 7.7 of Country Chapter.
2Table 8.8 of Country Chapter.
3 Appendices 9.1 and 9.2, Country Chapter.
4 Table 10.4, Country Chapter.

Malaysia
SOURCES OF DEFICIT FINANCING: 1976-1989

(In Percentage)

Period	Govt. Surplus	Public Auth. Surplus	Use of Reserves	Net Domestic Borrowing	Net Foreign Borrowing
1976-1980	22.0	6.7	15.2	40.3	15.8
1981-1985	13.3	27.0	-3.1	30.2	32.6
1986-1989	20.9	32.6	-6.1	63.5	-10.9
Average (1976-1980)	**18.7**	**22.1**	**2.0**	**44.7**	**12.5**

Sources: Table 6.6, Country Chapter.

Nepal

SOURCES OF DEFICIT FINANCING: 1979-1988

(In Percentage)

Year	Domestic	Foreign
1979	36	64
1980	32	68
1981	14	86
1982	57	43
1983	68	32
1984	47	53
1985	51	49
1986	37	63
1987	36	64
1988	18	82
Average (1979-1988)	**39.6**	**60.4**

Sources: Table 7.10, Country Chapter.

Philippines

SOURCES OF DEFICIT FINANCING: 1980-1989[1]

(In Percentage)

Year	Domestic	Foreign
1980	29.0	71.0
1981	50.7	49.3
1982	68.1	31.9
1983	15.3	84.7
1984	77.3	22.7
1985	106.4	-6.4
1986	89.1	10.9
1987	61.1	38.9
1988	89.9	10.1
1989	78.5	21.5
Average (1980-1989)	**66.5**	**33.5**

1 For National Government Deficits.

Sources: Table 8.16, Country Chapter.

Sri Lanka

SOURCES OF DEFICIT FINANCING: 1978-1988

(In Percentage)

Year	Domestic	Foreign
1978	30.9	69.1
1979	67.6	32.40
1980	68.6	31.4
1981	48.7	51.3
1982	53.6	46.4
1983	42.9	57.1
1984	28.0	72.0
1985	57.2	42.8
1986	51.5	48.5
1987	79.9	20.1
1988	78.7	21.3
Average (1978-1988)	**55.2**	**44.8**

Sources: Appendix 9.1, Country Chapter.

SOURCES OF DEFICIT FINANCING: 1978-1988

(Average figures for 1980-1988)

Country	Domestic	Foreign
Malaysia	83.8	16.2
Nepal	40.0	60.0
Philippines	65.2	34.8
Sri Lanka	56.6	43.4
Regional Average	**61.4**	**38.6**

Sources: Computed from Appendices 4, 5, 6, and 7.

Part II

COUNTRY CHAPTERS:
INDONESIA
MALAYSIA
NEPAL
PHILIPPINES
SRI LANKA
THAILAND

Chapter 5

PUBLIC SECTOR AND MONETARY POLICY IN INDONESIA

by

Yoyoh Mertasudira and Linda Hakim

I. Introduction

Almost in every country, public sector activities are seen as one of the sources of inflationary pressure. As an example, prior to 1966, Indonesia experienced high inflation rates that caused a deterioration in its economy. These high inflation rates have originated mainly from the public sector as a result of financing budget deficits by printing money.

To improve the general economic condition in the period 1966-1969, the New Order Government introduced a rehabilitation and stabilization program aimed at fostering a suitable environment to start economic development in the country. The implementation of this program started with efforts to reduce inflation rates in all sectors. In the public sector, to reduce the inflationary pressure of budget deficit financing, the Government adopted a balanced budget policy. By adopting the balanced budget policy, inflation rates could be reduced.

Although the adoption of a balanced budget policy succeeded in reducing the inflationary impact of budget deficit financing, it failed to reduce the inflationary impact of overall deficits on public sector. In the case of Indonesia, this occurred because state budget only covers some part of public sector activities namely Central Government, while other activities such as regional government and public enterprises' activities are not included in the state budget.

Budget activities follow a balanced budget policy. This means that expenditures are maintained at the same level as revenues. Although the budget is set to be balanced, it may contain some deficit components. Based on the theoretical ground, financing budget deficit may have an inflationary impact, depending upon the source of financing the deficit.

This paper aims to study the inflationary impact of public sector activities, especially in financing its deficits in Indonesia. It covers the period between 1978 and 1989. To analyze the impact of public sector activities on the monetary sector, the Aghevli-Khan model has been used with some modifications with regard to Indonesian conditions.

This paper consists of several sections, namely:

- Section I is an introduction;
- Section II is an overview of the public sector;
- Section III discusses on public sector deficits, its causes and its sources of financing;
- Section IV discusses the effects of financing public sector deficits;
- Section V discusses monetary policies used in Indonesia to control inflation; and,
- Section VI is a summary and conclusions.

II. Public Sector and Monetary Policy

2.1 Overview of the Public Sector (PS) including Public Sector Enterprises (PSEs)

In Indonesia, like other developing countries, the public sector is a major active agent of economic development, and therefore plays an important role in all developmental activities. The role is primarily needed in providing infrastructures to support development which is not likely to be provided by the private sector. Implementation of this role is carried out by the General Government, which comprises central government and local/regional government, and specialized bodies known as Public Enterprises (PEs). The central government consists of all ministries and central government institutions financed by state budget, while local/regional government consists of local regional government institutions and enterprises financed by regional budget. PEs consist of enterprises in which Government owned at least 50 percent equity interest and/or controlled the business activities.

The existence of PEs as a component of the public sector is mainly based on Chapter 33 of 1945 Constitution which stipulates that all economic activities concerning basic necessities of the people should be operated and controlled by the Government. To this end, PEs have been established and (along side ministries and other governmental institutions) are operating mainly in those economic sectors concerning daily necessities of the people.

As of 31 March 1990, there are 189 PEs which are wholly/ majority owned and managed directly/indirectly by the Government. Those PEs operate in various economic activities mainly in the production of goods and services having a direct impact on daily necessities of the people. In line with the Presidential Decree No. 5/1988, the Government had evaluated the PEs with result that a number of PEs will go public in 1990. The PEs which will go public in 1990 operate in various sectors such as manufacturing, financial, agricultural, and services including tourism sector. Therefore, by the time those PEs realized their program, the number will be reduced to 75 PEs.

2.2 Evolution and Nature of PSEs

In accordance with the underlying philosophy of Chapter 33 of 1945 Constitution, PEs had initially been established and operated mainly in those economic sectors considered having a vital and strategic importance and concerning daily necessities of the people. Along with political developments during 1959-1966, during which the Government pursued a "confrontative policy" and strong "guided economic system", British and Dutch firms including their subsidiaries operating in Indonesia had been appropriated and transferred to the newly established government enterprises. At that time, the Government expected that government enterprises should take a dominant role in promoting development. Those government enterprises had been established under new legal entity, namely, State Enterprise (Perusahaan Negara) or Public Enterprises (PEs) under the supervision of ministries and in that way they were fully subject to ministerial hierarchy. Consequently, performances and managerial responsibilities of the PEs as a business unit were deteriorating and crumbling down.

As government involvement the economic sector grew bigger and wider during 1957-1965, diverse functions and targets had to be attained by those PEs. However, the management and accountability of those enterprises deteriorated, thereby necessitating improvement in efficiency. One of the first steps taken by the New Order Government in 1969 was promulgating an act concerning PEs, which stipulates, inter alia a dual aim for PEs, namely: (a) operating businesslike to achieve maximum profits, eventually becoming a source of income for government treasurer; and, (b) implementing government economic policies, in that way enhancing economic development.

Subsequently, the PEs sector expanded in 1970s buoyed by large oil revenues, to perform broader objectives. These objectives are set out in Government Regulation No. 3, 1983, as follows: (a) contribute to economic development and state revenues; (b) provide basic goods and services for the general public; (c) pioneer activities, which promote or complement private sector development; and, (d) generate income and profits.

Whereas formerly there had been only a single form of legal entity for PEs, namely State Enterprise (Perusahaan Negara), the new act recognizes three forms of legal entities. Firstly, a legal entity still being a direct part of a ministry, called "Public Utilities" (Perusahaan Jawatan/ Perjan). Secondly, a legal entity closely linked to a ministry, called "Public Service Company" (Perusahaan Umum/Perum). Thirdly, the "Limited Company" (Perusahaan Perseroan) which is fully subject to Civil Law and government participation/ownership is through shareholdership.

"Perjan" operates in those public utilities sectors considered vital and strategic, stressing on service rendering to the public. Being established and operating with funds from Government through the yearly budget, "Perjan" does not have an autonomous organization and forms a direct part of a ministry and under its direct control. Since the promulgation of the new act until now, there have been established only two "Perjan", namely, Perjan Pegadaian (State Pawn Agency) and Perjan Kereta Api/PJKA (State Railway Agency).

In order to strengthen national economic power, PEs in the form of "Perum" were established in public utilities and services sectors. In its operations, a healthy balance between services rendered and its achieved profits, should be taken into account so as to assure going concern. Capital for the establishing "Perum" originated from funds supplied by the government treasurer but immediately seceded from the budget. It has an autonomous organization, legally separated from the ministry, so even Government being sole owner, ownership is rather indirect and custody is performed through a board consisting of government officials from relevant ministries and Ministry of Finance. At this moment, there are 32 "Perum", operating in various sectors such as communications, infrastructure, telecommunications, and public housing.

In addition to "Perjan" and "Perum", there are PEs which mostly originated from the appropriation of foreign firms or their subsidiaries operating in Indonesia. These PEs are operating in various business sectors and can be distinguished further as operating in the financial and non-financial sectors. The new act obliged those PEs to be transformed into "Persero" (Limited Company) and thereby wholly subject to Civil Law like all other private business enterprises operating in Indonesia.

The main criterion for acquiring government approval for transformation into "Persero" is adequate performance capacity and capability for achieving fair profits. Those PEs which are unable to meet standards will be subject to liquidation or to be merged with another existing "Persero" already operating in the same field.

"Persero" ownership is through shareholding, which is fully or partially held by the Government. Formally initial capital is acquired by paid-up shares from funds of government treasurer succeeded from the budget. Control of "Persero" is effectuated by the General Shareholders Meeting which for daily activities is being represented by a Custodial Board, whose members elected and appointed by the General Shareholders Meeting as stipulated by Civil Law. Nowadays, there are 155 "Persero" including 9 "Persero" which have a special status, consisting of 1 Central Bank, 7 state banks and 1 state oil company. Later on, there was another form of government enterprises, namely, "joint-ventures" between government enterprises and domestic/foreign private enterprises, creating a quasi-governmental enterprise image.

Viewed sectorally, PEs are active in various economic sectors and are categorized according to relevant ministries as shown in Table 5.1. From that Table, it can be seen that beside 2 "Perjan", 32 "Perum" and 135 "Persero", (including 15 joint-venture companies), there are also 20 PEs which include 7 old status PEs (State Company/Perusahaan Negara) and 5 PEs which has been in the transformation process.

The summary of PEs' can be seen on Table 5.2. During 1983-1988, total asset of all PEs showed an upward trend reaching Rp. 138.1 trillion in 1988, or an increase of about 54.5 percent. On the other hand, profitability of the PEs which was indicated by ratio of total profit to total asset was relatively low. The ratio was 3.20 percent in 1983 and declined to 2.20 percent in 1988. Total profit of the PEs in Indonesia (before tax) for the last three years were recorded Rp. 3.00 trillion in 1988, Rp. 2.90 trillion in 1987, and Rp. 4.30 trillion in 1986. These profits originated from 150 entities in 1988 and 142 entities in 1987. In the meantime, 51 entities experienced losses of about Rp. 0.3 trillion in 1986, 47 entities of Rp. 0.3 trillion in 1987, and 39 entities of Rp. 0.3 trillion in 1988.

Table 5.1

SECTORAL DISTRIBUTION OF PUBLIC SECTOR ENTERPRISES
As at End of April 1989

No.	Departments	Limited Companies Sole Own	Limited Companies Joint Vent.	Public Service Co.	Public Unilities Co.	Old Status	Special Status	Transformation Process	Total
1.	Industry	25	7	2	-	2	-	4	40
2.	Agriculture	32	-	2	-	2	-	-	36
3.	Finance	10	6	2	1	-	7[1]	-	26
4.	Public Works	16	-	2	-	-	-	-	18
5.	Communications	6	-	10	1	-	-	-	17
6.	Mining & Energy	4	-	3	-	-	1	-	8
7.	Trade	8	1	-	-	-	-	1	10
8.	Tourism, Postal Services & Telecommunications	5	-	2	-	-	-	-	7
9.	Forestry	3	1	1	-	-	-	-	5
10.	Non-Department	-	-	-	-	1	-	-	1
11.	Information	2	-	-	-	2	-	-	4
12.	Public Health	1	-	3	-	-	-	-	4
13.	Defense	-	-	2	-	-	-	-	2
14.	Manpower	-	-	1	-	-	-	-	1
15.	Educations & Culture	-	-	1	-	-	-	-	1
16.	BPIS	8	-	1	-	-	-	-	9
	Total	**120**	**15**	**32**	**2**	**7**	**8**	**5**	**189**

1 Excludes Central Bank
Note: BPIS = Badan Pengelola Industri Strategis (Strategic Industries Management Institution).

Source: Ministry of Finance.

Table 5.2

SUMMARY POSITION OF PSEs

	1983	1984	1985	1986	1987 *	1988 *
			(in Trillion of Rp.)			
Total Assets	89.4	105.0	125.2	141.0	131.5	138.1
Paid-up Capital and Reserve	26.3	29.3	32.2	33.8	36.5	38.3
Sales Revenue	27.1	31.6	30.4	34.4	29.8	31.3
Net Profit Before Tax	2.3	3.1	3.8	4.0	2.6	2.7
Gross Profit Before Tax	2.9	3.6	4.3	4.3	2.9	3.0
Loss	(0.6)	(0.5)	(0.5)	(0.3)	(0.3)	(0.3)
			(in Percent)			
Net Profit/Sales	8.5	9.8	12.5	11.6	8.7	8.6
Gross Profit/Assets	3.2	3.4	3.4	3.0	2.2	2.2
Gross Profit/Paid-up Capital and Reserves	11.0	12.3	13.4	12.7	7.9	7.8
GDP (at current price)	77.7	89.8	96.8	102.5	124.5	139.4
Ratio (%):						
Assets/GDP	115.1	116.9	129.3	137.6	105.6	99.1
Gross Profit/GDP	3.7	4.0	4.4	4.2	2.3	2.2

* Provisionalfigures.

Source: Ministry of Finance.

Even though profits are very small, we cannot use such indicators to assess their performance, mainly due to their goals to be achieved as stipulated in the regulation or act. In addition, each of the PEs was established under different situations and circumstances with different emphasis of its objective. It would be much better and more fair to evaluate performance of each PEs individually, taking into full weight specific policy considerations, its establishment, and specific attainment of its objective.

Recently, the Government announced that performances of the PEs in Indonesia are based on their financial soundness measures covering profitability, liquidity and solvency. By using financial data from 1985-1988, among 189 PEs have been classified into four categories: very sound, sound, less sound, and unsound. About one-third of the total was classified as unsound.

In 1989, based on this financial indicator, the Ministry of Finance and the line ministries jointly have been proposed a set of corporate restructuring option. These options are: change of legal status (15 PEs), sale of stock on the bourse (52 PEs), direct placement of stock, consolidation or merger (22 PEs), sale of company to a third party (6 PEs), establishment of a joint-venture (16 PEs), liquidation (3 PEs), and the rest of PEs will be in the same status.

2.3 Role of the Public Sector Enterprises in Economic Development

Indonesia's income measured in terms of GDP reached Rp. 139.452 billion in 1988. The agriculture sector contributed the biggest portion at 24.1 percent. The Government has given high priority to agricultural development and state-owned enterprises operate in a number of agricultural commodities, namely, rubber, chocolate, sugar, tea, palm oil, and other cash crops. During the First and Second Five Year Development Plans (1969/70-1973/74 and 1974/75-1978/79), the agricultural sector received 21.7 percent of total development and 19.1 percent of government development expenditures. Between 1978-1988, some development projects, such as, Bimas, Inmas and Insus, were financed by the Government to introduce new rice strains and to increase the productivity of cultivation. To stabilize domestic food prices, Bank Indonesia has financed BULOG's operations through commercial state bank. Some programs in forestry and fishery are also implemented by Government to stimulate the development programs.

In the mining sector, the Government involvement is based primarily on the constitutional provision that all natural resources belong to the state and that economic activities considered essential to the country be controlled by the state. The state oil company, Pertamina, has a monopoly over all aspects of oil and natural gas production, and controls all exploration, development, production, and refining of oil and gas in Indonesia. Pertamina, also manages the arrangements with foreign oil and gas contractors. Pertamina is responsible for the management of operations and approves annual work programs and budget prepared by contractors. With regard to the policy for all enterprises, Pertamina does not undertake new borrowings in the international financial markets without the explicit permission of the Government. By the end of the First Repelita (April 1974), the government revenues which originated from oil sector was 36 percent of total export increased to 54 percent by the end of the Second Repelita (April 1979), to 65 percent by the end of the Third Repelita (April 1984), and reached 76 percent in 1983. The share of oil was decreased to 40 percent in 1988/1989.

State mining companies also produce major mineral products mined in Indonesia, namely, tin, nickel, bauxite, copper, and coal. Almost all of the country's mineral production is exported, accounting for 2.7 percent of all exports in 1988. According to Law No. 11 of 1967, which sets out the principal mining regulations, only state enterprises and agencies are authorized to mine certain minerals considered either of strategic or of vital importance to the country, including nickel, tin, coal, bauxite, zinc, gold, silver, and uranium. There are four state companies, namely, P.T. Tambang Timah for tin, Perusahaan Umum Tambang Batubara and P.T. Tambang Batubara Bukit Asam for coal, and P.T. Aneka Tambang for all other minerals. These four state enterprises account for most of the mining activity in Indonesia. However, foreign companies can participate in the exploration and development of these minerals as contractor to state mining enterprises or agencies. In addition, in line with Government deregulation policies in the previous years, private domestic and foreign contractors are playing an increasingly important role in the mining activities.

In the manufacturing sector, the Government owns and operates all but one of the existing fertilizer plants, most of the country's steelmaking capacity, some of the country's paper manufacturing and cement plants. The Government has developed machinery and engineering industry in Indonesia as shown by its rapid development in

Table 5.3

DEVELOPMENT EXPENDITURE BY SECTOR, 1969-1989[1]

	First Plan Cumulative Actual FY 1969/70-1973/74		Second Plan Cumulative Actual FY 1974/75-1978/79		Second Plan Cumulative Actual FY 1979/80-1983/84		Second Plan Cumulative Actual FY 1984/85-1988/89	
	(billions Rp.)	(%)	(billions Rp.)	(%)	(billions Rp.)	(%)	(billions Rp.)	(%)
Agriculture & Irrigation	268	21.7	1745	19.1	4234	12.4	7725	14.3
Industry, Mining & Energy	194	15.7	1653	18.1	7493	22.0	9968	19.6
Transportation & Communications	261	21.2	1632	17.9	4456	13.0	7653	15.0
Regional & Local Development[2]	210	177.0	1025	11.2	2894	8.5	4467	9.2
Public Enterprises	71	5.8	790	8.7	1760	5.1	1845	3.6
Education	84	6.8	758	8.3	3398	10.0	8159	16.0
Health & Family Planning	27	2.2	262	2.9	1184	3.5	1607	3.2
Others	118	9.6	1261	13.8	8710	25.5	9731	19.1
Total:	1233	100.0	9126	100.0	34129	100.0	50885	100.0

1 Includes only development expenditure of the central government.
2 The portion of development expenditure by provincial and local governments financed by provincial and local governments by the central government.

Source: Fourth Five Year Development Plan.

Indonesia during the past ten years. An example of the Government's efforts to develop engineering industry is provided by the state-owned aircraft manufacturer, which was established in 1976. Recently, this state aircraft company together with foreign companies have developed various aircraft designed to use fuel-saving technology. Another state enterprise, P.T. Krakatau Steel, plays a major role in developing the national steel industry. The state enterprises also produce aluminium, fertilizer, cement, pulp and paper which have supported the industrialization process in Indonesia.

In the financial sector, the Government participates through its ownership of five major commercial banks, a development bank, a savings bank, a national investment trust, a housing finance company, a credit insurance institution, a casualty insurance company, a life insurance company, a reinsurance company and four other insurance companies. All state-owned financial institutions are regulated by the Government and the Central Bank, Bank Indonesia.

In the banking sector, the state banks play a major role as indicated from total revenue of the state banks which reached the average of 68.5 percent of the total banks' revenue during the period 1984-1989. The average of credits given by the state banks' credit was 70.4 percent out of the total banks' credit. Meanwhile, average total profit of the state banks reached 52.5 percent of the total all banks profit in the same period. The state non-bank financial institutions also played an important role since most of the non-bank financial institutions in Indonesia are wholly or partly owned by the Government (10 out of 14).

In the services sector, excluding the financial services, the Government plays an important role in communication, tourism, transportation and construction.

In the communications services, the PEs provide domestic telephone and telegraph services, international telecommunications services, and postal services. The Government has set a number of telephone lines to install during the Repelita V. This target will be realized with cooperation from foreign companies.

To promote tourism, the Government established some hotels in some big cities. Recently, the Directorate General of Tourism established a Cooperative Agency for the Promotion of Indonesian Tourism and various private tourism organizations.

In the transportation sector, the Government developed an internal transport network of Indonesia. Most cities on Java, Sumatra and Bali are connected by highway and road. New road developments are mostly financed by foreign concessional loans, which reached $550 million in 1988/1989. Some projects on road developments are being undertaken by a consortium of private and PEs. Railways facilities and services are also provided by PEs. In 1981, the Government began a large-scale program to rehabilitate and develop the national rail network. The program has included the establishment of a state-owned company as a manufacturer of rolling stock and other components. In the shipping sector, the Government owns a shipping company. There are also programs to modernize and expand the facilities at a number of ports, financed by loans from the World Bank and Asian Development Bank. The Government also owns the largest domestic carrier, P.T. Garuda.

Regarding the electric power, the state-owned electricity company was established in 1972 with the responsibility for generation, transmission, and distribution of electricity throughout the country. The Government has developed coal-fired steam, geothermal and hydropower generating plants recently.

From Table 5.2, we can see that the ratio of PEs assets to GDP declined from 115.1 percent in 1983 to 99.1 percent in 1988. Meanwhile, the ratio of PEs gross profit to GDP also declined from 3.7 percent in 1983 to 2.2 percent in 1988.

In order to see the role of the government sector including the PEs in the economic development, it is important to see the role of General Government because its activities could not be separated from the PEs activities.

As we know, General Government is meant to produce principally public services which are difficult to measure in any economic measures, such as, to carry out governmental administration, to improve education and health of the society, to formulate national economic policy, and the like. Therefore, government activities are distinct from other economic activities both with respect to input structure and sources of funds. Government activities are financed by central and regional government budgets (APBN and APBD). The role of General Government in economic development is quite clear since every government measure is aimed to enhance development as reflected by government budget realization (Table 5.4). The ratio of government savings to development funds in the period between 1969/1970 to 1983/1984 was around 60 percent, which decreased in the period between 1984/1985 to 1988/1989. The ratio of government domestic revenue to GDP was about 18 percent at the end of the First Repelita, and reached 23.9 percent at the end of the Fourth Repelita.

Since data on the regional budget and PEs are not sufficient, it is difficult to trace the real public sector activities as a whole. However, since the PEs and regional budget are financed by banking loan/capital market, the number will not have direct impact on money supply. In addition, a part of sources come from central government/Central Bank has already included in the central government transactions. Role of local government in Indonesia can be seen from the provincial/regional activities which reflected by summary of Provincial Finances (Table 5.5).

III. Public Sector Deficits

Deficits in the public sector may originate from a resource gap in that sector. The gap appears because the activities in that sector need more funds than its sources could provide. As we know, the main components of public sector activities are General Government, comprising central government and regional/ local government, and PSEs. The activities of the above mentioned bodies would contribute a deficit/surplus to the public sector.

The activities of central government are covered by the state budget, and the deficits of the central government are reflected in the deficit of the state budget. In view of the balanced budget policy, Government sets its expenditures equal its revenues. To this end, the Government determines that expenditures are financed by domestic revenues. If expenditures exceed the domestic revenue, Government tries to reduce the expenditures by tightening up the routine expenditure. Since the domestic revenue is still limited to finance economic development, the external sources which include project aid and program assistance is still needed. In the Indonesian budget, the external sources which are in the form of project aid and program assistance are determined as supplementary factors. Government has already scheduled the amount of foreign loan that could be disbursed within each fiscal year. Therefore, in order to set the balance budget, Government has to adjust their expenditures to their revenues, especially domestic revenues. From Table 5.4, we can see that the amount of the foreign aid indicated by development revenues grew

Table 5.4

GOVERNMENT BUDGET REALIZATION
(in Billion of Rp.)

	End of 1st Repelita	End of 2nd Repelita	End of 3rd Repelita	End of 4th Repelita				
	1973/74	1978/79	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
I. Revenues	1172	5301	18315	19383	22825	21892	26961	32995
1. Domestic	968	4266	14433	15905	19253	16141	20803	230044
- Oil & gas	345	2309	9520	10430	11145	6338	10047	9527
- Non-oil	623	1957	4913	5475	8108	9803	10756	13477
- of which non-tax	50	191	519	687	1492	1147	1977	1569
2. Development	204	1035	3882	3478	3572	5751	6158	9991
- Program	90	48	15	69	69	1957	728	2041
- Project	114	987	3867	3409	3503	3794	5430	7950
II. Expenditures	1164	5299	18311	19381	22824	21891	26959	32990
1. Routine	713	2744	8412	9429	11951	13559	17482	20739
- Consumption	642	2209	6309	6653	8628	8501	9277	9799
- Debt repayment	71	535	2103	2776	3323	5058	8205	10940
2. Development	451	2555	9899	9952	10873	8332	9477	12251
III. Government Saving[1]	255	1522	6021	6476	7302	2582	3321	2265
IV. Development Fund[2]	459	2557	9903	9954	10874	8333	9479	12256
V. Surplus/Deficit[3]	8	2	4	2	1	1	2	5
VI. GDP	6753	22746	73698	87055	94721	95823	114519	128198
VII. Investment	1208	4671	18974	19625	19618	20805	24616	30640
1. Domestic Savings	1004	3636	15092	16147	16046	15054	18458	20649
- Govt. savings	255	1522	6021	6476	7302	2582	3321	2265
- Private Funds	749	2114	9071	9671	8744	12472	15137	18384
2. Foreign Funds	204	1035	3882	3478	3572	5751	6158	9991
Ratio to GDP (%)								
I. Revenues	17.4	23.3	24.9	22.3	24.1	22.8	23.5	25.7
1. Domestic	14.3	18.8	19.6	18.3	20.3	16.8	18.2	17.9
2. Development	3.0	4.6	5.3	4.0	3.8	6.0	5.4	7.8
II. Expenditures	17.2	23.3	24.8	22.3	24.1	22.8	23.5	25.7
1. Routine	10.6	12.1	11.4	10.8	12.6	14.2	15.3	16.2
2. Development	6.7	11.2	13.4	11.4	11.5	8.7	8.3	9.6
III. Surplus/Deficit	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IV. Investment	17.9	20.5	25.7	22.5	20.7	21.7	21.5	23.9

1 Government Saving = I.1 - II.1
2 Development Fund = 1.2 + Government Saving.
3 Surplus/Deficit = Development Fund- Development Expenditure.

Source: Ministry of Finance.

Table 5.4A

GOVERNMENT BUDGET
(in Billion of Rp.)

	1989/1990
I. Revenues	36575
1. Domestic	25250
- Oil and gas	7900
- Non-oil	17350
- of which non-tax	2048
2. Development	11325
- Program	1799
- Project	9526
II. Expenditures	36575
1. Routine	23445
- Consumption	11208
- Debt repayment	12237
2. Development	13130

Source: Ministry of Finance.

Table 5.5

SUMMARY OF PROVINCIAL FINANCES, 1984/85-1990/91
(in Billion of rupiah)

	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Own Revenues	573	595	717	895	1028	1760
Tax revenues	340	374	459	559	655	824
Non-tax revenues	233	221	258	336	373	936
Current Transfers from Central Government	1747	1723	1803	1910	2045	2355
Capital Transfers from:						
Government	251	280	280	280	324	327
Borrowing	14	12	11	9	9	
Total Revenues and Grants	2585	2611	2811	3094	3405	4442
Current Expenditure	2000	2001	2144	2296	2540	2884
Wages and salaries	1119	1456	1596	1720	1854	2179
Expenditure on goods & services	247	286	306	325	385	443
Pensions	38	55	58	62	65	59
Subsidies	595	203	178	189	228	203
Debt services	0	0	4	1	8	
Development Expenditure	513	672	738	700	811	1048
Capital expenditure	493	650	709	667	783	988
Transfer to local govt.	20	22	29	33	29	60
Total Expenditure	2513	2673	2882	2995	3351	3932
Overall Balance	72	-62	-70	99	54	510
Memorandum Items: (in percent of GDP)						
Own provincial revenues	0.6	0.6	0.7	0.7	0.7	n.a.
Central government transfers	2.2	2.1	2.0	1.8	1.7	n.a.
Current expenditure	2.2	2.1	2.1	1.8	1.8	n.a.
Development expenditure	0.6	0.7	0.7	0.6	0.6	n.a.
Overall balance	0.1	-	-	0.1	-	n.a.

Source: Ministry of Finance.

from year to year and reached the amount of 31 percent of total revenues budgeted in 1988/1989.

The state budget does not incorporate the budget of the 25 provincial governments, 2 special territories, municipalities or local governments. Although these entities are treated as private sectors, they are still required to balance their expenditures with revenues. Central government subsidizes some activities of the local government. These subsidies are already included in the state budget in the form of Subsidies to Region (Subsidi Daerah Otonom).

Also excluded from the state budget are the budgets of PEs. The activities of PEs are also treated as private sector. PEs get their funds mostly from three sources. They could borrow funds from the central government, banking system or external sources. The central government loan to the PEs originates from two sources. First source is from the foreign loan, which is called two-step loan. The second source is from the return on the central government investments which constituted central government capital participations in the business sector.

For the purpose of analysis, we assume that government sector only includes central government, namely, ministries, institutions and bodies financed by government budget (APBN), while regional government, state enterprises and regional enterprises conducting business are categorized as private sector. This assumption holds because we have been facing the problem of lack of data on the regional budget and PEs.

3.1 Causes of Deficits

To see the causes of public sector deficits in Indonesia we can see data on central government financial activities that are derived from central government budget (APBN). APBN is made up of two groups, namely, income group and expenditure group, and each group is subdivided into routine and development.

Routine income covers all receipts in the form of direct taxes, indirect taxes and non-tax receipts. Included in the non-tax receipts are those from governmental services such as health, education, court, foreign affairs, property uses, etc. Development income consists of domestic receipts in the form of government savings and foreign receipts in the form of project and program aids.

Routine expenditures are divided into wages and salaries, purchases of goods, subsidies given to regional governments, subsidies given to business sector, rental payments, debt repayments and other routine expenditures. Development expenditure consists of expenditure items such as departmental and non-departmental development expenditures; development subsidies to provinces, regencies and villages; development expenditures on primary school, infrastructures and clinics; government investment on common stocks; and, development expenditure through presidential decrees for marketplace, roads and reforestation. Hence, the deficits may occur when the total expenditure exceeds the total income.

Regarding the routine budget, it can be seen that routine expenditures are covered by domestic revenues. Since domestic revenues are always higher than routine expenditures, a surplus is always recorded in the routine budget. This surplus constitutes government savings which form part of development funds and are subsequently used to finance some of the government investment.

Regarding the development budget, Table 5.4 shows that development revenues, which include program aid and project aid and form part of development funds, are always smaller than development expenditures. Hence, separately, the development budget always shows a partial deficit.

As mentioned before, since the adoption of a dynamic balance budget policy, expenditures have to be limited up to existing realized receipts/income. Hence, no surplus/deficit will occur. The outturn of Indonesian budget from First National Five Year Development Plan (REPELITA I) up to Fourth National Five Years Development Plan (REPELITA IV) in Table 5.4 shows that total receipt consisting of domestic and development receipts is equaled to total expenditure consisting of routine expenditures and development expenditures. The Table also indicates that domestic receipts constitute the main source for financing total expenditure, while development receipts originating from foreign grants/ aids/loans are merely supplemental in covering development expenditures.

Table 5.4 shows that during the First Five Year Development Plan, most of the domestic revenues originated from the non-oil revenues. In the beginning of the Second Five Year Development Plan, the oil revenues were the major contributor to domestic revenues. This condition prevailed until the fourth year of the Fourth Five Year Development Plan, whereby non-oil revenues started to replace the position of oil revenues being the main contributor to domestic revenues.

Data on the Indonesia's budget in the five years of the Fourth Repelita shows radical changes of the budget structure. Oil and gas receipts fell from 53.8 percent of total revenue in 1984/1985 to 28.9 percent in 1988/1989. Non-oil and non-gas receipts, more than doubled from Rp. 5,475 billion to Rp. 13,477 billion, and increased their share from 28.3 percent to 40.9 percent of total revenue. Development funds originating from foreign sources have risen from 17.9 percent to 30.3 percent of total revenue. On the expenditure side, the most pronounced trend was the rise in debt service payments from Rp. 2,776 billion in 1984/1985 to Rp. 10,940 billion in 1988/1989, or from 14.3 percent to 33.2 percent of total expenditure.

In order to sustain the long-term development program, in 1989/ 1990, Indonesia still needs a substantial amount of funds. In addition, realizing the uncertainties with respect to world oil prices, the Government continued to promote non-oil/gas revenues, particularly through taxation. However, due to the limited domestic revenues, the Government sought to obtain foreign resources in the form of project aid or special assistance.

On the expenditure side, measures were aimed at economizing funds and at promoting their efficient use. Routine expenditures focused on financing the activities of the administration and on the operation and maintenance of the infrastructure. Development expenditures focused more sharply on on-going development projects conducive to promoting economic activities and expanding employment opportunities.

3.2 Deficit Financing

Based on the above-mentioned elaboration, it can be concluded that deficits of central government budget arise due to development expenditures. Some part of those deficits have been financed by government savings. Because the government savings meant for financing those deficits is still limited, some part of the deficits have been financed by foreign receipts originating from foreign sources. This kind of financing deficits may have an expansionary impact on money supply through its influence towards reserve money. This expansionary impact occurs when foreign project aid is used to finance development expenditures in domestic currency.

The government budget for fiscal year 1989/1990, constituting the first budget for Repelita V, was fixed at a balanced amount of Rp. 36,575 billion. Domestic revenues were fixed at Rp. 25,250 billion, comprising oil and gas revenues of Rp. 7,900 billion and those of non-oil/gas of Rp. 17,350 billion. Development receipts were fixed at Rp. 11,325 billion, comprising program aid of Rp. 1,799 billion and project aid of Rp. 9,526 billion. Routine expenditures were fixed at Rp. 23,445 billion of which Rp. 12,237 billion was allocated for amortization and interest payments on foreign debt and Rp. 5,966 billion for personnel expenditures. Based on these budget figures, government savings is expected to be Rp. 1,805 billion. Development expenditures were fixed at Rp. 13,130 billion or 7.2 percent higher than the outturn in 1988/1989.

The activities of local government in Indonesia are reflected in the summary of provincial/regional finance (Table 5.5). However, these data on the regional income statistics figure are only rough indicators because of several weaknesses caused by the different methods of estimation used among regions and in the computation of national income. Table 5.5 indicates the relationship between central government and regional governments which is reflected by transfers from central government account reaching about 70 percent of total financial revenue in the period between 1984/1985 and 1989/1990.

Since PEs are treated as belonging to the private sector, they financed their capital needs by their own savings (gross saving), credits from banking sector, foreign capital, domestic capital market (by selling stocks) and other items. Besides that, as previously mentioned, PEs also receive credits from the central government. Recently, the PEs are allowed to sell stocks in capital market to finance capital needs. There are a number of state companies which went public in 1990. Hence, in the last development, domestic capital market became one alternative of getting additional sources for the PEs.

Budget deficits financing by foreign sources in Indonesia can also be seen in both Tables 5.6 and 5.7 of public debt which consist of government debt and PEs debt. Regarding the public debt, the Government pursues a prudent foreign borrowing policy. So there is no direct government short-term debt. The external debt consists mainly of long-term loans on concessional terms provided by the IGGI member countries and organizations, and export credits associated with development projects. In addition, debts are made on international financial markets on commercial terms.

It is the policy of the Indonesian Government that all borrowings from international markets should be made by the Government. Government agencies and other public sector entities should receive the prior approval of the Ministry of Finance which coordinates the activity. Furthermore, a Presidential Instruction in 1984 stipulates that export credits in foreign currencies shall only be utilized to finance priority development projects, as set out in an annual list proposed by the Government.

As of 30 June 1989, Indonesia's outstanding external medium and long-term debt amounted to US$ 38,721 million, while undisbursed credit available was US$ 14,963.2 million. Total external medium and long-term debt as of 31 March 1989 was US$ 40,520.2 million (Table 5.6).

Regarding the debt of PEs, it is noted that debt of the PEs is not guaranteed by the Government. As of 30 June 1989, total medium- and long-term external debt outstanding of PEs was US$ 763.3 million. As of 31 March 1989, total medium- and long-term external debt outstanding of state-owned enterprises amounted to US$ 910.6 million compared to US$ 873.8 million on 31 March 1988 and US$ 1,082.4 million on March 1987 (Table 5.7).

IV. Effects of Public Sector Deficits Financing through the Financial System

As mentioned earlier, the resource gap of the public sector could come from central government activities, local/ regional government activities and PEs activities. The central government activities are financed through the state budget. Consequently, the resource gap that comes from the central government activities is reflected by the state budget deficit. This resource gap has been financed through foreign loan, in addition to the Central Bank's credits.

Local/regional government activities and PEs activities are treated as private sector activities. Consequently, the resource gap that come from local government activities and PEs activities would not be reflected by the state budget. Any activities to finance the resource gap of local government and PEs are treated as private sector activities. PEs may also receive credits from the Central Bank in the form of direct credits. In this case, the direct credits are recorded as credits from the Central Bank to the public sector.

Table 5.6

EXTERNAL DEBT OF THE REPUBLIC OF INDONESIA[1]
(in Millions of dollars)

Date	Disbursed and Still Outstanding: Pre-1966 Debt[2]	Disbursed and Still Outstanding: Post-1966 Debt	Undisbursed: Post-1966 Debt
31 March 1980	2066.8	9687.2	7475.0
31 March 1981	1857.5	11215.5	9197.0
31 March 1982	1685.2	12871.8	10713.0
31 March 1983	1585.5	16202.0	12660.0
31 March 1984	1428.6	19674.2	12749.0
31 March 1985	1186.2	19992.6	13190.0
31 March 1986	1375.0	25969.5	16729.0
31 March 1987	1467.3	31700.8	15866.9
31 March 1988	1567.5	36818.0	17559.2
31 March 1989	1312.0	39208.2	14941.9
30 June 1989	1265.6	37456.2	14963.2

1 Foreign currency values of disbursed and still outstanding debt and of undisbursed debt are converted into U.S. dollars at the exchange rates prevailing at the respective dates indicated.

2 A large part of Indonesia's debt contracted prior to 30 June 1966 was rescheduled and converted into long-term loans on concessional terms.

Source: Bank Indonesia.

Table 5.7

EXTERNAL DEBT OF STATE ENTERPRISES[1]

(Million of dollars)

	Disbursed and Still Outstanding			Undisbursed		
	31 March 1987	31 March 1988	31 March 1989[2]	31 March 1987	31 March 1988	31 March 1989[2]
Pertamina[1]	505.5	411.3	568.8	-	-	139.0
Other State Enterprises	576.9	462.5	341.8	-	-	-
Total Debt of State Enterprises:	1082.4	873.8	910.6	-	-	139.0

1 Excludes debt of the financial sector. Also excluded are liabilities associated with ocean-going and domestic tankers, the payments for which have been substracted from gross oil export receipts for the purposes of the balance of payments statistics.
2 Provisional figures.

Source: Bank Indonesia.

The resource gap financing by the public sector will have a monetary impact. Since it is assumed that public sector only includes central government, so we only deal with the deficit of the state budget. With this assumption, it is concluded that budget deficits financing through foreign loans will have a monetary impact when these foreign loans are converted into local currency and used domestically. Meanwhile, financing the resource gap that originated from local/regional government activities and PEs activities will also have a monetary impact. But since local government and PEs activities are treated as private sector activities, the monetary impact of public sector deficits financing includes the impact of the deficits financing that originate from central government activities and the impact of direct credits from the Central Bank to PEs.

4.1 Effect of Monetization of Deficits on Money Supply and Prices

Following the Aghevli-Khan model, financing a budgetary shortfall through borrowing from the Central Bank produces new money creation that is reflected by the increase in the stock of high-powered money. This initial increase will have a multiplier effect and cause inflation by pushing the aggregate demand up and consequently output and prices.

The model can be described by the following equations:

$$\log M_t = \log m_t + k_0 + k_1 \log G_t - k_2 \log R_t + k_3 \log E_t \quad \ldots\ldots\ldots\ldots \quad (1)$$

$$\log P_t = -zb_0 - zb_1 \log Y_t + zb2e - (1-z) \log (M/P)_{t-1} + \log M_t \ldots\ldots\ldots\ldots \quad (2)$$

where:

M_t = Money supply
m_t = Money multiplier
G_t = Government expenditure
R_t = Government revenue
E_t = Residual items
P_t = Index of price
Y_t = Level of income

By using the Aghevli-Khan model's approach to study the monetary impact of public sector activities, some adjustments have to be made to the model. In the case of Indonesia, where the deficits of the public sector are financed by foreign loans and borrowings from the banking system, the model was adjusted so that the money supply equation became as follows:

$$\log M_t = \log m_t + a_0 + a_1 \log CB_t + a_2 \log FB_t + a_3 \log E_t \quad \ldots\ldots\ldots\ldots \quad (3)$$

where:

CB_t = Central bank credits to the public sector

FB_t = Foreign borrowings

The variables FB and CB are used to describe the public sector deficits which have been financed by foreign loans (FB) and credits from the Central Bank (CB). Foreign loans in Equation (3) are meant as the domestic part of the foreign loans, which have already been converted into local currency and used domestically. The use of the domestic part of foreign loans is reflected in the fluctuations of net claims on the central government which is one of the component factors affecting money growth.

As mentioned earlier, because the deficits of the public sector were also financed by borrowings from the banking system, credits have to be included in the Equation (3). In the case of credits, it is true that the public sector deficits are financed through the Central Bank and commercial banks credits as well. But, in Equation (3), CB only stands for the Central Bank credits to the PEs because only these credits have an impact on high-powered money. It is known that the Central Bank credits are also a component of factors affecting money growth.

Applying annual data from 1978-1989 to estimate money supply equation (Equation 3) and price equation (Equation 2), we find the following results:

$$\log M1_t = \underset{(1.43)}{5.6277} + \underset{(0.69)}{0.3421} \log CB_t + \underset{(2.47)}{0.0002}\ FB_t$$

R squared = 0.6485; S.E. = 0.3965; D.W. = 0.9028

$$\log M2_t = \underset{(1.32)}{6.5828} + \underset{(0.42)}{0.2701} \log CB_t + \underset{(2.54)}{0.0003}\ FB_t$$

R squared = 0.7089; S.E. = 0.5054; D.W. = 0.8072

$$\log P_t = \underset{(1.10)}{0.1739} - \underset{(0.08)}{0.0347} \log Y_t + \underset{(0.28)}{0.1945} \log (M1/P)_{t-1} + \underset{(2.65)}{0.4286} \log M1_t$$

R squared = 0.9659; S.E. = 0.0614; D.W. = 1.3154

$$\log P_t = \underset{(1.44)}{0.7932} + \underset{(2.29)}{0.0773} \log Y_t + \underset{(0.63)}{0.0984} \log (M2/P)_{t-1} + \underset{(3.53)}{0.3410} \log M2_t$$

R squared = 0.9935; S.E. = 0.0268; D.W. = 1.8436

The above results showed that in the estimation on money supply equation using M1 (narrow money) as the independent variable gave similar result as using M2 (broad money) as the independent variable. The estimation gave the same result in the sense that they gave an indication that only foreign loans used domestically as reflected by FB have significant impact on money supply (M1 or M2). Although the Central Bank credits (CB) do have an impact on the money growth, in those estimation the Central Bank credits (CB) are not significant. The insignificant impact of CB could appear as a result of the small number of CB in the period of estimation.

The result of the estimation on the price equation showed that by using M1 as an independent variable, only nominal M1 (narrow money) has a significant impact on the price level. By using M2 as an independent variable, the result showed that both nominal M2 and GDP have a significant impact on the price level. However, although GDP showed a significant impact on the price level, it gave an opposite sign.

The relatively poor result of the price equation estimation could appear as an impact of using some independent variables that might have a correlation with each other. This phenomenon is indicated by the relatively high of the R squared coefficient compared to the estimation result of the money supply equation. The R squared coefficient of the estimation of price equation is more than 95 percent, which means that jointly all the independent variables used in the price equation can describe about 95 percent of the variation of dependent variable.

To get a better result on the estimation of the price equation, the independent variables that have strong correlation have to be dropped. As we know, nominal money has strong correlation with GDP, so in this estimation we drop the nominal money variable, and replace it with the variable(s) that also have impact on money. In this case, we choose FB and CB, since FB and CB explain the variation of money. The result of the estimation is as follows:

$$\begin{aligned} \log P_t = \; & \underset{(2.98)}{5.0124} - \underset{(-2.14)}{0.3035} \log Y_t + \underset{(3.10)}{0.0001} \text{ FB} \\ & + \underset{(1.18)}{0.2346} \text{ CB} \quad \ldots\ldots\ldots\ldots\ldots\ldots \end{aligned} \qquad \text{(A)}$$

R squared = 0.8396; S.E. = 0.1564; D.W. = 1.4472

The estimation result on the price equation (Equation A) showed a better result when nominal money is dropped. In the estimation, we can see that GDP and FB have a significant impact on the price level, but CB still show insignificant impact. The insignificant impact of CB occurred because CB also has an insignificant impact on money supply. When CB is replaced by real money balance, we got the following result:

$$\begin{aligned} \log P_t = \; & \underset{(0.79)}{0.9982} - \underset{(-2.82)}{0.1706} \log Y_t + \underset{(2.51)}{0.0003} \text{ FB} \\ & + \underset{(4.75)}{0.6529} \log (M1/P)_{t-1} \ldots\ldots\ldots \end{aligned} \qquad \text{(B)}$$

R squared = 0.9641; S.E. = 0.06; D.W. = 2.22

Using the real money balance in the estimation of price equation has shown a better result. The better result was indicated by the increase of R squared from about 84 percent in Equation (A) to about 96 percent in Equation (B), the decrease of the standard error (S.E.) from about 15 percent in Equation (A) to about 6 percent in Equation (B), and the increase of the Durbin-Watson coefficient from about 1.4 in Equation (A) to about 2.2 in Equation (B).

In summarizing the estimation results, we can say that public sector deficits financing by foreign loans could have an impact on money supply and on price level. Public sector deficits financing by Central Bank credits could also have an impact on money supply. However, since in the period of estimation the sum of the Central Bank credits that have been used to finance public sector deficits is small compared to the sum of the foreign loans used to finance public sector deficits; so in the estimation, Central Bank credits (CB) showed an insignificant impact.

4.2 Effects of Public Sector Borrowing From Banks and Non-Bank on Credit Creation and Interest Rates

As mentioned before, the deficits of the public sector has been financed through foreign loans and borrowings from the banking system. The deficits financing through borrowings from the banking system could have an impact on the money stock in the sense that it increases credit creation.

Deficits financed by Central Bank borrowings which include direct credits to the PEs will increase credit created by the monetary authority. Meanwhile, the deficits financed through the commercial banks borrowings will increase credit creation when the credits to the public sector is accommodated in addition to the existing loan portfolio. Commercial banks credits to the public sector will not have any impact on credit creation when credits to the public sector are substituted by other credits accounts. In this case, increasing credits to the public sector would result in credit re-allocation by diminishing credits to the private sector.

The effects of credits to the public sector on credit creation are reflected by PSPS ratio and SPS ratio in Table 5.8. It is shown that in the period 1978-1989 the proportion of the share of credits to the public sector to total banking system credit declined from 0.54 in 1978 to 0.13 in 1988. This decline of the share of credits to the public sector is followed by a decline of its share to the real credit expansion that is reflected by the decrease of the SPS ratio from 0.71 percent in 1978 to 0.05 percent in 1989.

Although the public sector deficits financing by borrowings from the banking system has an effect on credit creation, it does not have any effect on the determination of interest rates. The deficits financing may influence interest rates if the source of financing comes from the private sector. In this case, the public sector will borrow funds from the private sector through selling Treasury bills in order to finance its resource gap. It is known that the interest rate of the Treasury bills is determined by its demand and supply, and this rate influences the rates of other deposits. As mentioned earlier, in Indonesia the public

Table 5.8

PUBLIC SECTOR SHARE IN CREDIT EXPANSION

End of Period	NC (1)	TC (2)	CPI (3)	PSPS (1)/(2)	NC/CPI	Δ NC/CPI	TC/CPI	Δ TC/CPI	SPS
1978	2901	5400	115.36	0.54	25.15		46.81		
1979	3335	6326	143.07	0.53	23.31	(1.84)	44.22	(2.59)	0.71
1980	3774	7994	167.55	0.47	22.52	(0.79)	47.71	3.50	(0.22)
1981	4382	10341	179.82	0.42	24.37	1.84	57.51	9.80	0.19
1982	4983	13291	197.85	0.37	25.19	0.82	67.18	9.67	0.08
1983	5040	15723	221.53	0.32	22.75	(2.43)	70.97	3.80	(0.64)
1984	5230	19559	241.63	0.27	21.64	(1.11)	80.95	9.97	(0.11)
1985	5742	23404	252.20	0.25	22.77	1.12	92.80	11.85	0.09
1986	5993	28202	275.27	0.21	21.77	(1.00)	102.45	9.65	(0.10)
1987	6722	35126	300.75	0.19	22.35	0.58	116.79	14.34	0.04
1988	7381	46904	317.56	0.16	23.24	0.89	147.70	30.91	0.03
1989	8825	70480	336.96	0.13	26.19	2.95	209.16	61.46	0.05

Note: SPS = Share of public sector in real credit expansion
NCt = Net bank credits to domestic public sector in period t
Pt = Consumer Price Index in period t
TCt = Total credits in period t
PSPS = Proportional share of public sector credit to total credit

Source: Bank Indonesia

sector is not allowed to borrow from the private sector. The deficits of the public sector is financed through foreign loans and borrowings from the banking system. Consequently, these methods of financing do not have a direct impact on interest rates.

V. Monetary Development & Policy Implication in Indonesia

In order to cope with the unfavourable economic performance as a consequence of the Government's policies adopted before the Government implemented economic rehabilitation and stabilization. This was done with the Government's economic management philosophy and objectives which are laid out in a series of Five Year Development Plans which began in FY 1969/1970.

In the period 1969-1989, the Indonesian economy was heavily dependent on oil revenues and hence influenced by oil price fluctuations. Therefore, to fully understand the monetary policies adopted in that period, it would be better to classify the performance of Indonesian economy into three periods, namely, pre-oil boom period (1969-1973), oil boom period (1974-1981), and post-oil boom period (1982-1989).

5.1 Pre-Oil Boom Period (1969-1973)

Indonesia's economic development in this period was led primarily by the foreign sector, especially oil sector. Export growth increased by 30 percent annually, with the highest growth recorded at the end of this period. In 1973, the value of oil export rose impressively by 54 percent which was attributable to the increasing oil price. While non-oil export growth increased sharply to 83 percent as a result of increasing prices of several major commodities such as rubber, timber and palm oil.

The economic rehabilitation and stabilization program, introduced in the beginning of the First Five Year Development Plan (1969), was primarily directed toward controlling inflation rate. The program included monetary and fiscal policies in addition to other policies designed to promote production and investment. In the monetary sector, the policy was aimed at curbing inflation by mobilizing funds from the community and distributing them in the form of credits to high priority sectors. To improve the effectiveness of monetary control so as to support economic growth, the Government sought to develop a sound banking and financial system by issuing Act No. 14 of 1967 on Banking Principles and Act No. 13 of 1968 on Central Bank. These acts stipulate that the Government issues license for establishment of branch and representative offices of foreign banks in Indonesia. This stipulation has favorably affected the development of Indonesian Banking, especially in fund mobilization and transfer of knowledge.

Furthermore, in 1970, Indonesia introduced a free foreign exchange system. Under this system, there are no restriction and control on international payments and transfers, including capital transactions, remittances of capital, profits, dividends and interest. However, direct investments made by foreigners in new business undertakings or business expansion in Indonesia, require prior approval by the Government. Prior approval by the Government is also required for a foreign loan with a maturity of one year or longer made to any public enterprise or public entity. There are no restriction imposed on foreign borrowings made by private sector company.

In addition to monetary control, in the fiscal sector, the government policy was directed at improving national stability with a view toward economic growth and distributing equitable development yields. The policy was based on the principle of a dynamic and balanced budget. The principle of balanced budget was intended to control inflationary pressures which might disturb economic stability, whereas the principle of dynamic budget was designed to encourage economic growth.

Under a harmonized coordination between monetary and fiscal policies - other policies as well - the rehabilitation and stabilization program secceeded in bringing inflation down from 635.3 percent in 1966 to 112.2 percent in 1967, 85.1 percent in 1968, and 9.9 percent in 1969. Inflation rate again increased to 25.8 percent in 1972 and to 27.3 percent in 1973 (Table 5.9).

5.2 Oil Boom Period (1974-1981)

During the oil boom period, oil/gas became the main exports in Indonesia. The growth in oil production as well as the increase of oil prices which commenced at the end of 1973 continued to rise in April 1974 reaching the level of $11.70 per barrel compared to $3.73 per barrel in April 1973. Furhtermore, oil price increased to $35.00 per barrel in January 1981, the highest level ever recorded in the oil market. Accordingly, oil production also expanded in an average of 15 percent due to the intensifying activities of foreign oil contractors. These promi-

Table 5.9

INFLATION RATE[1]

Period	Inflation Rate (%)	Period	Inflation Rate (%)
1966	635.26	1981	7.09
1967	112.17	1982	9.69
1968	85.11	1983	11.46
1969	9.87	1984	8.76
1970	8.88	1985	4.31
1971	2.47	1986	8.83
1972	25.84	1987	8.90
1973	27.31	1988	5.47
1974	33.31	1989	5.97
		January	0.50
1975	19.70	February	1.27
		March	0.23
1976	14.20	April	1.57
		May	0.64
1977	11.82	June	(0.21)
		July	0.45
1978	6.69	August	0.10
		September	0.21
1979	21.77	October	0.75
		November	0.50
1980	15.97	December	(0.04)

Note:

1 - From 1951-1958, the rate is calculated base on the prices of 19 foodstuff in Jakarta (point to point).
- From 1959 to March 1979, the rate is calculated base on Cost of Living Index of Jakarta (point to point).
- Since April 1979, the rate is calculated base on Consumer Price Index in 17 cities (cumulative).

Source: Bank Indonesia.

sing developments in oil price and production had brought about a remarkable oil exports rising almost ten times higher from $1,708 million in 1973/1974 to $16, 482 million in 1981/1982. This development favorably affected the public finance through increased public savings which was used to finance development/government programs. Hence, the Indonesian economy in this period developed rapidly, real GDP reached 8 percent annually. However, it had created a side effect in the form of higher rates of inflation. Non-oil export increased sharply to 55 percent in 1979/1980. The increase in oil price in the world market has a favorable effect on the balance of payments which recorded a substantial surplus in the current account for the first time in 1979/1980 and 1980/1981. Meanwhile, the government revenues increased by 85 percent in 1979/1980 and 65 percent in 1981/1982 was relatively high, at an annual average of 14.2 percent, which was attributable to the measure adopted by the Government following the devaluation on 15 November 1978, such as the adjustments of the oil and rice prices, in addition to high world inflation.

During the oil boom, the Government contiuned adopting the dynamic and balanced budget. In line with the economic performance during that period, the budget increased significantly. In 1973/1974, Indonesia experienced a high inflation rate, reaching 47.4 percent. The factors pushing the inflation rate in that year were different from those in the 1960s. The inflation in 1960s was closely related to an expansion in money supply due to the deficits in the budget financed by printing money. In 1973/1974, however, the high inflation rate was due to a sharp increase in money supply which reflected the expansionary effect of the foreign sector.

In order to cope with the high increase in inflation, since April 1974 the Government had introduced a series of policies relating to the control of essential commodities prices, high interest rate, imposition of ceiling on credit, and savings requirement for short-term capital inflow.

To support price control, the Central Bank provided direct credit to National Foodstuff Logistics Agency for executing the price stabilization program. Moreover, the Government adopted a policy of high interest on time deposits and savings as well as lending interest rate of state banks. To institute monetary control, Bank Indonesia adopted a direct instrument by fixing the ceiling on banks net domestic assets and determining the interest rate of state banks. By adopting these policies, the growth of money supply slowed down and the growth of time deposits showed a rapid expansion. This development brought the inflation rate down from 47.4 percent in 1973/1974 to 10.1 percent in 1977/1978.

5.3 Post-Oil Boom Period (1982-1989)

Following a sharp drop in oil prices at the beginning of 1982/1983, Indonesia's economy faced severe pressures as reflected in the slowdown in domestic economic activities and massive burden on the balance of payments. In addition, world economic recession prevailing since the beginning of 1980s, intensified protectionist measures in developed countries and deterioration in the competitiveness of domestic products in the international market, further deteriorated the Indonesian economy.

In the presence of structural weaknesses and with a view to coping with the problems encountered, the Government introduced a series of structural adjustment policies in the fields of trade, exchange rate management, fiscal, financial, industry, investment and inter-island transportation. These policies have been intended to encourage the growth of businesses, especially those oriented for export. In addition, a number of policies have also been adopted with the objectives of improving overall business climate inter alia by simplifying licenses and altering non-tariff barriers to tariff, expediting the flow of freight, promoting the community's participation through fund mobilization, and increasing tax revenues.

In the monetary sector, as the first major reform, the Government introduced a monetary reform on 1 June 1983. In principle, the reform has been intended to lay a strong foundation for the promotion of sound banking so as to enable banks to increase fund mobilization from the community and distribute it to priority sectors. This situation will in turn assure the maintenance of monetary stability due to the non-inflationary nature of funds mobilized from the community to finance business activities.

The policy includes the reduction of Bank Indonesia's liquidity credit through the removal of ceiling on net domestic assets of banks and the discretion for state banks to formulate their lending policy based on the principles of sound banking practices. In the area of fund mobilization, state banks have been granted the discretion to determine their deposit rates which were previously fixed by Bank Indonesia.

Through the removal of bank net domestic assets and the discretion for banks to determine their lending rates, monetary control was no longer carried out directly, rather it has been administered indirectly by means of money market operation. Accordingly, in 1984 and 1985, the Government introduced two monetary instruments, namely, Bank Indonesia Certificate (Sertifikat Bank Indonesia or SBI) and Money Market Securities (Surat Berharga Pasar Uang or SBPU). When the Government's target is contraction, the Central Bank issues SBIs and conversely when the Government desires an expansion, the Central Bank purchases SBPUs. Since the policy reform was intended to boost the banking system, the effectiveness of the policy can be measured by the growth of the banks' deposits and banks' lendings. The funds mobilized by banks rose to 26 percent annually between June 1983 and June 1988. The largest increase was in time deposit which rose by 41 percent per year. The rise in the amount of funds mobilized enabled banks to expand their lendings by 26 percent annually in the same period. Furthermore, the expansion in lendings also included those extended to promote the business of the economically weak group and to expand non-oil exports. The promotion of non-oil exports requires the expansion of banking services and improvements to the operation of foreign exchange market.

Further deregulation was introduced on 27 October 1988 with the objective of increasing fund mobilization, expanding non-oil export, enhancing the efficiency of banks and NBFIs, improving the implementation of monetary policy, and creating conducive climate for capital market development. Improvement in the implementation of monetary policy was carried out by promoting the trading of money market securities in the secondary market through the issuance of Bank Indonesia Certificate (SBI) with longer maturities. Furthermore, the expansion of the SBI secondary market was also promoted by designating several banks and non-bank financial institutions (NBFIs) as market makers and brokers.

Through the policies in the banking system, it is expected that there will be improvements and expansions in the facilities which contribute to more intensive and efficient funds. These improvements and expansions are to be carried out by permitting the opening of branch offices of banks and non-bank financial institutions, establishment of new private banks, joint-venture banks and rural credit banks.

Regarding the objective of enhancing the implementation of monetary policy, liquidity reserve requirements, which were previously set at 15 percent (effective rate of around 12 percent), has been lowered to 2 percent. A 15 percent withholding tax was imposed on time deposit interest, so as to equalize the treatment on income tax earned from holding securities. The Government also took steps to promote the capital market by simplifying the requirements for companies issuing their stocks in the capital market and parallel bourse. Such efforts to encourage transactions in the parallel bourse were also carried out by allowing foreign investors to trade in securities. These efforts were taken in December 1987.

Furthermore, through the 20 December 1988 package, the Government sought to increase the availability of long-term funds and to encourage the community to directly participate in productive investment. These efforts include allowance for the establishment of stock exchange in cities outside Jakarta. In addition, since 1989, state enterprises are allowed to sell their stocks to the public in the capital market, which would serve as an alternative for PEs to meet their financial needs.

The success of the Government in implementing such policies are reflected in the growth which the real economy posted at an annual average rate of 5.1 percent during 1983/1984 to 1988/1989, slightly higher than the target. Inflation rate in the same period was maintained at single digit levels of 5.47 percent in 1988 and 5.97 percent in 1989.

5.4 Some Problems in the Implementation of Financial Reform

Under an open economy like Indonesia, where there is almost free movement of capital and a managed floating exchange rate, the task of monetary management is relatively complex. Monetary disequilibrium will be adjusted not only through variations in prices and levels of activity, but also through the capital and current account of the balance of payments.

In the implementation of financial and monetary reforms, some unavoidable problems and challenges occurred during the period between 1983 and 1989. With regard to monetary control, some turbulences took place. In January 1984, the interbank rate was as high as 28 percent, and averaged 19 percent for that month compared to 13 percent in October 1983. This happened due to devaluation rumors that led to an outflow of domestic deposits, draining reserves and tightening up domestic liquidity. As mentioned previously, Bank Indonesia

Certificate (SBI) was introduced in February 1984. The Bank also ceased paying interest on the excess of foreign reserves deposited with the Central Bank. This action had helped to lower interest rate in the money market.

In 1984, Bank Indonesia had been permitting the rupiah to decline gradually against the U.S. dollar. This condition brought about substantial amount of capital outflow and tightened rupiah liquidity, driving the overnight interbank rate upward, reaching 90 percent. In addition, some banks preferred to hold rather than lend in the market. To help banks' difficulties, the Central Bank offered the use of the discount window. Since the maximum amount of discount window was limited to 5 percent of a bank's deposit, the Central Bank provided a temporary special window charging a rate of 26 percent. Through this facility, together with a reversal of capital flow prompted by the high domestic rates and the deceleration of depreciation, bank reserves started to increase. The interbank rate fell from 47 percent in September to an average of 14.7 percent in October. At the same time, Bank Indonesia's discount rate was cut to 22 percent and so did the rate on temporary credit. In this condition, demand for 30- and 90-day SBI's increased sharply.

In February 1985, Bank Indonesia introduced the money market instrument (SBPU), a debt obligation with a maturity period between 30 and 180 days. The SBPUs are issued in the form of promissory note and draft as an instrument for the Central Bank to inject rupiah liquidity.

In April 1987, with the favorable economic development, Bank Indonesia attempted to maintain low interest rate policy. In an open economy like Indonesia, domestic interest rates are depended upon the international interest rate. This means that domestic interest rates have to be maintained above the international rate, otherwise it may induce capital outflows.

As an effort to avoid capital outflow, Bank Indonesia raised the SBI rate in a range of 14 to 17 percent depending upon the maturity period. Similar adjustments were made in the SBPU rate. Besides those efforts, the Government through the Ministry of Finance ordered four state enterprises to withdraw their deposits from the state commercial banks and to buy SBIs from the Central Bank. This action drained bank reserves and furthermore led to a scramble for funds domestically and internationally. Subsequently, Bank Indonesia raised further the rate on SBI to 17.75 percent and 18.75 percent on the 1-month SBPU. In addition, the discount rate was also raised from 18.75 percent in April to 30 percent on 3 July. Meanwhile, the Central Bank cut the ceiling of SBPU by 30 percent which prompted some banks to repurchase the outstanding SBPUs. Such drastic actions succeeded in avoiding the capital outflow. The interbank rate rose from 13.6 percent in April to 23.5 percent in June, reaching a peak of 39 percent in early July. The commercial banks used the discount facility provided by Bank Indonesia and repatriated funds from abroad.

The experiences above shows that when economic imbalances occurred, the business community and the general public have increasingly played a significant role in the economic process. The business community and the general public have become important partners of the Government in the development activities. In addition, the PEs have also become important partners in implementing government policies, especially in influencing the business community in order to stabilize some commodity prices. Meanwhile, the role of banks has also become more important since financing is indispensable to economic activities of the people and business community. In 1989, the rapid development of capital market, especially in Jakarta, has further enhanced the role of business community including PEs.

VI. Summary and Conclusion

In Indonesia, the public sector played a major role in economic development. This role is carried out by the General Government and the PEs. PEs are classified into three forms of legal entities, namely, "Perjan", "Perum" and "Persero". Basically, PEs have a dual aim, namely operating business to achieve maximum profit and implementing government economic policies.

The deficits in the public sector enterprises (PSEs) appear as a result of the activities of public sector including PEs that need funds more than they could provide. The activities of PSEs consists of central government activities, regional/local governments, and PEs activities which are reflected in their own budget separately. The general budget does not incorporate provincial/ regional budget and PEs. Difficulties were encountered in computing for the entire public activities since data on regional government and data on PEs are not sufficient. In addition, the activities of public sector are also influenced by private sector and foreign sector activities.

Financing the overall deficits of the public sector would have an impact on money creation. This would happen through the increase of high-powered money. The impact of financing public sector deficits on high-powered money depends on the sources of financing. In Indonesia, the public sector includes central government, local/regional government and PEs. The source of financing for each component differs, so not all financing activities of PSEs' deficits could have impacts on high-powered money.

In the case of central government activities, the deficit is financed by the state budget. As previously mentioned, Indonesian budget policy is always set to be balanced. In the implementation, the state budget may have a partial deficit. Partial deficit sourced from the development budget, and some of this deficit is financed by the surplus of the routine budget. Because surplus in routine budget cannot cover all of the deficit in the development budget, the shortage is financed by foreign loans. The deficit financing by foreign loans could have an expansionary impact on the monetary sector. This would happen if foreign loans are converted into local currency and used domestically.

The deficits in public sector are also financed by borrowings from the banking system. Usually, this means of financing is used to finance the deficits of PEs activities. The deficits financed by borrowings from the banking system may also have an expansionary impact on the monetary sector. This impact will occur if credits to finance the deficits increase credit expansion. Since credits from the banking system to PEs are treated as credits to the private sector, so this way of financing is not included in the component of credits to the public sector. In addition to credits from the banking system, PEs also receive direct credits from the Central Bank. This kind of direct credits are treated and classified as credits to the public sector.

By using the Aghevli-Khan model, it can be seen that the foreign loan variable has an expansionary impact on the monetary sector. In the estimation, it can also be seen that the expansionary impact has an influence on price level. Since the monetary policy adopted controls the development of money, the influence of the expansionary impact on price level can be forced down. The estimation result also shows that although direct credits are one component of factor that affects money growth, they do not have a significant impact. This insignificant impact of direct credit variable exists because in the period of estimation, direct credits are small relative to foreign borrowings. Furthermore, the direct credits also show a decreasing trend describing the redemption of the credits by PEs.

From the explanation above, it is concluded that public sector activities are only one source of monetary expansion. In addition, the monetary expansion could also come about as an impact of private sector activities and foreign sector activities. To this end, the monetary policy implemented is conducted to control the monetary expansion brought out by activities of all sectors in the domestic economy.

Chapter 6

PUBLIC SECTOR AND MONETARY POLICY IN MALAYSIA

by

Rosli Yaakop and Lee Heng Guie

I. Introduction

Although the economic system of Malaysia is basically one of private enterprise, the Government's involvement in the economy in the last three decades had been significant. The involvement of the public sector in carrying out economic activities which, in a free enterprise economy, would strictly belong to the private sector intensified in the 1970s following the implementation of the New Economic Policies (NEP) which aimed to restructure the economy to reflect the ethnic composition of the country and to eradicate poverty. As part of the government strategy to achieve these twin objectives, the Government had set up many non-financial public enterprises (NFPEs) which were involved directly in commerce and industry and in undertaking investments in a variety of areas. At the same time, the Government continued to provide the basic government services such as national defence, maintenance of peace and order, infrastructural facilities (road, bridges, ports, etc.), health services and education.

In pursuing its economic development programmes since independence, steps were also taken to ensure a concommitant development of the financial sector of the economy. As a result, financing for economic development, particularly in the 1960s and 1970s had come mainly from non-inflationary domestic sources. In the 1960s, Malaysia's net foreign borrowings were negligible and sources of funds for financing development programmes of the Government came mainly form captive sources such as the Employees Provident Fund (EPF) and the National Savings Bank. During the decade, Malaysia enjoyed an average real economic growth of over 5 percent, virtually without inflation. Because of this, monetary policy did not have much role to play especially in terms of stabilization policy during the decade. As such, during the decade, the Central Bank concentrated its effort mainly in institution-building and in laying the foundation for an effective role of monetary policy for the coming decades.

Public Sector and Monetary Policy

Following the implementation of the New Economic Policy (NEP) since 1970, the involvement of the public sector in economic development expanded significantly. This involvement extended beyond the normal government functions of providing, for example, public administration services, public amenities and other infrastructural facilities into activities that are normally belonged to the private sector such as commerce and trading, manufacturing and other industrial activities. As a result, the financing need of the public sector also increased significantly in the 1970s. However, as the growth of intermediated funds by the financial system had been able to keep pace with the rapidly growing demand for funds, such funds continued to be a major source of financing for both the public and private sectors. Foreign borrowings also increased during the decade but they remained an insignificant source of financing. As fiscal policy had been generally expansionary in the 1970s both as a counter-cyclical measure in the face of general downturn in the global economy and, more so because of Government's significant involvement in economic activity, monetary policy had been conducted in such a way to ensure that a substantial liquidity generated by the expansionary fiscal policy would not evolve into a source of monetary instability and inflation. At the same time, the Central Bank continued to expand and strengthen the financial system not only to increase the mobilization of resources to keep pace with the financing need of the economy but also to enhance efficiency in the allocation of resources. It was during this decade that the Malaysian economy recorded the highest growth rates, averaging 8 percent in the first half of the decade and 8.6 percent in the second half. But this record had been somewhat tempered by higher inflation, averaging 7.4 percent[1] in the first half and 4.5 percent in the second.

Further increase in demand for funds by the Government to finance its economic programmes especially in respect to a number of ambitious heavy industry projects which it undertook in the beginning of the 1980s in the midst of prolonged global recession and tight domestic liquidity situation led to a sharp increase in foreign borrowings. As a result, foreign borrowings emerged as an important source of financing. Overall deficit of the Government increased markedly between 1980

1. The average was somewhat distorted by two years of extremely high inflation, that is, 10.5 percent per annum and 17.4 percent per annum in 1973 and 1974 respectively, which were due mainly to imported inflation resulted from the oil shock in October 1973. Excluding these two extreme cases, average inflation rate was only 1.6 percent per annum.

and 1982. It was 8.3 percent of GNP in 1979. It increased to 18.7 percent in 1982. And over a similar period, net foreign borrowings of the Government also increased rapidly, reaching a peak of 47 percent of overall deficit in 1982. The increased borrowings contributed to the deterioration in the country's balance of payments from a near balanced position in 1980 to a deficit equivalent to 14.1 percent of GNP in 1982. As a continued increase in government expenditure, and its financing needs could have an adverse impact on financial stability in the form of increased pressure on demand for funds, interest rates, prices development and the country's external position and a possible crowding out of private investment, the Government undertook a major adjustment programme in 1983. As a result, net foreign borrowings declined significantly between 1982 and 1986. In fact, with the increasing availability of domestic resources, the Government has been able to prepay its external debt since 1987, reducing it to $24.2 billion as at the end of 1989. Because of the generally contractionary fiscal policy in the 1980s, monetary policy had been generally expansionary over the period. In the first half of the 1980s, the Malaysian economy recorded an average growth rate of 5.2 percent with inflation well under control running at 4.2 percent. In the 1986-1988 period, the economy grew at an average rate of 4.6 percent while inflation decelerated to 1.2 percent.

This paper examines the role of the public sector in Malaysia and its implications on the conduct of monetary policy with the following objectives. Firstly, to review the components of the public sector deficit and its sources of financing and whether or not the financing of the deficit leads to excessive money creation and secondly, to examine the implications as well as the response of monetary policy to deficit financing of the Government. In doing so, this paper is organized as follows. Following the introduction, Section II presents an overview of the public sector and examines the causes and financing of the public sector deficit. Section III examines the effects of financing of public sector deficit on money supply and prices while Section IV examines its monetary policy implications. A summary and conclusion of the study is presented in the final section.

II. Overview of the Public Sector

The public sector, which includes the General Government sector and financial and NFPEs, has played a pivotal role in the economic life of Malaysia for nearly three decades. The public enterprises, in particular the NFPEs, command a sizeable and growing share of public resources, especially in the 1980s. Consequently, the measurement of the public sector activities is essential for a broad range of analytical and policy-oriented needs. However, the definition of the public sector has never been satisfactorily resolved. Consistency in definition is necessary to improve the statistical analysis of the role of the public sector in the economic development process.

The IMF's Manual on Government Finance Statistics defined public sector broadly as "a combination of the general government sector, NFPEs, and public financial institutions, distinguished by government ownership and/or control rather than by the function". The Malaysian public sector comprises of three major components, namely, General Government, NFPEs and public financial institutions. The General Government comprises the Federal Government, 13 State Governments, all local government and statutory authorities some of which have both governmental (for example, regulatory) and commercial functions. The NFPEs comprise those statutory authorities that buy and sell goods and services to the public on a large scale and government-owned or controlled companies. These NFPEs were established under various Acts, namely Parliament Act, State Enactment and the Companies Act or established with the Minister of Finance Incorporated as shareholder.

2.1 Public Financial Institutions

The public financial institutions, which are government-owned and controlled institutions, engaged in either acceptance of demand, time or saving deposits or incurring liabilities and acquiring financial assets in the market. However, for the purpose of analysis with respect to public sector capital formation, consumption and financing requirements in this paper, the public financial institutions are excluded for the following reasons:

(a) the concept of non-financial public sector is used to gauge the magnitude of overall government involvement in enterprises which it exercises responsibility and close policy control in economic activities affecting fixed capital formation and recourse to the financial system;

(b) public financial institutions do not normally engage in physical development of projects and therefore, are not directly involved in capital formation; and,

(c) in terms of financing, the consolidation of public financial institutions into the broad definition of public sector will amount to double counting as it will not eliminate financing resources from public financial institutions such as Bank Negara, Permodalan Nasional Berhad (PNB) and other government-owned banks, to finance activities of the General Government and NFPEs.

As the public sector is highly centralized, the Federal Government plays a dominant role, accounting for about three-quarters of the public sector consolidated revenue and expenditure. As at the end of 1988, the Federal Government in Malaysia comprises of 24 ministries and the Prime Minister's Department. All Federal Government policies are implemented through the various ministries and their departments and agencies, which are the main instruments for giving effect to government policy after Parliament has passed the necessary legislation.

Since Malaysia is a Federation consisting of 13 states, there is a division of powers between the Federal Government and the 13 individual State Governments. Each of the 13 State Governments handle State affairs in as far as they are not in contradiction to Federal powers. However, the role of the State Governments is relatively limited, partly because of their limited revenue-raising powers. Local government is principally a matter for the States, but the Federal Government has certain powers of coordination. The Constitution provides for the establishment of a national council for local government whose policy decisions are binding on both the Federation and the States.

2.2 Non-Financial Public Enterprises (NFPEs)

The NFPEs are public sector agencies which undertake the selling of industrial and commercial goods and services in the economy. The NFPEs, therefore, include statutory bodies, in particular those engaged in commercial activities and government-owned and/or government-controlled companies. In the case of companies incorporated under the Companies Act 1965, Government control would normally refer to a government shareholding of more than 50 percent of total equity. The non-corporate units of NFPEs consist of the port authorities, the electricity boards, the Malayan Railway and the Federal Land Development Authority (FELDA), the Rubber Industry Smallholders Development Authority (RISDA) and the Urban Development Authority (UDA). Besides the non-corporate units, the definition encompasses companies of varying size, from small companies with $10 million capitalization to those exceeding $100 million, operating across a broad range of activities and with concentration in manufacturing, services and agriculture sectors.

Prior to 1970 and especially before the formulation of the New Economic Policy (NEP), public agencies were established to carry out projects or services which were outside the normal governmental operations but essential to the welfare of the country. These projects and services included ports, telecommunications and electricity supply. With the introduction of the NEP, with its twin objectives of poverty eradication and restructuring of society, more such agencies were created while existing ones were strengthened with new functions. In recent years, a number of heavy-based companies such as the Heavy Industries Corporation of Malaysia (HICOM) and its subsidiaries, Perwaja Terengganu Sdn. Bhd. (PERWAJA), and the National Automobile Industry (PROTON) were created to spearhead the implementation of the heavy industries programme in the country.

As the investments of these NFPEs were large, it was necessary for the Government to strengthen controls over these investments including more stringent monitoring and approval of investment projects as the large development expenditures of these agencies and their high import content affected the balance of payments and the debt-servicing liabilities of the country. To assist in these efforts, the Government has established a database on NFPEs to allow for a comprehensive monitoring of the public enterprises especially in the area of financial management. A Central Information Collection Unit (CICU) was established in 1985 for collecting information and monitoring government companies and agencies. The types of information collected depend on the extent of Government's interest and its value, paid-up capital, and turnover of the companies. In addition, a new unit, namely the Government Companies Monitoring Unit (UPSAK), was set up in the Ministry of Finance to supplement the work of CICU, i.e., to undertake more detailed studies in selected major agencies which are facing both operational and financial difficulties.

As of June 1988, CICU has collected information on 1,171 companies in which the Federal and State Governments have significant equity interests. Of the total, 38 companies have been sold or privatised. The total government investments in these companies, as at end-June 1988, amounted to $14,294 million or 70 percent of the total paid-up capital of these companies. The companies in the CICU database have also been grouped under various industrial sectors. In terms of number, about 29 percent of the enterprises covered are involved in manufacturing, 26 percent in the services sector, 10 percent in finance, while the rest are involved in agriculture and agriculture processing, transport, commerce and mining.

Latest financial data collected for the period between 1980 and 1987 indicated that the percentage of profitable companies generally declined between 1980-1986, especially between 1984-1986 from 58 to 51 percent. The decline, to some extent, reflected the general decline in commodity prices in 1986 as well as the slower external demand which had dampened the profitability of the NFPEs. However, the improved economic performance, beginning from the second half of 1987 through 1988, both in terms of output and commodity prices, had led to a favorable impact on the performance of these NFPEs especially those whose activities are primarily based on commodities, utilities and commercial services. However, several of the public enterprises, particularly those involved in heavy industries, remained weak and suffered accumulated losses.

2.2.1 Definition of the Public Sector

Traditionally, the public sector in Malaysia has been defined to comprise the Federal Government, the 13 State Governments and 14 public authorities. The later covers the three electricity corporations, the three main port authorities, the four larger city councils and municipalities, the Malayan Railway, the Telecommunications Department, the Federal Land Development Authority and the Rubber Industry Smallholders Development Authority. Although the revenue and the current account surpluses were fairly sizeable, the large capital expenditure of the 14 agencies were funded primarily by loans and grants from the Federal Government and the State Governments. Additional financing were obtained from domestic borrowing and foreign sources, including project financing from the multilateral international development agencies, occasional external market loans from international banks and suppliers' credit. These borrowings (both domestic and external) were usually guaranteed by the Federal Government.

In the late 1970s and early 1980s, however, due to the increasing involvement of the public sector in national economic activities, there has been a rapid growth in the number of publicly owned or controlled corporations and enterprises engaged primarily in basically private sector business. These agencies include the national petroleum corporation (PETRONAS), Sabah Gas Industries, Sabah Energy Corporations, Heavy Industries Corporation of Malaysia (HICOM), and etc. Although a few of the public enterprises are self-financing, most of these depend on the Federal Government for grants, equity or loans, including domestic and external loans guaranteed by the Government.

As their level and range of activity expanded in recent years, so have the extent of their financing. It has become necessary to include the activities of these agencies within the broad public sector in order to arrive at a consistent picture of the size of the total public sector activities in the national framework. The inclusion of the major public agencies would provide a better perspective for policy purposes, especially in reviewing total expenditure levels, in assessing the domestic and external debt implications of the enlarged public sector programmes, and in evaluating the impact on the nation's balance of payments. Consequently, the definition of the public sector was broaden to include NFPEs, which were publicly owned or controlled, or which depended directly or indirectly on the Federal Government for financing.

A total of 13 non-traditional "Off-Budget Agencies" (OBAs) were identified as falling under this category. Taken together with the 14 public authorities which were traditionally considered as part of the public sector, the coverage was extended to include a total of 40 public agencies and enterprises for immediate monitoring and reporting analysis between 1981 and 1984. A further review of the coverage of the NFPEs was made in 1986 and the coverage widened further to include, for purposes of macro analysis, a total of 56 NFPEs based on the general criteria of a minimum annual sales or turnover of at least $50 million (see Chart 6.1). It was estimated that the 56 NFPEs would cover more than 80 percent of the operations of the NFPEs. As at end-1989, the current coverage of NFPEs for monitoring and reporting purposes was reduced further to 52 major public enterprises following the privatisation of 4 enterprises between 1987-1989. The coverage of the NFPEs would be flexible to allow for the inclusion of growing or new enterprises with large turnovers and those undertaking substantial investment expenditure or large projects with high foreign exchange content. In 1987, the coverage of the public sector was broadened further to include the Federal Government, the 13 State Governments, all statutory bodies and the local governments which together comprised the general government sector, and the 56 NFPEs. This revision could allow a more comprehensive assessment of the overall financial position of the public sector.

Chart 6.1

LIST OF NON-FINANCIAL PUBLIC ENTERPRISES (NFPEs)

1. Antara Steel Mills Sdn. Bhd.
2. Bintulu Port Authority
3. Cement Manufacturers (Sabah) Sdn. Bhd.
4. Cement Manufacturers (Sarawak) Sdn. Bhd.
5. Felda Oil Products Sdn. Bhd.
6. Fima Metal Box Holdings Sdn. Bhd.
7. Harrisons Malaysian Plantations Bhd.
8. Heavy Industries Corp. of Malaysia Bhd. (HICOM)
9. Johore Port Authority
10. Kedah Cement Sdn. Bhd.
11. Kelang Port Authority
12. Koko Malaysia Sdn. Bhd.
13. Kontena Nasional Sdn. Bhd.
14. Kuching Port Authority
15. Kumpulan Fima Bhd.
16. Kumpulan Guthrie Sdn.Bhd.
17. Malayan Railway
18. Malaysia LNG Sdn. Bhd.
19. Malaysian Airline System Bhd. (MAS)
20. Malaysian Helicopter Services Bhd.
21. Malaysian International Shipping Corp. Bhd. (MISC)
22. Malaysian Rubber Development Corp. (MARDEC)
23. Malaysian Shipyard and Engineering Sdn. Bhd.
24. National Electricity Board
25. Penang Port Commission
26. Penang Shipbuilding Corp. Sdn. Bhd.
27. Perak Hanjoong (Cement) Sdn. Bhd.
28. Perbadanan Kilang Felda
29. Perbadanan National Shipping Line Bhd.
30. Perbadanan Pengangkutan & Perusahaan Tabunghaji Sdn. Bhd.
31. Pernas Edar Sdn. Bhd.
32. Pernas International Hotal & Properties Bhd.
33. Pernas NEC Telecommunications Sdn. Bhd.
34. Pernas Trading Sdn. Bhd.
35. Perbadanan Niaga Felda
36. Perusahaan Otomobil Nasional Sdn. Bhd. (Proton)
37. Perwaja Terengganu Sdn. Bhd.
38. Petroliam Nasional Bhd. (Petronas)
39. Petronas Carigali Sdn. Bhd.
40. Petronas Dagangan Sdn. Bhd.
41. Petronas Penapisan Sdn. Bhd.
42. Road Railer Services Sdn. Bhd.
43. Sabah Electricity Board
44. Sabah Energy Corp.
45. Sabah Forest Industries
46. Sabah Gas Industries Sdn. Bhd.
47. Sabah Port Authority
48. Sabah Shipyard Sdn. Bhd.
49. Sarawak Electricity Supply Corp.
50. Sebor (Sabah) Sdn. Bhd.
51. Syarikat Telekom Malaysia Bhd.
52. Urban Development Authority (UDA)

2.2.2 Size and Growth of the Public Sector

The role of the public sector had expanded rapidly since independence. Trends in the allocation of the expenditure components of GNP since 1956 are presented in Table 6.1. The share of public sector expenditure on consumption and investment in aggregate expenditure (GNP) rose from 17 percent in the late 1950s to a peak of 37 percent in the early 1980s. The expanding share in GNP of the Government reflected its very active role in promoting sustained economic growth (mainly as a counter-cyclical measure in the 1979-1981 period) and the implementation of purposeful programmes to effectively restructure the Malaysian society and more recently, to spearhead the nation's heavy industries programmes. This trend began to develop in the 1970s when the Government's economic policies became increasingly geared towards greater public sector involvement, not only in more rapid economic development and cyclical management but also through the Government's direct participation in economic activities. In particular, the average proportion of public sector demand to GNP under the Third Malaysia Plan (1976-1980) was around 27 percent; significantly higher than the previous First and Second Malaysia Plans (1966-1970: 24.2 percent, and 1971-1975: 25.3 percent), indicating the enhanced role of the public sector towards strengthening the impact of overall domestic demand in the economy. Under the traditional (and narrow) definition of the public sector, the proportion of public investment to total investment ranges from 16 to 41 percent during 1960-1980. With the expanded coverage of the public sector, the proportion of public investment increased to 40 and 50 percent in 1981-1982, thus consequently deflating the share of private sector investment. The major contributor to this large increase was the rapid growth in the number and activities of the public entities.

From 1980 to mid-1982, the Government had increased the public development expenditure as a counter-cyclical measure against the effects of the world recession on the domestic economy. Consequently, public investment increased from 12.1 percent of GNP in 1980 to 19.1 percent of GNP in 1982. The role of public investment in influencing private sector sentiment is becoming increasingly important. There have also been considerable increases in the share of the public sector investment to total investment from 41.4 percent in 1961-1965 to a high of 50 percent in 1982. However, the investments of the public sector have been drastically scaled down, following the measures implemented by the Government in mid-1982 and August 1983 to rein in any further growth in public expenditures by reviewing priorities and the cost

Table 6.1

EXPENDITURE IN GROSS NATIONAL PRODUCTS (GNP) AT CURRENT PRICES

(Percent of GNP)

	1956-60[1]	1961-65	1966-70	1971-75	1976-80	1981-85	1986-89
Consumption:	79.2	80.5	80.2	77.7	69.5	72.4	69.3
Private	64.5	64.5	62.5	60.2	53.1	55.1	53.3
Public	14.7	16.0	17.8	17.5	16.4	17.3	16.0
Investment:	12.6	18.9	16.7	24.4	27.4	36.1	27.8
Private[2]	9.9	10.5	10.3	16.6	17.4	18.8	16.9
Public	2.7	8.4	6.4	7.6	10.0	17.3	10.9
Net Foreign Trade	8.2	0.6	3.1	-2.1	3.1	-8.5	2.9
Gross National Products	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gross National Saving[3]	16.6	17.8	18.3	20.8	30.0	27.5	31.1

1 Peninsular Malaysia only.
2 Includes inventories.
3 Gross capital formation +/- balance on current account of the balance of payments.

Source: Central Bank of Malaysia, Treasury and Department of Statistics.

effectiveness of programmes and projects. The Government introduced in October 1983 the first of a series of budgets which planned to reduce the overall public sector deficit to a sustainable level as a proportion of GNP.

The new direction in public policy also sought to reduce the role of Government, while at the same time, promote the private sector as the main engine of growth for the economy. In line with this shift in public policy, development expenditure under the Fifth Malaysia Plan, 1986-1990, was reduced by 35 percent from $74 billion to $47 billion in March 1987. The fiscal adjustment package also included measures to further consolidate the financial position of the NFPEs, restrain public sector spending and introduce new initiatives to improve revenue collection. To reduce the financial and administrative burden on the public sector, the privatisation of major public sector enterprises was also actively pursued. As a result of all these austerity measures, the share of the public sector in aggregate expenditure (GNP) declined to 25.5 percent in 1988, compared with 35.9 percent in 1983. Similarly, the ratio of total expenditure to GNP declined sharply from a peak of about 58 percent in 1981-1982 to about 44 percent in 1986-1987, compared with 55 percent during the period 1981-1985. In terms of total revenue (excluding NFPEs) to GNP, the share ranged from 24 percent in 1970 to 33 percent in 1988, an average of 28 percent during the twenty-year period.

Within the public sector, the role of the NFPEs in public sector investment has been very significant. It was pertinent to note that their contribution towards the stronger growth of public sector demand was particularly profound in the 1980s, with the proliferation of new agencies and enterprises. They represented the major public enterprises whose development expenditure constitutes a sizeable outlay of public expenditure; it was estimated that their share to public investment averaged 47 percent during the period 1985-1988. This implies that NFPEs expenditures were largely for investment purposes and equally important, they compete with the Government for loans and credits in both the domestic and international markets.

2.2.3 Public Sector Deficits

The financial position of the public sector is presented in Table 6.2). Prior to 1980s, the fiscal operations of the public sector were characterized by overall deficits ranging from 2 percent of GNP to 11 percent of GNP during the period 1960-1980. However, the overall

Table 6.2
CONSOLIDATED PUBLIC SECTOR FINANCE[1]
($ million)

Year	General Government Revenue	General Government Operating Expenditure	General Government Current Surplus/Deficit	Pub. Agencies NFPEs[2] Current Surplus	Public Sector Current Surplus	Sub-Total	General Government[3] Development Expenditure	Public Agencies NFPEs Developmzent Expenditure	Overall Surplus/ Deficit	Sources of Finance: Net Foreign Borrow'g	Sources of Finance: Net Domestic Borrow'g	Sources of Finance: Special Receipts	Sources of Finance: Change in Assets
1960	1174	888	286	24	310	195	167	28	115	32	164	32	(343)
1961	1203	937	266	31	297	360	322	38	(63)	(5)	125	22	(79)
1962	1248	999	249	29	278	554	490	64	(276)	44	153	12	67
1963	1291	1118	173	27	200	580	518	62	(380)	35	215	9	121
1964	1704	1557	147	41	188	641	588	53	(453)	9	192	64	188
1965	1833	1702	131	46	177	769	669	100	(592)	101	404	59	28
1966	1964	1804	160	54	214	841	724	117	(627)	35	287	93	212
1967	2187	1991	196	58	254	821	698	123	(567)	135	349	57	26
1968	2289	2010	279	67	346	854	728	126	(508)	104	428	46	(70)
1969	2514	2142	372	80	452	867	761	106	(415)	180	379	29	(173)
1970	2861	2429	432	95	527	959	878	81	(432)	3	308	22	99
1971	2940	2737	203	141	344	1412	1256	156	(1068)	345	676	45	2
1972	3456	3520	(64)	144	80	1630	1478	152	(1550)	313	826	74	337
1973	4100	3839	261	177	438	1585	1340	245	(1147)	118	877	35	117
1974	5553	4796	757	147	904	2344	1999	345	(1440)	295	826	31	288
1975	5929	5554	375	96	471	2930	2467	463	(2459)	1012	1209	10	228
1976	7360	6489	871	402	1273	3271	2638	633	(1998)	813	160	-	1025
1977	9114	8307	807	318	1125	4126	3452	674	(3001)	365	1910	-	726
1978	10341	8964	1377	340	1717	4728	4126	602	(3011)	606	1299	-	1106
1979	13218	11542	1676	498	2174	5657	4737	920	(3483)	986	2647	-	(150)
1980	16371	15063	1308	291	1599	9711	8162	1549	(8112)	1590	3650	-	2872
1981	18295	17266	1029	2826	3855	15214	12577	2637	(11359)	4745	4260	-	2354
1982	19754	18223	1531	3423	4954	16235	12229	4006	(11281)	6700	6672	-	(2091)
1983	21605	19939	1666	4306	5972	17048	10921	6127	(11076)	7297	5350	-	(1571)
1984	24084	21915	2169	5005	7174	16965	9203	7762	(9791)	5226	3545	-	1020
1985	26289	22221	4068	5649	9717	13125	6939	6186	(3408)	1667	3872	-	(2131)
1986	24852	23273	1579	2825	4404	11139	7289	3850	(6735)	972	4953	-	810
1987	24366	23280	1086	3574	4660	8439	5554	2885	(3779)	(1951)	9003	-	(3273)
1988	28304	25441	2863	3616	6479	9859	6129	3730	(3380)	(2984)	8276	-	(1912)
1989	29966	26687	3279	3725	7004	12716	8252	4464	(5712)	(647)	4552	-	1807

1 From 1985 includes general government and non-financial public enterprises (NFPEs). General government comprises Federal Government, State Governments statutory authorities and local governments.

2 Prior to 1985, data on NFPES covered only 40 enterprises; while in 1985, 56 enterprises were covered.

3 Data prior to 1985 includes Federal Government and State Government only.

Sources: Treasury Economic Report, various issues.

deficit rose significantly in the early 1980s, largely due to the rapid rise in both operating and development expenditure of the General Government which was not matched by the rise in revenue in the last few years. During the period 1979-1982, total expenditure grew at an average annual rate of 26 percent, while revenue rose at a slower rate of 17.6 percent during the same period. The sizeable portion of this expenditure can be attributed to, apart from the Federal and State Governments, expenditure by the government-owned statutory bodies and companies.

As a result of the rapid expansion of the public sector in response to counter-cyclical measures undertaken in 1980 and 1981, the public sector deficit had risen to a peak of $11.1 billion or nearly 19 percent of GNP in 1982. As a significant portion of Federal Government expenditure comprised imports, the rising level of public sector expenditure also gave rise to a high current account deficit in the balance of payments. The Government acted swiftly to reduce spending and to adopt structural adjustment measures beginning from mid-1982 aimed at reordering national priorities consistent with domestic resource availability and a prudent recourse to external borrowing. To control the twin deficits in the current accounts of the external sector and the budget, public sector spending especially on development expenditure was cut by over $1 billion a year during 1983-1985. In view of the locked-in nature of salaries and debt-servicing charges, it was difficult to reduce operating expenditure. Despite this, as a result of the restrains exercised on the expenditure on supplies and services, recruitment as well as the reduction in the expenditure for subsidies, the operating expenditure of the Federal Government increased at a slower rate during 1983-1985. These measures were accompanied by the consolidation and rationalization of the activities of the NFPEs. The result of the adjustment programme were reflected in the huge reduction in public investment to 13 percent of GNP in 1986 and about 10 percent of GNP in 1987. More importantly, the overall deficit of the public sector narrowed significantly from $11.1 billion or 19 percent of GNP in 1982 to $3.8 billion or 5.1 percent of GNP in 1987 and further reduced to 3.1 percent of GNP in 1989. The reduction in the overall deficit as a percentage of GNP from 10.1 percent in 1986 to 3.1 percent in 1989 was the result of both the strong outturn in revenue collection and continued consolidation of the public expenditure. The success in fiscal restraint was also aided by the large shortfalls in development expenditure of the Federal Government.

In discussing the causes of the public sector deficit, it is crucial to focus our analysis on two major components of the public sector, namely the Federal Government and NFPEs as they are the most important sources of the public sector deficits. In particular, Federal Government expenditure generally accounted for about three-quarters of public sector expenditure.

(1) Federal government

The fiscal operations of the Federal Government between 1960-1980 were characterized by an increasing overall deficit, largely due to the higher rate of growth of both current and development expenditure over current revenue (as presented in Table 6.3). Except 1960, the overall deficit grew from $30 million in 1961 to $7,104 million in 1980. Federal Government operating expenditure grew at an average annual rate of 15 percent during the period 1961-1980, while revenue rose at a slower rate of 13.7 percent during the same period (see Table 6.4). Nevertheless, the current account remained in surplus (except 1972), rising from $83 million in 1959 to $234 million in 1980. During the period 1976-1980, the current budget was able to transfer an average of $1.4 billion annually to the Development Fund. This current budget surplus represented public sector savings and was used to finance public sector investment.

Net development expenditure grew at an average annual rate of 21.9 percent between 1961-1980. Consequently, the overall account was in deficit during the entire period. With increasingly high development expenditure, particularly in the period 1981-1982, whereby Malaysia undertook anti-cyclical fiscal measures with the Government taking initiative to pump prime the sagging domestic economy. Total expenditure of the Federal Government increased at an average annual rate of 31.1 percent during the three-year period, almost double the average annual rate in the 1970s. Development expenditure increased at an average annual rate of 39.2 percent during this period, compared with 19.3 percent in the 1970s. Together with the relatively sluggish revenue growth during the same period because of the liberalization of taxes and the dampening impact on income and commodity prices caused by the global recession, resulted in a marked increase in the overall deficit of the Government to a high of $11.2

Table 6.3

FEDERAL GOVERNMENT FINANCE
($ million)

	1959	1960	1961	1962	1963	1964a	1965[a]	1966	1967	1968	1969	1970	1971	1972	1973	1974
Current Budget																
Revenue[1]	891	1069	1081	1097	1150	1458	1580	1667	1840	1891	2093	2400	2418	2920[b]	3399	4791
Expenditure[2]	808	833	847	903	1032	1387	1540	1619	1784	1796	1930	2163	2398	3068	3342	4318
Surplus(+)/Deficit(-)	+83	+236	+234	+194	+118	+71	+40	+48	+56	+95	+163	+237	+20	-148	+57	+473
Development Exp.																
Direct Dev. Exp.	84	119	208	332	360	413	509	547	519	496	504	565	754	801	752	1109
Net govt. lending	58	21	56	81	93	82	68	98	99	114	97	147	316	422	354	745
Overall Surplus (+)/ Deficit (-)	-59	+96	-30	-219	-335	-424	-537	-597	-562	-515	-438	-475	-1050	-1371	-1049	-1381
Sources of Finance																
Net domestic borrowing	148	159	125	148	210	192	388	286	351	425	377	306	677	836	876	828
Net foreign borrowing	26	26	14	22	11	-6	72	-10	83	63	147	-2	372	354	69	223
Special receipts	-	-	-	1	2	57	49	77	41	37	24	17	40	66[c]	13[c]	8
Transfer to Dev. Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Use of assets[3]	-115	-281	-109	48	112	181	28	244	87	-10	-110	154	-39	115	91	322

Table 6.3 (cont'd)

FEDERAL GOVERNMENT FINANCE
($ million)

	1975	1976	1977	1978	179	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Current Budget															
Revenue[1]	5117	6157	7760	8841	10505	13926	15806	16690	18608	20805	21115	19518	18143	21967	24711
Expenditure[2]	4900	5828	7398	8041	10040	13692	15686	16672	18374	19806	20066	20075	20185	21812	24382
Surplus(+)/Deficit(-)	+217	+329	+362	+800	+465	+234	+120	+18	+234	+999	+1049	-557	-2024	+155	+329
Development Exp.															
Direct Dev. Expenditure	1266	1585	2014	2398	2803	5279	8864	7079	5792	4279	3836	4369	3194	3394	5634
Net government lending	852	749	1124	1301	1347	2059	2271	4110	3625	3795	2920	2580	917	651	-349
Overall Surplus (+)/															
Deficit (-)	-1901	-2005	-2776	-2899	-3685	-7104	-11015	-11171	-9183	-7075	-5707	-7506	-6153	-3890	-4956
Sources of Finance															
Net domestic borrowing	1209	1636	1884	1164	2508	2311	4072	6047	4502	3156	3591	4930	8693	7854	2434
Net foreign borrowing	912	638	269	541	679	310	3419	4893	4569	3093	956	1348	-2438	-3095	-1076
Special receipts	7	8	10	3	2	1	236	2	4	46	12	111	-	56	56
Transfer to Dev. Fund	-	300	300	650	2150	3402	2000	750	2250	2300	1300	-	-	-	-
Use of assets[3]	-227	-577	313	541	-1654	1082	1288	-521	-2142	-1520	-152	1117	-102	-925	+3542

1 Include sinking fund revenue but exclude loan repayments by state governments and statutory authorities.
2 Include sinking fund expenditure but exclude transfers to certain statutory funds, direct loan redemption, interest payments to governments funds and loan disbursements.
3 Include changes in government trust funds balances. A minus sign indicates the accumulation of assets.
a Include government transactions in Singapore up to 9 August 1965.
b Include Malaysia's share, amounting to $185 million, from the distribution of the residual sterling assets of the Board Commissioners of Currency, Malaya and British Borneo.
c Include $57 million in 1972 and $19 million in 1973, being part of the proceeds from the distribution of the assets of the former Malaysia-Singapore Airlines.

Sources: Treasury and Central Bank of Malaysia.

Table 6.4

FEDERAL GOVERNMENT FINANCE

Average Annual Growth Rate
(Percent)

	1961-65	1966-70	1971-75	1976-80	1981-85	1986-89
Revenue	8.1	8.7	16.3	22.2	8.7	1.0
Operating Expenditure	13.1	7.0	17.8	22.8	7.9	2.1
Development Expenditure	32.7	4.3	24.4	28.2	-1.6	-6.0

Source: Treasury and Central Bank of Malaysia.

billion as shown in Table 6.3 which refers to Federal Government's overall budget. The rise in operating expenditure (mainly for debt-service charges and transfer payments) as well as the narrowing of the tax base has also led to a sharp reduction in the traditional surplus in the current account to only $18 million in 1982.

Recognizing the need to contain the overall deficit to sustainable level, the Government acted decisively in mid-1982 to contain further growth in public expenditure and to implement revenue-raising measures to strengthen its financial position. Among the measures that were adopted included the doubling of the rate of sales tax and service tax to 10 percent, the substantial increase in import and excise duties imposed on a number of selected items and the higher road tax. The mid-1982 correction had narrowed the overall deficit of the Federal Government from its peak of 18 percent of GNP in 1982 to 6.1 percent by 1985. However, fiscal consolidation was hampered by the effects of the onset of the recession in 1985. The 1986-1987 period saw a significant deterioration in the financial position of the Federal Government as federal revenue declined for the first time in nearly 30 years under the impact of falling commodity prices, lower incomes and aggregate demand, and depressed economic activity. As a result, the current account of the Federal Government recorded deficits of $557 million in 1986 and $2.1 billion in 1987 for the first time since the deficit of $148 million in 1972.

The increase in development expenditure during the same period had resulted in the widening of the overall financing deficits of the Federal Government to $7.5 billion in 1986 and $6.2 billion in 1987. With the sharp deterioration in the financial position of the Federal Government, the total public sector overall financing deficit widened to $6.7 billion or 10.1 percent of GNP in 1986. The current account of the Government turned around to achieve a small surplus in 1988, due to both continued prudence in the management of the Government's finances as well as a sharp pick-up in revenue collection following the strong recovery in the economy and improved commodity prices in 1988. The overall financial position of the Federal Government remained comfortable in 1989, reflecting a better than expected revenue performance.

(2) Public agencies

The increasing significance of the role of the NFPEs in economic development has become clearer since 1980, with the rapid growth of large agencies whose development expenditure constitutes a sizeable outlay of public expenditure. The consolidated overall deficit of the public agencies as a group remained large, particularly in the early 1980s (Table 6.5) despite current account surpluses. Total revenue, mainly constituting proceeds from the sale and provision of services, increased at an average annual rate of 17.9 percent between 1981-1984, while operating expenditure increased at a slower average annual rate of 14.7 percent during the same period. Consequently, the consolidated current account balances of the public agencies recorded surpluses, rising from $2.5 billion in 1981 to $5 billion in 1984. However, development expenditure expanded strongly at an average annual rate of 40.7 percent during the same period. As a result, the consolidated overall financial position of the public agencies was in deficit throughout the period, peaking in 1984 when it reached $5.3 million. The continued high growth in development expenditure was facilitated by the improvement in the implementation capacity of the public agencies.

A sectoral classification of the development expenditure showed that the significant investments incurred by the public enterprises were in the electricity, oil and gas sector, as well as the transport and communications sector. Within the broad sector, the bulk of the outlays was on electricity projects and the downstream development of the country's oil and gas reserves, including the construction of the telecommunication network. Some of the major projects included the construction of several heavy industries (cement plants, sponge iron plant, methanol plant and development of the national car), the highway projects and the Penang bridge, as well as the modernization and expansion programme of Malayan Railway. The expenditure in the electricity, oil and gas sector was expanded on the Duyong Gas Complex, the Sabah Gas Grid Project and the Stage I of the Peninsular Gas Utilization Project. As a result of continuing fiscal restraint in public spending adopted since mid-1982, the budgetary operation of the public agencies slowed down considerably between 1985-1988, with

Table 6.5

CONSOLIDATED NFPEs FINANCIAL POSITION: 1981-1989[1]

($ billion)

	1981	1982	1983	1984	1985	1986	1987	1988	1989
Revenue	9.4	11.8	12.8	15.4	25.0	23.2	24.9	28.3	32.7
Operating Expenditure	6.9	9.5	8.5	10.4	19.3	20.2	21.1	24.6	27.1
Current balance	2.5	2.3	4.3	5.0	5.7	3.0	3.8	3.7	5.6
Development Expenditure	3.7	6.6	8.1	10.3	6.2	3.9	3.1	3.4	4.7
Overall balance	-1.2	-4.3	-3.8	5.3	-0.5	-0.9	0.7	0.3	0.9

1 Prior to 1985, data on NFPEs covered only 40 NFPEs; while from 1985-1987, 56 enterprises were covered - 54 in 1988 and 52 in 1989.

Source: Economic Planning Unit.

total operating and development expenditure recorded an average annual rate of 7.7 percent, in sharp contrast to the rapid expansion which averaged at an annual rate of 25 percent during the 1982-1984 period. Consequently, the overall account of the public agencies improves significantly to record small surpluses in 1987 and 1988.

2.3 Financing the Deficits

Traditionally, public savings are insufficient to finance public investment (see Table 6.6). In the 1960s and 1970s, this gap was readily bridged from non-inflationary sources without any significant resort to external borrowing. The consolidated public sector accounts showed that except for 1960, the overall account remained in deficit. The main sources of finance of these deficits were from domestic and foreign borrowing and, to a more limited extent, the use of accumulated savings and foreign grants. While the Federal Government depended heavily on domestic and foreign borrowing to finance their deficits, the State Governments were funded mainly by loans and grants from the Federal Government. The public authorities were funded largely by Federal Government loans and grants as well as some foreign borrowing, mainly with Federal Government guarantee. The Federal Government borrows domestically through the issues of longer-term (3 to 21 years) government securities, investment certificates and Treasury bills (1 year and below). Over the years, the Government relied largely on non-inflationary sources of domestic financing, mainly from captive sources like the Employees Provident Fund (EPF), other provident and pension funds and the National Savings Bank, as well as a prudent amount of "residual" external financing to fund its development programmes.

The EPF is a reliable and major source of long-term financing for the public sector development programmes. Between 1957 and 1987, the EPF held between a minimum of 43 percent and a maximum of 56 percent of the outstanding domestic debt of the Federal Government. For the first two years of the Fifth Malaysia Plan, 1986-1990, the EPF had provided $7.6 billion towards the financing of development projects in the public sector, or about 55 percent of the increase in new domestic debt of the Federal Government.

The resort by the public sector to foreign financing increased significantly by the early 1980s, as development expenditure increased

Table 6.6

FINANCING OF PUBLIC DEVELOPMENT[1]

	1956-60	1961-65	1966-70	1971-75	1976-80	1981-85	1986-89
Public Dev. Expenditure ($ billion)	0.74	3.11	4.24	9.79	27.49	78.59	42.15
Financed by (% of total):							
Government Surplus	52.7	34.4	32.8	15.6	22.0	13.3	20.9
Public Authorities' Surplus	-	5.8	8.0	7.2	6.7	27.0	32.6
Net Foreign Borrowing	17.6	18.0	16.5	21.3	15.8	32.6	-10.9
Use of Reserves2	-63.5	8.4	-1.2	10.8	15.2	-3.1	-6.1
Net Domestic Borrowing	93.2	33.4	43.9	45.1	40.3	30.2	63.5
of which:							
Central Bank[3]	1.4	5.8	3.2	7.5	11.2	3.3	-4.5
Banks[3]	7.2	8.7	34.9	25.9	15.0	20.1	16.2
EPF[3]	65.2	56.7	47.3	42.8	42.1	50.7	51.3

1 Peninsular Malaysia (only Federal Government development expenditure).
2 Minus sign (-) = increase in reserves.
3 Percentage of the net domestic borrowing.

Source: Compiled from the various Development Plan documents: First Malaya Plan, 1956-60; Second Malaya Plan, 1961-65; First Malayusia Plan (FMP), 1966-70; Second Malaysia Plan (SMP), 1971-75; Third Malaysia Plan (TMP), 1976-80, Fourth Malaysia Plan, 1981-85; and, data compiled from Economic Report 1989-90. Except for 1956-60, the development expenditure data related to those of the public sector (Federal Government, State and local government, the public authorities and the statutory bodies).

rapidly in the face of sluggish revenue growth. Public development expenditure increase markedly from $27.5 billion in the Third Malaysia Plan, 1976-1980, to US$78.6 billion in the Fourth Malaysia Plan, 1981-1985. As a result, the Government had to resort increasingly to foreign financing to fund its growth deficit, since the traditional sources of domestic financing were inadequate relative to the requirements of the Government. The share of net external borrowing in financing public development expenditure rose to nearly 36 percent in 1981-1983, as against 19 percent in the 1970s.

III. Impact of Financing Public Sector Deficits through the Financial System

Because of its developmental role, the Malaysian Government has, as we have seen in the foregoing discussion, consistently incurred deficits in its overall account (current budget plus development expenditure). In some years, these deficits were aggravated due to the need to implement expansionary counter-cyclical measures. Although during the period 1970-1988 the current budget normally recorded, except for certain years, varying amounts of surpluses, these surpluses, however, contributed only partly to the financing of development expenditure. As a result, the financing of these deficits has come mainly from domestic borrowings and since early 1980s from foreign borrowings. The amount of consolidated public sector deficits and that of the Federal Government are shown in Tables 6.2 and 6.3 respectively. Let us now examine the theoretical arguments on how government deficits affect money supply, money demand and prices.

3.1 Effects of Monetization of Deficits on Money Supply and Prices

When the Government spends more than its revenue, the deficit that results has to be financed. One way of financing this deficit is by borrowing in the private market place (selling government securities). The increased demand for credit in financial markets, if not offset by a reduction in credit demand elsewhere or an increase in credit supply, naturally puts an upward pressure on market interest rates. The monetary authority may then attempt to prevent the rise in interest rate from taking place. To do this, the monetary authority will buy government securities, thus monetizing part of the public debt by increasing the level of bank reserves. The increase in bank reserves will result in a larger money stock and, other things being equal, a subsequently higher inflation. Consequently, there is an indirect channel, i.e., via the response of the monetary authority to higher interest rates by which deficits can influence the inflation rate. Based on this, it has been argued, however, that the deficits themselves do not increase the money stock -- only the monetary authority can do so.[2] Only when the monetary authority attempts to prevent market interest rates from rising will deficits produce a larger money supply. When deficits persist over an extended period of time and the monetary authority attempts to prevent market interest rates from rising, then continual increases in the money stock will result. Therefore, it is argued that the link between deficits and money growth and consequently, between deficits and inflation can only be established if the monetary authority attempts to prevent interest rates from rising.

3.2 Deficits and the Demand for Money

Inflation can also be associated with government deficits if such deficits induce reductions in the public's desired money balances. This occurs through two channels. First channel operates through the effect of changes in interest rates on the public's demand for money balances. A higher level of interest rates will reduce desired money balances, causing an excess supply of money. A second channel through which government deficit can affect desired money holdings and subsequently inflation rate, is change in individual's wealth holdings. Thus, if individuals observe that their wealth is falling over an extended period of time, their desired money balances will also fall, and higher inflation will result despite the fact that the growth of money stock remained unchanged.

It has, however, been argued that the effect of government deficits on the public's demand for money through the interest rate channel is minor. While the demand for money is sensitive to changes in interest rates, quantitatively, the effect is small. It would take a substantial rise in interest rates to reduce desired money balances to actually produce a measurable increase in inflation.[3] On the second channel (through wealth effect on money holdings), it has been argued that deficits themselves cannot cause wealth of individuals to decline. When the Government spends more than its direct receipts, some individuals must reduce their current consumption of goods and services. When

2. Hein, Scott E., "Deficits and Inflation", *Federal Reserve Bank of St. Louis,* March 81, vol. 63, no. 1.
3. Ibid, p. 5.

individuals make this reduction in exchange for government securities -- promise to repay the loans in the future that are backed by the taxing authority of the Government -- they do so voluntarily. Thus, these individuals who foresake current expenditure to hold government debt should not be worse off. On an aggregate level, however, it is possible that economic participants feel worse off. This could happen, for example, if the public feels that the Government is inefficiently using the resources it has acquired through deficit financing. Such perceptions could have significant wealth effects if it were commonly perceived that the Government was taking away from ("crowding out") private investment (which could have added to the capital structure of the economy) without adding anything significant by way of public spending in return.

People would feel that future private production capabilities will be lower and, if this were not offset by an equivalent benefit from public spending, they would feel poor as a result. This possible adverse wealth effect could lead to lower money holdings, and other things remaining equal, a substantially higher inflation. While such adverse wealth effects are possible, it is argued that they are the direct result of fiscal mismanagement and not deficit financing. Therefore, regardless of the method the Government finances its spending programmes, as long as the Government allocates resources inefficiently, the public will feel poor. If the public perceives that its wealth is falling, it is the result of mismanagement of fiscal responsibilities, not deficit spending.

3.3 Government Deficits and Monetary Policy Response

The textbook view of the relationship between monetary policy and federal debt can be demonstrated in the context of a simple comparative static money market, which is summarized in Figure 6.1. Let us assume that money demand (MD) is a function of the interest rate and the level of income, and that the monetary authority can effectively fix the money supply (MS). With some initial level of income, money demand and supply functions may be represented by MD_0 and MS_0, respectively. Given a structural (and exogenous or active) change in fiscal policy, an expansionary action increasing the deficit, income will rise in the short run. This increase, in turn, will lead to an increase in money demand, shifting the money demand curve from MD_0 to MD_1 in Figure 1 and driving up interest rates. If the monetary authority is operating with a monetary aggregate target, monetary policy will not respond to the deficit. The deficit will not alter the money stock but will increase the interest rate from r_0 to r_1.

With cyclical (or endogenous or passive) fiscal policy changes, however, the effect of such deficit on interest rate would be different. Assume the economy enters a recession as a result of a non-policy shock to the system. The automatic stabilizing properties of government taxes and expenditures will lead to a cyclical increase in deficit as income declines. Further, the decline in income will reduce the demand for money, shifting the money demand from MD_1 to MD_0 in Figure 6.1. Again, if monetary authority is using a monetary aggregate as its target, the money stock will remain constant. Therefore, an increase in the cyclical deficits will lead to a reduction in interest rate from r_1 to r_0. With a monetary aggregate target, this model implies that structural deficits will lead to increases in the interest rates, while cyclical deficits will be accompanied by a decrease in the interest rates.

In contrast, if the monetary authority is using interest rates as its target, the increase in the structural deficits and the resulting increase in money demand will prompt the monetary authority to respond differently. The increase in interest rates as money demand increased from MD_0 to MD_1 would lead the monetary authority to increase the money supply (from MS_0 to MS_1) sufficiently to drive interest rates back to their original level. Therefore, with an interest rate target, the exogenous deficit increases would not influence the interest rate but would increase the money stock.

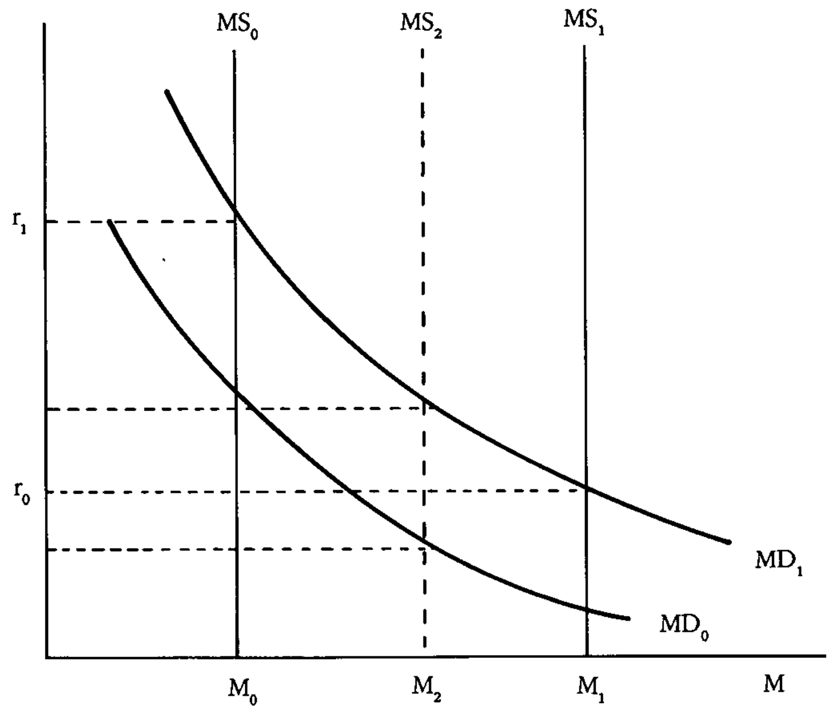
If the monetary authority has not followed a pure interest rate or monetary target but instead has followed a mixed strategy using both, a structural deficit would still shift the money demand curve out as before, but the money supply curve would shift out only partially, say, from MS_0 to MS_2. Thus, the structural debt increase would lead to both higher interest rate and money growth.

With an interest rate targeting, an increase in the cyclical deficit, which leads to a decrease in money demand from MD_1 to MD_0, would lead the monetary authority to reduce the monetary stock from MS_1 to MS_0 in order to keep the interest rate unchanged. With a mixed targeting strategy, an increase in the cyclical deficit, the money supply would be expected to shift partially down from MS_1 to MS_2. Thus, the increased deficit would be accompanied by both a lower interest rate and a lower money supply.

Whether an increase in the deficit is accompanied by increases or decreases in the money stock and interest rates, would depend on the nature of the deficit and on the manner in which the monetary

Figure 6.1

Comparative Static Money Market Model



authority conducts its monetary policy. It should be noted that a given deficit may combine structural and cyclical elements. In this case, the impact of the deficit on the interest rate is ambiguous if the monetary authority targets on a monetary aggregates; its impact on money supply is also ambiguous if the monetary authority targets on interest rates. Both impact would also be ambiguous with a mixed targeting procedure. Further, there is no guarantee that the monetary authority would follow a consistent pattern of targeting on either over time.

3.4 Deficits, Money and Inflation: Examining the Evidence

The above theoretical analyses suggest that deficits are associated with inflation only to the extent that they lead to increases in the money stock. Before we go into an econometric analysis of the relationship between deficits, money growth and inflation, let us first examine the implications of the public sector financing in the determination of money supply.

3.4.1 Public Sector Financing and Money Supply

The most significant forces which influence the level of money supply in Malaysia originate from three main sources, namely, the financial operations of the Government (indeed, the entire public sector), the lending operations of the banking system (Central Bank and the commercial banks) to the non-bank private sector, and the overall position of the country's balances on international receipts and payments. Of course, the behavior of a few other factors, such as the operating profits of the banking system, changes in the shareholders' funds of the Central Bank or the commercial banks, realized capital losses or gains and the movements in minor assets and liabilities of the banking system, can also affect the flow of money but these are minor and can be ignored from the point of view of analyzing the money supply particularly for purposes of policy.

The trends in the movements of money supply narrowly defined (M_1) and private sector liquidity (M_2) and their principal "determinants" over the period 1956-1988 are summarized in Table 6.7 and that of M_3 for the period 1974-1988 in Table 6.8. Over the years, all the principal "determinants" of M_1, M_2 and M_3 were generally expansionary. The relative importance of these "determinants" varied, from year to year and from period to period, depending not only on cyclical economic fluctuations but also on the rapidly expanding public sector as well as the growing resort to bank financing by both the public and private sectors for their capital expenditures. The expansionary impact of these three primary influences was, however, neutralized to some extent by the rapid increase in private sector savings in the form of fixed and saving deposits so that the volume of money increased moderately but steadily over the period without at the same time, causing undue adverse effects on domestic inflation during most of the years since independence.

Despite significant political, economic and institutional changes in the economy, especially in the first ten years, the rate of expansion of the three principal "determinants" of money supply had been relatively stable. Moreover, they were sufficiently responsive to variations in the monetary control instruments to enable money supply to increase at a rate consistent with the rising and diverse needs of a growing economy, without causing inflation and market distortions. Some general observations regarding the principal "determinants" outline in Tables 6.7 and 6.8 are as follows:

(1) Net lending to Government

Financing of the Government's overall deficits by the banking system will have the same effect as the banking system's loans to the non-bank private sector. If government deposits with the banking system is larger than the holding of government debt by the banking system, then the public sector's financial operation would be contractionary on money supply, and vice versa.

Financing of public development programmes by the monetary system was negligible during the first ten years, 1956-1965, and remained relatively small even during the First Malaysia Plan, 1966-1970, due mainly to the availability of significant non-inflationary long-term funds from contractual savings in the form of obligatory contributions to provident funds, of which the Government's EPF is the largest and most important, and to private long-term financing from abroad. Since the implementation of the Second Malaysia Plan, 1971-1975, the financial contribution of the monetary system has been more significant as the financing needs of the Government expanded. Nevertheless, until the end of 1981, the Government remained a net depositor with the Central Bank (see Table 6.9).

Table 6.7

DETERMINANTS OF CHANGES IN THE MONEY SUPPLY
(Change in $ million)

	1956-60a	1961-65	1966-70	1971-75	1976-80	1981-85	1986-87	End-1988
Net Lending to Government	29.0	0.6	134.1	1283.2	-764.1	815.3	3584.2	7819.5
Claims on Government	56.0	148.5	706.9	1643.0	3053.1	4663.0	2205.9	12547.9
Less: Government Deposits	27.0	147.9	572.8	359.8	3817.2	3818.5	-1378.3	8728.4
Credit to Private Sector	294.0	599.3	1123.3	3831.4	14859.9	27872.2	3554.5	57926.1
Net Foreign Assets	94.0	229.1	447.0	1103.7	6150.9	-234.8	10346.0	20850.8
Official reserves	329.0	285.7	643.6	1372.6	6913.2	2152.9	6975.6	18728.3
Commercial bank's foreign assets	-235.0	-56.6	-196.6	-268.9	-762.3	-2396.7	3370.4	2522.5
Other Influences	-66.0	-33.0	26.6	-359.1	-2576.2	-7699.2	-9422.2	-22236.0
Private Sector Liquidity (M2)	351.0	796.0	1677.8	5859.2	17670.5	20744.5	8062.5	60360.4
Less: Quasi-money	198.0	452.3	1159.3	3542.9	12257.9	16927.0	5873.2	42284.7
Money Supply (M1)	153.0	343.7	518.5	2316.3	5412.6	3817.5	2189.3	18075.7
of which: Currency	126.0	164.1	154.0	1238.8	2518.9	1462.3	1138.2	8376.7
Demand deposit	27.0	179.6	364.5	1077.5	2893.7	2355.2	1051.1	9699.0

a Federation of Malaya only.

Table 6.8

DETERMINANTS OF CHANGES IN THE MONEY SUPPLY[1]

(Change in $ million)

	1974-75	1976-80	1981-85	1986-87	End-1988
Net Lending to Government	967.5	210.2	2037.7	3571.0	6098.1
Claims on Government	1169.1	4033.2	6294.3	3104.7	16544.5
Less: Government Deposits	201.6	3823.0	4256.6	-466.3	10446.4
Credit to Private Sector	2109.4	19055.9	40375.6	4397.3	79508.4
Net Foreign Assets	605.3	5576.4	-237.5	10389.0	20770.4
Official reserves	623.6	6373.2	2152.9	6975.6	18328.3
Commercial bank's foreign assets	-18.3	-769.8	2390.4	3413.4	2527.6
Other Influences	-672.9	3935.9	-11613.1	-10536.6	-30221.2
Broad Money (M3)	3009.3	20906.6	30562.7	7820.7	76155.8
Broad quasi-money[2]	2388.7	15530.8	26794.4	5596.7	-
Currency	520.3	2515.6	1447.1	1130.1	8338.7
Demand deposit	100.3	2860.2	2321.2	1093.9	9626.9

1 Defined to include currency in circulation and all private sector deposits with the Central Bank, commercial banks (including Bank Islam), finance companies, merchant banks and discount houses; excluding placements among these institutions.

2 Defined to comprise private sector savings and fixed deposits with the Central Bank, commercial banks, (including Bank Islam) finance companies, merchant banks and discount houses; including private sector holdings of negotiable certificates of deposit (NCDc) and Central bank certificates, exclude placements among these institutions.

Table 6.9

MONETIZATION OF GOVERNMENT DEBT BY CENTRAL BANK: 1960-1988
(Outstanding in $ million)

Year	Holding of Govt. Papers by Central Bank *	Govt. Deposit with Central bank	Net Borrow'g(-)/ Net Lend'g(+)	Change in Net Borrow'g/ Net Lending
1960	8	98	-90	-
1961	12	51	-39	51
1962	13	104	-91	-52
1963	35	113	-78	13
1964	38	138	-100	-22
1965	67	202	-135	-35
1966	83	209	-126	9
1967	141	418	-277	-151
1968	103	497	-394	-117
1969	123	709	-586	-192
1970	124	585	-461	125
1971	128	684	-556	-95
1972	171	649	-478	78
1973	277	647	-370	108
1974	253	529	-276	94
1975	445	792	-347	-71
1976	325	1924	-1599	-1252
1977	422	2064	-1642	-43
1978	386	1703	-1317	325
1979	742	3386	-2644	-1327
1980	1681	2426	-745	1899
1981	708	1494	-786	-41
1982	2001	1962	39	825
1983	3525	2580	945	906
1984	4809	2892	1917	972
1985	2468	989	1479	-438
1986	2058	601	1457	-22
1987	1961	1053	908	-549
1988	2164	1112	1052	144

* Holding of government paper by Central Bank and loans (direct)to Government by Central Bank.

Government balances at the Central Bank exceeded its holdings of government debt by $786 million at the end of 1981. However, such balances were less than the Central Bank's holdings of government paper by $38 million at the end of 1982. Net lending by the Central Bank throughout the Fourth Malaysia Plan increased from $945 million in 1983 to $1,917 million in 1984 before moderating to $1,479 million in 1985. For the 1981-1985 period, the net lending of the Central Bank to the Government totalled $3,594 million. The Central Bank continued to be a net lender to the Government during 1986-1988 period with net holding of government papers totalling $3,417 million.

In terms of flow (Table 6.10), the Central Bank was net lender to the Government to the tune of $2,224 million during 1981-1985 period and a net borrwer from the Government to the tune of $427 million during 1986-1988 period. On the other hand, the commercial banks had increasingly become an important source of long-term finance for the Government since the commencement of the First Malaysia Plan. By the end of 1988, holdings of government debt by the commercial banks amounted to $10,384 million; against this, the Government's balances with the commercial banks totalled $7,616 million, so that claims outstanding on the Government by the commercial banks amounted to $2,768 million. In terms of flow (see Table 6.10), the commercial banks were a net borrower from the Government during 1981-1985 period (-$1,409 million) and a net lender during 1986-1988 period (+$2,883 million).

(2) Credit to the private sector

Over the years, credit to the non-bank private sector was generally expansionary; its growth rate normally exceeded the rates of expansion of money supply and private liquidity. On the average, bank credit increased annually at 22.9 percent in 1956-1960, 17.9 percent in 1961-1965, 15.7 percent in 1966-1970, 23.2 percent in 1971-1975, 26.7 percent in 1976-1980, 18.5 percent in 1981-1985 and 3.3 percent in 1986-1987. The bulk of the credit extended by the commercial banks was for the purposes of working capital and financing of capital formation. As a result, their loans-deposits ratio rose significantly over the entire period; it averaged 40 percent in 1956-1960, 65.4 percent in 1961-1965, 66.2 percent in 1966-1970, 75.5 percent in 1971-1975, 81.0 percent in 1976-1980, 90.0 percent in 1981-1985 and 93.7 percent in 1986-

Table 6.10

NET LENDING TO GOVERNMENT BY THE MONETARY SYSTEM
($ million)

Period	Net Lending to Government[1]		
	Central Bank	Commercial Bank	Monetary System
1956-1960[2]	n.a.	n.a.	29.0
1961-1965	-44.8	45.4	0.6
1966-1970	-326.3	460.4	134.1
1971-1975	113.8	1169.4	1283.2
1976-1980	-398.2	-365.9	-764.1
1981-1985	2224.1	1408.0	815.3
1986-1988	-427.0	2882.6	2455.6

1 Change in the net holdings of government debts less government deposits during period: (+) indicates net lending to Government.

2 Federation of Malaya only.

1987. By the end of 1988, this ratio had risen to 95.3 percent. Bank credit to the private sector amounted to $57,926 million at the end of 1988 (see Table 6.8).

(3) Net foreign assets

Except for the economically "lean" years, notably 1957-1958, 1961, 1967 and 1981, the net foreign assets of the monetary system had consistently imparted a considerable expansionary impact on the money supply over the entire period. This situation had been the result of two generally divergent trends. Whereas official external reserves of the monetary authority had increased persistently over the thirty-year period, the net foreign assets of the commercial banks as a whole had tended to move in the opposite direction; they declined consistently in each of the six five-year periods beginning from 1956-1987. As a result, net external reserves of the Central Bank rose to $18,728 million at the end of 1988 (compared with only $787 million at the beginning of 1959), while the net foreign assets of the commercial banks fell from $321 million at the beginning of 1959 to $2,296 million (i.e., a net foreign liability position) at the end of 1986. As at the end of 1988, the net foreign assets of the commercial banks amounted to $2,523 million.

(4) Other influences

On the whole, the impact of "other influences", comprising those factors which cannot be assigned to the principal "determinants" or indeed even to the volume of money proper, had generally been contractionary and quite insignificant (as it should be); this was the case up to the end of the 1960s, except for 1967 when the counterpart of the reserves "loss" arising from the devaluation of the pound sterling changed the character and size of this factor significantly. During 1973-1988, the contractionary influence of this factor increased significantly. This was due to the substantial increase in profits of the monetary system as a whole: increased bank borrowing from non-bank financial institutions and higher bills payable, especially in 1973 and 1981; increase in other liabilities of the commercial banks, mainly in the form of paid-up capital and reserves to comply with the new capital adequacy requirement in 1982; and, increase in provision for bad debts and interest-in-suspense as well as a rise in paid-up capital of the commercial banks through new issues in 1988. As at the end of 1988, other influences stood at $22,236 million.

From the above analysis, it is clear in Malaysia's case that monetization of government debt by the Central Bank, if any, had been done only to a very limited extent. Financing of government debt in Malaysia came, in a significant way, from non-inflationary sources, i.e., from the compulsory savings institutions and also from the commercial banks. Since the commercial banks collected deposits from the public, this source of financing can also be regarded as a non-inflationary source of financing. Therefore, one should expect that the contribution of public sector deficits to the formation of inflation in Malaysia would be rather minimal and insignificant. Let us now examine this empirically.

3.4.2 Effects of Public Sector Deficits, Money Supply and Prices: Empirical Evidence

As explained earlier, government deficits per se do not necessarily cause inflation. It depends on the way the deficits are financed. It is agreed that government deficits could lead to inflation if the deficits are financed from inflationary sources which lead to, in effect, the printing of money by the Central Bank, that is monetization of government debts by the Central Bank. Aghevli and Khan[4] had the impact of Government deficits on money supply using the following equation:

$$\text{Log } Mt = a0 + \text{log} m + a1\text{log } Gt - a2\text{log } Rt + a3\text{log } Et$$

where,

M = Broad money supply (M_2)

m = Money multiplier

G = Government expenditure

R = Government revenue

E = Residual term to account for change in external reserves and other items

t = Time period

4. Aghevli, Bijan B. and Khan, Mohsin S., "Government Deficits and the Inflationary Process in Developing Countries", *IMF Staff Papers*, vol. 25 (September 1978), pp. 383-416.

As discussed earlier, in Malaysia, the bulk of the government deficits is financed through non-inflationary sources, i.e., by the compulsory savings institutions such as the EPF, National Savings Bank, other social security organization and, to a limited extent, by the banking institutions (the commercial banks, finance companies and merchant banks). Financing by the Central Bank through holding of government securities has all along been limited. In fact, on a net basis, i.e., after taking into account government deposits placed with the Central Bank, the Central Bank has been a "net borrower" from the Government. Only in recent years, i.e., beginning from 1981, the Central Bank has been holding government securities in excess of government deposits placed with it. Nevertheless, net lending to the Government by the Central Bank in recent years has been relatively small. Even in the case of the banking institutions, their holdings of government securities had been mainly for the purpose of meeting the minimum liquidity requirement imposed on them by the Central Bank, not directly for financing government deficits.

In our empirical studies, we investigated both the impact of net lending to the Government by the Central Bank on money supply as well as the impact of net lending to the public sector by the banking institutions on money supply. The equations used are as follows:

$$Mt = a0+a2NDebt + a3\ Mt\text{-}1 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots \qquad (1)$$

$$\log Mt = b0+b2\log NLG + a3\log Mt\text{-}1 \quad \ldots\ldots\ldots\ldots\ldots\ldots \qquad (2)$$

where,

M = Monetary aggregate (M1, M2 and M3)

NDebt = Holding of government securities by Central Bank minus government deposits with Central Bank

NLG = Net lending by the banking system (commercial banks, finance companies and merchant banks, and Central Bank included) to the Government

t = Time period

Definition of variables and sources of data used are given together with the summary of the empirical results using Equation (1) in Table 6.11. The empirical results on the whole did not support the view that financing of government deficits led to inflation. Although the coefficient of net lending by Central Bank is significant when it is regressed on narrow money supply (M_1), the sign of coefficient, however, is negative. This is because, in most of the observation included in the

Table 6.11

**SUMMARY OF
EMPIRICAL RESULTS OF MONETARY AGGREGATES ON DEBT**

1. $M1_t$ = $-166.628 - 0.392\ NDebt + 1.120\ M1_{t-1}$
   (-0.491) (-2.868) (30.831)

   $\bar{R}^2$ = 0.990 F = 810.524 DW 1.112

   N = 18 (1971-1988)

2. $M2_t$ = $896.717 - 0.643\ NDebt + 1.085\ M2_{t-1}$
   (0.1157) (-1.168) (41.121)

   $\bar{R}^2$ = 0.995 F = 1754.103 DW 1.795

   N = 18 (1971-1988)

3. M_3 (AR1) = $6247.909 + 0.682\ NDebt + 0.973\ M3_{t-1}$
   (2.273) (1.056) (17.074)

   $\bar{R}^2$ = 0.950 F = 905.728 DW 2.294

   N = 14 (1975-1988)

AR1 = Autogressive model

test, there had been indeed excess of government deposits placed with the Central Bank over Central Bank's holding of government securities. This means that over the period under study, there had not been any significant debt monetization by the Central Bank, thus the insignificance of this variable as factor determining money supply.

The coefficients of net lending to the Central Bank in M_2 and M_3 equations were found statistically insignificant. The only significant explanatory variables in all the equations for M_1, M_2 and M_3 are the lagged value of these monetary aggregates with coefficient value of 1.12, 1.085 and 0.973 in M_1, M_2 and M_3 equations respectively.

Not fully satisfied with the results, further tests, and this time using total lending to the Government by the banking system (the commercial banks, finance companies and merchant banks, and also the Central Bank) was used as a proxy for debt monetization by the banking system. The equations tested were in log forms. The results of these tests are summarized in Table 6.12.

Again, it was found that coefficients of log LG (lending to the Government) was consistently insignificant and have minus sign in all the equations for M_1, M_2 and M_3. Again, only lagged values of the dependent variables were significant in all the equations tested with coefficient values of 0.953, 0.985 and 0.989 respectively. These results once again showed that in the case of Malaysia, because of the absence of any significant monetization of government debt both the Central Bank and the banking institutions, government deficits had not contributed in any significant way to the growth of monetary aggregates, be it M_1, M_2 or M_3.

Notwithstanding the absence of any significant impact of government deficits on money supply growth, we went on to test the impact of monetary growth on inflation. Accordingly, the price equations were specified as follows:

$$\text{Log } CPI_t = a_0 + a_2 \log(M/P)_t + \log CPI_{t-1} \quad \ldots\ldots\ldots\ldots \quad (3)$$

where,

CPI = Consumer price index (1980=100)
M = Monetary aggregates as represented by M_1, M_2 and M_3
t = Time period

Table 6.12

SUMMARY OF EMPIRICAL RESULTS OF CONSUMER PRICE INDEX ON MONETARY AGGREGATES

1. $\text{Log } M_{1t} = 0.790 - 0.031 \text{ logLG} + 0.953 \text{ M1I}_{t-1}$
   $(2.697) \quad (-0.689) \qquad (15.742)$

   $\bar{R}^2 = 0.986$ F Statistics = 466.299 DW = 1.417

   N = 16 (1973-1988)

2. $\text{Log } M_{2t} = 0.754 - 0.062 \text{ logLG} + 0.988 \text{ M2}_{t-1}$
   $(4.865) \quad (-1.900) \qquad (30.514)$

   $\bar{R}^2 = 0.997$ F Statistics = 1879.621 DW = 2.050

   N = 16 (Sample 1973-1988)

3. $\text{Log } M_{3t} = 0.709 - 0.056 \text{ logLg} + 0.789 \text{ logM3}_{t-1}$
   $(4.562) \quad (-1.879) \qquad (34.522)$

   $\bar{R}^2 = 0.970$ F Statistics = 1950.800 DW = 1.518

   N = 14 (1975-1988)

Equation (3) was then tested using current value of real money supplies (M_1, M_2 and M_3). The same equations were tested also using the lagged values of the three monetary aggregates. The results of these tests are summarized in Tables 6.13 and 6.14.

While we found the coefficiency of the current value of real M1 is a significant determinant of prices with its coefficient value equalled to 0.15, the coefficients of current value of real M_2 and M_3 were not significant in the other two price equations tested. The coefficient of the lag values of prices were found significant in all the equations tested. However, when lagged values of real M_1, M_2 and M_3 were included in all the prices equations, all their coefficients were found significant in all the equations tested. These results seem to show that monetary growth leads the formation of price inflation.

From the empirical results, it can be concluded that, bearing in mind all the usual weaknesses of the empirical testing, as far as Malaysia is concerned, because of the absence of any significant monetization of government debt by the banking system, and notably by the Central Bank, government deficit cannot be said to have led to inflation. Furthermore, monetary growth, although was found to be a factor determining price growth, judging from their generally small coefficient, cannot be said as a major cause of inflation. Perhaps, as far as Malaysia is concerned, inflation is not really a monetary phenomenon.

3.5 Pressure of Public Sector Borrowing on Credit Market

The pressure created by public sector borrowing at the credit market can be measured by using the following indicators:

(1)

$$SPS = \frac{DNCr}{DTCr} = \frac{\dfrac{NC_t}{P_t} - \dfrac{NC_{t-1}}{P_{t-1}}}{\dfrac{TC_t}{P_t} - \dfrac{TC_{t-1}}{P_{t-1}}}$$

where,

DNCr = Change in net credit to Government in real terms
DTCr = Change in total credit in real terms
SPS = Share of public sector real credit expansion
P = Consumer Price Index (1980=100)
t = Time period

Table 6.13

SUMMARY OF EMPIRICAL RESULTS OF CONSUMER PRICE INDEX ON MONETARY AGGREGATES

1. $$\text{Log CPI}_t = \underset{(3.169)}{0.519} + \underset{(2.019)}{0.150} \log (M1/p)_t + \underset{(7.533)}{0.749} \log \text{CP1}_{t-1}$$

   $\bar{R}^2$ = 0.985 F Statistics = 562.955 DW = 1.424

   N = 18 (1971-1988)

2. $$\text{Log CPI}_t = \underset{(2.991)}{0.967} + \underset{(1.315)}{0.091} (M3/p)_t + \underset{(4.483)}{0.686} \log \text{CPI}_{t-1}$$

   $\bar{R}^2$ = 0.982 F Statistics = 422.518 DW = 1.790

   N = 16 (Sample 1973-1988)

3. $$\text{Log CPI}_t = \underset{(1.974)}{0.641} + \underset{(1.124)}{0.095} \log (M2/p)_t + \underset{(4.471)}{0.755} \log \text{CPI}_{t-1}$$

   $\bar{R}^2$ = 0.983 F Statistics = 478.875 DW = 1.213

   N = 16 (1971-1988)

Table 6.14

SUMMARY OF EMPIRICAL RESULTS OF CONSUMER PRICE INDEX

1.	Log CPI_t	=	$0.912 + 0.287 \log (M1/p)_t + 0.533 \log \text{CPI}_{t-1}$ (7.965) (5.814) (7.842)
	$\bar{R}_2$	=	0.994 F Statistics = 1406.916 DW = 1.125
	N	=	17 (Sample 1972-1988)
2.	Log CPI_t	=	$1.049 + 0.157 (M2/p)_t + 0.593 \log \text{CPI}_{t-1}$ (3.648) (2.375) (4.283)
	$\bar{R}^2$	=	0.982 F Statistics = 574.018 DW = 1.131
	N	=	17 (Sample 1972-1988)
3.	Log CPI_t	=	$1.694 + 0.200 \log (M3/p)_t + 0.396 \log \text{CPI}_{t-1}$ (5.357) (3.736) (3.011)
	$\bar{R}^2$	=	0.987 F Statistics = 537.349 DW = 3.636
	N	=	16 (1971-1988)
4.	Log CPI_t (AR1)	=	$1.486 + 0.209 \log (M2/p)_t + 0.420 \log \text{CPI}_{t-1}$ (2.995) (3.193) (2.501)
	$\bar{R}^2$	=	0.991 F Statistics = 504.226 DW = 1.215
	N	=	14 (1975-1988)

ARI = Autogressive model

(2) $PSPS = \frac{NC_t}{TC_t}$

where,

NC = Net credit to Government in nominal terms
TC = Total credit in nominal terms
PSPS = Proportional share of public sector credit to total credit

The calculation of SPS and PSPS for Malaysia for the period 1973-1988 is shown in Table 6.15. The rule is that when SPS>PSPS, this indicates a growing pressure on the credit market from public sector financial operation, leading to large proportions of debt creation in the economy. Comparing the two figures, it is found that, in general, SPS in most instances, is smaller than PSPS indicating the fact that, during the period under study, the public sector financing did not contribute in any significant way to credit creation in the economy.

Only in 1980, 1981 and 1982, the SPS exceed PSPS for three years in a row. This was the period when public development expenditure increased at faster rates so that the government overall deficit increased from $2.5 billion in 1975 to $8.1 billion in 1980, to $11.4 billion in 1981 and $11.3 billion in 1982. Net domestic borrowing by the Government from domestic sources also increased from $2.6 billion in 1979 to $3.7 billion in 1980 and reached a peak of $6.7 billion in 1982.

IV. Monetary Policy Implications of Financing Budget Deficits: Lessons from Malaysia

Section (4) of the Central Bank of Malaysia Ordinance, 1958 states the principal objectives of the Central Bank are as follow:

(a) to issue currency in the Federation and to keep reserves safe-guarding the value of the currency;
(b) to act as a banker and a financial adviser to the Government;
(c) to promote monetary stability and a sound financial structure; and,
(d) to influence the credit situation to the advantage of the Federation.

Therefore, the promotion of monetary stability which, in a broad sense includes the maintenance of price stability, is provided for in

Table 6.15

PRESSURE OF PUBLIC SECTOR BORROWING ON CREDIT MARKET

Year	Total Credit of Banking System ($m)	Net Credit to Public Sector ($m)	Net Credit to Public Sector as Ratio of Total Credit (PSPS)	CPI (1980=100)	Real to Credit of Banking System	Real Net Credit to Public Sector	Change in Real Credit of Banking System	Change in Real Net Credit to Public Sector	Ratio of Change in Net Real Credit to Public Sector to Change in Total Credit (SPS)
1973	5482.6	826.0	0.15	65.4	8383.18	1263.00			
1974	6316.2	1267.2	0.20	76.8	8224.22	1650.00	-158.96	387.00	-2.43
1975	7387.9	1793.5	0.24	80.2	9211.85	2236.28	987.63	586.28	0.59
1976	9237.4	1455.4	0.16	82.3	11224.06	1768.41	2012.21	-467.88	-0.23
1977	11071.7	2052.4	0.19	86.2	12844.20	2380.97	1620.14	612.57	0.38
1978	14260.3	2164.7	0.15	90.5	15757.24	2391.93	2913.04	10.96	0.00
1979	19106.5	756.0	0.04	93.8	20369.40	805.97	4612.17	-1585.96	-0.34
1980	26040.5	2003.7	0.08	100.0	26040.50	2003.70	5671.10	1197.73	0.21
1981	32190.8	3775.3	0.12	109.7	29344.39	3441.48	3303.89	1437.78	0.44
1982	37711.9	5558.9	0.15	116.0	32510.26	4792.16	3165.86	1350.68	0.43
1983	47255.3	5403.3	0.11	120.3	39281.21	4491.52	6770.96	-300.63	-0.04
1984	57916.9	6369.5	0.11	124.6	46482.26	5111.96	7201.05	0.09	
1985	65999.1	4041.4	0.06	125.1	52757.07	3230.54	6274.81	-1881.42	-0.30
1986	69940.4	5261.7	0.08	125.8	55596.50	4182.59	2839.43	952.06	0.34
1987	70056.6	7586.0	0.11	126.8	55249.68	5982.65	-346.82	1800.06	-5.19
1988	76978.3	6098.1	0.08	130.0	59214.08	4690.85	3964.39	-1291.80	-0.33

the law as one of the principal objectives of the Central Bank (the Bank). That is why since its inception in 1959, the Central Bank has continued to remain steadfast in ensuring price stability in the country. Indeed, it can be said that, judging from a careful observation of monetary policy stance of the Central Bank over the years, the Central Bank of Malaysia has always regarded inflation as its "public enemy number one". Indeed, the objective of maintaining price stability forms the thrust of the Central Bank's approach in dealing with the financing of government deficits.

As a matter of fact, the Central Bank is empowered to provide temporary advances, known as "ways and means" advances, to the Government to cover any deficit in the budget revenue. There are, however, legal limitations on the amount and duration of such advances. The law stipulates that no advances can exceed 12.5 percent of the budget revenue of the Government and must be repaid as soon as possible and not later than three months after the end of the Government's financial year in which it is granted. The Central Bank law also explicitly forbids additional funds to be made available to the Government unless the previous advances have been repaid. The Bank has the discretion to determine the rate of interest it will charge the Government for its advances.

The Government has not taken advantage of this credit facility since it has been able, for most years, to balance its current budget while the rapidly rising development expenditure has been financed primary by other non-inflationary sources of funds, such as sales of long-term debt mainly to the EPF and National Savings Bank, as well as through international project and market loans. The Government could also sell its assets to the Central Bank under certain circumstances. For instance, in 1988/1989, the Federal Government sold part of its holding of shares in the Malaysian Airline System (MAS) and the Malaysian International Shipping Corporation (MISC) to the Bank to prepay its external debt, reduce external debt and restrain the growth in the cost of servicing additional domestic debt, thereby improving the government finances.

There are no statutory regulations governing the Bank's investments in Treasury bills and other government securities. But the Bank has been very cautious in such investments since these constituted another form of financing the Government. In the 1960s and 1970s, such caution was reflected in the proportion which Treasury bills and other government securities constituted in the total assets of the Bank. The Bank's investments in Treasury bills and other government securities represented only about 6.8 percent of its aggregate assets as at the end of 1979, despite a multiple increase in its resources since 1959. However, the proportion increased significantly in the 1980s and was as high as 30 percent of the total resources of the Bank during the tight liquidity period in 1984. This reflected the Bank's readiness to discount eligible papers to help financial institutions tide over the temporary tight liquidity period.

The situation reversed in 1987 when liquidity of the banking system improved significantly. During this period, the banking system purchased large amounts of government papers from the Central Bank as demand for credit from the public was weak and the yield of government securities at that time was relatively more attractive compared with other forms of investment. By the end of 1988, the Bank's holdings of government papers declined to about 8.2 percent of its aggregate assets. Generally, government deposits had exceeded the Bank's holdings of Treasury bills and other government securities until 1981, when the Bank's investment in these securities increased more rapidly than government deposits. As at the end of 1988, government deposits with the Central Bank amounted to $1.1 billion compared to the Bank's holdings of $2.2 billion of government debt. A large part of the Bank's investment in Treasury bills was made to allow the Bank to meet the continuing demand for short-term bills. The Bank is, of course, aware of the dangers of undue deficit finance and is determined, through its policies, to avoid moves that could impair its role as the nation's guardian of monetary stability and in ensuring price stability.

Based on Malaysia's experience, a proper coordination between fiscal policy and monetary policy appeared to have been an important factor in minimizing the adverse impact of financing of public sector deficit on the economy. Malaysia's experience in the 1970s is the case in point. The 1970s was characterized by a period of uncertainty in the global economy. Consequently, Malaysia experienced an economic upswing with inflation in 1969-1974, an economic downswing also with inflation in 1975-1976 and a period of general recovery and sustained growth in 1976-1980 with inflation continued to remain a threat in the economy. On the whole, throughout the period, fiscal policy had been expansionary due to both increasing Government's involvement in economic activities under the NEP and implementation, on several occasions, of counter-cyclical measures. The expansionary fiscal policy contributed significantly to the generation of liquidity in the banking system. As such, the main task of monetary policy over the period was to ensure that the state of high liquidity would not evolve into a source of monetary instability and inflationary pressures.

With cyclical upswing in economic activity, which began in late 1972 and accelerated in 1973, liquidity in the banking system increased significantly. As this liquidity came both from a booming export sector and expansionary fiscal policy, a number of monetary measures was implemented in an effort to manage this liquidity so that its impact on prices would be minimized. Firstly, the Malaysian ringgit was allowed to float in June 1973, thereby providing more scope for pursuance of domestic stabilization policy as the principal objective of public policy. Secondly, steps were taken to restrain the growth of money supply and bank credit through a series of measures involving the use of a combination of instruments to restrain credit expansion, encourage savings and direct the flow of credit to raise productive capacity while discouraging, at the same time, the financing of projects that accentuated supply shortages and loans for consumption and speculative purposes. Among the measures were: interest rates on both bank deposits and loans were progressively increased in April, August and December 1973; the statutory reserves of the commercial banks and finance companies were raised to 10 percent and 7 percent respectively, by January 1974; and, the liquidity ratio of banks was raised to 25 percent in August 1973.

To complement the effectiveness of the above measures, steps were also implemented for deliberate public debt management: floating of government bonds was done only when the timing was most effective in mopping up excess liquidity; furthermore, the system of issuing of Treasury bills was changed to one of open tender to ensure that their discount rates reflected market influences and hence, aided the processing credit restraints. The measures were further complemented by a package of income policy: subsidies for essential food items; removal of import quotas, import duties and other indirect taxes; imposition of export control on items in short supply; and, direct measures to curb the activity of hoarders and speculators.

However, as inflationary pressures continued to remain strong, relying solely on monetary measures to combat inflation was found insufficient. In fact, the mopping up of excess liquidity under the circumstances where government spending continued to be expansionary arising mainly from the need to pursue the objectives of the NEP, proved to be generally ineffective. As such, a package of monetary and fiscal policy was implemented in April 1974. The package involved two basic elements: higher interest rates and the imposition of a credit growth ceiling and more effective export taxes; and, fiscal restraints.

When inflation was brought under control towards the end of 1974, a turnaround in the stance of public policy from a position of restraint to one of stimulation and expansion took place. A policy of fiscal stimulus resumed, mainly to counter the adverse impact of the economic downswing which began to set in towards the end of 1974 and persisted until 1976. As inflation remained high, monetary policy was faced with the dilemma of conflict of goals: inflation was still at an unacceptable level, yet measures to stimulate growth of bank credit and to protect reflationary fiscal policies were needed. Consequently, monetary policy took a middle course: gradual relaxation of credit ceiling; reduction of lending rates; and, reduction of the statutory reserve requirement of the banking institutions. All these were carried out over the 1975-1976 period.

In the 1977-1978 period, as the prospect of the external sector was not so favorable due to depressed world economy, positive counter-cyclical policies were implemented aimed at stimulating the domestic sector as a major source of growth. Fiscal stance turned more expansionary. Public expenditure increased significantly in 1977 and 1978, principally in public capital outlays. Also, an accommodative monetary policy was adopted during the period. Expansionary fiscal stance continued into 1980-1981 (in the midst of recession in major industrial countries) in order to sustain growth and achieve the goal of the NEP. On the whole, the 1970s emerged as the period of high growth for Malaysia with inflation, though high by our standard, well under control.

Another reason why government deficits did not cause undue pressures on prices in Malaysia was the fact that there was a willingness and firm commitment to implement the necessary adjustment programmes when the economy was not in a position to support any big spending by the public sector. This was the case in Malaysia in the early part of the 1980s when the economy was facing difficulty due to adverse consequences of the global world recession.

In Malaysia, our major problems during the period were related to the large twin-deficits in the economy which were attributed to an expansionary fiscal policy both development programmes of the

Government and counter-cyclical policy in the face of several episodes of economic downswings. Shortfall in public sector financing in 1982 came to $11 billion or equivalent to 18 percent of GNP and an external current account deficit amounted to $8.5 billion or close to 14 percent of GNP. These figures clearly illustrate the size and magnitude of adjustment that was needed in Malaysia to restore balance in the economy in the face of an adverse external environment. The programme which was taken in the context of a multi-year scheme with no outside assistance was initiated in the latter part of 1982. The center-piece of this policy was a retrenchment of public sector expenditure and a supportive monetary policy stance. The aim has been to restore external competitiveness and stimulate private sector investment.

A drastic cutback was taken in the expenditure allocation on economic development under the Fifth Malaysia Plan (1986-1990) from $74 billion over five years to $56 billion. This represented a cutback of $18 billion or an average of $3.6 billion a year or equivalent to 5.5 percent of GNP a year over a five-year period. This cutback involved sacrifices in real terms of development in the rural sector, as well as the building of infrastructure for growth. The cutback had to be taken as it threatened stability with severe implications. Firstly, any deficit of such magnitude as Malaysia had in the 1980s, if permitted to run its course, would mean an unsustainable debt burden to the country because of financing reasons. And secondly, in the medium and long term, the structural weaknesses that were inherent in the system could, if left unattended, sap our growth prospects for years to come.

The commitment to adjustment was firm. Despite the across-the-board collapse in commodity prices in 1985 which left the country with a massive $10 billion shortfall in export earnings, the tough but necessary measures were continued relentlessly. For example, subsidy programmes were slashed and even some civil service salaries were cut. As the result of these measures, things turned around. By the end of 1987, the public sector overall deficit has been reduced to only $3.8 billion (5.1 percent of GNP), from the peak of over $11 billion in 1982. The deficit for 1988 was even smaller, at $3.4 billion or less than 4 percent of GNP. By Malaysian standards, this ratio is low because close to three-quarters of the government deficits is financed by non-inflationary sources of savings. The economy had since been on the path of a strong and sustainable recovery. After rising by over 5 percent in 1987, real GDP strengthened further, to about 8.7 percent in 1988. The growth process took place in an environment of price stability.

V. Conclusion

Despite the considerable role of the public sector in Malaysia's economic development, particularly since the 1970s, following the implementation of the NEP, the availability of a large pool of non-inflationary finance had greatly helped in reducing, if not totally nullifying, the adverse impact that such considerable financial need would have imparted to the economy, particular in the areas of demand for credit, monetary growth and price stability. The steadfastness of the Central Bank in pursuing price stability objective and in not allowing the printing of money through debt monetization to finance the public sector deficits, to a considerable extent, explains the notable absence of any significant impact of public sector deficit on both monetary growth and prices in Malaysia. Proper coordination between monetary and fiscal policies, as clearly demonstrated in the 1970s, was also responsible in moderating the impact of public sector deficit on price level.

Timely action of not allowing public sector deficits to grow and to persist over a prolonged period of time, as was done in the early 1980s, was another contributing factor to the absence of a significant inflationary pressure of such deficits. During the early 1980s, Malaysia had achieved high growth rates averaging about 6.7 percent between 1981-1984. This growth, while impressive, was largely attributable to the expansionary counter-cyclical public expenditure policies that were undertaken to cushion the adverse effects of the global recession of 1981-1982. However, such an expansionary growth-oriented strategy gave rise to imbalances in both the public sector as well as the external accounts, resulting in the public sector borrowing extensively from external sources to finance the growing gap between savings and investment.

On its part, the Government realized that the extremely expansionary fiscal policy stance was unsustainable. Since mid-1982, a series of structural adjustment policies were implemented aimed at reordering national priorities consistent with domestic resource availability and a prudent recourse to external borrowing. The main objective was to reduce the overall fiscal deficit progressively to a sustainable level. The fiscal package of adjustments included measures to further consolidate the financial positions of the NFPEs; cutbacks in net lending and transfers to State Governments and selected public agencies; and, new initiatives to generate revenue capacity.

The success achieved so far in strengthening public sector finances through expenditure restraint was good. The overall public sector account has improved substantially since 1982, when the overall deficit was as large as nearly 18 percent of GNP. But better revenue coupled with continued restraint in government expenditure brought about a sharp narrowing of the deficit of the public sector account to just 3.9 percent of GNP in 1988. This reduced pressures by the public sector on the demand for funds in the economy and in the process, reducing pressures on general price level.

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Chapter 7

PUBLIC SECTOR AND MONETARY POLICY IN NEPAL

by

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I. Overview of the Public Sector

1.1 Concept of the Public Sector

Public sector in Nepal consists of central government, local governments and public sector enterprises. The central government operates through ministries, departments and government institutions. At present, there are 22 ministries with many departments and institutions under them. The local governments are administered by 14 zonal commissioners under the direction of central government. There are 75 district chief officers under the zonal commissioners. At the lowest level of administrative unit, there are town panchayats (municipalities) and village panchayats. The government administrative units are financed by the central government budget although they are also empowered to raise local level taxes.

1.2 Public Sector Enterprises (PSEs)

In Nepal, a public enterprise is defined as "productive entities or organizations" which are "owned" and/or "controlled" by "public authorities" and whose out-put are "marketed".[1] Productive entity or organization" refers to an identifiable decision making unit with an explicit or extractable budget and which produces goods or services.

"Ownership" refers to such entities or organizations where more than 50 percent of outstanding equity is held by a "public authority" (government) either "directly"[2] or "indirectly"[3]

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1. Profiles of Public Enterprises in Nepal, CCC, HMG Nepal, June 1978.
2. "Directly" refers to the government owing in its own name the equity of the entity.
3. "Indirectly" refers to such ownership in an organization's equity which are held by such other entities which are in turn owned by the Government.

"Control" means the power to be involved in the management of the enterprises through the appointment of top management, members of the board of directors and the chief executives.

Output is said to be marketed if sales cover more than 50 percent of current costs.

1.3 Rationale Behind PSEs

In Nepal, public sector plays a dominant role in the process of economic and social transformation of the country. Deliberate efforts for economic development started only about three decades ago in 1956 when the First Five Year Plan (1956-1960) was launched. Nepal had to start the process of development from scratch. Hence, the Government undertook the major responsibility of uplifting the country's economic status from virtual nothingness. In order to create a conducive atmosphere for investment, public enterprises have been established to cover almost all the important aspects of the economy. The rationale behind establishing public enterprises may be classified as follows: (a) providing basic goods and services; (b) encouraging private sector participation; and, (c) ensuring effective control over the economic activities. The production and distribution of basic goods and services is one of the important responsibilities of the Government. Public enterprises were created to produce essential goods like cement, sugar, brick and tile, agricultural tools, machine, textile, milk, electricity, water, etc. In a mountainous country like Nepal where transportation to remote areas is a major problem, the distribution of essential goods becomes the responsibility of the Government. Trading enterprises which deal with essential goods and services like food grains, fertilizers, development goods, petroleum products, fuel wood, timber, air and surface transportation, telecommunication, etc., have been created to supply essential goods and services.

In Nepal, private sector's role in the formal economic activity is still very limited. In order to motivate private sector to participate actively in such economic activities, the Government established public enterprises to produce goods which could be better produced by the private sector. There are government enterprises producing cigarettes, shoes, tea, jute, tobacco, medicine, milk, paper, etc., which have been established to create industrial environment to attract the private sector.

Almost all the bank and non-bank financial institutions have been established with a majority share (more than 50 percent) of the

Government or government-owned enterprises. The main purpose is to direct the policy objectives of these institutions towards broad national objective. With these financial institutions under control, the Government can steer the economic activities to the desired national objective.

1.4 Nature of PSEs

As public sector enterprises are the tools of the Government to achieve desired socio-economic objective, the country witnessed rapid growth in the number of PSEs over the last three decades. Before the First Five Year Plan (1956-1960), there was only one PSE named Nepal Bank Limited which was established in 1937 and turned to public enterprise in 1953. By the end of the Fourth Plan (1970-1975), the number of PSEs increased rapidly to 62. Since the beginning of the Fifth Plan (1975-1980), a marked change took place in the public enterprises policy of the Government. Instead of increasing the number of enterprises, attention was diverted to the improvement of management capability, profitability and quality of PSEs. Subsequently, some enterprises were handed over to the private sector, some dissolved and some were merged with others. Thus, the number of enterprises at present stands at 53 (Table 7.1).

Public enterprises have been constituted under different acts which can be broadly classified into two categories viz. general acts and special acts. General acts are designed to establish enterprises of the same or various nature. General acts may be classified into the following five categories:

- i. Development Board Act;
- ii. Nepal Company Act;
- iii. Corporation Act;
- iv. Communications Corporation Act; and,
- v. Commercial Bank Act.

Special acts are designed to set up one particular enterprise of specific nature, e.g., Nepal Industrial Development Corporation Act, Royal Nepal Airlines Corporation Act, etc. Details of the enterprises falling under different acts are given in Appendix 7.1.

Of the existing 53 PEs, 8 are financial and the rest 45 are non-financial public enterprises. Of the total non-financial PEs, the highest number of 20 (44 percent) fall under manufacturing sector, 17

Table 7.1

GROWTH OF PUBLIC SECTOR ENTERPRISES (PSEs)

Period	Outstanding Number
Before 1956	1
Up to 1960	8
Up to 1965	23
Up to 1970	35
Up to 1975	62
Up to 1980	58
Up to 1988	53

Sources: *Profiles of Public Enterprises in Nepal, ibid.*
Progress of Public Enterprises, different issues.
Ministry of Finance, HMG Nepal.

(38 percent) fall under social and public utilities sector and the remaining 8 (18 percent) fall under trading sector. Details of PEs falling under different economic sectors are given in Appendix 7.2.

1.5 Profitability of Non-Financial Public Enterprises (NFPEs)

Regarding profit of NFPEs, on the whole, they have been incurring losses since 1980/1981 to 1987/1988. The amount of losses fluctuated during the period but the general trend shows a steady decline (Table 7.2). The loss was highest in 1980/1981 (Rs. 180.2 million). In 1987/1988, it declined drastically by 50 percent to Rs. 90.4 million. Sectoral analysis, however, shows that the main reason for overall losses is mostly incurred by NFPEs falling under the trade sector. They have been facing losses all through the review period. But the general trend of the amount of losses shows a steady decline, particularly since 1984/1985. NFPEs under manufacturing sector ran profitably up to 1984/1985 when their gross profit was the highest. But since 1985/1986, they also incurred nominal losses the amount of which ranged from Rs. 53.2 million to Rs. 106.2 million. NFPEs falling under the social and public utilities sector have been achieving better results than the two other sectors. They were running at profit up to 1986/1987. The amount of gross profit increased steadily from Rs. 24.7 million in 1978/1979 to Rs. 138.8 million in 1986/1987. But in 1987/1988, they also faced nominal losses amounting to Rs. 20.7 million due mainly to losses incurred by Nepal Telecommunication Corporation.

Profitability of NFPEs (measured in terms of gross profit as a percentage of net capital investment) shows that on the whole the ratio of profitability has been negative since 1980/1981. However, the ratios show a steadily declining trend (Table 7.3). NFPEs under manufacturing sector had positive profitability ratios up tp 1984/1985, but since then its profitability turned negative. In case of NFPEs under social and public utilities sector, there was positive profitability ratio up to 1986/1987. But in 1987/1988, they also faced negative profitability. In the case of trading enterprises, they have been facing negative net capital employed since 1981/1982 as well as losses all through the review period (Table 7.4).

1.6 Size of the Public Sector

1.6.1 Share in Gross Fixed Capital Formation (GFCF)

Trend of public sector gross fixed capital formation during the review period reveals an almost stagnant relationship with the total

Table 7.2

SECTORAL GROSS PROFIT OF NFPEs

(Rs. in Million)

Year	Total	Manufacturing	Social and Public Utilities	Trading
1978/79	19.0	27.1	24.7	-32.8
1979/80	n.a.	n.a.	n.a.	n.a.
1980/81	-180.2	22.8	27.3	-230.3
1981/82	-46.8	5.6	26.2	-78.6
1982/83	-107.6	9.9	49.6	-167.1
1983/84	-74.1	19.0	94.3	-187.4
1984/85	-109.1	60.6	25.3	-195.0
1985/86	-105.8	-58.5	75.9	-123.2
1986/87	-57.9	-106.2	138.8	-90.5
1987/88	-90.4	-53.2	-20.7	-16.5

Sources: Target and progress report of public enterprises (different issues), Ministry of Finance, HMG Nepal.
Performance Review of Public Enterprises in Nepal, Ministry of Finance, 1971.
Economic Survey 1988/89, Ministry of Finance, HMG Nepal.

Table 7.3

PROFITABILITY OF NFPEs

(Ratio in percentage)

Year	Total	Manufacturing	Social and Public Utilities	Trading
1978/79	1.3	6.3	2.7	-32.6
1979/80	n.a.	n.a.	n.a.	n.a.
1980/81	-12.0	4.2	2.5	-
1981/82	-2.5	0.9	1.9	-
1982/83	-4.8	1.6	2.7	-
1983/84	-3.3	2.2	5.7	-
1984/85	-2.7	8.2	0.7	-
1985/86	-1.8	-2.7	1.8	-
1986/87	-0.9	-6.5	2.6	-
1987/88	-0.9	-2.3	-0.3	-

Table 7.4

NET CAPITAL EMPLOYED OF NFPEs

(Rs. in Million)

Year	Total	Manufacturing	Social and Public Utilities	Trading
1978/79	1426.1	427.3	898.2	100.6
1979/80	1498.0	584.0	899.0	15.0
1980/81	1841.2	540.0	1082.5	218.7
1981/82	1853.1	591.2	1395.8	-133.9
1982/83	2245.0	633.8	1805.3	-194.1
1983/84	2224.9	862.4	1666.0	-303.5
1984/85	3962.1	743.4	3356.7	-138.0
1985/86	6011.0	2183.9	4108.6	-281.5
1986/87	6460.9	1629.7	5307.6	-476.4
1987/88	10246.2	2336.7	8036.2	-126.7

gross fixed capital formation (Table 7.5). Except in the years 1978/1979 and 1984/1985, contribution of GFCF of public sector to total GFCF remained around 40 to 45 percent. The share of GFCF of the Government, however, shows an erratic trend. Its share increased steadily from 28.4 percent in 1978/1979 to 46.0 percent in 1983/1984. But during 1984/1985 and 1985/1986, it declined significantly to 18.3 percent and 20 percent, respectively. The relative share was recovered in 1986/1987 and reached the level of 35 percent of total GFCF.[4] The share of NFPEs GFCF also shows an erratic but opposite trend. Its share declined steadily from 6.5 percent in 1978/1979 to a negative share of -0.6 percent in 1983/1984. But in 1984/1985 and 1985/1986, it jumped up to the highest levels of 20 and 22 percent, respectively. In 1986/87, however, the share again nosedived to 8.7 percent (Table 7.5)[5].

1.6.2 Investment[6]

Share of GFCF of the public sector in gross domestic product increased steadily from 5.1 percent in 1978/1979 to 8.7 percent in 1982/1983. Since 1983/1984 it remained stagnant at around 8 percent (Table 7.6). The share of GFCF of the Government followed almost the same trend. Its share increased from 4.2 percent in 1978/1979 to 8.1 percent in 1983/1984 - a remarkable increase of 92 percentage points. But in 1984/1985 and 1985/1986, it again dropped to a record low of less than 4 percent. In 1986/1987, however, it again recovered to 6.2 percent of GDP. The share of GFCF of the NFPEs in GDP was quite insignificant (around 1 percent from 1978/1979 to 1982/1983 and negative in 1983/1984) up to 1983/1984. In 1984/1985 and 1985/1986, its share increased significantly to more than 4 percent of GDP which again dropped to 1.5 percent in 1986/1987.

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4. During 1987/1988, although the share of total public sector GFCF (44.5 percent) seems consistent, the negative share of Government (-1.9 percent) and higher than total share of NFPEs (46.4 percent) does not look consistent with the past trend. It may be because of the fact that GFCF figures are based on preliminary estimates.
5. In the fiscal year 1987/1988, GFCF of the NFPEs shoot up to the highest level of Rs. 5598 million, an increase of 530 percent from Rs. 889 million in 1986/1987. The main reason for such unusual phenomenon is the substantial increase in the fixed capital formation by the Royal Nepal Airlines Corporation, Nepal Electricity Authority and Hetauda Cement Industry. Operation of two new companies (Nepal Rosin and Turpentine Ltd. and Industrial Management Ltd.) also increased the fixed capital formation during this year.
6. As data on investment by Government and by NFPEs are not available, separately GFCF is taken as proxy for investment.

Table 7.5

CONTRIBUTION IN TOTAL GROSS FIXED CAPITAL FORMATION (GFCF)

(Rs. in Million)

Year	Total GFCF (1)	Govt. GFCF (2)	NFPEs GFCF (3)	Pub.Sec. GFCF[1] (2+3=4)	(2)/(1) (5)	(3)/(1) (6)	(4)/(1) (7)
1978/79	3262	927	211	1138	28.4	6.5	34.9
1979/80	3681	1241	225	1466	33.7	6.1	39.8
1980/81	4299	1593	230	1823	37.0	5.4	42.4
1981/82	5465	2225	262	2487	40.7	4.8	45.5
1982/83	6576	2581	360	2941	39.2	5.5	44.7
1983/84	6907	3178	-39	3139	46.0	-0.6	45.4
1984/85	9386	1722	1907	3629	18.3	20.3	38.6
1985/86	9247	1839	2070	3909	19.9	22.4	42.3
1986/87	10273[a]	3602	889	4491	35.1	8.7	43.8
1987/88	112070[a]	-225	5598[b]	5373	-1.9	46.4	44.5

1 Assuming that GFCF of Government as shown in Economic Survey includes GFCF of public enterprises also.

a Preliminary estimates.

b GFCF of NFPE seems higher than total public sector GFCF which is not compatible.

1.6.3 Revenue

Total revenue of public sector hovered around 17 to 19 percent of GDP from 1978/1979 to 1984/1985. Since 1984/1985, it went up slightly to little more than 20 percent. Revenue of the Government also followed almost the same path. Revenue of the Government remained stable at around 8 percent from 1978/1979 to 1984/1985. Since 1985/1986, it increased slowly and reached to a level of less than 11 percent in 1987/1988. Likewise, revenue of the NFPEs also remained stagnant at around 9 percent up to 1983/1984. Since 1984/1985, it increased slightly to reach to a level of less than 11 percent in 1987/1988. On the whole, revenue of the public sector increased from 17.8 percent of GDP in 1978/1979 to 21.5 percent of GDP in 1987/1988, while revenue of the Government increased from 8.2 percent to 10.8 percent and that of NFPEs increased from 9.6 percent to 10.7 percent of GDP during the same period.

1.6.4 Expenditure

Total expenditure of the public sector registered a smooth and steady increase during the review period, except in 1982/83 when there was a big jump in expenditure. Expenditure of the public sector formed 23.1 percent of GDP in 1978/1979 which after a slow increase up to 25.9 percent in 1981/1982, registered a big jump to 30.8 percent in 1982/1983. In the next year, expenditure dropped to 28.3 percent and started increasing smoothly again to 31.5 percent in 1987/1988. The expenditure of the Government also followed the same pattern. Government expenditure which formed 13.6 percent of GDP in 1978/1979 went up to 20.7 percent in 1982/1983. In 1983/1984, it declined slightly to 18.8 percent and again took a steady upward course to reach to the same level of 20.7 percent (1982/1983 level) in 1987/1988. During the whole period under review, expenditure of the NFPEs fluctuated around 9 to 11 percent of GDP. On the whole, total expenditure of the public sector increased from 23.1 percent to 31.5 percent of GDP of which expenditure of the Government went up from 13.6 percent to 20.7 percent, while that of NFPEs went up from 9.5 percent to 10.8 percent during the review period.

1.6.5 Size of Workforce

As of 1988, the public sector employed 128,000 people of which the Government employed about 90,000 (70 percent) and the NFPEs employed 38,000 (30 percent). The employment by the public sector constitutes about 1.6 percent of total workforce of the country.

Table 7.6
SIZE OF PUBLIC SECTOR
(Rs. in million)

Year	GDP (Current Price)	GFCF[1]						Revenue						Expenditure					
		Government		NFPEs		Total		Government		NFPEs		Total		Government		NFPEs		Total	
		Amt.	% GDP	Amt.	% GDP	Amt.	% GDP	Amt.	% GDP	Amt.	% GDP	Amt.	% GDP	Amt.	% GDP	Amt.	% GDP	Amt.	% GDP
1978/79	22215	927	4.2	211	0.9	1138	5.1	1812	8.2	2137	9.6	3949	17.8	3020	13.6	2118	9.5	5138	23.1
1979/80	23351	1241	5.3	225	1.0	1466	6.3	1880	8.0	-	-	-	-	3471	14.9	N.A.	-	-	-
1980/81	27307	1593	5.8	230	0.8	1823	6.7	2419	8.9	2527	9.3	4946	18.1	4092	15.0	2707	9.9	6799	24.9
1981/82	30988	2225	7.2	262	0.8	2487	8.0	2680	8.6	2609	8.4	5289	17.0	5361	17.3	2656	8.6	8017	25.9
1982/83	33761	2581	7.6	360	1.1	2941	8.7	2842	8.4	3291	9.7	6133	18.1	6979	20.7	3399	10.1	10378	30.8
1983/84	39390	3178	8.1	-39	-	3139	8.0	3409	8.6	3664	9.3	7073	17.9	7437	18.8	3738	9.5	11175	28.3
1984/85	44417	1722	3.9	1907	4.3	3629	8.2	3917	8.8	4474	10.1	8391	18.9	8395	18.9	4584	10.3	12979	29.2
1985/86	50428	1839	3.6	2070	4.1	3909	7.8	4645	9.2	5456	10.8	10101	20.0	9797	19.4	5562	11.0	15359	30.4
1986/87	57828	3602	6.2	889	1.5	4491	7.7	5975	10.3	6236	10.8	12211	21.1	11513	19.9	6294	10.9	17807	30.8
1987/88	67835	-225	-	-5598	8.3	5393[a]	7.9	7350	10.8	7253	10.7	14603	21.5	14105	20.7	7341	10.8	21391	31.5

1 Assuming that the amount of GFCF of public sector shown in Economic Survey includes GFCF of public enterprises also.
a Total GFCF of public sector seems lower than that of GFCF of NFPEs which is not consistent with past trend. Total GFCF is based on preliminary estimate.

1.7 Role of Public Sector in Economic Development

In the context of Nepalese economy, public sector plays a dominant role in the economic development of Nepal. In fact, the public sector is responsible for gearing the economy to the goal of higher rate of growth with reasonable social justice. The Government is a great mobilizer of internal as well as external resources. The Government mobilizes resources by raising tax and non-tax revenue through its ministries and departments and by selling goods and services through public enterprises. As discussed above, the revenue raised by the public sector constituted about 22 percent of GDP of which 50 percent was raised by the Government as tax and non-tax revenue and the remaining 50 percent was raised by the NFPEs by selling goods and services produced by them. The Government also mobilizes resources through external grants and loans to meet its ever increasing deficits the extent of which will be discussed later. The public sector is responsible for about 45 percent of gross fixed capital formation of the economy and its GFCF constitutes about 8 percent of GDP at current prices. The public sector has spent about 32 percent of GDP in 1987/1988 of which two third was spent by the Government for current and development purposes and the remaining one-third by public enterprises for producing goods and services.

Over the years, the role of NFPEs has also increased tremendously. Net capital investment of the NFPEs surged from 6.4 percent of GDP in 1978/1979 to 15.1 percent of GDP in 1987/1988. During the same period, total workforce of the NFPEs increased by about 14 percent.

II. The Public Sector Deficit

2.1 Size of Government Budget Deficits

Government fiscal deficit has increased tremendously since 1978/79. In absolute terms, the amount of deficit which stood at Rs. 609.4 million in 1978/79 shot up to Rs. 4677.0 million in 1987/88 -- a phenomenal increase of 676 percent during a decade (Table 7.7). Annual growth rate of deficit, however, does not show any smooth and steady trend. It fluctuated widely between a decline by 2.7 percent in 1978/79 to an increase by as high as 110 percent in 1981/82 and 80.5 percent in 1982/83. Except for these extremes, the annual growth rate fluctuated between a minimum of 2.4 percent and a maximum of 28.8 percent. Thus, the highest growth rate was observed in the years 1981/82 and 1982/83 and since then, the growth

Table 7.7

TREND AND GOVERNMENT REVENUE, EXPENDITURE AND DEFICIT

(Rs. in million)

Year	GDP Current Price (1)	% Change	Revenue[1] Amount (2)	% Change	Expenditure Regular (3)	% Change	Dev. (4)	% Change	Total (5)	% Change	Overall Deficit (6)	% Change	(2) as % of (1) (7)	(3) as % of (1) (8)	(4) as % of (1) (9)	(5) as % of (1) (10)	(6) as % of (1) (11)
1978/79	22215	12.6	2411.1	17.7	1041.7	20.2	1978.8	9.4	3020.5	12.9	609.4	-2.7	10.9	4.7	8.9	13.6	2.7
1979/80	23351	5.1	2685.6	11.4	1162.1	11.6	2308.6	16.7	3470.7	14.9	785.1	28.8	11.5	5.0	9.9	14.9	3.4
1980/81	27307	16.9	3288.1	22.4	1361.2	17.1	2731.1	18.3	4092.3	17.9	804.2	2.4	12.0	5.0	10.0	15.0	2.9
1981/82	30988	13.4	3672.8	11.7	1634.4	20.1	3726.9	36.5	5361.3	31.0	1688.5	110.0	11.9	5.3	12.0	17.3	5.4
1982/83	33761	8.9	3931.7	7.0	1997.1	22.2	4982.1	33.7	6979.2	30.2	3047.5	80.5	11.6	5.9	14.8	20.7	9.0
1983/84	39390	16.7	4285.9	9.0	2273.5	13.8	5163.8	3.6	7437.3	6.6	3151.4	3.7	10.9	5.8	13.1	18.9	8.0
1984/85	44417	12.8	4840.0	12.9	2906.1	27.8	5488.7	6.3	8394.8	12.9	3554.8	12.8	10.9	6.5	12.4	18.9	8.0
1985/86	50428	13.5	5817.4	20.2	3584.0	23.3	6213.1	13.2	9797.1	16.7	3979.7	12.0	11.5	7.1	12.3	19.4	7.9
1986/87	57828	14.7	7260.2	24.8	4135.2	15.4	7378.0	18.7	11513.2	17.5	4253.0	6.9	12.6	7.2	12.8	19.9	7.4
1987/88	67835	17.3	9427.2	29.8	4677.0	13.1	9428.0	27.8	14105.0	22.5	4677.0	10.0	13.9	6.9	13.9	20.8	6.9

1 Includes foreign grants.

Source: Economic Survey 1988/1989.

rate has subsided to a lower level. In 1987/88, the growth rate came down to 10.0 percent.

Government deficit as a proportion of GDP remained stable at around 3 percent during 1978/1979 to 1980/1981. It jumped to 5.4 percent and 9.0 percent of GDP in 1981/1982 and 1982/1983, respectively. It, however, registered a steady decline from 8.0 percent of GDP in 1983/1984 to 6.9 percent in 1987/1988.

2.2 Government Revenue

Revenue (including foreign grants) of the Government increased steadily from Rs. 2411.1 million in 1978/1979 to Rs. 9427.2 million in 1987/1988. It shows a remarkable growth of 291 percent during a decade. The annual growth trend of government revenue distinctly shows three different phases. During the first phase from 1978/1979 to 1981/1982, revenue growth rate fluctuated between 11.4 percent to 22.4 percent. During the second phase, revenue growth rate reached to the lowest levels of 7 percent and 9 percent in 1981/1982 and 1982/1983, respectively. During the third phase from 1984/1985 to 1987/1988, there was a gradual recovery in the revenue growth rate. The growth rate accelerated from 13 percent in 1984/1985 to about 30 percent in 1987/1988. It shows a remarkable achievement on the revenue front during the later years of the review period. The relative performance of revenue growth also shows almost the same pattern. From 1978/1979 to 1980/1981, revenue increased from 10.9 percent of GDP to 12.0 percent of GDP. From 1981/1982 to 1984/ 1985, revenue growth rate decelerated from 11.9 percent to 10.9 percent of GDP while during the last three years, revenue turned to a steady uphill path from 11.5 percent of GDP in 1985/1986 to 14 percent of GDP in 1987/1988.

The sources of government revenue can be divided into three major categories, i.e., tax revenue, non-tax revenue and foreign grants.[7] Tax revenue contributes the highest share in the total revenue. The average share of tax revenue during the decade under review was 61 percent, with the lowest of 57 percent in 1979/1980 and the highest of 65.1 percent in 1984/1985 (Table 7.8). Next to tax revenue, foreign grants contributed on average, 22 percent to total revenue, while non-tax

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7. In Nepal, receipt of foreign grant is a regular phenomenon. Hence, it is regarded as a regular source of income of the Government.

Table 7.8

SOURCES OF GOVERNMENT REVENUE

(Rs. in $ million)

Sources	1978/79	1979/80	1980/81	1981/92	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
Government Revenue										
1. Tax Revenue	1476.8	1528.8	2035.7	2211.3	2421.1	2737.0	3151.2	3659.3	4372.4	5752.8
(a) Custom Duty	(61.2)	(57.0)	(62.0)	(60.3)	(61.6)	(63.0)	(65.1)	(62.9)	(60.2)	(61.0)
	626.7	608.0	815.8	825.1	760.9	825.9	1064.5	1231.0	1505.7	2214.6
(b) Tax on Goods & Services	597.0	667.0	866.7	1006.3	1215.1	1369.3	1527.0	1766.5	2098.0	2528.0
(c) Income, Profit & Wealth Tax	142.8	132.6	174.7	209.9	273.6	329.4	341.1	417.5	484.7	643.3
(d) Land Tax & Registration Fee	110.3	121.2	178.5	170.0	171.5	212.4	218.6	244.3	284.0	366.9
2. Non-tax Revenue	334.9	351.2	383.5	468.2	420.5	672.3	765.6	985.2	1602.7	1597.6
3. Foreign Grants	(13.9)	(13.0)	(11.6)	(12.7)	(10.7)	(15.7)	(15.8)	(16.9)	(22.1)	(17.0)
	599.2	805.6	868.9	993.3	1090.1	876.6	923.4	1174.9	1285.1	2076.8
Total Revenue:	(24.8)	(30.0)	(26.4)	(27.0)	(27.7)	(20.4)	(19.1)	(20.2)	(17.7)	(22.0)
	2411.1	2685.6	3288.1	3672.8	3931.7	4285.9	4840.0	5817.4	7260.2	9427.2
Rates of Growth										
1. Tax Revenue	18.7	3.5	33.2	8.6	9.5	13.0	15.1	16.1	19.5	31.6
2. Non-tax Revenue	-1.0	4.9	9.2	22.2	-10.2	59.9	13.9	28.7	62.7	-0.3
3. Foreign Grants	28.4	34.4	7.8	14.3	9.7	-19.6	5.3	27.0	9.6	61.6
Total Revenue:	17.7	11.4	22.4	11.7	7.0	9.0	12.9	20.2	24.8	29.8

Figures in brackets show percentage of total revenue.
Source: Economic Survey 1988/1989.

revenue contributed about 17 percent. However, the share of foreign grants shows a slightly downward trend during the later half of the decade particularly since 1983/1984, while the share of non-tax and tax revenue reveals an increasing trend during the same period.

The pattern of annual growth rates of tax revenue almost confirms the growth rate of total revenue. During the first three years of the review period (1978/1979 to 1980/1981), there was a very wide fluctuation in the growth rate from the lowest level of 3.5 percent to the highest level of 33.2 percent. The highest ever growth rate was observed in 1980/1981. The growth rate plunged to a very low level of 8.6 percent in 1981/1982, and it started to pick up again since 1982/1983. The smoothly upward trend continued to reach a rate of 31.6 percent in 1987/1988. The growth rates of foreign grants and non-tax revenue, however, did not show a definite trend. The growth rate of foreign grants registered sharp fluctuation between a negative 20 percent to a positive 61.6 percent, while that of non-tax revenue fluctuated between negative 10.2 percent to a positive 62.7 percent.

2.3 Government Expenditure

Total expenditure of the Government increased tremendously by 367 percent from Rs. 3020.5 million in 1978/1979 to Rs. 14050.1 million in 1987/1988. Expenditure registered a rising trend at different growth rates varying from a minimum of 6.6 percent to a maximum of 31.0 percent. From 1978/1979 to 1982/ 1983, expenditure increased at a higher rate. The highest rates of 31 percent and 30 percent were achieved particularly during 1981/1982 and 1982/1983. In 1983/1984, it dropped to the rock-bottom level of 6.6 percent, after which the growth rate started to accelerate again to reach a level of 22.5 percent in 1987/ 1988. The relative growth trend shows that during the first five years of the review period, total expenditure increased at a higher rate, while during the later half the rate of growth showed a declining tendency. For instance, total expenditure which amounted to 13.6 percent of GDP in 1978/1979 climbed to a level of 20.7 percent of GDP in 1982/1983, while the amount went up from 18.9 percent of GDP to 20.7 percent of GDP between 1983/ 1984 and 1987/1988.

Regular (current) expenditure which constituted about one-third of total expenditure during the review period also showed the same tendency of rapid increase. In absolute amount, the regular expenditure went up by 349 percent from Rs. 1041.7 million in 1978/1979 to Rs. 4677.1 million in 1987/1988. Regular expenditure showed a tendency of uneven annual growth rate. However, the general trend exhibited a rising tendency during the first half of the decade and a falling tendency during the later half. The rate of increase ranged from 11.6 percent in 1979/ 1980 to 22.2 percent in 1982/1983 during the first half, while it declined from 27.8 percent in 1984/1985 to 13.1 percent in 1987/ 1988 during the second half of the decade. It showed a restraint in regular expenditure during the later years of the decade. But as a proportion of GDP, the pattern of regular expenditure showed a different picture. During the years under review, it went up almost steadily from 4.7 percent of GDP in 1978/1979 to 6.9 percent of GDP in 1987/ 1988, except for a slight decline in 1983/ 1984 and in 1987/1988.

The behavior of development expenditure which constituted about two-third of total expenditure of the Government indicated a rate of increase higher than that of the regular expenditure which however is quite natural in the case of a developing country like Nepal. The absolute amount of development expenditure increased by 376 percent during the decade from Rs. 1978.8 million in 1978/1979 to Rs. 9428.0 million in 1987/1988. The rate of expansion of development expenditure ranged from 3.6 percent in 1983/1984 to 36.5 percent in 1981/1982. During the first five years of the review period, the level of expansion was distinctly higher ranging from 9.4 percent to the highest level of 36.5 percent. The last two years (1981/1982 and 1982/1983) recorded the highest rate of increase in development expenditure. During the following five years, development expenditure also increased substantially but the level of expansion was definitely under control. After two years of rapid expansion, development expenditure grew only nominally by 3.6 percent in 1983/1984 which however, went up to 27.8 percent in 1987/1988. Development expenditure increased from 8.9 percent of GDP to 14.8 percent of GDP during the first five years, while it lowered around 12.3 to 14 percent of GDP during the next five years.

2.4 Causes of Budget Deficit

The overview of trend in government budgetary operation demonstrated that government budget deficit has been widening almost every year during the review period. The level of deficit has gone up since 1981/1982 and the highest level of deficit (9.0 percent of GDP) was recorded in 1982/1983. Causes of the deficit are also quite clear from the above analysis of trend of government revenue and expenditure. The trend shows that the level of government expenditure has been higher than the level of revenue including foreign grants. The gap between revenue resources and total expenditure has widened significantly during the later years of the review period. Revenue resources of the Government, for example, ranged from 11 to 14 percent of GDP while total expenditure of the Government ranged from about 13.6 to 20.7 percent of GDP. It amply demonstrates the fact that the Government has not been able to raise resources to meet the growing expenditure. In other words, the Government has been unable to limit the expenditure in accordance with the availability of resources. It has been living beyond its means.

On the revenue side, among the three major resources of government revenue, it is the behavior of tax revenue which wields overwhelming influence in the movement of total revenue, although foreign grants and non-tax revenue also contributed to the total revenue. Total revenue in turn consists mainly of revenue from tax on foreign trade in the form of customs duty and sales tax.

On the expenditure side, increase in regular expenditure can hardly be controlled by the Government. The expansion in government machinery together with the compulsion of increment in employees salary, among others, will rather increase the regular expenditure every year. On the other hand, development expenditure keeps on increasing rather more speedily due to the compulsion of expanding infrastructural facilities, social services, economic services, etc., without which economic development will be constrained. In order to explore the underlying cases of government deficit, it is necessary to analyze the performance of the Nepalese economy over the years. Budget deficit increased by 28.8 percent to Rs. 785.1 million (3.4 percent of GDP) during 1979/1980. The apparent cause for the increase in deficit was a smaller increase in revenue compared to a higher rate of increase in government expenditure. Revenue increased by only 11.4 percent, while total expenditure increased by about 15 percent. In the total expenditure also, it is the development expenditure which increased at a higher rate. The poor performance of the economy during this year is also responsible for the higher rate of increase in expenditure and a lower rate of increase in revenue. During that period, owing to a fall in agricultural production by 4.8 percent due to drought all over the country, GDP even at current price increased by only 5 percent compared with 12.6 percent in the previous year. Real GDP in fact actually declined by 2.3 percent. Consequently, tax revenue of the Government increased only marginally by 3.5 percent, while revenue from customs duty and income, profit and land tax actually fell by 3.0 percent and 7 percent, respectively. It was mainly the higher receipt from foreign grants which pulled up total revenue resources to some extent. On the expenditure side, although regular expenditure growth was under control, development expenditure surged due to additional expenses required to meet the shortage of food grains and their distribution.

Similarly, budget deficit increased tremendously by 110 percent and reached to a level of 5.4 percent of GDP in 1981/1982 compared to 2.9 percent of GDP in 1980/1981. No abnormal situation was observed during this year. The economy experienced normal growth rate of 3.8 percent as compared to the very high growth rate of 8.3 percent in the previous year. The main cause for increased budget deficit was greater imbalance in revenue and expenditure of the Government. Revenue growth rate slowed down to 11.7 percent from 22.4 percent in the previous year, while expenditure grew by 31 percent as compared to 18 percent in the preceding year. Although the growth rates of non-tax revenue and foreign grants were impressive, there was a severe retardation in the growth of tax revenue which went up by only 8.6 percent compared to 33.2 percent in the previous year. Revenue from customs duty and sales tax, the major contributors of government tax revenue, increased only marginally while from land tax, it actually declined by 5 percent. Of the two major types of expenditures, regular expenditure registered a growth rate of 20.1 percent over and above the growth rate of 17.1 percent during the preceding year. The main factor responsible for the expansion in regular expenditure was the increase in salary, pension and other benefits of the government employees. The development expenditure marked a major increase of 36.5 percent which was double the rate of increase witnessed during the preceding year.

During the next year (1982/1983), there was also a phenomenal increase in budget deficit by 80 percent over the highest ever growth rate of 1981/1982. The amount of deficit reached to the highest level of 9 percent of GDP in 1982/1983 from 5.7 percent of GDP in 1981/1982. The reason for the deficit was also due to higher increase in government expenditure by 30.2 percent unmatched by the capacity to raise resources. Revenue increased by only 7 percent, which was lower than the increase of 11.7 percent in the preceding year. On the expenditure side, regular expenditure surged by 22.2 percent and development expenditure by 33.7 percent. In the year 1982/1983, the Nepalese economy experienced another shock generated again by adverse weather condition in the form of drought all over the country. Real GDP declined by 3 percent of which agricultural sector suffered a setback by 1.1 percent and non-agricultural sector by 5.8

percent. As a consequence, total revenue increased by *only* 7 *percent* of which tax revenue increased by 9.5 percent and foreign grants by 9.7 percent, while non-tax revenue declined by 10.2 percent. Thus, it is clear that although revenue growth was sluggish, the Government was unable to control the increase in expenditure which resulted in huge fiscal deficits.

The unusual increases in budget deficit during these two years (1981/1982 and 1982/1983) made the Government more cautious in expenditure management in 1983/1984. Since this year, the fiscal policy was directed to raise more revenue and control the expenditure to a sustainable level. Measures to increase revenue included reform in tax administration, broadening the tax base, reform in taxation measures, etc. As a result, revenue, particularly tax revenue, started to show a steadily higher growth rates. Government also took measures to control expenditure by curtailing unproductive expenses and increasing the efficiency of project implementation. These measures led to a decrease in budget deficits in 1983/1984 to 8 per cent of GDP from 9 percent of GDP the previous year. The succeeding years saw further declines in deficits. In 1987/1988, budget deficit stood at 6.9 percent of GDP.

2.5 Resource Gap of NFPEs

In Nepal, a major part of public sector deficit is reflected in the government budget deficit. The operational loss of the NFPEs are met by government transfers which are borne by Government Treasury. In spite of the operational losses, however, the NFPEs still invested a great amount of resources for new fixed capital formation which led to a big resource gap. A greater part of the resource gap has been met by government transfers and borrowings from the banking system, while a small part has been met by foreign borrowings. Resource gap of NFPEs marked a big jump since 1984/1985 (Table 7.9). In 1987/88, resource gap increased tremendously by more than 500 percent to Rs. 5688.4 million which may be attributed to increase in the fixed capital formation of Royal Nepal Airlines Corporation and Nepal Electricity Authority.

Government's transfer of resources to the public enterprises during the decade under review ranged from 18.4 percent to 42.1 percent of budget deficit. It shows that a sizeable chunk of budget deficit goes to financing the resource gap of public enterprises.

Table 7.9

RESOURCE GAP OF NFPEs

(Rs. in Million)

Year	NFPEs Resource Gap (1)	Transfer from Government[1] (2)	Balance (3)	(2) as % of Budget Deficit (4)
1978/79	192.0	n.a.	n.a.	n.a.
1979/80	n.a.	175.6	n.a.	22.4
1980/81	410.7	199.6	-235.1	24.8
1981/82	308.7	592.1	283.4	35.1
1982/83	467.4	963.9	496.5	31.6
1983/84	35.4	1008.1	972.7	32.0
1984/85	2016.6	746.4	-1270.2	21.0
1985/86	3175.4	1675.2	-500.2	42.1
1986/87	946.9	781.0	-165.9	18.4
1987/88	5688.4	1235.5	-4452.9	26.7

1 Transfer from government includes transfer to financial public enterprises also.

2.6 Financing of Budget Deficit

In Nepal, government budget deficits have been financed by external as well as internal loans. The trend of sources of financing the deficits showed that a major part of it has been financed through external loans which accounted for more than half the total deficits except for 1981/1982, 1982/1983 and 1984/1985. External loan financed as low as 32 percent to as high as 86 percent of total deficit during the decade (Table 7.10). Although the share of external finance did not indicate any definite trend, it is quite clear that since 1985/1986 it has gone up from 63 percent to 82 percent of total deficits. On the other side of the picture, it is evident that during the period under review internal resources financed minimum 14 percent to maximum 68 percent of budget deficit. But in the later years, share of internal sources has shown a declining tendency. Thus, the expected adverse impact of growing budget deficit gets neutralized to a significant extent by the flow of external resources which, however, has its own limitations.

III. Effects of Financing Public Sector Deficits Through the Financial System

As mentioned in the previous Section, a greater portion of government deficits has been financed through foreign loans and a greater portion of the resource gap of the NFPEs has been financed through government budget as well as foreign borrowings. But yet a significant proportion of government deficit has been financed through internal sources of which borrowings from the banking system, particularly from the Central Bank is quite significant. A significant portion of the deficits of NFPEs has also been financed through the banking system, particularly commercial banks.[8]

3.1 Effects of Monetization of Deficits on Money Supply and Prices

Total internal borrowings of the public sector moved up at an annual average rate of 21.3 percent during the decade. The actual growth rate, however, fluctuated within a very wide margin of 6.3 percent to 68.2 percent. A major escalation in internal borrowings was clearly visible since 1981/1982. But the highest rate of increase of

8. Data on domestic financing as shown in government budget do not confirm with those of credit from banking system. Hence, in this Section, domestic financing of public sector deficit is analyzed on the basis of monetary data only.

Table 7.10

SOURCES OF FINANCING BUDGET DEFICIT

(Rs. in Million)

Year	Overall Deficit (1)	External Loan (2)	(2)/(1) % (3)	Internal Sources[1] (4)	(4)/(1) % (5)
1978/79	609.4	390.2	64.0	219.2	36.0
1979/80	785.1	534.9	68.0	250.2	32.0
1980/81	804.2	693.3	86.0	11.9	14.0
1981/82	1688.5	729.9	43.0	958.6	57.0
1982/83	3047.5	355.7	32.0	2061.8	68.0
1983/84	3153.4	1670.9	53.0	1480.5	47.0
1984/85	3554.8	1754.9	49.0	1799.9	51.0
1985/86	3979.7	2501.1	63.0	1478.6	37.0
1986/87	4253.0	2705.8	64.0	1547.2	36.0
1987/88	4677.8	3815.8	82.0	862.0	18.0

1 Internal sources include draw down of cash balance.

Source: Economic Survey 1988/1989.

68.2 percent was observed during 1982/1983 when budget deficit of the Government was at the highest peak. The rate of internal borrowing slowed down remarkably since 1985/1986. In 1987/1988, it came down to the lowest growth rate of 6.3 percent. The share of Government in total borrowing increased remarkably from 56 percent in 1978/1979 to about 78 percent in 1987/1988. Its share moved up substantially to 77 percent in 1983/1984 and remained almost stagnant at that level since then. Conversely, the share of public enterprises in total borrowing has declined from 44 percent in 1978/79 to 22.2 percent in 1987/1988.

Among the sources of borrowing of the public sector, borrowing from the banking system constituted the highest proportion of more than 90 percent of total borrowing. Borrowing from non-banking system was almost non-existent up to 1982/1983. Since 1983/1984, as a result of the Government's deliberate measures to mobilize private sector savings, borrowing from non-banking sources went up to around 5 percent of total borrowings. Highest share of total borrowings of the public sector has been contributed by the Nepal Rastra Bank (Central Bank). The share of Nepal Rastra Bank ranged from 52.5 percent in 1980/1981 to 62.2 percent in 1985/1986. On the other hand, the share of commercial banks ranged from about 35 percent to 46.7 percent. The share of borrowing from commercial banks has shown a drastic decline since 1983/1984 (Table 7.11).

Looking from the side of the banking system, credit to public sector ranged between 50 to 60 percent of total credit. Credit to private sector therefore, lagged behind credit to public sector every year. The share of credit to private sector declined significantly since 1982/1983. Up to 1981/1982, private sector credit constituted 38 to 49 percent of total outstanding credit. But it went down to 32 percent to 35 percent from 1982/ 1983 to 1986/1987. In 1987/1988, however, it increased to 41 percent of total credit. Of the total credit to public sector, higher amount was allocated for the Government while lower amount went to public enterprises. The trend of credit allocation shows steadily increasing share of the Government in contrast to steadily declining share of the public enterprises.

From the above discussion, it becomes clear that public sector borrowings are financed mainly from the banking system of which Central Bank contributes a higher proportion, while the commercial banks contribute a relatively lower proportion of total credit to public sector.

Table 7.11

PUBLIC SECTOR BORROWINGS

(Rs. in $ million)

Fiscal	From NRB			From Commercial Banks			From Others	Total		
Year	By Govt.[1]	By PEs[3]	Total	By Govt.[1]	By PEs[3]	Total	By Govt.[2]	By Govt.[1]	By PEs[3]	Total
1978/79	994.9	354.1	1349.0	371.8	725.8	1097.6	17.0	1383.7	1079.9	2463.6
1979/80	1104.6	372.1	1476.7	371.2	758.9	1130.1	16.7	1492.5	1131.0	2623.5
1980/81	1091.3	398.7	1490.0	324.8	1001.9	1326.7	21.8	1437.9	1400.6	2838.5
1981/82	1504.6	449.8	1954.4	641.8	893.6	1535.4	25.1	2171.5	1343.4	3514.9
1982/83	3016.7	489.1	3505.8	1161.0	1213.1	2374.1	31.4	4208.9	1702.2	5911.1
1983/84	3639.7	576.4	4216.1	1482.9	1045.4	2528.3	328.8	5451.4	1621.8	7073.2
1984/85	4577.3	708.0	5285.3	2018.3	1314.2	3332.5	307.3	6902.9	2022.2	8925.1
1985/86	5820.2	794.3	6614.5	1818.7	1865.0	3683.7	319.2	7958.1	2659.3	10617.4
1986/87	6544.7	845.4	7390.1	2326.8	1965.7	4292.5	618.8	9490.3	2811.1	12301.4
1987/88	6498.5	879.1	7377.6	3222.2	2022.5	5244.7	454.1	10174.8	2901.6	13076.4

	From NRB		From Commercial Banks		From Others		Total	Percent
	Amount	% Share	Amount	% Share	Amount	% Share		
1978/79	1349.0	54.8	1097.6	44.6	17.0	0.6	2463.6	100.0
1979/80	1476.7	56.3	1130.1	43.1	16.7	0.4	2623.5	100.0
1980/81	1490.0	52.5	1326.7	46.7	21.8	0.8	2838.5	100.0
1981/82	1954.4	55.6	1535.4	43.7	25.1	0.7	3514.9	100.0
1982/83	3505.8	59.3	2374.1	40.1	31.4	0.6	5911.3	100.0
1983/84	4216.1	59.6	2528.3	35.8	328.8	4.6	7032.2	100.0
1984/85	5285.3	59.2	3332.5	37.3	307.3	3.5	8925.1	100.0
1985/86	6614.5	62.2	3683.7	34.7	319.2	3.1	10617.4	100.0
1986/87	7390.1	56.1	4292.5	34.9	618.8	5.0	12301.4	100.0
1987/88	7377.6	56.4	5244.7	40.1	454.1	3.5	13076.4	100.0

1 Includes overdraft and Treasury coins.
2 Based on holdings of government securities by institutions other than commercial banks and NRB.
3 Includes financial PEs also.

Source: Nepal Rastra Bank, Quarterly Economic Bulletin.

As money and capital markets are in their infancy, the banking system has been the only reliable source of financing public sector deficits in Nepal. Borrowing from banking system for financing such deficits has been the most destabilizing element during the period under review. Through its impact on the expansion of money supply, it exerts pressure both on the domestic price level and balance of payments position. Through its "crowding out effect", it discourages private sector incentive to invest.

In Nepal, the Government has been pursuing expansionary fiscal policy which has resulted in higher budget deficits. As mentioned above, higher portion of deficit financing has been carried out by borrowing heavily from the Central Bank which is a potent source of monetary expansion and run away inflation. The correlation between central bank credit to public sector and money supply becomes evident from the empirical evidences also. The coefficient of different variables with money supply (M1) becomes clear from the following model:

$$\ln M1 = \underset{(-0.29)}{-0.401} + \underset{(1.92)}{1.539}\, MM + \underset{(11.55)}{0.665} \ln CLPS + \underset{(3.90)}{240} \ln NFA$$

$R = 0.98$ $\qquad F = 130.5$ $\qquad D.W. = 1.81$

where,

M1 = Narrow money
MM = Money multiplier
CLPS = Net central bank claims on public sector
NFA = Net foreign assets

The model is based on annual data for ten years from 1979-1988. Although the purpose of the model is to observe the relationship between net central bank credit to public sector and movement in money supply, net foreign assets of the Central Bank is also included since it has been one of the important factors affecting money supply growth in Nepal. Money multiplier is also expected to have a significant impact on money growth and is included in the model. The results show that the narrow money (M1) supply growth is significantly and positively affected by the net central bank credit to public sector and the net foreign assets. However, the role of money multiplier is not so significant. Even assuming MM to be one, the above conclusion holds true.

As money supply (M1) is a function of high powered money and money multiplier, if the behavior of the latter remains stable, the former is the major determinant of money supply. The behavior pattern of money multiplier shows that during the first three years (from 1978/1979 to 1981) it fluctuated between 1.15 and 1.18 and since then, it remained almost stable at 1.06 to 1.08. Hence, it is the growth rate of high powered money which is more responsible for changes in money supply. Average growth rate of money supply during the decade under study was 16.7 percent per annum while at the same time high powered money increased at an average rate of 17.3 percent per year. As the major contributors to high powered money are claims on public sector and net foreign assets higher significance of these factors in the model is compatible with reality.

3.2 Impact of Money Supply on Prices

Impact of money supply on price level is difficult to determine due to the following factors: (i) the available price indicator is consumer price index (CPI) which naturally covers a limited range of goods and services and hence does not reflect the actual inflation rate; (ii) existence of non-monetized sector limits the effectiveness of money supply on prices, (iii) prices of many essential consumers goods are administered prices hence they do not show actual market price; and, (iv) as Nepal has long open border with India, her price level is directly influenced by Indian prices.

Despite these limitations, the observation of data for the ten years from 1979-1988 shows the following results:

$$\ln CPI = \underset{(0.83)}{1.851} - \underset{(-1.10)}{0.297} \ln GDPK + \underset{(6.01)}{0.618} \ln M1 + \underset{(2.14)}{0.253} \ln WPII$$

$R = 0.99$ $\quad$ $F = 481.6$ $\quad$ $DW = 1.45$

where,
CPI = Consumers' Price Index
GDP = Gross Domestic Product
WPII = Wholesale Price Index of India

In this equation, we have included GDP, narrow money and wholesale price index of India as independent variables affecting consumers price index of Nepal. The results suggested significant impact of money supply and Indian wholesale price index on CPI while the impact of GDP remained statistically insignificant.

Lagged money supply as well as Indian wholesale price index may be more effective in explaining the changes in CPI. To test this possibility, CPI is regressed against one year lagged independent variables. The results also support the above findings as Indian wholesale price index and money supply remained significant factors and GDP remained insignificant. Therefore, the results indicate that CPI in Nepal is affected by monetary liquidity and imported inflation, while domestic production is not a significant factor.[9]

From the above discussion, it may be concluded that an increase in public sector deficit financed through central bank credit increases the monetary liquidity which in turn affects the price level.

3.3 Factors Affecting M1

The movement of M1 shows that it increased at an annual average rate of 16.7 percent during the decade under review. Higher expansion of M1 was observed during four of the ten years. The main factors which led to the increase in monetary expansion have been movements in net foreign assets and domestic credit. For instance, M1 increased by 21.6 percent in 1978/1979 due to increases in domestic credit (22 percent) and net foreign assets (28.3 percent). The sole factor for increase in M1 in 1982/1983 by 20.4 percent was the highest ever rate of increase of domestic credit (40.5 percent), while NFA declined by about 16 percent. As the movement of NFA depends on external payments situation, it shows erratic trend during the decade. However, the relation between M1 and NFA can be judged from the fact that general increase in NFA tends to drive up the money supply and vice versa. But the curve of domestic credit shows a constantly upward trend and hence, it has been a permanent source of increase in M1.

Among the components of domestic credit, the share of public sector credit has been higher than that of the private sector all through the review period. But during the first four years of the review period (1978/1979 to 1981/1982), the share of public sector was lower, while since 1982/83 its share has moved up. It may, therefore, be concluded that higher credit requirement of the public sector from the banking system has 'crowded out' the private sector.

9. Similar conclusion is observed when CPI is replaced by GDP deflator as a dependent variable.

3.4 Effects of Public Sector Borrowing from Banks and Non-Banks on Credit Creation and Interest Rates

3.4.1 Impact on Credit Creation

It has already been mentioned that public sector borrowing from private sector was negligible up to 1982/1983. Since 1983/1984, borrowing from the private sector has gone up significantly, but still it remained insignificant (3 to 5 percent of total borrowing) compared to borrowing from banking sources.

Public sector borrowing from commercial banks (Table 7.11) has remained quite significant during the period under review. Of the total borrowing of the public sector, borrowing from commercial banks ranged from about 35 percent to 47 percent, the share being higher up to 1982/1983 and lower since 1983/1984. In 1987/1988, public sector borrowing from commercial banks amounted to 40 percent of total borrowing.

Loan portfolio of the commercial banks shows that share of credit extended to the public sector has been quite significant but lower than the share to the private sector. Credit to public sector increased significantly both in amount and share since 1982/1983. The share increased from 37.3 percent in 1981/1982 to 47.4 percent in 1982/1983. Since then, the share of public sector declined steadily and reached to a level of 40 percent in 1987/1988. Since commercial banks are the only organized sector which fulfills the highest amount of credit needs of private sector, higher share of credit to public sector naturally deprives the private sector of the additional credit facilities from the commercial banks.

Borrowing by the public sector from banking as well as non-banking sources therefore has been a major source of credit expansion in Nepal. Credit expansion can be measured using the following simple formula:

$$SPS = \frac{\dfrac{NC - NC_{-1}}{P - P_{-1}}}{\dfrac{Tc - Tc_{-1}}{P - P_{-1}}}$$

where,

SPS = Share of public sector in real credit expansion

NC = Net bank and non-bank credit to public sector *in period t*
P = GDP deflator in period t
Tc = Total credit in period t

Share of public sector credit in real credit expansion is the outcome of change in real net credit as a proportion of change in real total credit. The proportional share of public sector credit to total credit may be computed as follows:

$$PSPS = \frac{Nc}{Tc}$$

"If SPS is greater than PSPS the public sector accounts for an unusually large portion of new debt creation." Calculations of SPS and PSPS on the basis of above formulas are given in Table 7.15. It shows that except during three years (1981/1982 to 1983/1984) SPS is lower (sometimes negative) than PSPS during the review period. In 1987/1988, SPS was negative 4.8 percent while PSPS was about 64 percent, which indicated that real public sector credit expansion was negative while real total credit expansion moved up significantly. As opposed to this phenomenon, during 1981/1982 to 1983/1984 when SPS was higher than the PSPS, public sector real credit expansion was higher than the total real credit expansion. Real total credit expansion during these years ranged from 7.1 percent to 25.1 percent while real public sector credit expansion ranged from 13.2 percent to about 50 percent. In nominal terms, public sector credit also increased at higher rate than total credit. Expansion in public sector credit was the predominant factor responsible for expansion in monetary liquidity during these three years. Expansion in money supply in turn led to higher inflation rate and sharp deterioration in the balance of payments situation which led to devaluation of Nepalese rupee by 14.7 percent in November 1985. The economy, therefore, underwent a process of concerted structural adjustment which stressed the need for higher financial discipline on the part of the Government. As a result, in 1987/1988, borrowings of the public sector was limited to Rs. 13076.4 million, an increase of 6 percent compared to about 16 percent increase in the previous year.

3.4.2 Impact on Interest Rate

Interest rate in Nepal is determined and controlled by the Central Bank and the Government. It is only recently that the authorities

Table 7.12

CREDIT EXTENDED BY COMMERCIAL BANKS

(in Million of Rupees)

Year	To Public Sector Amount	To Public Sector % Share	To Private Sector Amount	To Private Sector % Share	Total
1978/79	1097.6	45.7	1299.9	54.3	2397.6
1979/80	1130.1	37.7	1867.6	62.3	2997.7
1980/81	1326.7	35.2	2439.3	64.8	3766.0
1981/82	1535.4	37.3	2576.3	62.7	4111.7
1982/83	2374.1	47.4	2634.8	52.6	5008.9
1983/84	2528.3	45.1	3079.2	54.9	5607.5
1984/85	3332.5	46.2	3877.3	53.8	7209.8
1985/86	3683.7	42.2	5044.9	57.8	8728.6
1986/87	4292.5	41.2	6117.9	58.8	10410.4
1987/88	5244.7	40.0	7941.2	60.0	13185.9

Table 7.13

COMPONENTS OF DOMESTIC CREDIT

(Rs. in Million)

	Credit To Govt.	Share in Tot. Credit (%)	Credit To PEs	Share in Tot.Credit (%)	Credit to Pvt.Sector	Share in Tot. Credit (%)	Total Credit	Total Share (%)
1978/79	1129.3	32	1079.9	30	1331.6	38	3540.8	100
1979/80	1258.3	29	1131.0	26	1916.5	45	4305.8	100
1980/81	1262.7	24	1400.6	27	2498.1	49	5161.4	100
1981/82	2061.5	34	1343.4	22	2638.2	44	6043.1	100
1982/83	4089.6	48	1702.2	20	2699.1	32	8490.9	100
1983/84	5028.7	51	1621.8	16	3174.0	33	9824.5	100
1984/85	6492.1	52	2022.2	16	4036.6	32	12550.9	100
1985/86	7495.7	49	2659.3	17	5167.9	34	15322.9	100
1986/87	8712.3	49	2811.1	16	6279.7	35	17803.1	100
1987/88	9259.0	45	2901.6	14	8308.7	41	20469.3	100

Source: Nepal Rastra Bank, Quarterly Economic Bulletin.

Table 7.14

FACTORS AFFECTING MONEY SUPPLY

(Rs. in Million)

	NFA	CI.Govt.	CI.PE	CI.Pvt.	Others	Money Supply
1978/79	2280.0 (28.3)	1129.3 (17.0)	1079.9 (24.3)	1331.6 (24.3)	3323.9 (26.5)	2504.9 (21.6)
1979/80	2231.9 (-2.4)	1558.3 (11.4)	1131.0 (4.7)	1916.5 (43.9)	3707.3 (11.5)	2830.4 (13.0)
1980/81	2414.5 (8.2)	1262.7 (0.3)	1400.6 (23.8)	2498.1 (30.3)	4368.1 (17.8)	3207.8 (13.3)
1981/82	3097.4 (28.3)	2061.5 (63.3)	1343.4 (-4.1)	2638.2 (5.6)	5529. (26.6)	3611.5 (12.6)
1982/83	2611.4 (-15.7)	4089.6 (98.4)	1702.2 (26.7)	2699.1 (2.3)	6753.4 (22.1)	4348.9 (20.4)
1983/84	2539.8 (-2.7)	5028.7 (23.0)	1621.8 (4.7)	3174.0 (17.6)	7432.8 (10.1)	4931.5 (13.3)
1984/85	1897.6 (-22.2)	6492.1 (29.1)	2022.2 (24.7)	4036.6 (27.2)	8968.7 (20.6)	5480.0 (11.1)
1985/86	2600.0 (37.0)	7495.7 (15.5)	2659.3 (31.5)	5167.9 (28.0)	10893.6 (21.5)	7029.3 (28.3)
1986/87	3059.9 (17.7)	8712.3 (16.2)	2811.1 (5.7)	6279.7 (21.5)	12742.8 (17.0)	8120.2 (15.5)
1987/88	5573.6 (82.1)	9259.0 (6.3)	2901.6 (3.2)	8308.7 (32.3)	16446.3 (29.1)	9596.6 (18.2)

NFA = Net foreigm assets
CI. Govt. = Claims on Government
CI. PE = Claims on Public Enterprises
CI. Pvt. = Claims on Private Sector
Others include time deposit and capital and other items net which are contractionary factors.

Figures in brackets show percentage change over previous year.

Table 7.15

SHARE OF PUBLIC SECTOR CREDIT

(in Million of Rupees)

Year	Nominal Credit		Real Credit (1978=100)1				SPS *	PSPS **
	Pub.Sec.	Total	Pub.Sec.	Change	Total	Change	(%)	(%)
1978/79	2463.6	3540.8	2112.9	31.3	3036.7	131.4	23.8	69.6
1979/80	2623.5	4305.8	2090.4	-22.5	3430.9	394.2	-5.7	60.9
1980/81	2838.5	5161.4	2094.8	4.4	3809.2	378.1	1.1	55
1981/82	3514.9	6043.1	2373.3	278.5	4080.4	271.2	102.7	58.2
1982/83	5911.3	8490.6	3554.6	1181.1	5105.8	1025.4	115.2	69.6
1983/84	7073.2	9824.5	3998.4	442.8	5553.7	447.9	99.1	72.0
1984/85	8925.1	12550.9	4747.4	749.0	6676	112.3	66.7	71.1
1985/86	10617.4	15322.9	5189.3	441.9	7189.1	813.1	54.3	69.3
1986/87	12301.4	17803.1	5381.2	191.9	7787.9	298.8	64.2	69.1
1987/88	13076.4	20469.3	5352.6	-28.6	8378.7	590.8	-4.8	63.9

1 Deflated by GDP deflator.

SPS = Share of Public Sector

PSPS = Proportional Share of Public Sector

$$* \; SPS = \frac{\frac{NCt}{Pt} - \frac{NCt\text{-}1}{Pt\text{-}1}}{\frac{TCt}{Pt} - \frac{TCt\text{-}1}{Pt\text{-}1}}$$

$$** \; PSPS = \frac{NCt}{TCt}$$

initiated the process of liberalizing interest rate so as to reflect the real market demand for and supply of capital. Although the additional public sector demand for credit from commercial banks and private sector should push up the market interest rate, it does not seem to have actually happened in Nepal. Borrowing by the Government directly from the private sector is quite insignificant so far. But in order to mobilize private sector savings, the Government issued national savings certificate in 1984 with higher (13 percent) interest rate which is almost at par with rates offered by commercial banks.

Interest rate structure during the decade 1977-1988 shows that on the deposit side, savings deposit rate has increased by 0.5 percentage points from 8 percent to 8.5 percent, while minimum rates on fixed deposit increased from 4 to 8.5 percent and maximum rates increased from 13 percent to 14 percent. Since 29 May 1986, minimum rates on fixed deposits have been raised significantly from 4.5 percent to 8.5 percent, while maximum rate has been raised from 13.5 percent to 14 percent. It shows that deposit rates have not been changed significantly during the period of a decade. The lending rates, however, has been raised remarkably since 29 May 1986. Interest rates for agricultural loan has moved up from a range of 8 to 15 percent to a range of 15 to 20 percent; for industrial loan from 9 to 17 percent to 13 to 18 percent; and, for export bills from 8 to 14 percent to 15 to 16 percent. Interest rate for services and for commercial purposes and overdraft remained unchanged. Thus, interest rate movement does not show any direct causality with the expansion in credit due to public sector credit demand mainly because interest rates are administered by the Central Bank.

IV. Implication on Monetary Policy

4.1 Nature of Instability

The expansionary fiscal policy propelled by ambitious development plans of the Government resulted in a series of internal and external instabilities in the Nepalese economy. It has been accompanied by frequent jerks due to failure of monsoon which led to shortfalls in agricultural production and subsequently to adverse trade and payments situation and higher inflation.

The internal instability of the economy has been adequately reflected in the inflationary situation experienced by the country during the decade. The country witnessed a higher average annual inflation rate measured in terms of movement in CPI (base 1972/73 = 100) of 10.2 percent during the decade under review. The year-to-year actual trend shows that during seven out of ten years, the economy was faced with a double-digit inflation rate, the highest being 16 percent in 1985/1986. The last three years of the decade experienced very high inflation rate which, however, decelerated steadily from 16 percent in 1985/1986 to 11 percent in 1987/1988. The higher rate of inflation occurred in spite of fiscal, monetary and administrative measures taken by the authorities from time to time. The undesirable consequences of persistent run-away inflation on savings, investment, cost of production, capital flows, consumption pattern, and social and psychological reactions of the people cannot simply be overemphasized.

Another consequence of expansion in money supply was the creation of external disequilibrium which manifested itself in the form of higher trade deficit, enlarged current account deficit and frequent deterioration in overall balance of payments position. In an open economy like that of Nepal which has a long open border with a big neighboring country, monetary expansion naturally boosts up import demand and exerts pressure on balance of payments position of the country. The excessive pressure in balance of payments which has been built up since 1981/1982 eased up when the Nepalese rupee was devalued by 14.7 percent in November 1985. The post devaluation stringent demand management measures which were immediately followed by structural adjustment program not only arrested the deterioration but also brought remarkable improvement in the overall balance of payments situation of the country. Nevertheless, the current account deficit remained sizeable at 6.0 percent of GDP in 1987/1988, which was the highest during the decade.

4.2 Instruments of Monetary Policy

Monetary policy of the country, therefore, has been geared towards achievements of internal and external stability together with higher mobilization of domestic resources. The instruments of monetary policy used for achieving these objectives have been as follows:

(a) Cash reserve requirement;

(b) Imposition of credit ceiling;

(c) Margin requirement on import credit; and,

(d) Interest rate changes.

Table 7.16

INTEREST RATE STRUCTURE OF COMMERCIAL BANKS

(in Percent Per Annum)

	Deposit Rates		Lending Rates				
Period as of	**Savings**	**Fixed**	**Agriculture**	**Industry**	**Services**	**Export Bills**	**Comm. & Overdraft**
Feb. 12, 1977	8	4 - 13	8 - 14	10 - 16	14	12	16 (min)
Mid - June 1982	8.5	4.5 - 13.5	8 - 14	11 - 17	15	8 - 14	17 (min)
Nov. 16, 1984	8.5	4.5 - 14.5	8 - 15	9 - 17	15	8 - 14	17 - 12
May 28, 1986	8.5	4.5 - 13.5	8 - 15	9 - 17	15	8 - 14	17 - 21
May 29, 1986	8.5 (min.)	8.5 - 14	13 - 20	13 - 18	15	15 - 16	17 - 21
Jun. 15, 1988	8.5 - 10	8.5 - 14	13 - 20	13 - 18	15	15 - 16	17 - 21

Nepal Rastra Bank has been using different combinations of these instruments from time to time according to the demand of the situation. Among these instruments, the most frequently used was the imposition of ceiling on expansion of credit. Ceiling was imposed on total credit of the commercial banks in 1978/1979 and 1979/1980 in order to restrict the expansion of credit due to excessive credit demand from private sector. But the actual credit extension exceeded the ceiling prescribed by the Nepal Rastra Bank. As a result, credit deposit ratio increased from 68.5 percent in July 1978 to 84 percent in July 1980, while the liquidity position of commercial banks showed a decline to 30 percent in July 1980 from 39.0 percent in July 1979 and 37.8 percent in July 1978.

Stringent credit ceiling has also been imposed since the devaluation of Nepalese rupee in November 1985. Credit ceilings have been imposed during 1986/1987 and 1987/1988 as a measure to restrict total credit as well as credit extended to private sector, Government and government enterprises. Meticulous follow-up has been made in order to keep the credit level within limit. Such stringent credit control measure coordinated with strict fiscal discipline has to some extent retarded the rate of inflation as the rate of expansion in total credit of the banking system also decelerated steadily from 27.8 percent in 1984/1985 to 14.9 percent in 1987/1988.

Another instrument used particularly since 1980/1981 was cash reserve ratio. Cash reserve ratio was raised from 7 percent to 9 percent in 1980/1981. Liquid assets/deposit ratio (inclusive of the 9 percent cash reserve ratio) of 25 percent was imposed in order to bring down the high credit deposit ratio of 87 percent in July 1981. The liquid assets deposits ratio was removed in 1986 but cash reserve ratio of 9 percent of deposit liabilities has been continued through 1987/1988.

Interest rate as an instrument of monetary policy has been used frequently mainly in order to attract private savings to the banking sector, discourage luxury imports, and encourage investment in priority and export sectors. Interest rate concessions have been provided for the credit directed towards priority sector and export sector, whereas higher rates have been charged for investment in import of luxurious goods and commercial purposes. The Nepal Rastra Bank has been providing concessional refinancing facilities to the commercial banks for their priority sector lending. Commercial banks are required to invest at least 8 percent of their total lending in priority sector. But in spite of

Table 7.17

LIQUIDITY AND CREDIT DEPOSIT RATIOS OF COMMERCIAL BANKS

	Liquidity Ratio	Credit/Deposit Ratio
July 1978	37.8	68.5
July 1979	39.0	76.2
July 1980	30.0	84.0
July 1981	34.8	87.0
July 1982	38.0	73.0
July 1983	40.6	63.5
July 1984	44.2	60.7
July 1985	41.1	63.0
July 1986	37.4	69.9
July 1987	39.0	71.1
July 1988	41.9	68.9

Nepal Rastra Bank's insistence, commercial banks have not been able to invest in priority sector to the desired level.

Another measure which has been frequently taken by the Nepal Rastra Bank to divert the flow of credit to the desired sector has been margin requirement for import credit. Higher margin requirements are imposed for the import of luxury and semi-luxury goods, while lower rates are used for the import of essential commodities. In the extreme case, a cash margin of 100 percent was imposed for the import of luxury goods in 1982/1983. This measure was directed mainly to safeguard the balance of payments position of the country by discouraging import of luxury and semi-luxury goods.

4.3 Effectiveness of Monetary Policy

The Nepal Rastra Bank as a Central Bank has very limited power to control major factors which affect money supply (M1). The main factors which affect money supply are net foreign assets and domestic credit. Movement in net foreign assets reflects the country's overall payments situation and hence is the result of interaction of country's external demand and supply position. Hence, this factor is not under the direct influence of monetary policy. Although monetary policy measures in Nepal are aimed at stabilizing external imbalance, it can hardly change the course of movement in net foreign assets. The capacity of monetary policy to influence the money supply through its direct impact on net foreign assets is therefore insignificant.

Domestic credit of the banking system consist of credit to Government, to public enterprises and to private sector. Credit to Government is determined by Government's fiscal deficit over which the Central Bank has no direct control. As credit to public enterprises (particularly non-financial) in Nepal is mostly guaranteed by the Government, it is also beyond the control of monetary instrument. The two sectors together enjoy substantial share of total domestic credit. It indicates, therefore, that a significant portion of one of the important expansionary factors of money supply is beyond the influence of monetary policy measures. The target area of the monetary policy is, therefore, credit to private sector which has very limited impact on money supply M1.

Monetary policy measures in Nepal are in fact directed towards influencing the total volume and direction of credit to private sector. Monetary instruments like credit ceiling, cash reserve requirement, interest rate changes, margin requirements and credit requirement for

Table 7.18

FACTORS AFFECTING HIGH POWERED MONEY (HPM)

(Rs. in Million)

	Assets					Liabilities			
	NFA	Claims on		Others	HPM	Currency		Deposits	
		Pub. Sector	Com. Banks *	Net		CP	CB	PD	DCB
1978/79	1793.8	1111.6	200.6	-988.7	2117.3	1615.2	97.0	164.0	241.1
1979/80	1746.7	1259.2	313.3	-850.6	2468.6	1799.3	109.4	253.3	306.6
1980/81	1736.1	1336.6	526.9	-893.4	2706.2	2065.7	148.2	210.8	281.5
1981/82	2390.9	1869.5	199.7	-1084.5	3375.6	2436.7	180.8	225.0	533.1
1982/83	1901.4	3417.7	138.3	-1444.8	4012.6	2752.0	211.2	343.8	705.6
1983/84	1542.7	4122.2	246.9	-1287.7	4624.1	3273.4	280.9	325.1	744.7
1984/85	1026.3	5181.8	547.3	-1578.1	5177.3	3737.3	298.3	308.0	833.7
1985/86	1485.1	6471.3	656.9	-2026.0	6587.3	4842.9	391.6	394.7	958.1
1986/87	1903.6	7230.9	682.1	-2216.6	7600.0	5746.1	437.7	366.8	1049.4
1987/88	4394.4	7182.8	724.9	-3039.3	8995.9	6374.6	587.5	669.5	1364.3

* Includes claims on private sector.

NFA = Net foreign assets
HPM = High powered money
CP = Currencies held by private sector
CB = Currency held by commercial banks
PD = Private sector deposits
DCB = Deposit of commercial banks

priority sector can only change the commercial banks' credit to private sector. However, efforts have been made recently to influence the credit flow to Government and public enterprises by imposing ceiling on credit to these sectors. As credit to Government and public enterprises is greatly responsible for creating internal and external instabilities, close coordination between fiscal and monetary policy is essential to make the monetary policy more effective.

V. Summary and Conclusions

5.1 Overview of the Public Sector

Public sector in Nepal consists of the Central Government, local governments and public sector enterprises. Public enterprises have been established with the following objectives:

(a) Providing basic goods and services;

(b) Encouraging private sector participation; and,

(c) Ensuring effective control over the economic activities.

There was rapid growth of public sector enterprises up to the Fourth Plan period (1970-1975). The rate of expansion slowed down since the Fifth Plan (1975-1980). As at 1988, there were 53 public enterprises of which 8 are financial and the rest 45 are non-financial public enterprises (NFPEs). Ratio of profitability has shown a negative trend since 1980/1981. Enterprises falling under trading sector have incurred the greatest negative profitability.

Gross fixed capital formation of the public sector constituted about 40 to 45 percent of total gross fixed capital formation of the country, while its share in gross domestic production ranged from 5.1 percent to 8.7 percent during the decade under review. Revenue of the public sector amounted to 17 to 20 percent of GDP, while expenditure ranged from 23.1 percent to 31.5 percent of GDP. The employment by the public sector constituted about 1.6 percent of total work force of the country.

5.2 The Public Sector Deficits

Revenue (including foreign grants) of the Government increased from 11 percent to 14 percent of GDP during the period under review.

The last three years showed steadily increasing trend. The major contributors to government revenue have been tax revenue (61 percent), followed by foreign grants (22 percent) and non-tax revenue (17 percent). On the other hand, total expenditure of the Government increased from 13.6 percent to 20.7 percent of GDP. Both regular (current) and development expenditures increased rapidly. Regular expenditure increased from 4.7 percent to 6.9 percent of GDP, while development expenditure went up from 9.8 percent to 14.8 percent of GDP. As a result, budget deficit widened from 3 percent to 9 percent of GDP with a steadily declining trend during the last three years. The main cause of widening government fiscal deficit is the inability to raise revenue in comparison with the growing size of expenditure. However, during the last three years of the review period, Government had made serious efforts to maintain fiscal discipline as a result of which fiscal deficit remained sustainable.

As regards the financing of deficits, external loans financed 32 percent to 86 percent of total deficit while internal resources financed 14 percent to 68 percent during the decade. During the later years, the share of external loans was higher than that of internal resources.

On the part of non-financial public enterprises, resource gap of these enterprises has been partially met by transfers by Government which amounted to 18.4 percent to 42.1 percent of budget deficit during the review period.

5.3 Effects of Financing Public Sector Deficits through the Financial System

Total internal borrowings of the public sector increased at an annual average rate of 21.3 percent during the decade. Of the total borrowings, higher amount of about 77 percent went for Government while the remaining share went for public enterprises. Public sector borrowings have been mainly sourced from the banking system of which the Central Bank contributed 52.5 to 62.2 percent and commercial banks contributed 35 to 46.7 percent. Borrowings from private sector remained insignificant at about 5 percent of total borrowings of public sector. Public sector borrowings from Central Bank is a potent source of monetary instability. Money supply (M1) growth is significantly and positively affected by central bank credit to public sector. On the other side, consumers price index (CPI) in Nepal has been significantly affected by growth in money supply. The regression equation also shows that inflation rate in Nepal is also affected by wholesale price index of India.

Table 7.19

MONETARY VARIABLE

(in Million of Rupees)

Year	M1	HPM	MM	Central Bank Credit to Public Sector Net
1978/79	2504.9	2117.3	1.18	1111.6
1979/80	2830.4	2468.6	1.15	1259.2
1980/81	3207.8	2706.2	1.18	1336.6
1981/82	3611.5	3375.6	1.07	1869.5
1982/83	4348.9	4012.6	1.08	3417.7
1983/84	4931.5	4624.1	1.06	4122.2
1984/85	5480.0	5177.3	1.06	5181.8
1985/86	7029.3	6587.3	1.07	6471.3
1986/87	8120.2	7600.0	1.07	7230.9
1987/88	9596.6	8995.9	1.07	7182.8

M1 = Narrow Money

HPM = High Powered Money (Reserve Money)

MM = Money Multiplier

Table 7.20

INFLATION RATES

	CPI		Deflator		Indian WPI	
	1972/73=100	% Change	1974/75=100	% Change	1970/71=100	% Change
1978/79	161.8	3.5	116.63	10.0	185.8	0
1979/80	177.6	9.8	125.5	7.6	217.3	16.9
1980/81	201.4	13.4	135.5	8.0	256.9	18.2
1981/82	222.4	10.4	148.1	9.3	280.4	9.1
1982/83	254.0	14.2	166.3	12.2	288.1	2.7
1983/84	269.8	6.2	176.9	6.3	312.3	9.4
1984/85	280.9	4.1	188.0	6.3	338.0	7.2
1985/86	325.5	15.9	204.6	8.8	357.5	5.8
1986/87	368.7	13.3	228.6	11.7	376.8	5.4
1987/88	409.3	11.0	244.3	6.9	404.6	7.4

The movement of M1 indicates that it has increased at an annual average rate of 16.7 percent during the decade under consideration. The main factors leading to increase in money supply have been expansion in net foreign assets and domestic credit which increased at a sustained rate as a permanent source of money supply growth. Among the components of the domestic credit, the share of public sector credit has been higher than that of private sector credit all through the review period.

Regarding credit expansion due to public sector credit except during three years (1981/1982 - 1983/1984), public sector real credit expansion was lower than total real credit expansion. But during these three years, public sector credit expansion was higher than total credit expansion. Expansion of public sector credit should have raised the interest rate of commercial banks but as interest rates are fixed by the Nepal Rastra Bank, they are quite sticky.

5.4 Implication on Monetary Policy

The expansionary fiscal policy accompanied by frequent shortfalls in agricultural production created both internal and external instability in the economy. Monetary policy has therefore been aimed primarily at attaining stability in the economy, for which the following instruments have been used frequently:

(a) Cash reserve requirement;

(b) Imposition of credit ceiling;

(c) Margin requirement in import credit; and,

(d) Interest rate changes.

The effectiveness of monetary policy in regulating the money supply (M1) and controlling the volume and direction of credit depends to a great extent on the degree of coordination between fiscal and monetary policies.

CLASSIFICATION OF PUBLIC ENTERPRISES UNDER DIFFERENT ACTS

(As of 1988)

A. Under Commercial Bank Act

	Name of PEs		*Year Established*
1.	Nepal Bank Ltd.		1937
2.	Rastriya Banijya Bank		1966/67

B. Under Company Act

1.	Raghupati Jute Mills	FY	1959/60
2.	Timber Corporation of Nepal		1959/60
3.	National Trading Ltd.		1961/62
4.	National Construction Company		1961/62
5.	Nepal Resettlement Company		1963/64
6.	Birgunj Sugar Factory		1964/65
7.	Janakpur Cigarette Factory		1964/65
8.	Bansbari Leather and Shoe Factory		1965/66
9.	Cottage and Handicraft Emporium		1966/67
10	Nepal Tea Development Corporation		1966/67
11.	Agricultural Tools Factory		1968/69
12.	Brick and Tile Factory		1969/70
13.	Himal Cement Company		1969/70
14.	Balaju Textile Industry		1970/71
15.	Nepal Oil Corporation		1970/71
16.	Tobacco Development Corporation		1970/71
17.	Nepal Transit and Warehousing Co.		1971/72
18.	Royal Drugs Ltd.		1972/73
19.	Agro-lime Industry		1973/74
20.	Hetauda Textile Industry		1973/74
21.	Credit Guarantee Corporation		1974/75
22.	Bhaktapur Brick and Tile Factory		1975/76
23.	Hetauda Cement Factory		1976/77

24.	Security Marketing Centre	1976/77
25.	Janak Education Materials Centre	1977/78
26.	Herbs Production and Processing Co.	1980/81
27.	Nepal Oriend Magnesite	1977/78
28.	Bhrikuti Paper Factory	1981/82
29.	Lumbini Sugar Factory	1982/83
30.	Nepal Rosin and Turpentine Ltd.	1985/86
31.	Economic Services Centre	1987/88
32.	Industrial Estate Management Ltd.	1987/88

C. Under Corporation Act

	Name of PEs	*Year Established*
1.	Transport Corporation of Nepal	Fy 1964/65
2.	Fuel Corporation	1964/65
3.	Agricultural Inputs Corporation	1965/66
4.	Dairy Development Corporation	1969/70
5.	Jute Development and Trading Corp.	1970/71
6.	Nepal Food Corporation	1973/74

D. Communication Corporation Act

1.	Ratna Recording Corporation	1961/62
2.	Nepal Telecommunication Corporation	1969/70
3.	Cultural Corporation	1971/72
4.	Nepal Television	1984/85
5.	Royal Nepal Film Corporation	1971/72

E. Under Development Board Act

1.	Drinking Water & Sewerage Corp.	1972/73

F. Under Special Acts

1.	Royal Nepal Airlines Corporation	1957/58
2.	Nepal Industrial Development Corp.	1958/59
3.	Provident Fund Corporation	1962/63
4.	Gorkhapatra Corporation	1962/63
5.	Nepal Electricity Authority	1962/63
6.	Agricultural Development Bank	1967/68
7.	National Insurance Corporation	1968/69

Total:	53

Under Commercial Bank Act	2
Under Company Act	32
Under Corporation Act	6
Under Communication Corp. Act	5
Under Development Board Act	1
Under Special Acts	7

Appendix 7.2

CLASSIFICATION OF PUBLIC ENTERPRISES BY ECONOMIC SECTOR

(As of 1988)

A. Financial Sector

1. Nepal Bank Ltd.
2. Nepal Industrial Development Corporation
3. Provident Fund Corporation
4. Rastriya Banijya Bank
5. National Insurance Corporation
6. Credit Guarantee Corporation
7. Security Marketing Centre
8. Agriculture Development Bank

B. Manufacturing Sector

1. Agro-lime Industry
2. Agriculture Tool Factory
3. Dairy Development Corporation
4. Nepal Tea Development Corporation
5. Brick and Tile Factory
6. Bhaktapur Brick Factory
7. Janakpur Cigarette Factory
8. Nepal Oriend and Magnesite Pvt. Ltd.
9. Birgunj Sugar Factory
10. Lumbini Sugar Factory
11. Bansbari Leather and Shoe Factory
12. Bhrikuti Paper Factory
13. Raghupati Jute Mills
14. Hetauda Textile Industry
15. Balaju Textile Industry
16. Himal Cement Company
17. Hetauda Cement Factory
18. Royal Drugs Ltd.
19. Herbs Production and Processing Company
20. Nepal Rosin and Turpentine Ltd.

C. Trading Sector

1. Agricultural Inputs Corporation
2. Nepal Food Corporation
3. Nepal Oil Corporation
4. The Timber Corporation of Nepal
5. Fuel Corporation
6. National Trading Ltd.
7. Cottage and Handicraft Emporium
8. Tobacco Development Company
9. Jute Development and Trading Corporation

D. Social and Public Utility Sector

1. Nepal Telecommunication Corporation
2. Gorkhapatra Corporation
3. Ratna Recording Corporation
4. Nepal Television
5. Royal Nepal Film Corporation
6. Nepal Electricity Authority o73
7. Cultural Corporation
8. Janak Education Materials Centre
9. Nepal Transit and Warehouse Ltd.
10. Drinking Water and Sewerage Corporation
11. Nepal Resettlement Company
12. National Construction Company
13. Nepal Transport Corporation
14. Royal Nepal Airlines Corporation
15. Economic Services Centre
16. Industrial Estate Management Ltd.

	Total:	53

A.	Financial Sector	8
B.	Manufacturing Sector	20
C.	Trading Sector	9
D.	Social and Public Utility Sector	16

Chapter 8

PUBLIC SECTOR AND MONETARY POLICY IN THE PHILIPPINES

by

Olivia A. Vital[1]

I. Overview of the Public Sector

The progress of an economy is largely shaped by the character of political and economic policies adhered to by the Government and its ability to translate these policies into action for the common good. The Philippine experience from the mid-1970s to the decade of the 1980s is instructive. During this period, the fiscal and monetary policies adopted by the Government in power played considerable influence on the performance of the domestic economy. The long-term consequences of such policies continue to impact on the performance today of the economy as well.

The size of the public sector and the magnitude of its budgetary deficit which have grown over the years underscore the tremendous repercussions which the sector could have on the economy. In 1989, the ratio of total expenditures of the public sector (National Government, local governments, and government corporations) rose to about a third of current Gross Domestic Product (GDP) from about one-fourth of current GDP in 1977. Meanwhile, the cash deficit ratio to GDP of the National Government increased from 1.8 percent in 1977 to 2.0 percent in 1989, and in the case of major government corporations, 1.3 percent of current GDP in 1985 to 0.3 percent in 1989. Partial financing of public sector expenditures and of cumulative deficits through gross outstanding foreign exchange liabilities reached $22.2 billion as of 31 December 1989, or in peso terms 50 percent of current GDP for the same year in comparison with 72 percent of current GDP in 1983. The Government's gross internal public debt likewise rose to ₱ 237.2 billion as of end-December 1989 or 24.6 percent of GDP in 1989 as against 15.9 percent in 1983.

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1.1 Evolution and Nature of the Public Sector

1.1.1 Definition of the Public Sector

In the Philippines, the public sector encompasses the National Government, the local governments and the government-owned and/ or controlled corporations (GOCCs) or otherwise known as public sector enterprises, including their subsidiaries.

The Government would refer to "all entities and agencies charged with the political administration of the country as well as other organizations and agencies vested by law to carry out government policies".[2] The National Government includes the three major branches, namely, the executive branch, the legislature and the judiciary, as well as the various departments and instrumentalities under them. Some of the executive departments include: Public Works and Highways; Labor and Employment; Agriculture and Food; Agrarian Reform; Trade and Industry; Finance; Transportation and Communication; and, Foreign Affairs.

Local governments would include the community-based political sub-divisions of the government in the provincial, municipal and city governments. Meanwhile, wholly-owned and/or controlled government corporations have been created by law to pursue government policies and deliver basic services. "These entities are not conferred with functions of a political nature and in addition, they are distinguished from other government bodies in that they enjoy a degree of financial autonomy withheld from departments and bureaus, such as independent borrowing power, establishment of revolving fund and some degree of freedom from budgetary control".[3] A public enterprise may likewise be defined as a productive entity engaged in the production and/or marketing of a private good with or without consumption externality whose output is actually marketed, and which is owned and/or controlled by the Government.[4] Based on the definition of the Commission on

2. *Statistical Bulletin,* Central Bank of the Philippines, Annual Report 1988, vol. II, pp. 109-110.
3. Ibid., p. 110.
4. Rosario G. Manasan, *Public Enterprise in the Philippines in 1982: A Definitional and Taxonomical Exercise,*" Philippine Institute for Development Studies, Staff Paper series no. 84-02, p. 9.

Reorganization in 1972, public enterprises are "corporate bodies, stock or non-stock, owned or controlled by the Government and created by special law under the corporation law for the purpose of performing governmental or proprietary functions which are socio-economic in nature". Proprietary functions are those that are "predominantly economic and are believed to be peculiar in the private sector because they are essentially of the commercial type and particularly suited to the profit motive"; whereas governmental functions "are those that are deemed to be the prerogative of Government because, while not attractive to the private sector, are destined primarily and directly to serve the public at large".[5]

1.1.2 Nature of Public Sector Enterprises

Due to the enormous resources of public sector enterprises and the dearth of studies as well as published data on them, the nature of public sector enterprises is tackled separately in this section. Available data gathered on the public sector enterprises, while relatively preliminary and wanting, are comprehensive enough to serve as exploratory data or indicators on the operations and functions of public sector enterprises in the Philippines and in evaluating their impact on fiscal and monetary policies.

Public sector enterprises are created by law to perform such tasks as providing support facilities and services designed to accelerate and integrate development efforts; financing and establishing key agricultural, industrial and infrastructure projects; attaining self-reliance in the supply of energy through exploration and development of diverse indigenous power sources; achieving self-sufficiency on basic food and raw materials requirement; accelerating rural and regional development; increasing net foreign exchange earnings; generating employment; and, promoting technical research, scientific and cultural endeavors.[6]

When classified by sector, the government-owned and controlled corporations cover the financial and non-financial corporations. The financial corporations which comprised 11 percent of the total public corporations in 1987 would include the Central Bank of the Philippines, government banks and nonbanks such as the Development Bank of the Philippines, the Government Service Insurance System,

5. Ibid., p. 11.
6. *1980 Summary Financial Report of Government-Owned or Controlled Corporations*, Commission on Audit, Republic of the Philippines.

the Social Security System, Philippine Deposit Insurance Corporation, the Philippine Crop Insurance Corporation and others. While the nonfinancial government corporations, which accounted for the substantial proportion of 89 percent of total number of government corporations, would include the infrastructure and public utilities, including public works and communications; the industrial and area development corporations, inclusive of manufacturing entities; the agricultural, trading and promotional corporations or those engaged in agriculture, trade and services; and, the educational, social, cultural, civic and research government corporations. Agricultural, trade and services corporations made up 35 percent of total non-financial corporations, followed by the manufacturing corporations which comprised 15 percent of non-financial corportions, and public works and communications, 10 percent. Other corporations refer to those newly-audited by the Commission on Audit (COA) inclusive of corporations engaged in mining and other concerns. A partial list of government corporations by sectoral classification is shown in Appendix 8.1.

Over the period 1977-1987, the number of government-owned and controlled corporations and subsidiaries audited by the Commission on Audit (COA) in the Philippines has increased from 140 to 184 in 1982, and thereafter to 202 in 1987 as the number of government corporations audited by the COA widened (Table 8.1). Out of total government corporations in 1987, 82 were parent corporations and 120 were subsidiaries.

Financial infrastructure and public utilities corporations increased steadily over the years, while the industrial and area development corporations and agricultural trading and promotional corporations increased their number at a faster rate, especially during the previous administration. When the economy experienced a serious balance of payments and external debt crisis in 1983, monetary adjustment measures were called for. In step with the adjustment was the privatization program for government enterprises to promote private investments and rationalize the operations of government enterprises. This policy contributed to the reduction in the number of government enterprises especially in the agricultural enterprises and government-acquired private financial institutions where government competition was least welcome by private investments, such as government monopolies on sugar and coconut trading which had been dismantled and a number of distressed private banks which had been sold to the private sector.

Table 8.1

NUMBER OF GOVERNMENT-OWNED OR CONTROLLED CORPORATIONS AUDITED BY THE COMMISSION ON AUDIT (INCLUDING SUBSIDIARIES), 1977-1987

Sectors	1977	1978	1979	1980[b]	1982	1984	1985	1986	1987	1988
Financial	12	13	16	16	17	n.a.	n.a.	22	22	19
Infrastructure and Public Utilities	7	6	6	7	16	n.a.	n.a.	20	18	14
Industrial and Area Development	75[a]	85[a]	95[a]	95[a]	31	n.a.	n.a.	28	27	12
Agricultural, Trading and Promotional	-	-	-	-	27	n.a.	n.a.	34	35	22
Educational, Social, Civic and Cultural	46	51	51	51	93	n.a.	n.a.	26	23	23
Subsidiaries Newly Audited and Corporations with Pending Reports	-	-	-	-	-	-	-	72	77	129
Total:	140	155	168	169	184	134	139	202	202	219

a Including agricultural, trading and promotional corporations.
b Data not available for 1981 and 1983

Sources: Various Annual Financial Reports, Volume II Government-owned and/or Controlled Corporations Corporate Audit Office, Commission on Audit Philippines.

1.1.3 Financial Profile and Profitability of Government Enterprises

In a span of ten years (1978-1987), the assets of public sector enterprises have grown fivefold with the financial corporations reflecting the highest asset-share at 60 percent, followed by the infrastructure and public utilities corporations at 27 percent. Lower shares were indicated by the industrial and area development corporations at 4.6 percent, agricultural, trading and promotional corporations at 2.4 percent and educational, social, cultural, civic and research corporations at 0.9 percent. The balance of 5 percent asset-share was from other corporations audited by the Commission on Audit. Financial corporations, however, recorded a relatively high debt-equity ratio of about 6:1 in view of the substantial impact of guaranteed foreign exchange liabilities of the public sector borne eventually by some financial corporations. The rate of return on assets of financial corporations was maintained over the period, while the rate of return on their net worth improved (Table 8.2). Financial corporations showed overall profitable positions although there were government financial institutions which needed government support in view of their past exposure to high-risk agricultural loans, misallocation of loans to non-viable projects, or substantial foreign exchange liabilities.

Infrastructure and public utilities (transport,electricity, housing, energy and water) corporations, likewise raised their debt-equity ratio as the need for infrastructures and public utilities intensified with the increase in population and as economic recovery began to be felt in 1987. However, the sectors' rates of return on asset and net worth declined (especially in the transport sub-sector) as existing capacities of public utilities did not expand, and as infrastructure projects were not accelerated, following the crisis periods of 1983-1986. Moreover, the retail prices of public utilities (electricity and water) have remained relatively below market rates in view of their social functions to serve the public consumers.

The debt-equity ratios of agricultural, trading and promotional corporations have increased, but their rates of return on networth have turned negative due to losses incurred primarily by government-owned trading corporations involved in the distribution, marketing and stabilization of food supply and prices.

The share of educational, social, civic and research organizations to total assets of public sector enterprises was comparatively low. Even

Table 8.2

FINANCIAL PROFILE OF GOVERNMENT-OWNED AND OR CONTROLLED CORPORATIONS AUDITED BY COA (INCLUDING SUBSIDIARIES), 1978 AND 1987

($ Million Pesos)

Sector	Assets		Liabilities		Networth		Net Income (Before Subsidy)		Debt/Equity Ratio		Return on Asset (%)		Return on Networth (%)	
	1978	1987	1978	1987	1978	1987	1978	1987	1978	1987	1978	1987	1978	1987
Financial	101368	467048	86098	402288	15270	64759	1756	8631	5.64	6.21	1.7	1.8	11.5	13.3
Infrastructure & Public Utilities	20757	213005	11692	138313	9065	74692	190	151	1.29	1.85	0.4	0.07	2.1	0.2
Industrial & Area Development	-	36211	-	24037	-	12174	-	662	-	1.97	-	1.8	-	5.4
Agricultural, Trading & Promotional	32049	18640	17718	16477	14330	2162	311	-2370	1.24	7.62	1.0	-12.7	2.2	-109
Educational, Social, Cultural, Civic, & Research	822	6510	319	2971	503	3539	126	455	0.63	0.84	15.3	7.0	25.0	12.9
Other Corporations Audited	-	40962	-	38778	-	2184	-	-	-	17.76	-	-	-	-
Total:	154996	782376	115827	622864	39168	159510	2383	7529	2.96	15.90	1.5	1.0	6.1	4.7

Source: Volume II, COA Report on Government Corporations, 1978 and 1987.

then it is this group which had positive rates of return on assets and net worth. Likewise, industrial and area development corporations posted positive rates attributable to profitable performance of oil-related corporations, despite losses in the area development sub-sector.

One offshoot of the financial and economic crisis in 1983 was the need to achieve a recovery path for the economy within the framework of a financial and economic program that was acceptable to both the borrowing country and lending institutions. This meant among others the need to set up indicative limits on public sector borrowings and on budgetary deficits as a ratio to the Gross National Product. Relatedly, a close monitoring of the 14 major nonfinancial government corporations subsidized through equity contributions or lending by the National Government, and with substantial foreign borrowings, had to be undertaken. The 14 major corporations (National Irrigation Administration, Light Rail Transit Authority, Local Water Utilities Administration, National Electrification Administration, National Housing Authority, Philippine National Railways, Philippine Ports Authority, National Food Authority, Export Processing Zone Authority, Metro Manila Transit Corporation, National Power Corporation, Philippine National Oil Company, and Metropolitan Waterworks and Sewerage System) belong mainly to the infrastructure and public utilities sector.

1.2 Size of the Public Sector

An analysis of the impact of the public sector deficit on money supply would require a look into the size of the public sector, especially its magnitude relative to the Gross Domestic Product. From end-December 1977, total assets of the public sector (National Government, local governments, and government corporations) rose from ₱ 208 billion to ₱ 1,273 billion as of end-December 1987, or from a ratio of total assets to GDP at 1.3 in 1977 to 1.8 in 1987 (Table 8.3).

The National Government accounted for a share of 37 percent to total assets of the public sector, while the government corporations shared a substantial proportion of 61 percent, and the balance by the local governments.

Out of real gross domestic capital formation, the share of the public sector's fixed capital formation rose from 5 percent in 1970 to 20 percent in 1979, to 21 percent in 1984-1986, then dropped to 13.8 percent in 1989 as the policy of the new administration shifted its

Table 8.3

ASSETS OF THE PUBLIC SECTOR, 1977-1987
(in Billion Pesos)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987[d]
National Government	77.2	100.3	89.1	117.5	135.0	167.7	197.3	220.0	260.2	445.2	475.4
Local Government	7.2a	7.2a	7.2	8.3	9.4	10.8	12.5	13.7	15.3	15.3b	15.3b
Government Corporations1	124.0	155.0	200.5	249.5	300.1	379.6	488.7	653.4	653.4c	742.6	782.3
Total Assets	208.4	262.5	296.8	375.3	444.5	558.1	698.5	887.1	928.9	1203.4	1273.0
Change in Assets	-	54.1	34.3	78.5	69.2	113.6	140.4	188.6	41.8	274.2	108.5
Current Gross Domestic Product (GDP)	154.2	177.7	217.5	264.7	305.2	340.6	384.1	540.5	540.5	627.1	708.4
Ratio of Change in Assets to GDP	-	0.30	0.16	0.30	0.23	0.33	0.37	0.35	0.08	0.44	0.15
Ratio of Total Assets to GDP	1.35	1.48	1.36	1.42	1.46	1.64	1.82	1.64	1.72	1.92	1.80

1 Audited by the Commission on Audit.
a 1979 figure.
b 1985 figure.
c 1984 figure.
d Latest available published data.

Source: National Economic and Development Authority, Commission on Audit, Philippines.

emphasis to the primacy of private investment rather than of public investment (Table 8.4). The share of public investment to capital formation could be greater; but due to data contraints the share of the sector from increase in stocks could not be clearly segregated.

Data from the medium-term Philippine Development Plan, 1987-1992, point out that public investment as a percentage of current Gross National Product (GNP) was about 4.8 percent in 1986 and is projected to rise gradually to 6 percent in 1988 and 1989 and to about 5 percent in 1992.[7] In real terms, however, the share of public investment to Gross Domestic Product in 1986-1989 was lower at 2.3 percent to 2.4 percent.

On the basis of available data from 1977-1989, the average share of public sector revenue to current GDP was 30 percent. The National Government accounted for 12.8 percent of GDP, the public sector enterprises, 16.0 percent, while the local governments accounted for a share of about 1.6 percent of GDP (Table 8.5).

Meanwhile, total expenditures of the public sector made up about 32 percent of current GDP (average from 1977-1989), exceeding public sector revenue by about 2 percentage points. In those years, National Government expenditure averaged 15.2 percent of current GDP, while public sector enterprises registered 15.3 percent, and local governments averaged 1.6 percent of GDP.

The public sector is also a major employer in the economy. In 1980, a total of about 1.1 million government workers were employed equivalent to 6.4 percent of the total labor force, and in 1989 an estimated 1.5 million or 6.2 percent of the total labor force (Table 8.6).

1.3 Role of the Public Sector in Economic Development of the Philippines

The role of the public sector in economic development is perceived to be basic and necessary; for the Government is charged with the responsibility of maintaining peace and order conducive to economic development and private enterprise, and of delivering public services such as adequate water system, good roads and other infrastructures, power services, efficient communications system and the like, which the private sector would normally not venture into.

7. *Medium-Term Philippine Development Plan, 1987-1992,* National Economic & Development Authority, November 1986, p. 374.

Table 8.4

SHARE OF THE PUBLIC SECTOR IN GROSS DOMESTIC CAPITAL FORMATION, 1970-1989

Period	Gross Domestic Capital Formation at 1972 Prices (Peso M)	Fixed Capital Formation: Total (Peso M)	Fixed Capital Formation: Total (As a % of GDCF)	Public1 (% Share to Total GDCF)	Private (% Share to Total GDCF)	Increase in Stocks (% Share to Total GDCF)	Share of Public Investment to GDp
1970	9929	8291	83.5	5.0	78.5	16.5	1.0
1971	10645	9118	85.7	5.9	79.8	14.3	1.2
1972	10890	9231	84.8	9.5	75.3	15.2	1.8
1973	12073	9545	79.1	9.8	69.3	20.9	1.9
1974	14835	11382	76.7	10.2	66.6	23.3	2.3
1975	18323	14974	81.7	12.5	69.2	18.3	3.4
1976	21139	17224	81.5	19.1	62.3	18.5	5.5
1977	21121	17553	83.1	20.3	62.8	16.9	5.4
1978	22928	19035	83.0	19.2	63.8	17.0	5.3
1979	25493	21270	83.4	19.7	63.8	16.6	5.7
1980	26609	22737	85.4	18.3	67.2	14.6	5.3
1981	27220	23542	86.5	19.3	67.2	13.5	5.4
1982	26267	23687	90.2	20.4	69.8	9.8	5.4
1983	24923	23012	92.3	17.6	74.8	7.7	4.4
1984	14215	15594	109.7	21.0	88.7	-9.7	3.2
1985	11124	11826	106.3	21.1	85.3	-6.3	2.6
1986	10181	10057	98.8	21.2	77.6	1.2	2.4
1987	13557	12017	88.6	16.9	71.8	11.4	2.4
1988	15926	13874	87.1	14.4	72.7	12.9	2.3
1989	18285	16863	92.2	13.8	78.4	7.8	2.4

1 Refers to share in construction only. The share of the public sector for durable equipment and increase in stocks is not available.

Source: National Statistical Coordination Board, NEDA, Philippines.

Table 8.5

PUBLIC SECTOR REVENUE AND EXPENDITURES

[Percentage to Current Gross Domestic Product (GDP)]

Year	Current GDP	Total Revenue		National Govt. Rev.		Local Govt. Rev.		Income of Govt. Corp.		Rev. of Maj. Gov.Corp.	
	Peso M	Peso M	% to GDP	Peso M	% to GDP	Peso M	%to GDP	Peso M	% to GDP	Peso M	% to GDP
1977	154226	43765[a]	28.4	19959	12.9	2622[a]	1.7	21184	13.7	..	-
1978	177669	53212[a]	30.0	24073	13.5	3020[a]	1.7	26119	14.7	..	-
1979	217543	66051	30.4	29470	13.5	3687	1.7	32894	15.1	..	-
1980	264650	89636	33.9	34731	13.1	4573	1.7	50332	19.0	..	-
1981	305258	98083	32.1	34600	11.3	5102	1.7	58381	19.1	..	-
1982	340597	109875	32.3	38206	11.2	5929	1.7	65740	19.3	..	-
1983	384095	131820	34.3	46641	12.1	6700	1.7	78479	20.4	..	-
1984	540466	155719	28.8	57927	10.7	7189	1.3	90603	16.8	..	-
1985	612684	167159	27.3	68184	11.1	8392	1.4	90603[a]	14.8	56566	9.2
1986	627129	180335	28.8	79245	12.6	7400[b]	1.2	93690	14.9	38663	6.2
1987	708368	219929	31.0	103214	14.6	9800[b]	1.4	106915	15.1	49387	7.0
1988	825852	231976	28.1	112861	13.7	12200[b]	1.5	106915[d]	12.9	57817	7.0
1989	963997	276974	28.7	155259	16.1	14800[b]	1.5	106915[d]	11.1	57439	6.0

Year	Current GDP	Expenditure		National Govt. Exp.		Local Govt. Exp.		Expenditure of Govt. Corp.		Exp. of Maj. Gov.Corp.	
	Peso M	Peso M	% to GDP	Peso M	% to GDP	Peso M	%to GDP	Peso M	% to GDP	Peso M	% to GDP
1977	154226	43693[a]	28.3	22811	14.8	2622[a]	1.7	18260	11.8	..	-
1978	177669	52731[a]	29.7	26240	14.8	3020[a]	1.7	23471	13.2	..	-
1979	217543	63089	29.0	29812	13.7	3590	1.7	29687	13.6	..	-
1980	264650	89062	33.7	38118	14.4	4490	1.7	46454	17.6	..	-
1981	305258	108539	35.6	46745	15.3	5092	1.7	56702	18.6	..	-
1982	340597	122559	36.0	52610	15.4	5713	1.7	64236	18.9	..	-
1983	384095	135239	35.2	53063	13.8	6545	1.7	75631	19.7	..	-
1984	540466	167031	30.9	66252	12.3	7616	1.4	93163	17.2	..	-
1985	612684	181604	29.6	79933	13.0	8508	1.4	93163[c]	15.2	64564	10.5
1986	627129	225295	35.9	113673	18.1	7700[b]	1.2	103922	16.6	43018	6.9
1987	708368	231017	32.6	122576	17.3	10000[b]	1.4	98441	13.9	50954	7.2
1988	825852	248323	30.1	137282	16.6	12600[b]	1.5	98441[d]	11.9	55547	6.7
1989	963997	288366	29.9	174425	18.1	15500[b]	1.6	98441[d]	10.2	60648	6.3

a Estimate. b Estimates based on Philippines Medium-Term Development Plan dated 1986. c Based on 1984 figure. d Based on 1987 figure ... Not available.

Source: Bureau of Treasury, Department of Finance.

Table 8.6

SIZE OF WORKFORCE EMPLOYED BY THE PUBLIC SECTOR, 1980-1989

(in Thousands)

Year	National Government	Government Corporations	Local Government	Schools	Total Employed Pub. Sector	Total Labor Force
1980	519.1	111.6	144.8	322.0	1097.5	17268
1981	542.6	115.4	173.2	323.3	1154.5	18227
1982	554.6	117.9	177.0	330.5	1180.0	18585
1983	570.0	122.1	186.0	327.3	1205.4	19863
1984	627.1	134.4	189.9	359.4	1310.8[e]	20447
1985	634.4	132.2	198.2	356.9	1321.7[e]	21001
1986	655.2	136.4	204.7	368.6	1364.9[e]	21362
1987	675.9	140.8	211.2	380.2	1408.1[e]	22563
1988	1696.7	145.1	217.7	391.9	1451.4e[e]	23449
1989	717.4	149.5	224.2	403.5	1494.6[e]	24120

e Estimates.

Sources: 1986 Statistical Bulletin.
Civil Service Commission, Philippines.
Office of Planning and Management.
Personnel Research and Statistics Division, Department of Labor and Employment.

More specifically the role of the public sector, as enunciated in the Medium-Term Philippine Development Plan for 1987-1992, is to promote regional development to reduce poverty, increase productivity, and maintain peace and order in the countryside.[8] To reduce poverty and increase productivity, the Government encouraged an employment-oriented and rural-based strategy for development. In 1986, the Government launched a Community Employment and Development Program which enhanced employment levels through the construction of labor-intensive infrastructure projects such as feeder roads, irrigation systems, school buildings and rural water supply. The dispersal of industries in the region veered toward the growth of cottage, small- and medium-scale industries which matched the agricultural base of the regions. Inevitably, the maintenance of peace and order in the countryside becomes an important ingredient to the attainment of regional development.

The Government's infrastructure program which likewise contributes to the creation of employment opportunities encompasses the provision of physical facilities such as transport (highways, ports, airports, railways, carrier fleet), water resources (irrigation, flood control, drainage, shore protection, water supply, sewerage and sanitation); social infrastructure (school buildings, health facilities); communications, provision of power, electrification and energy; and, its development as well.

Agriculture and industry are perceived to be the areas that would provide greater employment opportunities and regional development. Along this line, reforms are to be pursued to improve agricultural production, strengthen market support systems through rural market infrastructures and to promote market development and organization, other support services and facilities. Agrarian reform continues to be implemented with the passage of Republic Act No. 6389 which made the program more comprehensive.

Linkages between trade and industry with the agricultural and natural resources are sought to be improved. Other strategies for the promotion of industry and trade by the Government include export development and promotion, sectoral development programs and international economic cooperation. The development of the tourism industry

8. Ibid., pp. 11-79.

is likewise a concern of the Government for it helps generate foreign exchange for the economy. Private sector participation in the regions is largely encouraged.

In addition, the Government plays a supportive role in improving the quality of education and training, in improving the health and nutritional status of the population, and in widening the accessibility of homeownership to the majority of the population.

Viewed from another angle, the expenditures of the public sector, including public investment, as a proportion of current Gross Domestic Product in 1977-1989 averaged 10 percent and helped increase the GDP. A functional classification of the annual average expenditures of the National Government for the period 1976-1985 would indicate that 33.9 percent was allocated to economic services particularly to utilities and infrastructure.[9] It is envisaged that for the medium-term period expenditures for social services would rise. An increasing proportion for debt service and net lending by the Government would undoubtedly limit the capability of the Government to promote economic development (Table 8.7).

II. The Public Sector Deficits

2.1 Overall Trends in Public Sector Revenue, Expenditure and Deficit

An indicative trend of the consolidated public sector revenue, expenditures and deficit is presented in Table 8.8.

Total revenue rose from ₱ 44 billion in 1977 to ₱ 132 billion in 1983 or from a revenue to GDP ratio of 28.4 percent in 1977 to 34.3 percent in 1983 (Chart 8.1). During the crisis years 1984-1986, however, the ratio of revenue to GDP dropped to less than one-third of GDP and was sustained at this level in 1988 and 1989. Meanwhile, the ratio of concolidated public sector revenue effort by almost 4 percent of GDP in 1981 and 1982. It was during this period of the mid-1970s and the early 1980s when the Government embarked on an expanded invetment expenditure program in order to stimulate the economy after the

27. Ibid., p. 372.

Table 8.7

FUNCTIONAL CLASSIFICATION OF NATIONAL GOVERNMENT EXPENDITURES, 1976-1992

(Percentage distribution)

	Actual Annual Average 1976-1985	**Annual Average 1982-1992**
Economic Services	***33.9***	***25.1***
Agriculture	7.3	6.8
Industry, trade and tourism	3.1	2.5
Utilities and infrastructure	23.5	15.8
Social Services	***20.2***	***30.1***
Education	12.3	15.0
Health	3.9	6.3
Social security and welfare	2.1	6.2
Housing and community development	1.9	2.7
Defense	14.0	8.1
General Public Services	20.0	12.9
Debt Service Fund and Net Lending[1]	11.9	23.9
Total:	***100.0***	***100.0***

1 For 1987 onwards, this item includes a portion of the external liabilities of government financial institutions to be assumed by the national government. Excludes debt service on liabilities of the Philippines Nuclear Power Plant.

Source: Medium-Term Philippine Development Plan, 1987-1992, p. 372, November 1986.

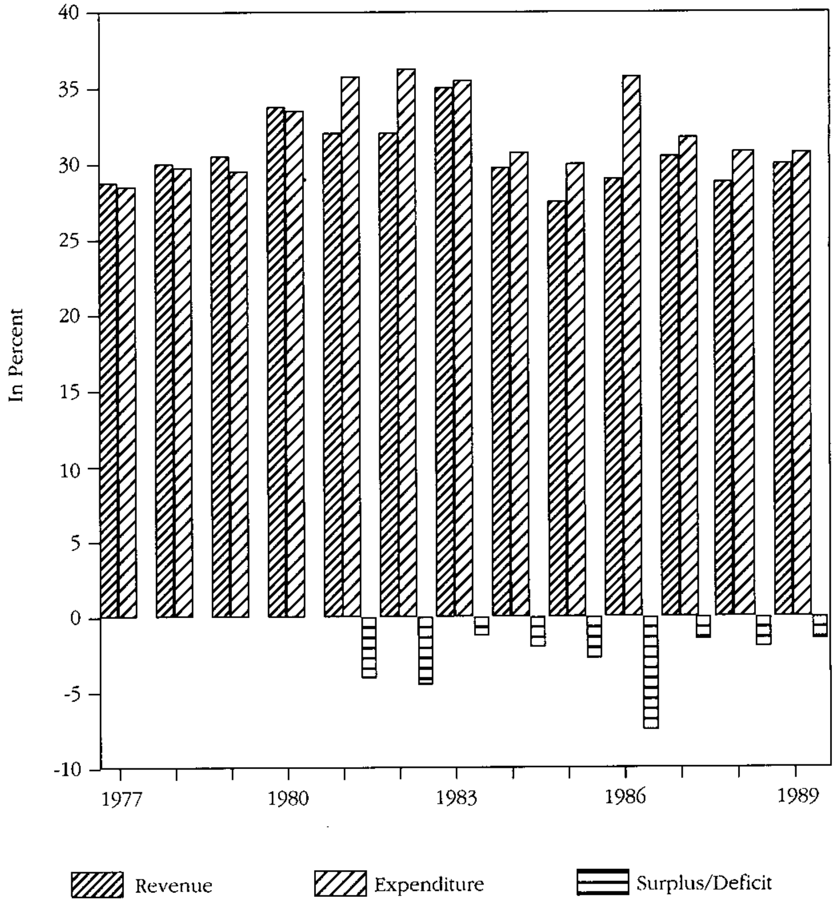
Table 8.8

OVERALL TRENDS IN PUBLIC SECTOR REVENUE, EXPENDITURE AND DEFICIT

Year	Total Revenue		Total Expenditure		Surplus/(Deficit)	
	Pesos B	% to GDP	Pesos B	% to GDP	Pesos B	% to GDP
1977	43.8	28.4	43.7	28.3	0.1	0.1
1978	53.2	30.0	52.7	29.7	0.5	0.3
1979	66.0	30.4	63.1	29.0	2.9	1.3
1980	89.6	33.9	89.1	33.7	0.5	0.2
1981	98.1	32.1	108.5	35.6	(10.4)	(3.5)
1982	109.9	32.3	122.6	36.0	(12.7)	(3.7)
1983	131.8	34.3	135.2	35.2	(3.4)	(0.9)
1984	155.7	28.8	167.0	30.9	(11.3)	(2.1)
1985	167.1	27.3	181.6	29.6	(14.5)	(2.3)
1986	180.3	28.8	225.3	35.9	(45.0)	(7.1)
1987	219.9	31.0	231.0	32.6	(11.1)	(1.6)
1988	232.0	28.1	248.3	301	(16.3)	(2.0)
1989	277.2	28.8	288.4	29.9	(11.2)	(1.1)

Chart 8.1

REVENUE, EXPENDITURE AND DEFICIT*
(Percent to GDP) 1977-1989



* Public Sector

deflationary impact of the oil price increases in the late 1970s. In the succeeding years 1983-1985, the deficit ratio to GDP was reduced to 1 to 2 percent. In 1986, however, the ratio of public sector deficit to GDP was quite high at 7 percent of GDP as the National Government (which accounted for a share of 5 percent of GDP) increased its operating expenditures and net lending to government enterprises. This was also the year when a snap election in the country was held, and organizational changes in the Government took place with the restoration of democratic processes in the country. In 1987-1989, the deficit ratio to GDP was substantially reduced to 1 to 2 percent of GDP in view of the constraints in revenue resources.

2.1.1 National Government

The National Government accounted for an average share of 43 percent of consolidated public sector revenues for the years 1977-1989. Meanwhile, the average share of National Government expenditures was 48 percent.

From ₱ 20 billion in 1977, total revenues of the National Government increased to ₱ 155 billion in 1989 at an average annual rate of growth of 18 percent (Table 8.9). The annual growth in revenue averaged 13.5 percent in 1977-1982, rose by a higher 21.3 percent in 1983-1985, and further increased by 23.4 percent in 1986-1989. The tax revenue to GDP ratio likewise improved from 11.0 percent in 1977 to 12.7 percent in 1989, but dropped in 1984 to 9.4 percent as the economy suffered a balance of payments problem. Revenues of the National Government comprised mainly of taxes which made up 79 percent of total in 1989, while non-tax revenues accounted for a share of 21 percent. Taxes from domestic sources continually increased their share from 53 percent of total revenues in 1977 to 54 percent in 1989. Meanwhile, taxes on international trade and transport declined from 31 percent in 1977 to 25 percent in 1989. A substantial proportion of domestic taxes came from net income and profits (of individuals, non-corporate business and corporations) at 24 percent as well as from excise taxes (specific taxes on certain domestically produced and imported goods) at 16 percent in 1989. Import duties or tariffs on imports at 25 percent of total revenues accounted for the major share of external trade taxes (Table 8.10).

Historically, the growth of excise taxes and sales taxes was comparable with that on net income and profits. In 1986-1989, there was a marked improvement in collections from net income and profits;

Table 8.9

NATIONAL GOVERNMENT CASH OPERATIONS[1]

For the Periods Indicated (in Pesos Million)

Item	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Revenues	16856	18089	19959	24073	29470	34731	34600	38206	46641	57927	68184	79245	103214	112861	155259
Current Revenues	16856	18089	19959	24073	29470	34731	34600	38206	46641	57927	68184	79245	103214	112861	155259
Tax	13753	15327	16955	20445	25956	30533	30062	33800	39848	50895	60476	65491	85923	90352	122365
Non-Tax	3103	2762	3004	3628	3514	4198	4538	4406	6793	7032	7708	13754	17291	22509	32894
Total Expenditures	18259	20438	22811	26240	29812	38118	46745	52610	53063	66252	79933	113673	122576	137282	174425
Current Operating Expenditure	14696	15798	17719	19260	20608	24516	25056	30980	34522	42873	55275	72312	97159	..	..
Operating expenditure	13386	14370	16037	17341	17580	20692	21083	25043	26923	29688	37104	47785	55849	..	..
Interest payments	624	743	898	1136	1841	2296	2429	3560	4996	10409	14652	20953	37006	45155	56791
Allotments to local government	686	685	784	753	1187	1528	1544	2377	2603	2776	3522	3574	4304	4360	5235
Capital Expenditure	3441	4540	5047	6772	8351	12927	20760	19412	16148	19630	23149	26358	16510	..	..
Infrastructure	2100	2694	2358	3649	4274	7346	9973	7538	6945	6261	5505	10064	7216	..	..
Other capital outlays	-	-	465	685	679	1059	2707	2506	3464	3525	3291	3958	4881	..	..
Equity contribution	1341	1846	2224	2438	3398	4522	8080	9368	5739	9844	14353	12336	4413	..	..
Net Lending	122	100	45	238	853	675	929	2218	2393	3749	1509	15003	8907	..	..
Overall Surplus/Deficit (-)	-1403	-2349	-2852	-2167	-342	-3387	-12145	-14404	-6422	-8325	-11749	-34428	-19362	-24421	-19166
Financing	1403	2349	2852	2167	342	3387	12145	14404	6422	8325	11749	34428	19362	24421	19166
Financing: Domestic	1149	2299	2606	57	-2843	983	6153	9807	985	6435	12503	30689	18839	21950	15404
Net domestic borrowing	1180	1396	2195	1961	662	2126	9474	7914	3623	15756	13317	30224	37160	39330	31560
- Gross domestic borrowing	1432	1687	2702	2651	1322	1939	11635	10029	6655	16853	15779	34612	58618	47339	37210
Less: Payments	252	291	507	690	660	-187	2161	2115	3032	1097	2462	4388	21458	8009	5650
Use of cash balances	-31	903	411	-1904	-3505	-1143	-3321	1893	-2638	-9321	-814	465	-25321	-17380	-16520
Financing: Foreign	254	50	246	2110	3185	2404	5992	4597	5437	1890	-754	3739	7523	2471	4126
- Gross borrowing	390	176	790	2523	3681	3054	6724	5388	7685	5069	3704	9959	15420	15133	20790
Less: Amortization	136	126	544	413	496	650	732	791	2248	3179	4458	6220	7897	12662	16664

1 Per COA classification. p Preliminary.

Sources: BTR, DOF.

Table 8.10

TAX AND NON-TAX REVENUE GENERATION, NATIONAL GOVERNMENT, 1975-1989

(in Million Pesos)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Revenue	16856	18089	19959	24073	29470	34731	34600	38206	46641	57927	68184	79245	103264	112861	155259
A. Tax Revenue	13753	15327	16955	20441	25956	30533	30062	33800	39848	50895	60476	65491	85973	90352	122365
1. Domestic-Based	6891	9156	10672	12610	16477	18901	20294	21647	23326	33139	42032	47640	59699	64772	83512
a. Net Income & Profit	3071	3648	4089	5474	6194	7270	9614	8406	9056	12916	17878	19148	21799	27409	37573
b. Excise Taxes	1801	2965	3431	4109	5595	5942	6215	6611	7394	11432	14024	16386	22691	19597	24857
c. Sales Taxes & Licenses	1300	1579	2280	2360	4082	4993	3636	5632	5712	7360	8654	10276	13252	13638	17242
d. Other Domestic Taxes	719	964	872	667	606	696	826	998	1164	1431	1476	1833	1957	4128	3840
2. International Trade & Transportation	6862	6171	6283	7831	9479	11632	9771	12153	16522	17756	18444	17851	26274	25580	38853
a. Import Duties & Taxes	5391	5608	5685	7392	8742	11166	9428	11809	16225	15448	15785	16859	25977	25011	38316
b. Export Taxes	1471	563	598	439	737	425	304	287	263	1737	997	637	15	3	-
c. Other Taxes	-	-	-	-	-	41	41	57	34	571	1662	355	282	566	537
B. Non-Tax Revenues	3103	2762	3004	3632	3514	4198	4538	4406	6793	7032	7708	13754	17291	22509	32894

Source: Bureau of Treasury, Department of Finance.

while the growth in export taxes declined in 1985-1988 as inflows were largely dependent on favorable trade developments abroad.

A study on the revenue performance of the National Government taxes in 1975-1985 by Rosario Manasan and Rosario Querubin of the Philippine Institute for Development Studies (1986) revealed that the responsiveness of tax revenue to automatic changes in economic activity and tax administration was quite low at 0.25.[10] A higher tax buoyancy coefficient at 0.88 was observed implying that changes due to discretionary tax measures had been much more contributory to revenue generation than to changes in economic activity.[11]

Other findings of the study reveal that:

(1) With regard to domestic revenues, the corporate income tax proved to be elastic with respect to economic activity. On the other hand, the individual income tax was not responsive indicative of inefficient tax administration. Taxes on domestic goods and services (excise taxes, license and sales taxes, and others) were likewise inelastic to changes in GNP so that tax measures apparently contributed more to the growth in revenues.

(2) In the case of taxes on international trade, import taxes were not responsive to real GNP, and neither were import taxes with respect to total imports. Nonetheless, imports, which represent the tax base, were quite elastic with the GNP. A lowering of tariff rates since 1981 and the import liberalization program contributed to the growth in imports which accounted for a substantial share of taxes on international trade. Export taxes were responsive to the tax base and to GNP. Tax elasticity seemed to increase over time due to higher export and premium duties imposed since 1980.
Expenditures of the National Government which made up an average share of 48 percent of the consolidated public sector expenditures virtually exceeded the revenues of the Government in all observation periods. In 1977, total expenditures

10. Rosario G. Manasan and Rosario G. Querubin, *"Revenue Performance of National Government Taxes, 1975-1985"*, Philippine Institute for Development Studies, Staff Paper no. 8701, 1986, p. 48.

11. Ibid.

of the National Government rose from ₱ 22.8 billion to ₱ 174.4 billion in 1989. The average growth rate of National Government expenditures in 1977-1985 was 16.6 percent, while in 1986-1989 the average growth rate accelerated to 22.2 percent. As a ratio to GDP, National Government expenditures decreased from 14.8 percent in 1977 to 12.3 percent in 1984, then progressively rose from 13 percent in 1985 to 18.1 percent in 1989. In another study of Rosario Manasan on the "Analysis of Public Sector Expenditures, 1975-1985", it was established that total expenditures on a cash basis was highly responsive to changes in real GNP but not to price changes.[12]

Current operating expenditures of the National Government accounted for 78 percent of total expenditures in 1977 then dropped to 65 percent in 1984 during the crisis period, and rose again to 79 percent in 1987 under the new Government (Table 8.11 and Chart 8.2: Data for 1988 and 1989 are not available). The two major components of current operating expenditures were personal services which averaged 26 percent of total expenditures in 1975-1985, and maintenance and other expenditures (excluding interest payments, subsidy, allotments to local governments) which averaged 29 percent during the same period.[13] Quite notable was the tremendous rise in interest payments from a share of 3.9 percent of total expenditures in 1977, 15.7 percent in 1984, to a big share of 30 percent in 1987 and 32.6 percent in 1989. This could be attributed to the growing debt burden of the National Government, rising interest payments and foreign exchange risk on large outstanding foreign debt which the Government incurred in the past, as well as on short-term domestic debt especially Treasury bills. Meanwhile, percentage allotments of local governments generally remained stable.

Capital expenditures on the other hand reflected a share to total expenditures at 22 percent in 1977, rising to 44.4 percent in 1981, then declined significantly to 29.6 percent in 1984, and further dropped to 13.5 percent in 1987 (Chart 8.3: Data for 1988 and 1989 are not available). This was expected since the Government had to observe fiscal discipline by limiting its public sector deficits and borrowings as indicated under the financial and economic program of the country.

12. Rosario G. Manasan, *"An Analysis of Public Sector Expenditures, 1975-1985"*, Philippine Institute for Development Studies, Working Paper 87-05, Septembr 1987, pp. 25-26.

13. Ibid., p. 7.

Table 8.11

PERCENT SHARE TO TOTAL EXPENDITURE OF THE NATIONAL GOVERNMENT

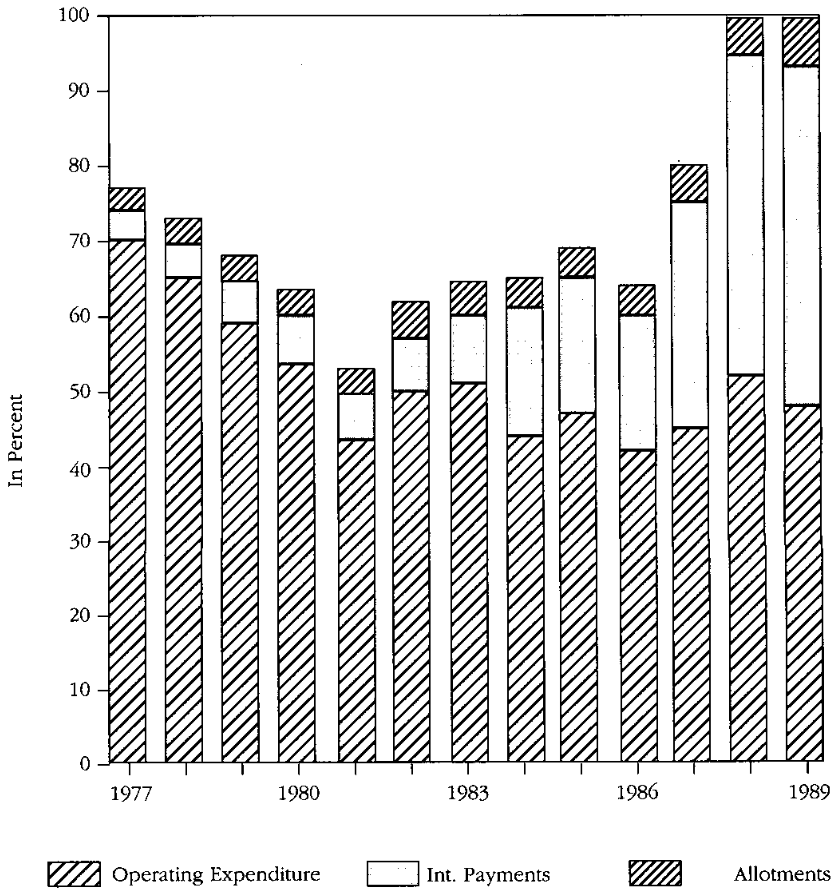
(in Percent)

Item	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Expenditure	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
A. Current Operating Exp.	80.5	77.3	77.7	73.3	69.1	64.3	53.6	58.9	65.1	64.7	69.2	63.6	79.3	..	..
1. Operating Expenditure	73.3	70.3	70.3	66.1	59.0	54.3	45.1	47.6	50.7	44.8	46.4	42.0	45.6	..	..
2. Interest Payments	3.4	3.6	3.9	4.3	6.2	6.0	5.2	6.8	9.4	15.7	18.3	18.4	30.2	32.9	32.6
3. Allotments to Local Govt.	3.8	3.4	3.4	2.9	4.0	4.0	3.3	4.5	4.9	4.2	4.4	3.1	3.5	3.2	3.0
B. Capital Expenditure	18.8	22.2	22.1	25.8	28.0	33.9	44.4	36.9	30.4	29.6	29.0	23.2	13.5	..	..
1. Infrastructure	11.5	13.2	10.3	13.9	14.3	19.3	21.3	14.3	13.1	9.5	6.9	8.9	5.9	..	..
2. Other Capital Outlays	-	-	2.0	2.6	2.3	2.8	5.8	4.8	6.5	5.3	4.1	3.5	4.0	..	..
3. Equity Contribution	7.3	9.0	9.7	9.3	11.4	11.9	17.3	17.8	10.8	14.9	18.0	10.9	3.6	..	..
C. Net Lending	0.7	0.5	0.2	0.9	2.9	1.8	2.0	4.2	4.5	5.7	1.9	13.2	7.3	..	..

Source: Bureau of Treasury, Department of Finance.

Chart 8.2

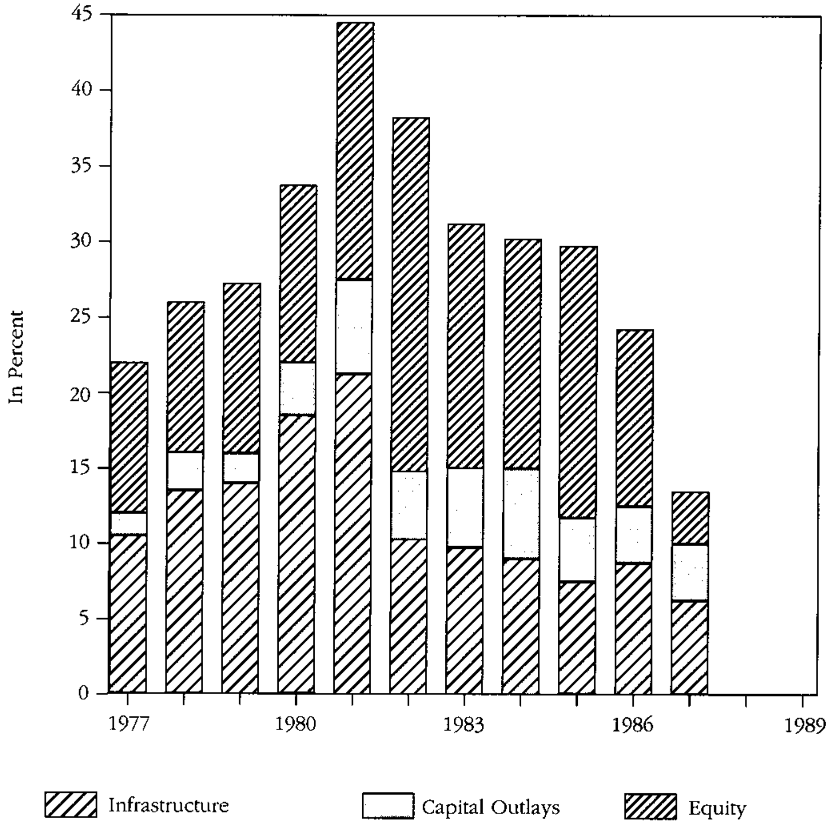
CURRENT OPERATING EXPENDITURE OF NG
(Percent Share to Total Expenditure)



Note: For 1988 and 1989, operating expenditures in 1987 were carried over.

Chart 8.3

CAPITAL EXPENDITURE OF NG
(Percent Share to Total Expenditure)



Note: Capital Expenditure of NG in 1988 and 1989 not available.

Infrastructure spending, which forms part of capital expenditures, increased from ₱ 2.4 billion in 1977 to a high ₱ 10.0 billion in 1981, or from a share to total expenditures of 10.3 percent in 1977 to 21.3 percent in 1981. Expenditures on utilities and infrastructure such as power, energy, water, transportation, and communication, substantially rose during the period. Nonetheless, their share to total expenditures decreased to 14.3 percent in 1982, down further to 5.9 percent in 1987. Expenditures in this area slowed down when the economy suffered a serious recession in 1983-1986.

Likewise equity contributions of the National Government rose from P 2.2 billion in 1977 to ₱ 9.4 billion in 1982, or from a share to total expenditures at 9.7 percent in 1977 to 17.8 percent in 1982, as the government corporate sector expanded its role in housing, energy and in other areas. In 1983, equity contributions declined to ₱ 5.7 billion then rose to ₱ 14.4 billion in 1985 or to a share of 18 percent of total expenditures, then decreased to ₱ 4.4 billion in 1987 or to a share of 3.6 percent. This was in line with the policy of the Government to reduce subsidies and rationalize government expenditures as well as promote the privatization of government enterprises. The rise in equity contributions to government corporations in 1985 was largely attributed to allocations to government financial institutions which were involved in the financial rescue of distressed corporations. Net lending expenditures of the National Government were also indicative of the mounting allocations to government corporations. From a share of 0.2 percent of total expenditures in 1977 net lending increased to a share of 13.2 percent in 1986, but declined to 7.3 percent in 1987.

By obligation or accrual basis, the annual average expenditures of the National Government in 1976-1985, was allocated primarily to economic services which shared 33.9 percent of total expenditures distributed as follows: agriculture, 7.3 percent; industry, trade and tourism, 3.1 percent; and, utilities and infrastructure, 23.5 percent. Social services garnered a share of 20.2 percent of total expenditures, while education garnered 12.3 percent, health 3.9 percent, social security and welfare, 2.1 percent, and housing and community development, 1.9 percent. Defense expenditure averaged a share of 14 percent, general public services, 20 percent, and debt-service fund and net lending, 11.9 percent. Over the medium term, an increasing share for social services shall be allocated, followed by economic services; while that for defense and general public services shall be reduced.[14]

14. *Medium-Term Philippine Development Plan, 1987-1992,* National Economic and Development Authority, November 1986, P. 372.

Table 8.12

TAX AND NON-TAX REVENUE GENERATION, NATIONAL GOVERNMENT, 1975-1989
(as Percentage of Total Revenue)

Item	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total Revenue	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
A. Tax Revenue	81.59	84.73	84.95	84.91	88.08	87.91	86.88	88.47	85.44	87.86	88.70	82.64	83.26	80.06	78.81
1. Domestic-Based	40.88	50.62	53.47	52.38	55.91	54.42	58.64	56.66	50.01	57.21	61.64	60.12	57.81	57.39	53.79
a. Net Income & Profit	18.22	20.17	20.49	22.74	21.02	20.93	27.79	22.00	19.42	22.30	26.22	24.16	21.11	24.29	24.20
b. Excise Taxes	10.68	16.39	17.19	17.07	18.99	17.11	17.96	17.30	15.85	19.74	20.57	20.67	21.97	17.36	16.01
c. Sales Taxes & Licenses	7.71	8.73	11.42	9.80	13.85	14.38	10.51	14.74	12.25	12.71	12.69	12.97	12.83	12.08	11.11
d. Other Domestic Taxes	4.27	5.33	4.37	2.77	2.06	2.00	2.39	2.61	2.50	2.47	2.16	2.31	1.90	3.66	2.47
2. International Trade & Transportation	40.71	34.11	31.48	32.53	32.16	33.49	28.24	31.81	35.42	30.65	27.05	22.53	25.44	22.67	0.02
a. Import Duties & Taxes	31.98	31.00	28.48	30.71	29.66	32.15	27.24	30.91	34.79	26.67	23.15	21.27	25.16	22.16	24.70
b. Export Taxes	8.73	3.11	3.00	1.82	2.50	1.22	0.88	0.75	0.56	3.00	1.46	0.80	0.01	0.00	-
c. Other Taxes	-	-	-	-	-	-	-	-	-	0.99	2.44	-	-	0.01	0.35
B. Non-Tax Revenues	18.41	15.27	15.05	15.09	11.92	12.09	13.12	11.53	14.56	12.14	11.30	17.36	16.74	19.94	21.19

Source: Bureau of Treasury, Department of Finance.

When the country was in the throes of a financial and economic crisis in the mid-1980s, drastic monetary and fiscal adjustment measures were resorted to in order to avert a further deterioration of the economy. Fiscal restraint was the guiding expenditure policy. From ₱ 2.9 billion in 1977, the cash deficit of the National Government reached ₱ 19.2 billion in 1989, or as a ratio of current GDP from 1.9 percent to 2.0 percent over the same period. Higher cash deficit ratios of 4.0 percent in 1981 and 1982 and 5.5 in 1986 were observed. Expenditures on infrastructures and capital formation were encouraged to put the economy back on its feet again and disbursement schemes were implemented to facilitate the financing of projects. But a major constraint to infrastructure spending persisted due to substantial shares of interest payments on foreign and domestic debt and on principal amortizations.

2.1.2 Public Sector Enterprises

Trends in the revenue and expenditures of public sector enterprises would at best be merely indicative of the operations of such entities in view of the deficiencies in the available data. On the average the public sector enterprises accounted for about 52 percent of consolidated public sector revenues and about 47 percent of consolidated public sector expenditures in 1977-1989. From 48 percent in 1977, the share of government corporate revenue to total public sector revenue rose to 60 percent in 1983 or from a share to GDP of 13.7 percent to 20.4 percent (Table 8.5). This declined subsequently to 16.8 percent of GDP in 1984 in tandem with the economic recession of the mid-1980s, and to 15.1 percent in 1987. The latest published data available show that the income of government-owned and controlled corporations increased from ₱ 21 billion in 1977 to ₱ 75 billion in 1987 (Table 8.13: Data on income and expenses of government-owned and controlled corporations in Table 8.13 do not jibe with Table 8.5 data due to the exclusion of the income and expenses of additional corporations audited.). Financial corporations accounted for the big income share at 29 percent of total revenues of government-owned and controlled corporations in 1987, followed by the infrastructure and public utilities which shared 22 percent. Additional corporations, many of them subsidiaries of the government corporations, which were audited during the year, likewise contributed a large share to revenues at 30 percent. Lower shares were accounted for by the industrial and area development corporations at 12.7 percent, agricultural, trading and promotional corporations at 3.8 percent, and educational, social and cultural, scientific, civic and research organizations at 2.2 percent.

Table 8.13

CONSOLIDATED INCOME STATEMENT, 1977-1987
GOVERNMENT-OWNED AND CONTROLLED CORPORATIONS, PHILIPPINES

(in Pesos Million)

Item	1977	1978	1979	1980	1981	1982	1983	1984	1986[a]	1987[b]
TOTAL INCOME	21184	26119	32894	50332	58381	65740	78479	90603	65630	74996
Less: TOTAL EXPENSES	18260	23471	29687	46454	56702	64236	75631	93163	74990	67080
A. Current Operating Expenses	16740	22175	27827	44780	54623	63498	75544	92321	74666	66940
1. Personal Services	1182	8667	2025	2349	2946	3202	2630	3372	4418	5130
2. Cost of Sales/Production	8573	4658	12651	26368	29596	28356	34804	33394	9043	15117
3. Interest Expense[1]	2315	3371	5015	7629	12734	16089	17253	30204	23693	13903
4. Others	4670	5479	8136	8434	9347	15851	20857	25351	37512	32790
B. Capital and Equipment Outlay	972	1228	1714	1613	2079	661	42	780	18	62
C. Subsidies	548	68	146	61	0	77	45	62	306	90
NET INCOME BEFORE INCOME TAX (LOSS)	2924	2648	3207	3878	1680	1504	2848	(2560)	(9360)	7917
PROVISION FOR INCOME TAX	83	264	235	64	47	49	67	80	208	388
NET INCOME AFTER INCOME TAX (LOSS)	2841	2384	2972	3814	1633	1455	2781	(2640)	(9568)	7529
Add: SUBSIDY from NATIONAL GOVERNMENT	-	-	-	2	2512	2251	1790	2032	1462	1340
NET INCOME (LOSS) + SUBSIDY	2841	2384	2972	3814	4145	3706	4571	(608)	(8106)	8869

1 Includes interest expense on loans and deposits; 1985 data not available; latest available data is 1987.
a 1985 data not available
b Latest available published data.
Note: Data do not jibe with Table 1.5 due to excluded data on additional government corporations audited.

Sources: Summary Annual Audit Reports on Government-Owned and Controlled Corporations Annual Financial Reports, Government-Owned and Controlled Corporations Corporate Audit Office, Commission on Audit, Philippines.

Expenditures of government-owned and controlled corporations averaged about 47 percent in 1977-1987 of total expenditures of the consolidated public sector. As a ratio to GDP, expenses registered 11.8 percent in 1977, rose to a peak of 19.7 percent in 1983, then dipped to 13.9 percent in 1987 (Table 8.5). Of total expenses in 1987, 99.8 percent was allocated to operating expenses where interest expenses accounted for 20.7 percent of total expenses (Table 8.13). The growth of current operating expenses was comparatively high ranging between 22.1 percent to 56.5 percent in 1978-1981, but decelerated in 1982-1984, and eventually declined in 1986-1987 with the rationalization of public corporate expenditures and the privatization program of the Government.

The net income before government subsidy was continually positive from ₱ 2.9 billion in 1977 to ₱ 2.8 billion in 1983. In 1984-1986, losses were incurred from ₱ 2.6 billion in 1984 to ₱ 9.4 billion in 1986 (excluding additional government corporations and subsidiaries that were audited) arising from losses incurred by the financial corporations, industrial and area development corporations, and the agricultural, trading and promotional corporations. Losses were reversed to a positive net income of ₱ 7.9 billion in 1987 as non-performing assets of government-owned banks were transferred the prior year to the National Government, and as operations of major government corporations were monitored and rationalized. Subsidies received from the National Government in 1981-1987 ranged from ₱ 1 billion to ₱ 2.5 billion. Data from Table 8.9 show, however, a larger amount sourced from National Government equity contributions and net lending which rose from ₱ 2 billion in 1977 to ₱ 11 billion in 1982, and to higher amounts of ₱ 14 billion in 1984 to ₱ 27 billion in 1986 as absorption of non-performing assets of some government corporations by the National Government was implemented in the process of rationalizing public corporate expenditures. In 1977-1987, total financial assistance given to government-owned and controlled corporations (GOCCs) reached ₱ 179 billion which grew at an annual average of ₱ 17.9 billion or a share of 21 percent of the annual average expenditure of the National Government.[15]

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15. *1987 Annual Financial Report on Government-Owned and/or Controlled Corporations*, vol. II, Commission on Audit, Republic of the Philippines, P. 109.

In implementing major development projects of the National Government, GOCCs were allocated a certain share of the national budget in the form of capital investments, subsidies and advances for debt servicing of guaranteed and relent loans of the GOCCs. The growth of these entities in the past strained the national budget; and with their engagement in private sector enterprises, defaults on guarantees extended to private corporations by the GOCCs resulted in rising advances for debt servicing of relent and guaranteed loans.[16] To rationalize the role of the GOCCs and minimize expenditures of the National Government, reforms were initiated to privatize public corporations that directly compete with the private sector, the rescheduling of public corporate debts, and the abolition as well as merging of GOCCs performing similar and overlapping functions.[17] Two government bodies were charged with the function of implementing the privatization of the Government, namely, the Committee on Privatization and the Asset Privatization Trust. Assets which have been sold through public bidding consisted mainly of hotels, cement factories, textiles, sugar mills, and other construction and industrial companies and some financial institutions.[18]

For the 14 major nonfinancial government corporations, total receipts accounted for 62 percent of the income of audited government corporations in 1985 and declined to about 54 percent in 1989. As a ratio to GDP the revenue of the monitored public corporations was 9.2 percent in 1985, dropped to 7.0 percent in 1987, and down to about 6 percent in 1989. With regard to expenditures of these corporations, the ratio to GDP in 1985 was higher at 10.5 percent, 7.2 percent in 1987, and about 6.3 percent in 1989. Current expenditures accounted for 81 percent of total expenditures in 1985, and was reduced to 75 percent in 1989. Out of current expenditures interest payments comprised 24.5 percent in 1986 which diminished to 17.5 percent in 1989. In the case of capital expenditures, the share to total expenditures in 1989 was 25 percent compared to 19 percent in 1985. Internal cash generation improved from ₱ 4 billion in 1985 to ₱ 12 billion in 1989, while the deficit of the public corporations declined from ₱ 8 billion in 1985 to ₱ 3 billion in 1989. To some extent, this was an indication of the success of the Government in reducing the deficits of government corporations and in rationalizing their expenditures (Table 8.14).

16. Ibid., p. 110.
17. Ibid., p. 127.
18. Ibid., p. 129.

Table 8.14

STATEMENT OF FINANCIAL OPERATIONS OF MAJOR NON-FINANCIAL GOVERNMENT CORPORATIONS

(Pesos Million)

Item	1985	1986	1987	1988	1989
I. TOTAL RECEIPTS	56566.4	38662.8	49836.7	57816.8	57438.7
1. Operating receipts	50875.2	34632.6	44909.9	47565.4	53463.5
2. Other receipts	5691.2	4030.2	4926.8	10251.4	3975.2
II. CURRENT EXPENDITURES	52412.3	38290.6	43090.7	48256.4	45441.4
1. Operating expenses	39438.2	27101.8	31096.3	35314.8	31310.9
2. Other current expenses	12974.1	11188.8	11994.4	12941.6	14130.5
III. INTERNAL CASH GENERATION	4154.0	372.2	6746.0	9560.4	11997.3
IV. CAPITAL EXPENDITURES	12151.9	4727.2	7862.7	7290.7	15206.2
V. CAPITAL TRANSFER	-	1211.0	1362.0	-	-
VI. DEFICIT (-)/ SURPLUS (+)	-7997.9	-5566.0	245.3	2269.7	-3208.9
VII. FINANCING	7997.9	5566.0	-245.3	-2269.7	3208.9
VII. NET EXTERNAL FINANCING	-2372.5	-6217.1	318.5	-2902.7	2578.9
IX. NET DOMESTIC FINANCING	10730.4	11783.1	-563.8	633.0	630.0

Sources: Bureau of Treasury, Department of Finance.

2.1.3 Local Governments

In the case of local governments, total income was 1.7 percent of GDP in 1979 to 1.4 percent in 1985, and about 1.5 percent in 1989 (Table 8.5). Tax revenues accounted for 73 percent of total income in 1985, while borrowings accounted for 0.9 percent of total income. The ratio of their total expenditures to current GDP was 1.7 percent in 1979 then declined slightly to 1.4 percent in 1985. From 1987-1992, the target ratio is to reduce it to less than 2 percent of GDP. The revenue ratio meanwhile is to be maintained at 2 percent. On the basis of 1985 data, the distribution of local governments' expenditures were as follows: 44 percent for personal services; 42 percent for maintenance and other operating expenses; and, 14 percent for capital outlays. With regard to their deficits, local governments appeared to be operating on balance, although there is a perennial need for more funds and support from the National Government. Over the medium term, the allocation to local governments shall rise especially for capital expenditures in view of their strategic role in promoting regional development (Table 8.15).

2.2 Causes of Public Sector Deficits

In analyzing and in pointing out the causes of the deficits of the public sector the approach taken is to view them from the economic and institutional reasons, and by pointing out at the same time whether the primary contributory sector was the National Government, the public sector enterprises, or the local governments.

Perhaps the major cause of public sector deficit was the unsustainable expansion in government expenditures despite the lack of government revenues. A consolidated public sector deficit was noted since 1981 onwards attributed mainly to the National Government, the sector which continuously recorded deficits in 1977- 1989, and to the public sector enterprises in 1983-1986 (Tables 8.9 and 8.13).

Cash deficits of the National Government rapidly expanded in 1977-1982 at a time when National Government revenues as a ratio to GDP dwindled. This resulted in a consolidated public sector deficit of 3.5 percent of GDP in 1981 to 3.7 percent in 1982. A heavy infrastructure outlay program which required substantial foreign funds was undertaken by the National Government in the late 1970s and early 1980s as a counter-cyclical measure to the recession spawned by the oil crisis. Several studies implied however, that financing

Table 8.15

EXCESS INCOME AND EXPENDITURES OF LOCAL GOVERNMENT, 1979-1989

(In Pesos Million)

Item	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
TOTAL INCOME	3686.9	4573.3	5101.9	5929.1	6699.7	7348.5	8510.2	7400.0	9800.0	12200.0	14800.0
Tax Revenue	2682.0	3280.6	3804.6	4501.1	5040.4	5454.0	6198.4	-	-	-	-
Operating & Misc. Revenue	586.8	638.2	752.2	879.2	1052.4	1204.9	1430.7	-	-	-	-
Capital Revenue	7.2	6.7	7.2	9.8	11.8	5.1	15.3	-	-	-	-
Grants	332.2	368.0	424.2	459.5	451.9	524.9	747.8	-	-	-	-
Extraordinary Income	7.1	7.3	9.6	11.8	16.1	10.7	38.8	-	-	-	-
Borrowings	71.6	272.5	104.1	67.7	127.1	148.9	79.2	-	-	-	-
TOTAL EXPENDITURES	3590.5	4490.0	5091.7	5712.8	6544.9	7616.3	8508.0	7700.0	10000.0	12600.0	15500.0
Personal Services	1311.0	1664.9	2001.4	2358.0	2600.0	3100.6	3732.4	-	-	-	-
Maintenance & Other Operating Expenses	1633.8	1871.3	2214.9	2393.7	2756.3	3312.1	3569.0	-	-	-	-
Capital Outlays	645.7	953.8	875.4	961.1	1188.6	1203.6	1206.6	-	-	-	-
EXCESS OF INCOME OVER EXPENDITURE	96.4	83.3	10.2	216.3	154.8	-267.8	2.2	-300.0	-200.0	-400.0	-700.0
SURPLUS/DEFICIT RATIO TO GDP (%)	0.04	0.03	0.003	0.06	0.04	-0.05	-	-0.05	-0.03	-0.05	-0.07

a Estimates based on Philippine Medium-Term Development Plan, 1986.

Sources: COA Report on Local Governments Commission on Audit, Philippines.

of the National Government deficit through massive public sector foreign debt (which reached a gross outstanding amount of $14.4 billion as of end-1982 from $3.7 billion as of end-1977) contributed to the economic crisis in 1983-1985.[19] Capital expenditures rose from 22 percent of total National Government expenditures in 1977 to 44.4 percent in 1981 and to 36.9 percent in 1982 attributable not only to increased infrastructure spending but also to wider equity contribution and net lending to GOCCs (Table 8.11). It is to be pointed out however that in 1977-1980, a consolidated public sector nominal surplus was reflected as the net income of government corporations more than covered the National Government deficits (Table 8.5).

In 1983, the cash deficit to GDP ratio of the consolidated public sector dropped to 0.9 percent. The deficit was again traceable to the National Government. The deficit ratio rose to 2.1 percent in 1984, 2.3 percent in 1985 and to a huge 7.1 percent in 1986 both due to deficits incurred by the National Government and government-owned and controlled corporations. Operating expenditures of the National Government increased to a bigger share of total expenditures ranging between 65 percent to 69 percent over the period 1983-1986 (in comparison with the 1981-1982 figures of 54 and 59 percent) as domestic inflation accelerated from 10 percent in 1983 to 50 percent in 1984 and 23 percent in 1985. During the period, tight monetary policies including the devaluation of the Philippine peso were undertaken to contain aggregate demand as a result of the balance of payments crisis. As part of operating expenditures interest payments on foreign and domestic debt increased from a share of 6.8 percent of total National Government expenditures in 1982 to 18.4 percent in 1986 (Chart 8.2). During the period, open market operations through the sale of high-yielding Treasury bills and Central Bank Certificates of Indebtedness were resorted to in order to mop up excess liquidity and help contain inflation. Even as the percentage share of infrastructure spending by the National Government further decreased from 14 percent in 1982 to 9 percent in 1986, equity contributions increased from 11 percent in 1983 to 18 percent in 1985 and net lending from 4.5 percent in 1983 to 5.7 percent in 1984 (Chart 8.3). Net lending of the National Government swelled to a percentage share of 13 percent to total expenditures in 1986 from 1.9 percent in 1985 as financial assistance to govern-

19. Paper on *"An Analysis of the Philippine Economic Crisis"*, University of the Philippines, 1985, p. 21.

ment corporations rose further. The restructuring and rehabilitation of two major government-owned banks required likewise the disposition of the non-performing assets of the government financial institutions through the Asset Privatization Trust and the assumption by the National Government of their major obligations. In addition, the National Government serviced the assumed liabilities of government corporations such as the National Power Corporation when the Philippine Nuclear Power Plant's outstanding foreign and domestic loans were transferred to the National Government.[20] Amortizations on domestic and foreign debt continually rose further straining the budgetary deficit.

In the case of government corporations, huge losses were incurred in 1984-1986 primarily reflected by government financial institutions, agricultural trading corporations and industrial and area development corporations. During these crisis years, government financial institutions (GFIs) experienced loan collection and liquidity problems, not only due to previously given credits to distressed private corporations in 1981-1982, but also to the inability of the other major borrowers to pay their debts in the wake of a serious decline in economic activity. Liquidity problems of the GFIs were compounded by high domestic interest rates and the devaluation of the peso-dollar rate which made payments of domestic and external debt arrears of public and private borrowers more difficult. Loans of agricultural trading corporations and industrial and area development government corporations were likewise tied up with the fall in economic growth, but perhaps beyond this, losses would be attributable to the non-profit or service orientation of these corporations, poor self-financing performance and over-reliance for financial assistance from the National Government.

In 1987-1989, the National Government again accounted for the continued deficits of the consolidated public sector which reflected lower cash deficit ratios to GDP of 1.6 percent in 1987, 2.0 percent in 1988 and 1.1 percent in 1989 (government corporations audited by the Philippine Commission on Audit during the period reflected an overall net income position). One major factor contributing to the National Government deficit during the period was the rising debt-service payments of the public sector on cumulative foreign debt availed of since the late 1970s and early 1980s, as well as interest payments on domestic debt attributable to expanded open market sale of high-

20. *1987 Annual Financial Report on Government-Owned or Controlled Corporations,* Commission on Audit, Republic of the Philippines, p. 127.

yielding Treasury bills to finance budgetary deficits. Interest payments rose from a share of 18 percent of total expenditures in 1986 to 30 percent in 1987 and 33 percent in 1988 and 1989. Amortizations on domestic debt similarly increased from ₱ 4 billion or 0.7 percent of GDP in 1986 to ₱ 21 billion (3 percent of GDP) in 1987, ₱ 8 billion (1 percent of GDP) in 1988 and ₱ 6 billion (0.6 percent of GDP) in 1989; while payments on foreign debt rose from ₱ 6 billion (1.0 percent of GDP) in 1986 to ₱ 17 billion (1.7 percent of GDP) in 1989 (Table 8.9).

Another primary reason for government deficits incurred during the last three years would be the rising share in personnel services expenditures under current operating expenses. An upward adjustment in minimum wages and the standardization of government salaries were undertaken. While these moves were long overdue, they tended to upset budgetary allocations and contributed to budgetary deficits. It may be pointed out however, that the consolidated public sector deficit ratio to GDP declined from 1987-1989 with the improvement in the overall income position of government corporations and the drop in net lending and equity contributions of the National Government.

Aside from expenditure-related reasons, public sector deficits were likewise incurred due to the lack of government revenues. A study by Manasan showed that revenue collection effort, especially on individual incomes and on domestic goods, was not responsive to changes in economic activity and that the introduction of new tax measures contributed more to the growth in revenue. This was indicative of poor tax administration.[21] In addition, low and negative real GNP growth rates during the crisis years adversely affected export receipts. Another related reason would be revenue leakages through tax exemptions and privileges accorded to investors. In less developed regions, revenues of local governments would in many cases be inadequate hence, the continuous need for financial support from the National Government.

Equally important in discussing the deficit of the public sector would be the institutional dimensions of the causes of such budgetary deficits. Foremost would be the lack of monitoring systems on public sector performance with respect to expenditures and financing which partly led to a rise in the number of government corporations and the

21. R. Manasan and R. Querubin, *Revenue Performance of National Government Taxes, 1975-1985*, Staff Paper no. 8701, Philippine Institute for Development Studies, p. 26.

accelerated growth in public capital expenditures. In the mid-1980's, the Government Corporate Monitoring and Coordinating Committee was created to oversee the expenditure programs and sources of financing of a selected number of non-financial government corporations.

Again, on the part of the Government itself, another contributory factor would be the adoption of inadequate management and operational policies which overlooked the need to lessen dependence on external funds. The failure or lack of capability to provide self-financing of debt-servicing requirements eventually proved inimical to the smooth operation of any public enterprise. The bureaucratic nature of government entities and corporations as well as the lack of independent powers for professional decision-making and spending likewise tended to stifle efficiency and creativity in the management and operation of such entities. In short, the philosophy, ethical standards and integrity as well as firmness of political and economic leadership that would effectively guide the overall management and operation of Government and its enterprises appeared to be wanting.

2.3 Financing the Deficits of the Public Sector

Due to the lack of available data on financing the deficits of the consolidated public sector, the discussion in this section would be limited to the National Government and the 14 monitored non-financial government corporations. Data on gross internal and external public debt would nonetheless be presented to show the extent of financing the deficits of local governments and other government corporations.

The cash deficit of the National Government ranged between P 2.8 billion in 1977 to a high ₱ 34.4 billion in 1986 to ₱ 19 billion in 1989. Expressed as a ratio to GDP, the cash deficit varied from 1.9 percent in 1977 to 4.0 percent in 1981 and 1982, 5.5 percent in 1986 and 2.0 percent in 1989 (Table 8.5). The National Government financed its deficit mainly through domestic funds from domestic borrowings and use of cash balances. The latter refers to either net additions (reflected as a negative sign) to outstanding cash balances, or net withdrawals (reflected as a plus sign) from outstanding cash balances of the Government (Tables 8.9 and 8.16 & Charts 8.4 and 8.5). In 1977, the proportion of domestic financing to total financing was 91.4 percent or ₱ 2.6 billion, then declined to a share of 15.3 percent in 1983, which eventually rose to higher shares ranging between 61 percent and 106 percent within the years 1984-1989. The amount financed varied from ₱ 6.4 billion to a high ₱ 22 billion. In contrast, foreign

Table 8.16

FINANCING OF THE DEFICIT OF THE NATIONAL GOVERNMENT

Item	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Financing (Pesos M)	***1403***	***2349***	***2852***	***2167***	***342***	***3387***	***12145***	***14404***	***6422***	***8325***	***11749***	***34428***	***19362***	***24421***	***19166***
A. Financing: Domestic	1149	2299	2606	57	(2843)	983	6153	9807	985	6435	12503	30689	11839	21950	15040
1. Net domestic borrowing	1180	1396	2195	1961	662	2126	9474	7914	3623	15756	13317	30224	37160	39330	31560
Gross domestic borrowing	1432	1687	2702	2651	1322	1939	11635	10029	6655	16853	15779	34612	58618	47339	37210
Less: Payments	252	291	507	690	660	(187)	2161	2115	3032	1097	2462	4388	21458	8009	5650
2. Use of Cash Balances	(31)	903	411	(1904)	(3505)	(1143)	(3321)	1893	(2638)	(9321)	(814)	465	(25321)	(17380)	(16520)
B. Financing: Foreign	254	50	246	2110	3185	2404	5992	4597	5437	1890	(754)	3739	7523	2471	4126
Gross borrowing	390	176	790	2523	3681	3054	6724	5388	7685	5069	3704	9959	15420	15133	20790
Less: Amortization	136	126	544	413	496	650	732	791	2248	3179	4458	6220	7897	12662	16664
Financing (% distr.)	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
A. Financing: Domestic	81.9	97.9	91.4	2.6	-831.3	29.0	50.7	68.1	15.3	77.3	106.4	89.1	61.1	89.9	78.5
1. Net domestic borrowing	84.1	59.4	77.0	90.5	193.6	62.8	78.0	54.9	56.4	189.3	113.3	87.8	191.9	161.0	164.7
Gross domestic borrowing	102.1	71.8	94.7	122.3	386.5	57.2	95.8	69.6	103.6	202.4	134.3	100.5	302.7	193.8	194.1
Less: Payments	18.0	12.4	17.8	31.8	193.0	-5.5	17.8	14.7	47.2	13.2	21.0	12.7	110.8	32.8	29.5
2. Use of Cash Balances	-2.2	38.4	14.4	-87.9	-1024.9	-33.7	-27.3	13.1	-41.1	-112.0	-6.9	1.4	-130.8	-71.2	-86.2
B. Financing: Foreign	18.1	2.1	8.6	97.4	931.3	71.0	49.3	31.9	84.7	22.7	-6.4	10.9	38.9	10.1	21.5
Gross borrowing	27.8	7.5	27.7	116.4	1076.3	90.2	55.4	37.4	119.7	60.9	31.5	28.9	79.6	62.0	108.5
Less: Amortization	9.7	5.4	19.1	19.1	145.0	19.2	6.0	5.5	35.0	38.2	37.9	18.1	40.8	51.8	86.9
SAVING-INVESTMENT GAP OF THE ECONOMY (Pesos M)	*-6073*	*-7922*	*-5106*	*-7631*	*-9763*	*-13093*	*-15338*	*-25339*	*-26996*	*-14484*	*6253*	*3342*	*-210*	*5465*	*-11341*
RATIO OF NOM. GROSS DOM. CAPITAL FORMATION TO GDP	*29.5*	*31.0*	*28.8*	*28.9*	*31.1*	*30.6*	*30.6*	*28.3*	*26.7*	*17.0*	*13.9*	*12.9*	*16.1*	*17.3*	*18.6*
RATIO OF NATIONAL GOVT. DEFICIT TO GDP	*-1.2*	*-1.7*	*-1.8*	*-1.2*	*-0.2*	*-1.3*	*-4.0*	*-4.2*	*-1.7*	*-1.5*	*-1.9*	*-5.5*	*-2.7*	*-3.0*	*-2.0*
RATIO OF SAVING-INVESTMENT GAP TO GDP	*-5.3*	*-5.9*	*-3.3*	*-4.3*	*-4.5*	*-4.9*	*-5.0*	*-7.4*	*-7.0*	*-2.7*	*1.0*	*5.3*	*0.0*	*-0.7*	*-1.2*

Source: Bureau of Treasury, Department of Finance.

Chart 8.4

NG CASH DEFICIT

in Million Pesos, 1975 - 1990

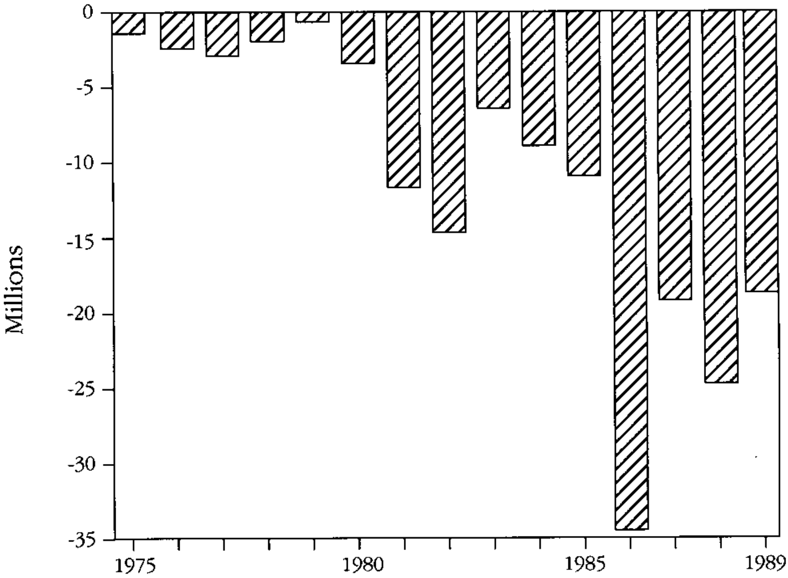
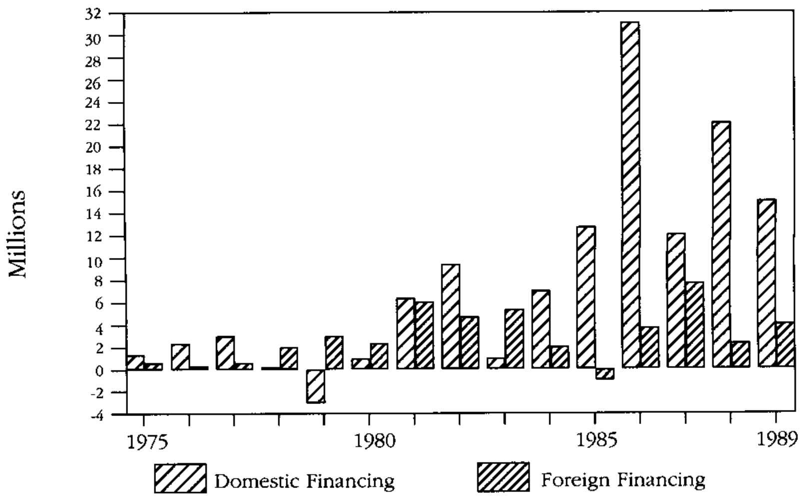


Chart 8.5

FINANCING OF NG CASH DEFICIT

in Million Pesos, 1975 - 1989



financing sharply rose from a share of 8.6 percent (₱ 246 million) in 1977, to 931 percent (₱ 3.2 billion) in 1979 and to 85 percent (₱ 5.4 billion) in 1983. From there onwards, the share of foreign financing was reduced to 21.5 percent in 1989 as availment of external funds became difficult and untenable to the economy's growth.

Increases in net domestic borrowings of the National Government in 1977-1985 ranged between ₱ 662 million to ₱ 15.8 billion, and in 1986-1989 between ₱ 30 billion to ₱ 39 billion. Throughout the period 1977-1989, additions to cash balances of the National Government were often financed through domestic borrowings (particularly in 1978-1981, 1983-1985, 1987-1989) rather than drawn down or reduced. In 1979, net domestic financing reflected a negative value of ₱ 2.8 billion, indicating a net build-up in National Government's cash balances financed mainly from foreign borrowings. The build-up in cash balances which were deposited with the Central Bank was in keeping with the policy or need to compress aggregate demand and inflation. It more than offset the expansionary impact of government borrowing from the Central Bank.

Domestic borrowings of the National Government were sourced mainly from the flotation of government securities at market-determined interest rates, especially during the 1980s. This mode of financing was non-inflationary, but critics of monetary policy in the Philippines claim that this has induced the rise in domestic interest rates. In financing the deficit, public sector borrowings from the monetary system tended to exert an expansionary impact on money supply; nonetheless, appropriate monetary policy moves were effectively resorted to when the need to contract excess liquidity arose. Likewise, external borrowings were resorted to, but at a reduced share to total financing in the mid-1980s. External debt policy was to be guided by sound debt management strategy and availment of longer-term debt at concessional rates of interest.

For the 14 major non-financial government corporations (which accounted for 7 percent of the 202 audited public corporations and 52 percent share of total expenses of same audited public corporations), domestic financing more than covered the total deficit of ₱ 8 billion in 1985 and thus augmented the cash balances of the selected public corporations. Likewise, external borrowings were resorted to allowing for net debt repayment during the same year (Table 8.14). In 1988, a surplus of ₱ 2.3 billion was attained. Net external financing again reflected net repayments which accounted for an outflow of 128 percent of the surplus. Even with the surplus attained, net domestic financing registered ₱ 633 million sourced mainly from net lending of the National Government. In 1989, a deficit of ₱ 3.2 billion was incurred, financed from net external borrowings of ₱ 2.6 billion and net domestic financing of ₱ 630 million from government equity, net lending and net domestic credits.

Local governments meanwhile, generally reflected surplus positions. However, regular aids and allotments from the National Government as well as borrowings from the monetary system were resorted to in financing their deficits and operations.

On the whole, it could be observed that there was a marked shift in the financing of public sector deficits from foreign sources to domestic funds. Within the domestic funds -- mixture itself, the shift was from budgetary loans from the monetary system to the flotation of domestic securities.

Other available indicators which could likewise show the sources of financing the deficit of the public sector would be the gross internal public debt and total foreign exchange liabilities of the public sector. From a level of ₱ 27 billion as of end-1977, the gross internal debt of the public sector rose steadily to ₱ 237 billion as of end-1989 (Table 8.17). The percentage share of the National Government out of the total debt was 56 percent in 1977 and increased markedly to 95 percent in 1989, while the share of the monetary institutions declined from 34 percent as of end-1977 to 2.5 percent as a result of the transfer of the non-performing assets of some government financial institutions to the National Government. Similarly the share of the government corporations declined from 9.5 percent in 1977 to 2.5 percent in 1989 as the privatization and monitoring of government corporations streamlined their borrowing operations. Meanwhile, the share of the local governments dropped from 0.7 percent to 0.04 percent (Table 8.17).

Of the 1989 gross internal debt of ₱ 225 billion of the National Government, about 97 percent was in the form of securities, especially short-term Treasury bills, as against 82 percent as of end-1983. Borrowings of government corporations were primarily in the form of LBP (Land Bank of the Philippines) bonds and financial assistance from the Central Bank (CB) related to liquidity needs. In the case of the monetary institutions, internal debt was mainly in the form of CB bills and CB notes. On a net basis, net domestic credits

Table 8.17

GROSS INTERNAL PUBLIC DEBT (BY LEVEL OF GOVERNMENT), END-DECEMBER 1977-1989

(in Pesos Billion)

End-December	Total	National Government	Government Corporations	Local Governments	Monetary Institutions
1977	27.4	15.3	2.6	0.2	9.3
1978	32.4	17.8	3.3	0.3	11.0
1979	36.8	19.1	3.9	0.3	13.5
1980	41.2	21.9	5.0	0.3	14.0
1981	49.4	28.7	6.7	0.3	13.7
1982	57.5	35.3	9.9	0.4	11.9
1983	62.4	43.5	12.2	-	6.7
1984	86.1	59.7	13.2	0.2	13.0
1985	116.3	76.0	14.0	0.2	26.1
1986	144.4	104.9	14.9	0.2	24.4[a]
1987	161.1	150.8	9.3	0.1	0.9
1988	207.2	195.0	8.1	0.1	4.0
1989	237.2	225.2	5.9	0.1	6.0

a Before transfer of non-performing assets of two government financial institutions to the National Government.

Source: Bureau of Treasury, Department of Finance.

of the public sector (National Government, government corporations, and local governments) from the monetary system rose from ₱ 5.9 billion as of end-1977 to ₱ 64 billion as of end-1986, and declined to ₱ 28 billion as of end-1989.

The extent of external financing of the public sector may likewise be seen from available Central Bank's data on foreign exchange liabilities of the public sector. From end-1977, total foreign exchange liabilities of the public sector at $3.7 billion rose to a high $22.7 billion in end-1987 and $22.2 billion as of end-1989. The share of the non-monetary sector (National Government, government corporations) comprised 89 percent of total foreign exchange liabilities in end-1977 and declined to 73 percent in end-1989. While the monetary sector (Central Bank and government financial institutions) shared 11 percent in end-1977 and 27 percent in end-1989 (Table 8.18).

III. Effects of Financing Public Sector Deficit Through the Financial System

3.1 Theoretical Background

Broadly there are three possible impact of financing public sector deficit through the financial system. At the first instance, money-financed deficits from the Central Bank would create high-powered reserve money, and consequently money supply and domestic liquidity through the money multiplier. Debt-financed deficits from Deposit Money Banks (commercial banks and rural banks accepting demand deposits) and the non-bank public would likewise generate public sector credit, although the level of reserve money, money supply and domestic liquidity would remain unchanged, at one point in time, since the financial asset-holdings of the private sector would simply shift from money supply or quasi-money to government securities. Over time, however, the expansion in fiscal deficit would raise public sector credits contributing to the growth in reserve money, money supply and domestic liquidity.

Given that money-financed fiscal deficits from the Central Bank are expansionary and result in an increase in money supply, fiscal deficits could be eventually contributory to the rise in prices, another expected impact of persistent fiscal deficits. The monetarist position on inflation postulates that it is the difference between the growth of the nominal money supply (as a result of actions by the monetary authorities) and the long-run real money demand (as determined by

Table 8.18

TOTAL FOREIGN EXCHANGE LIABILITIES OF THE PUBLIC SECTOR

(in U.S. Dollars Million)

Period	Total	Monetary Sector	Non-Monetary Sector
1977	3743	417	3326
1978	5223	914	4309
1979	7055	1473	5582
1980	9510	2478	7034
1981	11920	2940	8980
1982	14455	4335	10120
1983	16730	4928	11802
1984	22755	5207	17548
1985	19122	6764	12358
1986	21829	8034	13795
1987	22751	6967	15784
1988	22668	6557	16111
1989	22222	5921	16301

Source: Central Bank of the Philippines.

the private sector, changes in real income and interest rates) which determines prices.[22] From another point of view, the Fisher Equation of Exchange, MV = PT, states that the stock of money (M) times the velocity of money (V) equals the physical volume of transactions (T) times the price level (P). Velocity and transactions determine the demand for real money balances, and it is assumed that V is stable. In the long-run equilibrium, prices will be equal to the ratio of money supply to the long-run real demand for money balances; ultimately, inflation is determined by excess money supply growth.[23] Since inflation results in a widening of fiscal deficits financed through the financial system, further increases in money supply lead to further increases in prices.[24]

Finally, another impact of debt-financed public sector deficits from the private sector (either through the banking system or the non-bank public) would be the crowding out of private investment and the increase in interest rates as a result of massive government borrowings. Initially, the creation of public sector credits could raise investment, the quantity of money demanded, and eventually domestic interest rates. On the one hand, if the economy is at less than full employment and monetary authorities accommodate fiscal expansion by increasing money supply, interest rates could remain stable or even decline, encouraging private investment and increase output. On the other hand, if the economy is at full employment (or existing productive capacity fails to meet investment demand) and monetary policy becomes contractionary and does not accommodate fiscal expansion, interest rates would rise and discourage private investments resulting in lower output growth. As inflationary pressures are heated up, interest rates are induced to increase further.[25]

In an extended period of stagnant or decelerating economic growth, persistent real fiscal deficits portend serious implications on the economy. For as the generation of tax revenue weakens, public sector debt accumulates along with interest payments. Fiscal deficits further expand and lead to money supply growth if accommodated, and to inflation;

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22. Michael Keran, *"Money and Exchange Rates: 1974-1979"*, Federal Reserve Bank of San Francisco Economic Review, Spring 1979, pp. 19-20.
23. Ibid., pp. 20-21.
24. Bijan B. Aghevli and Mohsin S. Khan, *"Government Deficits and the Inflationary Process in Developing Countries"*, IMF Staff Papers, vol. 25, September 1978.
25. Ibid.

or alternatively, a persistent contraction in money supply to offset the monetary impact of fiscal expansion. This could nonetheless lead to higher interest rates, and lower real GNP growth. Inevitably, the linkages turn into an unbreakable cycle that leads to instability.[26]

3.2 Basic Model

The Aghevli-Khan model[27] was used in measuring the exogenous impact of public sector deficit financed by domestic borrowings on money supply and subsequently on prices. From the identity equation,

$$M = m \quad RM \qquad \text{Eq. (1)}$$

where money supply M is a product of the money multiplier m and reserve money RM, the model was modified and specified as follows:

$$RM = (NCPMA + NFAMA + RES) \qquad \text{Eq. (2)}$$
$$M1 = MUL1\ (NCPMA + NFAMA + RES) \qquad \text{Eq. (3a)}$$
$$M1 = MUL1\ (NCPMA + NFAMA + GCPRMA + NOIMA) \qquad \text{Eq. (3b)}$$
$$M3 = MUL3\ (NCPMS + NFAMS + NCPRMS + NOIMS) \qquad \text{Eq. (4a)}$$
$$M3/MUL3 = RM = NCPMS + NFAMS + NCPRMS + NOIMS \qquad \text{Eq. (4b)}$$

The variables are defined as follows:

RM : Reserve Money (Currency Issued by the Central Bank less Cash in Treasury Vault plus Reserve Balances of Deposit Money Banks with CB)

NCPMA : Net Credits to the Public Sector by the Monetary Authorities

NFAMA : Net Foreign Assets of the Monetary Authorities

RES : Residual Items consisting of Credits to the Private Sector by the Monetary Authorities and Net Other Items

M1 : Narrow Money consisting of Currency in Circulation and Demand Deposits of Deposit Money Banks

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26. R. Dornbusch and S. Fischer, *Macroeconomics,* (Singapore: McGraw-Hill, Inc., 1984) pp. 499-536.
27. B. Aghevli and M. Khan.

MUL1 : Narrow Money Multiplier (Simple Average of Narrow Money over Reserve Money)

GCPRMA : Gross Credits to the Private Sector of the Monetary Authorities

NOIMA : Net Other Items Account of the Monetary Authorities (such as, Capital Account, Revaluation, Net Unclassified Assets, and Other Liabilities such as Blocked Peso Deposits of the National Government, Reverse Repurchase Agreements)

M3 : Domestic Liquidity consisting of M1 plus Peso Savings and Time Deposits plus Deposit Substitutes

MUL3 : Domestic Liquidity Multiplier (Simple Average of Domestic Liquidity over Reserve Money)

NCPMS : Net Credits to the Public Sector from the Monetary System (Monetary Authorities and Deposit Money Banks)

NFAMS : Net Foreign Assets of the Monetary System

NCPRMS : Net Credits to the Private Sector from the Monetary System

NOIMS : Net Other Items of the Monetary System

Three measures of money supply (reserve money, narrow money and domestic liquidity) were used to find out the impact of budgetary deficits (financed by public sector domestic borrowings from the financial system) on money supply. It is postulated that higher budgetary deficits financed from the financial system lead to higher money supply and eventually to higher prices.

Again on the basis of the Aghevli-Khan study, a simple linear regression model on monetization of government deficits on prices is utilized. The equation is specified as:

CPI = f(MS, GDPR, FXR, CPI(-1)) Eq. (5a)
CPI = f(NCPMA or NCPMS, GDPR, FXR, CPI(-1)) Eq. (5b)

The variables are defined as:

CPI : Consumer Price Index of the Philippines, 1972=100

MS	: Nominal Money Supply (Measures of money supply used are reserve money, narrow money, broad money or domestic liquidity, net credits of the public sector from the monetary authorities, and net credits of the public sector from the monetary system.)
NCPMA	: Net Credits of the Monetary Authorities to the Public Sector
NCPMS	: Net Credits of the Monetary System to the Public Sector
GDPR	: Real Gross Domestic Product, a Measure of Income/Production
FXR	: Peso-Dollar Exchange Rate
CPI(-1)	: CPI lagged one year representing inflationary expectations

On the assumption that public sector credits influence money supply movements, the subsequent impact of money supply or more directly public sector credits on prices is looked into.

MS and NCPMA or NCPMS, including FXR and CPI(-1) exert a positive impact on prices: money supply, through higher aggregate demand relative to output; FXR through higher peso cost of the dollar for importation needs, and CPI(-1) due to higher wages, higher domestic interest rates, power failure and the like. GDPR likewise could reflect a positive impact on prices if GDPR is a measure of higher/lower aggregate demand. Prices could likewise be a function of production especially so if food accounts for a major proportion of the weights of the CPI. Hence, a negative relationship could be expected.

The factors/accounts involved cover yearly observations ranging from 1977-1989. Several equations were run to measure the impact of financing budgetary deficit on money supply and prices with the use of the following data forms: levels of money supply, prices and the independent factors involved; and, logarithmic forms of the same variables.

3.3 Results

Over the period 1977-1979, a surplus position of the public sector at ₱ 0.1 billion to ₱ 2.9 billion was observed; while its deficit rose from ₱ 10.4 billion in 1981 to ₱ 45 billion in 1986 and to ₱ 11.2 billion in 1989. The deficits of the public sector were partly financed by borrowings from the monetary authorities and deposit money banks or the monetary system. Outstanding net domestic credits of the monetary system to the public sector rose from ₱ 5.9 billion in end-December 1977 to ₱ 28 billion in end-December 1989. The share of the National Government out of the total public sector credits declined from 46 percent in 1977 to 38.9 percent in end-1989; while that for other government entities and local governments rose from 54 percent in end-1977 to 61 percent in end-1989. Over the same period net domestic credits of the public sector from the monetary authorities shared 56 percent in end-1977 and virtually became negative in end-1989 due to the rise in government deposits which exceeded government borrowings with the Central Bank. On the other hand, financing of public sector credit from deposit money banks rose from 44 percent of total public sector credit in end-1977 to 184 percent in end-1989. This may be attributed to the policy of the Government to finance its budgetary deficits from non-inflationary sources such as the issuance of Treasury bills to the banking system.

3.3.1 Descriptive Analysis of Balance Sheet Data on Public Sector Credits, Reserve Money, Money Supply and Domestic Liquidity

Tables 8.19 and 8.20 reflect the balance sheet accounts on net credits to the public sector by the monetary authorities and reserve money; net credits to the public sector by the monetary system, narrow money supply and broad money. A summary table on the impact of net credits to the public sector on reserve money, narrow money and broad money and the movements of the domestic inflation rate are shown in Table 8.21.

From end-1977 to 1979, the flow of net credits by the monetary authorities to the public sector was contractionary, and thus influenced a parallel movement in reserve money. Net credits to the public sector declined in 1979 even as gross credits to the public sector expanded. To mop up liquidity in a period of high inflationary pressures arising from high world oil prices, Central Bank Certificates of Indebtedness (CBCIs) were issued by the Central Bank to the public sector. The inflation rate rose from 9.8 percent in 1977 to 17.5 percent in 1979, while a similar contractionary trend in net public sector credits by the monetary system was observed during the same period (Charts 8.6 and 8.7).

In succeeding years end-1980 to 1983, the flow of net public sector credits from the monetary authorities accelerated, and even exceeded the increases in reserve money and narrow money. Broad money or domestic liquidity was thus influenced by the growth in public sector credits. The National Government relied heavily on the Central Bank for budgetary loans to finance its deficit and holdings of government securities by the Central Bank increased. Concomitant with the rise in public sector external debt financing, the rise in domestic borrowings to finance public sector deficit could be an indication of compensatory spending by the Government to stimulate domestic growth during the world recession in the early 1980s. In comparison to the traditional monetary and fiscal policies in the 1950s and 1960s, the growth in public sector credits in the 1970s and early 1980s was regarded as generally expansionary. An increasing role of the Government in markets for products and financial accounts was noted during the period (Table 8.22).[28]

The balance of payments crisis which erupted in 1983 as a result of strained debt-servicing capacity led to the adoption of a subsequent tight monetary policy which sought to reduce aggregate domestic and external demand. Net public sector credits eventually declined in end-1984 due to the build-up in deposits of the National Government with the Central Bank which more than covered the gross credits of the public sector from the Central Bank. This decline in net credits to the public sector, together with the drop in CB net international reserves, moderated the growth in reserve money. Net credits to the public sector by the monetary system continued to expand however in view of the increased borrowings (especially in the form of Treasury bills) of the public sector from the deposit money banks. This accounted for the expansion in narrow money and domestic liquidity during the period. The inflation rate rose by an unprecedented 50.3 percent in 1984 which was due more, however, to the devaluation of the peso-dollar rate.

In 1985 and 1986, net credits of the monetary authorities to the public sector again expanded, even outpacing the increase in reserve money as budgetary loans increased with the rise in National Government deficit. It was in 1986 that a change in the 20-year rule of the Marcos Regime came about. This ushered in reforms in the system

28. Paper on *"An Analysis of the Philippine Economic Crisis"*, University of the Philippines, 1985.

Table 8.19

RESERVE MONEY & CREDITS TO THE PUBLIC SECTOR BY THE MONETARY AUTHORITIES, END-DECEMBER 1976-1989
(in Pesos Million)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
RESERVE MONEY (I = IIA + IIB)	7948	9814	12093	14629	16129	17798	18644	27958	33632	38447	51031	57738	67282	98276
I. A. Currency Issue	6541	7767	9234	10575	12284	13779	14959	22634	25677	28017	34608	41798	46551	60027
B. Less: Cash in Treasury Vault	8	55	7	40	14	29	116	101	929	572	318	281	270	280
C. Plus: DMB Reserve Balances	1415	2102	2866	4094	3922	4048	3801	5425	8884	10542	15693	15345	20264	33129
II. A. Net Domestic Assets (3+ 4 + 5)	5768	5362	6086	8979	12686	21821	36714	89073	121290	156480	184318	189990	188863	201112
1. Cross Credits to the Public Sector (IIA.1.a + IIA.1.b)	4385	5122	6468	6929	7385	11841	14932	29464	34369	39371	66789	55284	52166	51699
1.a. National Government	3670	4316	5727	6247	6829	11381	14500	28650	33953	34879	62695	50904	47120	45729
i. Domestic Securities	3670	3905	3537	3651	4678	5086	7756	8453	12412	13523	13944	12508	11112	10404
ii. Budgetary and Other Loans		411	2190	2596	2151	6295	6744	18056	21236	21272	48751	38396	36008	35325
iii. Others									305	84				
1.b. Other Government	715	806	741	682	556	460	432	814	416	4492	4092	4380	5046	5970
2. Less: Sub-Total	1884	2097	3386	4684	3935	5069	4817	5553	11947	9810	20441	47745	64420	75258
2.a. Deposits of National Government	968	1486	2630	2299	1573	2685	2442	5553	11947	8272	16413	45263	58218	69556
2.b. CBCI's	784	611	756	2385	2362	2384	2375							
2.c. Budgetary & Other Loans (Repayment	132									1538	4028	5182	6202	5702
3. Equals: Net Credits to the Public Sector	2501	3025	3082	2245	3450	6772	10115	23911	22422	29561	46348	7539	-12254	-23559
4. Gross Credits to DMB/Other Financial	5050	5458	6733	10245	14886	19201	20835	37886	47376	55573	25292	27730	28726	31280
Entities of which:														
4.a. Rediscounting[1]	3298	3763	5005	8301	12618	16781	19094	16009	12188	12293	7563	7706	7191	7693
4.b. Repurchase Agreement	1359	1394	1427	1651	1985	1759	1402	1585	1331	689	100	-	50	-
4.c. Overdraft	191	95	94	70	54	415	2	1170	7189	9752	9899	12769	12903	13039
5. Net Other Items	-1783	-3121	-3729	-3511	-5650	-4152	5764	27276	51492	71346	112678	154721	172391	193391
5.a. Net Unclassified Assets	4988	4958	6168	8037	7987	9375	12786	15816	26890	45620	60737	73759	90607	110993
5.b. Revaluation	856	618	328	445	1022	-537	5021	36550	76256	88425	106340	121896	124987	129062
5.c. Capital Accounts	-819	-864	-856	-1340	-1378	-806	-959	-1985	-2631	-3075	-3603	-4152	-4130	-4307
5.d. Other Liabilities, of which:	-6808	-7833	-9387	-10653	-13281	-12184	-11084	-23105	-49023	-59624	-50796	-176029	-39073	-42357
5.d.1. Reserve RP Agreements	-199	-108						-1614	-4558	-7560	-6951	-10556	-6345	-855
5.d.2. CBCIs/CB Bills	-5873	-7386	-9151	-9556	-9077	-7678	-4777	-5030	-11164	-25358	-23662	-920	-3527	-3630
5.d.3. Blocked Pesos Deposits-NG								-	-105	-427	-456	-4442	-5902	-9413
5.d.4. Blocked Pesos Deposits-DMB								-2054	-8325	-1570	-1042	-817	-1071	-1071
II. B. Net Foreign Assets	2180	4452	6007	5650	3506	-4023	-18070	-61115	-87658	-118033	-133287	-132252	-121581	-108236
1. Net International Reserves	4756	7208	9381	9470	7143	434	-12844	-24166	-33866	-32873	-16324	-12251	-7999	3574
2. Med. & Long-Term Foreign Liabilities	2576	2756	3374	3820	-3637	-4457	-5226	-36949	-53792	-85160	-116963	-120001	-113582	-111809

a Revised to reflect the expanded coverage of deposit money banks and the changes in the classification of accounts.
1 Including assistance to financial institutions.

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

Table 8.20

IMPACT OF PUBLIC SECTOR DEFICIT ON CREDIT, MONEY SUPPLY AND DOMESTIC LIQUIDITY IN THE MONETARY SYSTEM

(in Pesos Million)

CY	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
I. Public Sector Deficit	***72***	***481***	***2962***	***574***	***-10456***	***-12954***	***-3419***	***-11153***	***-14307***	***-44960***	***-11088***	***-16347***	***-11392***
NG	-2852	-2167	-342	-3387	-12145	-14404	-6422	-8325	-11749	-34428	-19362	-24421	-19166
PSE	2924	2648	3207	3878	1679	1234	2848	-2560	-2560	-300	+8474e	+8474e	+8474e
Others	..	..	96.4	83.3	10.2	216.3	154.8	-267.8	2.2	..	-200	-400	-700
Ratio to GDP (%)	0.1	0.3	1.3	0.2	-3.5	-3.7	-0.9	-2.1	-2.3	-7.1	-1.6	-2.0	-1.1
End-December	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
II Net Domestic Assets	***49146***	***60776***	***74339***	***91439***	***112878***	***144293***	***232432***	***277376***	***305304***	***294212***	***304089***	***326206***	***373694***
A. Domestic Credit	50841	62332	77386	93848	115295	139119	201959	209179	198090	170999	155444	166462	201970
1. Public	5881	6358	5374	7709	11605	20983	39372	44252	46558	63706	28965	21076	28010
a. User													
National Govt. (Net)	2732	2598	2615	5174	9585	16923	26038	27311	25478	48177	15893	7172	10887
Other Govt. Entities	3149	3760	2759	2535	2020	4060	13334	16941	21080	15529	13072	13904	17123
b. Source													
Monetary Authorities	3286	3838	4630	5809	9155	12490	23913	22422	29560	46346	7538	-12254	-23577
Deposit Money Banks	2595	2520	744	1900	2450	8493	15459	21830	16998	17360	21427	33330	51587
2. Private	44960	55974	72012	86139	103690	118136	162587	164927	151532	107293	126479	145386	173960
a. Monetary Authorities	2099	3267	3838	4860	6071	7288	19389	27089	27343	9294	8723	8186	8791
b. Deposit Money Banks	42861	52707	68174	81279	97619	110848	143198	137838	124189	97999	117756	137200	165169
B. Net Other Items	-1695	-1556	-3047	-2409	-2417	5174	30473	68197	107214	123213	148645	159744	171724
III. Net Foreign Assets	***-1289***	***-4533***	***-11109***	***-17303***	***-22835***	***-41601***	***-102689***	***-138351***	***-156046***	***-145121***	***-137890***	***-122934***	***-114547***
IV. Total Liquidity (NDA+NFA) or (B+C)	***47857***	***56243***	***63230***	***74136***	***90043***	***102692***	***129743***	***139025***	***149258***	***149091***	***166199***	***203272***	***259147***
A. Narrow Money (M1)	14939	16945	18844	22537	23523	23495	32571	33737	35893	42694	52416	59717	78527
B. Broad Money (M3)	43932	51837	57360	67803	82090	95269	114225	122445	134532	144369	161868	198472	252998
(Narrow Money+Quasi-Money+DS)													
C. Other Liabilities	3925	4406	5870	6333	7953	7423	15518	16580	14726	4722	4331	4800	6149
1. Bills Payable	478	597	1502	1806	2827	2583	12620	13271	12308	1741	1120	1906	2119
2. Marginal Deposits	2223	2837	3144	3126	3125	2744	2898	3309	2418	2981	3211	2894	4030
3. Other Liabilities	1224	972	1224	1401	2001	2096							

Note: 1976-1982: Booked with one specialized government commercial bank insofar as the account net international reserves is concerned; accounts also refer to data before the transfer of non-performing assets of two government commercial banks to the National Government.

1983-1985: Booked with one specialized government commercial bank covering all accounts.

1986-1989: Data refer to accounts after transfer of non-performing assets of two government commercial banks to the National Government; booked with a specialized government commercial bank.

Source: Monetary Survey Table

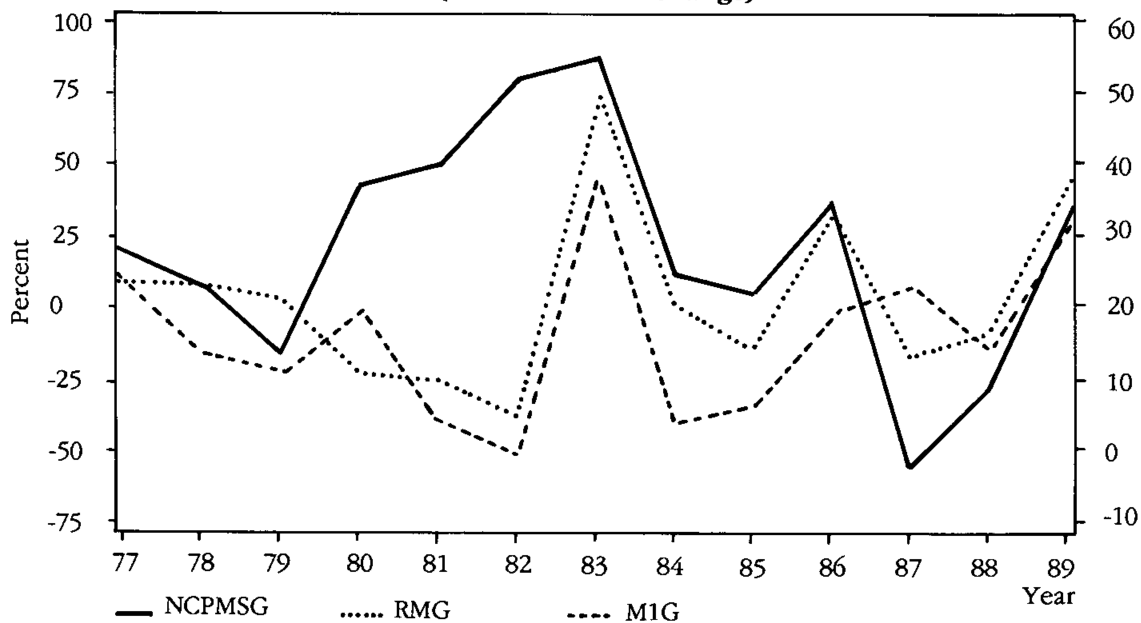
Table 8.21

SHARE OF CHANGES IN NET CREDITS TO THE PUBLIC SECTOR FROM THE MONETARY AUTHORITIES TO CHANGES IN RESERVE MONEY

Year-End	Change in Net Credits to the Public Sector by the Mon. Auth. (Pesos B)	Change in Net Credits to the Public Sector by the Monetary System (Pesos B)	Ratio of Change in M.A. Public Sector Credits to Change in Reserve Money
1977	0.50	1.00	0.281
1978	0.06	0.50	0.025
1979	(0.80)	(1.00)	(0.330)
1980	1.20	2.33	0.771
1981	3.32	3.89	2.070
1982	3.34	9.38	3.950
1983	13.79	18.39	1.480
1984	(1.49)	4.88	(0.260)
1985	7.14	2.31	1.480
1986	16.79	17.15	1.330
1987	(38.81)	(34.74)	(5.780)
1988	(19.79)	(7.89)	(2.070)
1989	(11.30)	6.93	(0.440)

Chart 8.6

Impact of Net Public Sector Credit (Mon. Sys.) on RM and M1 (Annual Percent Change)



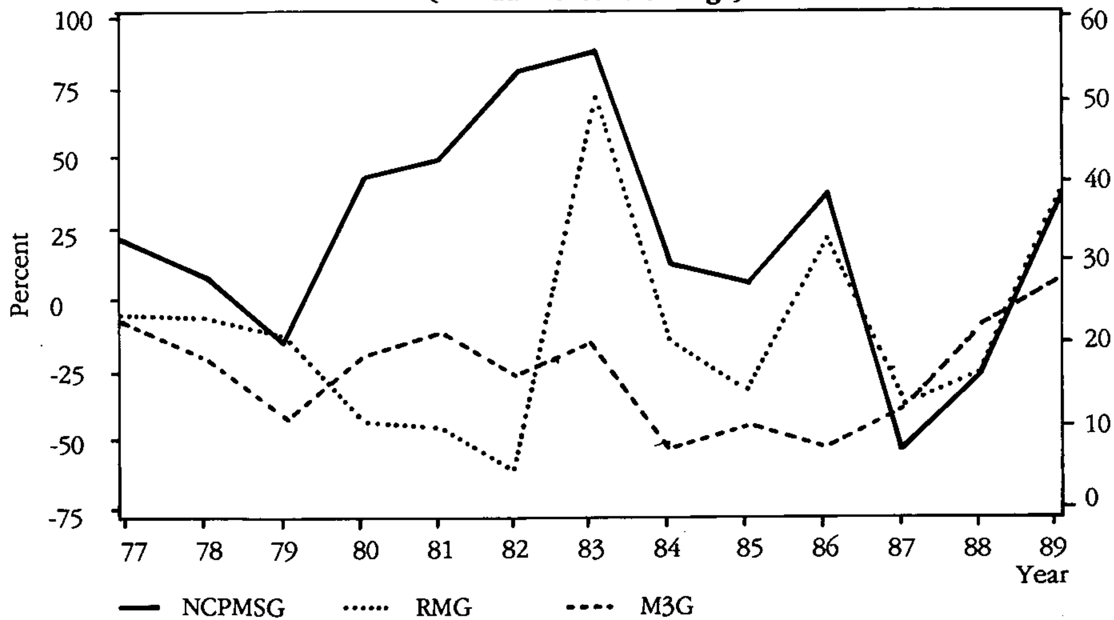
NCPMSG: Annual percent Growth of Net Credits by the Monetary System To the Public Sector (Left Scale)

RMG: Annual Percent Growth of Reserve Money (Right Scale)

M1G: Annual Percent Growth of Narrow Money (Right Scale)

Chart 8.7

Impact of Net Public Sector Credit (Mon. Sys.) on RM and M3 (Annual Percent Change)



M3G: Annual percent Growth of Broad Money or Domestic Liquidity (Right Scale)
RMG: Annual Percent Growth of Reserve Money (Right Scale)
NCPMSG: Annual Percent Growth of Net Credits by the Monetary System to the Public Sector (Left Scale)

Table 8.22

SHARE OF CHANGES IN NET CREDITS TO THE PUBLIC SECTOR FROM THE MONETARY SYSTEM TO CHANGES IN NARROW MONEY AND BROAD MONEY AND MOVEMENTS IN THE INFLATION RATE

Year-End	Ratio of Change in M.S. Public Sector Credits to Change in Narrow Money	Ratio of Change in M.S. Public Sector Credits to Change in Broad Money	Domestic Inflation Rate (in Percent)
1977	0.34	0.12	9.8
1978	0.24	0.06	7.3
1979	(0.52)	(0.15)	17.5
1980	0.63	0.22	18.2
1981	3.95	0.27	13.1
1982	---	0.71	10.2
1983	2.03	0.97	10.0
1984	4.19	0.59	50.3
1985	1.07	0.19	23.1
1986	2.52	1.74	0.8
1987	(3.57)	(1.98)	3.8
1988	(1.08)	(0.21)	8.8
1989	0.37	0.13	10.6

of Government toward a shift to democratic institutions, and expanded government expenditures and investment outlays to put the economy back to recovery. Again this meant a positive impact on money supply and domestic liquidity. Increases in public sector credits came largely from the monetary authorities. During the period, the inflation rate decelerated from 23.1 percent to 0.8 percent as aggregate demand declined with the erosion in real incomes.

Finally in 1987-1989, net credits to the public sector by the Central Bank continuously declined in order to achieve stability. As net public sector credits declined, the impact on reserve money became contractionary. Nonetheless, the deposit money banks accommodated the need for public sector credits which expanded domestic liquidity and money supply in 1988 and 1989. Even as public sector credits from the monetary authorities declined, the domestic inflation rate rose to 8.8 percent in 1988 and to 10.6 percent in 1989. This was due mainly to the inadequate expansion of existing capacities which slowed down production, side by side with the rise in the demands for economic recovery and growth.

Broadly, the observation is that movements in net public sector credits from the monetary system exerted an expansionary impact in 1977, 1978, 1980-1986 and 1989; and, was contractionary in 1979, 1987 and 1988 when National Government deposits rose substantially to offset or weaken the monetary impact of gross public sector credits. The monetary impact of private sector credits, meanwhile, was expansionary in 1977-1983, became contractionary in 1984-1986, then turned positive in 1987-1989 as economic recovery gained ground with the change in political leadership and return of confidence in the economy. In addition to private sector credits, the net international reserves position of the monetary system improved, contributing to the growth in money supply and domestic liquidity.

3.3.2 Inflation and Public Sector Deficit Financing through the Financial System

Following the observation that net domestic credits of the public sector were expansionary in the late 1970s to the mid-1980s, a descriptive analysis of the impact of public credits and money supply on prices is presented in this section. It may be recalled that if public sector credits expanded money supply and raised domestic demand, prices would rise. A review of the behavior in inflation rate, reserve money, money supply (M1), domestic liquidity (M3) and net domestic credits of the monetary system to the public sector in Table 8.23 and Charts 8.6 & 8.7 showed the following observations:

(1) Even as the general direction of public sector credits, money supply and domestic liquidity was contractionary in 1979, the inflation rate almost doubled from 9.8 percent in 1977 to 18.2 percent in 1980. It was during this period when another round of world oil price shock in 1978 affected domestic costs of production and led to imported cost-push inflation. In 1980, two nationwide adjustments in oil prices were made, the eleventh and twelfth since 1973. These adjustments led to increases in power, water, transport, and freight rates.

(2) In 1980-1983, the annual rate of growth of net credits to the public sector by the monetary system, accelerated from 43.4 percent to 87.6 percent, while the growth of money supply declined in 1982, then rose sharply in 1983. During the same period, domestic liquidity growth remained at double-digit levels. Despite the increases in net public sector credit and in domestic liquidity in 1980-1983, the domestic inflation rate decelerated from 13.1 percent in 1981 to 10 percent in 1982 and 1983. During the period, world oil prices stabilized and eased up the cost of imported oil as a consequence of a glut in world oil supply.

(3) In 1984 and 1985, the growth in net credits of the public sector slowed down from 12.4 percent to 5.2 percent, while money supply and domestic liquidity growth rates were trimmed down to single-digit rates. Nonetheless, the inflation rate reached a staggering 50.3 percent rise in 1984, reflective of the spill-over effects of the devaluation in the peso-dollar exchange rate in October 1983, and again in June 1984. In 1985, the inflation rate dropped to 23.1 percent as consumer demand turned slack with the erosion in real incomes, the absence of any further devaluation in the exchange rate, and the roll-back in petroleum prices early in the year.

(4) The contraction of consumer and investment demand largely through tight monetary and fiscal policies and the uncertainty which prevailed, eventually tamed the inflation rate to 0.8 percent in 1986. A three-fold price rollback in petroleum products, lower transport fares, relatively stable exchange

Table 8.23

ANNUAL PERCENT CHANGE IN MONETARY AGGREGATES AND OTHER FACTORS AFFECTING DOMESTIC INFLATION

(in Percent)

	Reserve Money (RMG)	Net Domestic Credits of the Mon. System to the Public Sector (NCPMSG)	Narrow Money (M1G)	Broad Money (M3G)	Real GDP (GDPRG)	Average Peso-Dollar Rate (FXRG)	Inflation (I)
1977	23.5	19.7	23.7	22.4	6.1	-0.5	9.8
1978	23.2	8.1	13.4	18.0	5.5	-0.5	7.3
1979	21.0	-15.5	11.2	10.7	6.3	0.2	17.5
1980	10.7	43.4	19.6	18.2	5.2	1.8	18.2
1981	9.9	50.5	4.4	21.1	3.9	5.2	13.1
1982	4.8	80.8	-0.1	16.1	2.9	8.1	10.2
1983	50.0	87.6	38.6	19.9	0.9	30.1	10.0
1984	20.3	12.4	3.6	7.2	-6.0	50.3	50.3
1985	14.3	5.2	6.4	9.9	-4.3	11.4	23.1
1986	32.7	36.8	18.9	7.3	1.4	9.7	0.8
1987	13.1	-54.5	22.8	12.1	4.7	1.0	3.8
1988	16.5	-27.2	14.0	22.6	6.2	2.3	8.8
1989	39.3	32.9	31.5	27.5	6.0	3.1	10.6

Sources: Research Sector, Central Bank of the Philippines.
National Economic and Development Authority of the Philippines.

rates, and lower interest rates helped reduce consumer prices. To stimulate the economy, the National Government pursued an expansionary fiscal policy in 1986 resulting in a fiscal deficit of ₱ 34.4 billion and a 36.8 percent increase in net credits to the public sector from the monetary system. All this resulted in an expansion in reserve money, money supply and domestic liquidity. In the succeeding year 1987, the inflation rate turned upward by 3.8 percent, as consumer demand and investments rose, the first signs of economic recovery. Even as net public sector credits declined, reserve money, money supply and domestic liquidity continued to rise with the improvement in external accounts and increase in currency in circulation. Consumer prices went up due to food supply bottlenecks arising from the prolonged drought and adverse weather conditions, the upward adjustment in domestic oil prices in August 1987, and the depreciation of the peso especially in the latter months of the year.

(5) Net credits to the public sector continued to decline in 1988, but money supply and domestic liquidity continued to increase, as private sector credits and the net foreign asset position of the monetary system rose. The inflation rate accelerated by 8.8 percent in 1988 and by 10.6 percent in 1989, while net credits to the public sector rose by 32.9 percent (sourced mainly by Deposit Money Banks), money supply by 31.5 percent, and domestic liquidity by 27.5 percent. The higher inflation rate could likewise be attributed to bad weather conditions which affected the supply of agricultural crops, the hike in domestic oil prices in December, as well as wage increases and salary adjustments in the private and public sectors.

3.3.3 Regression Results of Monetization of Deficits on Money Supply and Prices

On the basis of the linear regression equations presented under the section on basic model used, the impact of net credits to the public sector from the monetary authorities or the Central Bank and the monetary system (Central Bank and Deposit Money Banks) on money supply is shown in Table 8.24. The major findings on the definitional money supply equations are:

(1) When expressed in non-logarithmic peso levels, nominal net credits of the public sector from the Central Bank (NCPMA

Table 8.24

REGRESSION RESULTS: VARIOUS MONEY SUPPLY EQUATIONS
IMPACT OF PUBLIC SECTOR CREDIT ON MONEY SUPPLY, END-DECEMBER 1977-1989

Eq. No.	Dependent Variable	Description	Intercept	Independent Variables				AR(1)	Adj. R-SQ.	D.W.
				NCPMA/NCPMS	NFAMA/NFAMS	RES	MUL1/MUL3			
1	RM	Nominal Reserve Money	869.62 (1.99)	0.92 Ncpma (24.99)	0.92 Nfama (31.49)	0.95 Res (45.40)	---	---	0.99	2.11
2	LRM	Log of RM Independent Variables all in log	7.56 (12.28)	-0.06 Lancp2 (-2.96)	-0.02 Lanfam (-1.74)	0.34 Lres (7.12)	---	0.46 (1.46)	0.97	1.08
3	M1	Nominal Narrow Money	10522.6 (4.48)	0.56 Ncpma (4.69)	0.64 Nfama (6.37)	0.70 Gcprma (6.39) 0.66 Noima (9.58)	1.16 (simple ave. of Mul1)	0.28 (0.72)	0.99	2.14
4	M1	Nominal Narrow Money	11580.6 (6.67)	0.54 Ncpma (4.96)	0.62 Nfama (6.82)	0.65 Res (10.27)	1.16 (simple ave. of Mul1)	0.37 (1.26)	0.99	2.31
5	LM1	Log of M1 Independent Variables All in log	8.53 (20.46)	-0.07 Lancp2 (-4.65)	-0.01 Lanfam (-1.19)	0.25 Lres (10.08)	---	----	0.96	1.58
6	M3	Nominal Broad Money	-27.5 (-0.77)	1.93 Ncpmb (6.93)	1.96 Nfamb (9.54)	2.19 Resb (11.92)	16.24 Mul3 (3.18)	0.7 (2.41)	0.99	2.04
7	M3	Nominal Broad Money	10413 (0.37)	1.06 Ncpms (18.53)	1.11 Nfams (26.69)	0.89 Ncprms (21.87) 1.08 Noims (13.26)	---	0.87 (2.03)	0.99	1.70
8	RM	M3 over Multiplier	-3052.39 (-1.23)	0.49 Ncpms (4.73)	0.48 Nfams (8.69)	0.27 Ncprms (9.29) 0.52 Noims (21.16)	---	---	0.99	2.44
9	LRM	Log of RM M3 over Multiplier for Broad Money	8.39 (9.63)	0.16 Lncpms (1.98)	-0.95 Lnfams (-1) (-9.44)	0.96 Larsms (9.44)	---	---	0.95	2.10

Note: Appendis 8.2 shows the basic data used in the equations.

and NCPMB) and from the monetary system (NCPMS) exerted a positive and significant impact on nominal reserve money (RM), narrow money (M1), and broad money (M3).

(2) However, net credits of the public sector from the Central Bank expressed in logarithmic value (LANCP2) indicated a negative and significant effect on reserve money (LRM). This may be explained by the observation that the monetary authorities reduced net credits to the public sector in 1979, 1984, 1987, 1988 and 1989.

In 1979, the economy experienced a high inflation rate of 17.5 percent arising from high world prices of imported oil, calling for a contractionary monetary policy. The onset of the debt arrearages problem in 1983, likewise required external and domestic adjustment measures (raising of reserve requirements against deposit liabilities, controls on imports, reduction in fiscal deficits, limits on public sector borrowings). In the ensuing years, extensive financing of public sector deficits through the sale of government securities effectively offset any expansionary impact of net borrowings by the public sector. Gross credits of the monetary authorities to the public sector from end-1977 continually rose from ₱ 5.1 billion to ₱ 66.8 billion in end-1986 indicative of the expansionary impact on reserve money and money supply. With the use of contractionary measures, however, the potential monetary impact of the credit was neutralized to some extent. Some of the contractionary monetary measures utilized were the build-up of National Government deposits (arising from the proceeds of the sale of Treasury bills) with the Central Bank, blocked peso deposits with the Central Bank, and in the past the sale of CBCIs/CB bills to the Government.

(3) The impact of net credits to the public sector by the monetary system (logarithmic value) on domestic liquidity (divided by the multiplier) or alternatively on reserve money was nonetheless positive, indicating that credits of deposit money banks to the public sector mainly accounted for the growth in domestic liquidity attributable to the public sector.

(4) Net foreign assets of the monetary system (NFAMS) and net foreign assets of the monetary authorities (NFAMA) reflected a positive effect on money supply and reserve money; but

when the accounts are expressed in logarithmic value, net foreign assets of the monetary authorities (LANFAM) and net foreign assets of the monetary system (LNFAMS) lagged one year indicated a contractionary impact on reserve money (Equation 2) and money supply (Equation 9). This meant that on the average the net outflow of external funds from the economy minimized the creation of domestic money supply.

(5) With regard to the other factors (namely gross credits to the private sector from the monetary authorities, net credits to the private sector from the monetary system, and net other items of the monetary authorities and the monetary system), the effect on money supply was likewise positive. From end-December 1988 to 1989, the flow from these monetary system accounts comprised 73 percent of the ₱ 54.5 billion flow in broad money, while the increase in net credits to the public sector made up 12 percent of the increase in broad money.

(6) The money multiplier was treated as an exogenous variable and presented as a simple average quite close to 1; hence, there was no need to include the factor in the equation. Equation 6, however, treated the money multiplier as part of the definitional equation.

On the average, it may be said that financing the budgetary deficits through net credits from the monetary system to the public sector had been expansionary. On a yearly analysis, however, the impact of net credits to the public sector on reserve money, money supply, and domestic liquidity was contractionary in periods of high inflation as in 1979, 1983, 1984, and in the latter years 1987-1989 when the monetary authorities relied on monetary policy measures to minimize or dilute the expansionary and destabilizing impact of public sector deficits on the economy. The impact of contractionary monetary policy moves on the behavior of net public sector credits was more evident in the case of net public sector credit from the monetary authorities; while credits of the public sector from deposit money banks indicated a greater impact on public sector credit creation, possibly due to the banks' purchases of high-yielding government securities.

Regression results of the monetary impact of the budgetary deficit on prices in Table 8.25 are subsequently discussed. The observations are:

(1) Peso levels of money supply (reserve money, money supply and domestic liquidity) did not significantly affect consumer price indices (Equations 1 to 3).

(2) Reserve money in logarithmic value lagged one year indicated a positive impact on prices (Equation 5), while the inclusion of another significant variable, such as the expected consumer price index or the peso-dollar rate, would weaken the impact of money supply on prices (Equations 4 and 6).

(3) As a more direct indicator of the impact of money supply or from another point of view, budgetary deficit on prices, net credits of the monetary authorities and net credits of the monetary system to the public sector on prices were likewise tried. Lagged net credits of the monetary authorities (LNCPMA) and lagged net credits of the monetary system (LNCPMS) reflected a positive impact on the consumer price index (LCPI), although the coefficients were relatively of smaller magnitude than reserve money, money supply and domestic liquidity. (Note: Observation period for Lncpma covered 1977-1987 since values for 1988 and 1989 are negative).

(4) For the other factors affecting prices, real gross domestic product (LGDPR in logarithmic form), peso-dollar exchange rate (LFXR), and expected consumer price index (LCPI lagged one year) reflected a positive and more significant impact on prices than that of money supply or net public sector credit.

The results of the equation may be supported by looking into the movements of the factors affecting inflation in Table 8.23 and in Chart 8.8. During the periods 1980-1983, 1986 and 1989, the growth in public sector credits of the monetary system was expansionary contributing to money supply growth and the rise in the inflation rate. The more significant variables affecting the inflation rate, however, was the rate of change in the peso-dollar rate and in 1986-1989, the growth in real Gross Domestic Product, as well as the expected inflation rate.

3.3.4 Effects of Public Sector Borrowing from Banks and Non-Banks on Credit Creation and Interest Rates

The financing of public sector deficits not only is anticipated to influence money supply expansion and lead to inflationary pressures, but is likewise anticipated to reduce the flow of credit to the private

Table 8.25

REGRESSION RESULTS: PRICE EQUATIONS
IMPACT OF MONEY SUPPLY (PUBLIC SECTOR CREDIT) ON PRICE 1977-89

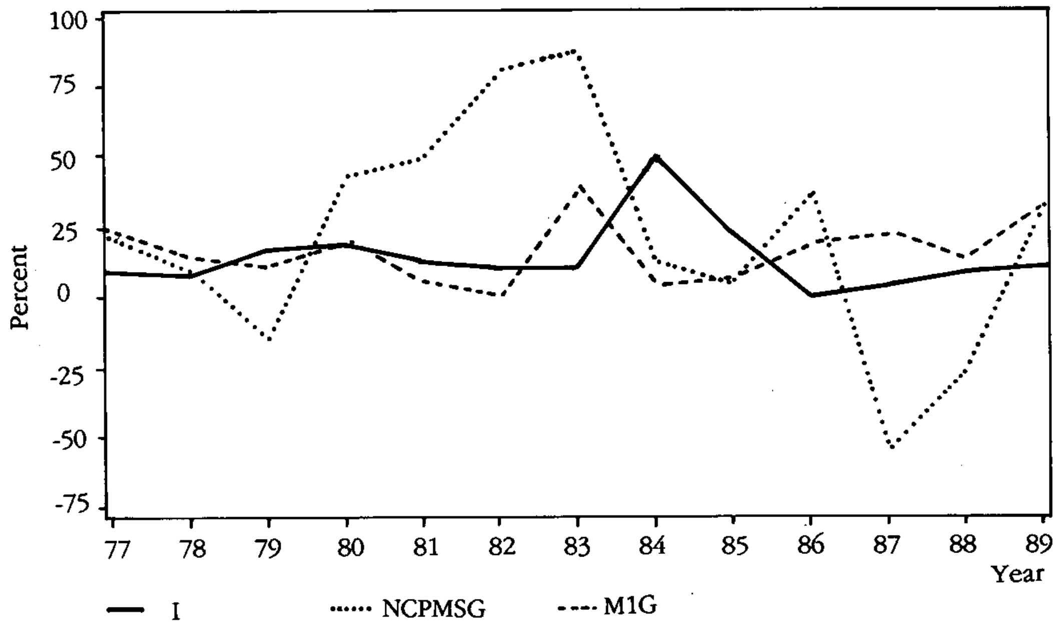
Eq. No.	Dependent Variable	Intercept	Independent Variables				AR(1)	Adj. R-SQ.	D.W.
			RM/M1/M3	GDPR/GNPR	FXR	Lagged Dep. Var.			
1	CPI	-190.25 (-2.44)	0.0001 Rm (0.24)	0.002 Gdpr (2.39)	14.97 Fxr (5.19)	0.17 Cpi(-1) (0.90)	---	0.98	2.18
2	CPI	-147.49 (-1.84)	0.002 M1 (-1) (1.56)	0.001 Gdpr (1.50)	15.34 Fxr (7.61)	---	---	0.98	2.09
3	CPI	-81.88 (-0.61)	0.0009 M3 (-1) (1.33)	0.0007 Gdpr (0.44)	13.01 Fxr (3.22)	---	---	0.99	2.04
4	LCPI	-8.68 (-2.83)	0.15 Lrm (-1) (2.09)	0.86 Lgdpr (-1) (2.98)	0.50 Lfxr (3.74)	0.28 Lcpi (-1) (1.56)	---	0.99	1.66
5	LCPI	-7.78 (-1.75)	0.33 Lrm (-1) (2.64)	0.73 Lgdpr (-1) (1.78)	0.58 Lfxr (3.65)	---	0.25 (0.65)	0.98	1.55
6	LCPI	-8.78 (-3.33)	0.15 Lm1 (-1) (0.97)	0.83 Lgdpr (-1) (2.90)	0.50 Lfxr (4.10)	0.34 Lcpi (-1) (2.29)	---	0.99	1.74
7	LCPIa	-7.46 (-1.77)	0.12 Lncpma (-1) (1.62)	0.73 Lgdpr (-1) (1.88)	---	0.64 Lcpi (-1) (3.70)	---	0.97	1.67
8	LCPI	-7.52 (-1.96)	0.09 Lncpms (-1) (1.56)	0.70 Lgdpr (-1) (1.99)	---	0.77 Lcpi (-1) (7.97)	---	0.98	1.89

a Observation period is 1976 to 1987. Negative values in 1988 and 1989 could not be translated in logarithm.

Note: Appendis 8.2 shows the basic data used in the equations.

Chart 8.8

Net Credits to the Public Sector & the Inflation Rate
Annual Rate of Growth



I: Annual percent Change in Consumer Price Index, Philippines
NCPMSG: Annual Rate of Growth of Net Credits by the Monetary System To the Public Sector
M1G: Annual Rate of Growth of Narrow Money

sector and thereby increase domestic interest rates. Through a descriptive analysis of available data, this section aims to establish whether the financing of public sector deficit through the monetary system and the non-bank sector resulted in the crowding out of private sector credits and the increase in interest rates.

The growth rate of net credits to the public sector from the monetary system generally exceeded the growth of private sector credits in the late 1970s to the 1980s, except in 1987, 1988 and 1989 (Table 8.20). During the adjustment periods 1984-1986, the growth in private credits slowed down considerably and virtually became negative due to low investment demand and declines in output. The existence of an attractive investment alternative, the high-yielding Treasury bills, apparently shifted funds to the Government in order to finance its deficits through non-inflationary sources. In later years, there was a conscious effort on the part of the Government to reduce its borrowings from the monetary authorities, hence the decline in public sector credits in 1987 and 1988. Public sector borrowings from deposit money banks stepped up however, in 1987 and 1988 as banks continued to purchase Treasury bills from the Government. Since Treasury bills led interest rate movements, the financing of public sector deficits through the sale of Treasury bills induced the rise in domestic interest rates (Table 8.26). The primary rate on Treasury bills (all maturities) rose from 10.9 percent in 1978 to 19.68 percent in 1979, while the rate on secured loans (all maturities) increased from 12 percent to 19.45 percent during the same period. Aside from Treasury bill rates, however, domestic interest rates are also determined by other factors such as the inflation rate, expectations in the peso-dollar rate, reserve money and real GNP or GDP growth.

Meanwhile gross internal public debt (including that of the monetary institutions) rose from ₱ 32.4 billion as of end-December 1978 to ₱ 237.2 billion as of end-December 1989. Of the total, outstanding government securities accounted for a share of 86 percent in end-1978 and rose further to 95 percent in end-1989 of which three-fourth was of short-term maturity. Of the total government securities, borrowings of the public sector from the banking system made up 52 percent in end-1978 and narrowed down to 28.1 percent as of end-1989. Meantime, the share of the non-bank sector to total government securities holdings widened from 48 percent in end-1978 to 71.9 percent in end-1989. This could imply that the public sector has been increasingly financing its deficits from non-inflationary sources which consequently did not substantially expand credits in the monetary system nor directly led to high inflationary pressures of monetary origin.

Table 8.26

SELECTED INTEREST RATES
Average for the Year

(in Percent)

	Primary Treasury Bill Rate[1] (All Maturities)	Rate on Promissory Notes	Time Deposit Rate (All Maturities)	Rate on Secured Loans (All Maturities)
1978	10.950	10.594	10.000	12.000
1979	12.178	12.047	12.000	14.000
1980	12.316	12.204	14.000	14.000
1981	12.914	15.782	16.743	17.119
1982	14.415	15.012	15.808	18.219
1983	14.544	16.600	15.295	19.331
1984	36.985	23.825	24.157	26.743
1985	27.048	20.984	21.828	28.234
1986	16.040	13.581	14.770	17.348
1987	12.887	9.652	9.767	13.295
1988	15.510	11.995	13.392	15.998
1989	19.678	14.023	16.982	19.457

1 1978-1983: Auction rates
1984-1986: Negotiated rates
1987-1989: Auction rates

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

Another indication of the impact of public sector borrowing on credit creation is presented in Table 8.27 (from the monetary system) and Table 8.28 (from the monetary system including selected non-banks). An ascending share of the public sector in real credit expansion from the monetary system (SPS greater than PSPS) was observed in 1980-1984 and in 1987 and 1989, and for the rest of the periods a declining share for the public sector. Expanding shares of the public sector in real credit expansion from the monetary system and selected non-banks (SPS2 greater than PSPS2) were observed in 1981-1984 and in 1987 and 1989. A rising share in public sector credit in the early 1980s was accompanied by an expanded investment expenditure by the Government; while in the mid- and late 1980s by a rising internal public debt servicing.

IV. Implications on Monetary Policy

The last 12 years of monetary developments in the Philippines indicated that activities of the public sector, especially with regard to financing its deficits, definitely influenced monetary policy-making in the Philippines and the course of the country's economy today.

Monetary policy measures adopted during the late 1970s and 1980s to stabilize any monetary and inflationary impact of fiscal deficit and any untoward pressure on interest rates may best be reviewed against the events that occurred during the period. A second oil crisis in 1979, followed by a global recession that lasted till late 1981, weakened the external position of the country. A crisis of confidence likewise rocked the Philippine financial system in 1981 that called for reforms not only in the money market, but in the whole financial system as well. A prolonged recession in the early 1980s finally resulted in a balance of payments problem that dragged on till 1985. With the change in political leadership in 1986, economic recovery started in 1987 and improved till 1989. But threats of coups d' etat continue to beset the country, thereby undermining whatever sustained growth prospect was already at hand. The recent earthquake in July 1990 and the current Middle East oil crisis would, likewise, hamper stabilization efforts of the Government in reducing fiscal deficits.

For the past years, various monetary policy measures were instituted to support economic growth, manage credit and counter inflation. In the late 1970s, a shift from an expansionary monetary policy in 1977-1978 to one of contractionary stance in 1979 was implemented, as the second global oil price shock occurred and raised domestic inflation.

Table 8.27

EFFECT OF PUBLIC SECTOR BORROWINGS FROM THE MONETARY SYSTEM IN CREDIT CREATION

obs	TCRE	RTCRE	NCP	RNCP
1978	62332.00	62332.00	6358.000	6358.000
1979	77386.00	65860.42	5374.000	4573.617
1980	93848.00	67565.16	7709.000	5550.036
1981	115295.0	73389.56	11605.00	7387.014
1982	139119.0	80322.75	20983.00	12114.90
1983	201959.0	106015.2	39372.00	20667.72
1984	209179.0	73037.36	44252.00	15451.12
1985	19809.00	5617.981	46558.00	13204.20
1986	170999.0	48128.06	63706.00	17930.20
1987	155444.0	42160.02	28965.00	7855.980
1988	166462.0	41511.72	21076.00	5255.860
1989	201970.0	45540.02	28010.00	6315.671

obs	CRTC	CRNC	SPS	PSPS
1978	7781.570	47.91406	0.006157	0.102002
1979	3528.422	-1784.383	-0.505717	0.069444
1980	1704.734	976.4190	0.572769	0.082143
1981	5824.406	1836.978	0.315393	0.100655
1982	6933.188	4727.886	0.681921	0.150828
1983	25692.45	8552.820	0.332892	0.194951
1984	-32977.84	-5216.601	0.158185	0.211551
1985	-67419.38	-2246.920	0.033328	2.350346
1986	42510.08	4725.999	0.111174	0.372552
1987	-5968.04	-10074.22	1.688028	0.186337
1988	-648.3008	-2600.120	4.010669	0.126612
1989	4028.301	1059.811	0.263091	0.138684

TCRE : Total credit from the monetary system (pesos million)
RTCRE : Real credit from the monetary system (TCRE/CPI)
NCP : Net credits to the public sector from the monetary system
RNCP : NCP/CPI
CPI : Consumer Price Index in the Philippines (1972=100)
CRTC : $TCRE_t - TCRE_{t-1}$
CRNC : $RNCP_t - RNCP_{t-1}$
SPS : Share of public sector credit in real credit expansion (CRNC/CRTC)
PSPS : NCP/TCRE

Table 8.28

EFFECT OF PUBLIC SECTOR BORROWINGS FROM THE MONETARY SYSTEM AND NON-BANKS ON CREDIT CREATION

obs	TCRE2	RTCRE2	NCP2	RNCP2
1978	93056.10	93058.10	29339.80	29339.80
1979	115340.8	98162.38	29134.80	24795.57
1980	138496.1	99709.22	34322.00	24709.87
1981	163328.0	103964.4	42314.00	26934.44
1982	194483.0	112288.1	58220.70	33614.72
1983	260457.3	136723.0	80684.40	42196.54
1984	268494.4	93748.05	96428.80	33669.27
1985	92094.50	26118.69	103244.2	29280.83
1986	251282.8	70724.13	127947.8	36011.20
1987	241496.3	65499.40	83981.90	22777.84
1988	264944.2	66070.87	87610.70	21848.05
1989	316244.0	71306.43	110655.9	24950.60

obs	CRTC2	CRNC2	SPS2	PSPS2
1978	15999.50	2656.500	0.166036	0.315291
1979	22284.70	-205.0000	-0.009199	0.252598
1980	23155.30	5187.199	0.224018	0.247819
1981	24831.91	7992.000	0.321844	0.259074
1982	31155.00	15906.70	0.510566	0.299361
1983	65974.30	22163.70	0.335944	0.308628
1984	8037.109	16044.40	1.996290	0.359146
1985	-176399.90	6815.406	-0.386360	1.121068
1986	159188.30	24703.59	0.155185	0.509179
1987	-9786.500	-43965.90	4.492505	0.347757
1988	23447.89	3628.805	0.154760	0.330676
1989	51299.81	23045.20	0.449226	0.349907

TCRE2 : Total credit from the monetary system and non-banks (pesos million)
RTCRE2 : TCRE2/CPI
NCP2 : Net credits to the public sector from the monetary system and non-banks
RNCP2 : NCP2/CPI
CPI : Consumer Price Index in the Philippines (1972=100)
CRTC2 : $TCRE2_t$ - $TCRE2_{t-1}$
CRNC2 : $RNCP2_t$ - $RNCP2_{t-1}$
SPS2 : CRNC2/CRTC2
PSPS2 : NCP2/TCRE2

Central Bank Certificates of Indebtedness (CBCIs) were issued by the monetary authorities to counteract the rise in budgetary loans to the National Government. As global recession set in the 1980s, the Central Bank generally pursued a supportive and moderately expansionary monetary policy through demand-stimulating measures and adoption of policy and institutional changes designed to increase domestic savings, encourage long-term financing, as well as enhance efficiency in financial intermediation. Interest rate ceilings on deposits and loans were deregulated and the universal banking system (one-stop banking) began to be adopted.

High fiscal deficits were incurred owing to intensified public spending for infrastructure and corporate equity investments, since the 1970s and the early 1980s. To help finance government deficits, a secondary market for government securities was developed with the setting up of a network of accredited dealers in government securities. Treasury bill rates moved with the market with deregulation in interest rate ceilings. The lending rate on Central Bank (CB) credit facilities (such as the rediscount window) were likewise rationalized to reflect market rates in order to encourage banks (public and private) to lessen their dependence on cheap CB credit. Reserve requirements against short-term deposit liabilities were gradually reduced from 20 percent to 16 percent to increase the supply of loanable funds and lower reserve cost.

A worldwide recession and the adoption of weak economic policies finally led to the balance of payments and external debt crises in 1983. The Philippine peso vis-a-vis the U.S. dollar was consequently devalued thrice in 1984-1985 to contain import demand as ceilings were set to control growth in reserve money, net domestic credits of the monetary system and public sector borrowings. Relatedly, the monitoring of selected government corporations was implemented to streamline their financial operations.

Reserve requirements against short-term deposit liabilities were likewise raised by 5 percentage points on a staggered basis. Open market operations were used more extensively than before with the issuance of new short-term CB bills at market rates to complement the sale of Treasury bills. Reserve repurchase agreements, whereby comparatively high interest rates were paid by the Central Bank on its borrowings (secured by government securities) from the banking system, were also resorted to. External debts were rescheduled and a debt-reduction strategy through a debt-to-equity conversion program was implemented.

The contractionary measures led to high inflation rates and interest rates. As aggregate demand decreased, real GDP growth declined in 1984 and 1985. Eventually, the strong and drastic adjustment efforts resulted in the build-up of the international reserves, stabilization of the peso-dollar exchange rate, interest rate and the decline in the inflation rate.

In 1986, political and economic confidence was restored under the new Government. Monetary policy became supportive of economic recovery efforts in 1987-1989 but at a cautious pace. A financial and economic program, which sought to ensure monetary and price stability as well as achieve economic growth, continued to function as a framework of policy objectives. In times when the monetary program was exceeded, liquidity contractions were sought through the sale of attractive Treasury bills/CB bills, the proceeds of which were largely deposited with the Central Bank. Reserve requirements were maintained while CB bills were withdrawn to give way to an auction system of Treasury bills flotation. To control any expansionary and inflationary effect of fiscal deficits, National Government balances in excess of budgetary deficits were deposited with the Central Bank. Privatization of government corporations, including government banks, was adopted as a strategy to rationalize government corporations, as well as reduce the scope and size of involvement in business. As a result of these policy measures and other equally supportive measures, the inflation rate further stabilized while real GDP growth became positive. Domestic interest rates tended to be relatively high, however, in view of the Government's deficit financing activity.

V. Summary of Findings and Conclusion

The public sector (National Government, government corporations and local governments) in the Philippines accounts for an asset share of less than twice the GDP value, while its deficit to GDP averaged about 1.7 percent in 1977-1989. While the size of the public sector remains small relative to the private sector, deficit financing activities for the past 12 years have influenced the course and quality of growth of the economy.

An examination of the data since the late 1970s and the decade of the 1980s reflected persistent deficits in 1977-1989 for the National Government and for the public sector enterprises in 1983-1989. Major causes of public sector deficits were attributable to expanded expenditures, especially infrastructure spending, inadequate tax revenue, poor tax administration, equity lending to corporations, and in later years to high operating expenditures, particularly on domestic and external debt servicing and personal services. External and domestic debt were heavily relied upon to finance the National Government or the public sector deficit spending.

It was hypothesized by the University of the Philippines' paper that "massive National Government deficits in the last years of the 1970s and in particular the large capital outlays set the stage for the difficulties in the 1980s"[29] Both public and private investments in construction expanded, raising domestic borrowings and the gap between investment and domestic savings. The period was likewise characterized by an "unprecedented expansion in the role of Government in financial and product markets which tended to create economic concentration".[30]

Foreign borrowings were increasingly resorted to as the current accounts deficit widened. The inflow of foreign funds led to money supply creation. However, the bulk of construction and other capital outlays in both the public and private sectors were not very productive; while returns to government corporations were minimal. The final blow was inflation believed to be the impact of Government's misspending, aside from the oil price shock of 1978-1979.

The ensuing worldwide recession resulted in a faster decline in export earnings in the early 1980s. In spite of higher international interest rates, the Government continued to borrow tremendously instead of reducing its deficit. The persistent rise in foreign indebtedness and the build-up of inflationary pressures finally erupted in a balance of payments crisis in late 1983. Amortization of previous external debt became quite difficult as loans matured, interest rates further rose and the exchange rate deteriorated.

The results of the linear regression equations on public sector credits (fiscal deficits) and money supply, and subsequently on prices, point out that public sector domestic borrowings, as a result of high fiscal deficits, contributed on the average to monetary expansion and inflationary pressures. But because of drastic monetary policies in the mid-1980s, active open market operations of the monetary authorities as well as the sale of government Treasury bills, the otherwise greater

29. Ibid., p. 21.
30. Ibid., p. 19.

expansionary impact of fiscal deficits and public sector credits were minimized. However, the extensive sale of government securities (CBCIs in the 1970s, the CB bills in the mid-1980s, and the Treasury bills in the late 1980s and in the 1990s) as a non-inflationary means of alternative deficit financing to foreign borrowings, led to the unprecedented rise in domestic interest rates, and to the shift in available private funds to the public sector. This was specially true in 1984-1986 when demand for private credit and investment finally became slack as expected, due to depressed economic activity and widespread economic and political uncertainty.

In 1986-1989, the Philippine economy under a democratic form of government managed to reverse its course from one of decline to one of ascent. It is nonetheless plagued with political and economic difficulties. Government resources remain inadequate as debt servicing for public sector domestic and external debt continue to limit government spending on infrastructures. Domestic interest rates remain high slowing down investments, further widening public sector deficits. Consequently, this limits the capability of the public sector to solve the basic economic problems of the country.

Fiscal and trade policies which have often led to a widening savings-investment gap in the country must be rationalized. In a country like the Philippines, the quantity of foreign exchange is a major factor affecting cyclical fluctuations of economic growth since oil and power needs are import-dependent. And since external and domestic debt remain huge, the servicing of such debt further puts pressures on the foreign exchange level, foreign exchange rate and the domestic interest rate. Sharp increases in the price of imported oil and a weak state of the world economy would significantly impair export performance and the capability of the Government to earn tax revenues and spend for infrastructures and basic services. Hence, the development of industries and technology which rely on domestic resources rather than on imported raw materials and input could be accelerated to cushion the economy from the impact of external shocks.

On the basis of past performance, the sale of high-yielding short-term Treasury bills by the National Government over an extended period of time would work against instability and growth, if not accompanied by an aggressive program of infrastructure spending and sustained rationalization of industries in the manufacturing and agricultural sectors. The rationalization should move toward a direction that would increase dollar reserves and reduce dependence on imports. Domestic interest rates would have to be reduced eventually, and the role of monetary policy would have to become more balanced and effective in attaining growth and stability and in contributing to a rational management of domestic debt.

Monetary policy alone could not effectively minimize the adverse effects of persistent fiscal deficits on inflation and production. A longer-term perspective of stabilization efforts that would be supportive of structural changes in the economy, such as one which would promote domestic production, the dollar-earning capacity of the economy, as well as provide solid ground for growth in tax revenues would be a more lasting solution to the problem of persistent fiscal deficits.

Lastly, the issue of government corporations with large foreign debt would have to be tackled since the financing of debt repayments, including interest rates and foreign exchange risks, expands the peso expenditures of the Government and its deficit. In addition to the privatization program for government corporations, a realistic strategy of managing the external debt and of supplying the dollar requirements for debt payments of government corporations, has to be charted by the public enterprises themselves. For such corporations compete with the private sector in the foreign exchange markets for their substantial foreign exchange needs, exerting pressure on the foreign exchange rate and the domestic interest rate.

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Appendix 8.1

PARTIAL LIST OF GOVERNMENT-OWNED AND/OR CONTROLLED CORPORATIONS

I. Financial Corporation

- Central Bank of the Philippines
- Development Bank of the Philippines
- Land Bank of the Philippines
- Philippine Amanah Bank
- Philippine National Bank
- Board of Liquidators
- Home Development Mutual Fund
- National Home Mortgage Finance Corporation
- PNB Venture Capital Corporation
- Private Debt Reconstructing and Repayment Corporation
- Government Service Insurance System
- Home Insurance Guarantee Corporation
- Industrial Guarantee Loan Fund
- Philippine Crop Insurance Corporation
- Philippine Deposit Insurance Corporation
- Social Security System

II. Infrastructure and Public Utilities Corporation

- National Power Corporation
- National Electrification Administration
- Local Water Utilities Administration
- Rural Waterworks Development Corporation
- National Housing Authority
- National Housing Corporation
- Light Rail Transit Authority
- Manila International Airport Authority
- Metro Manila Transit Corporation
- Philippine Aerospace Development Corporation
- Philippine National Lines
- Philippine National Railways
- Philippine Ports Authority
- Metropolitan Waterworks and Sewerage System
- National Irrigation Administration

III. Industrial and Area Development Corporation

- Bliss Development Corporation
- Strategic Investment Development Corporation
- Laguna Lake Development Authority
- Philippine National Oil Company
- National Coal Authority
- Manila Gas Corporation
- Export Processing Zone Authority

IV. *Agricultural, Trading and Promotional Corporations*

- Monte Maria Poultry Farms, Inc.
- Philippine Cotton Corporation
- Grains Insurance Agency Corporation
- QUEDAN Guarantee Fund Board
- Livelihood Corporation
- Coco-Chemical Philippines, Inc.
- Integrated Feed Mills Corporation
- National Cottage Industries Development Authority
- National Resources Development Corporation
- Philippine Coconut Authority
- Philippine Fisheries Development Authority
- Philippine Tobacco Administration
- Philippine Tourism Authority
- Philippine Trade Exhibition Center
- Philippine Virginia Tobacco Administration
- Sugar Regulatory Administration
- Food Terminal, Inc.
- National Food Authority
- Philippine Sugar Corporation
- Philippine International Trading Corporation

V. *Education, Social, Cultural, Scientific and Civic Research Corporations*

- Development Academy of the Philippines
- Philippine High School for the Arts
- Pamantasan ng Lungsod ng Maynila
- Integrated bar of the Philippines
- Overseas Workers Welfare Administration
- Philippine Amusement and Gaming Corporation
- Philippine Veterans Assistance Commission
- Cultural Center of the Philippines
- Music Promotion Foundation of the Philippines
- National Artists Awards Fund
- Philippines International Convention Center
- Technology and Livelihood Resource Center
- Lung Center of the Philippines
- National Kidney Institute
- Philippine Children's Medical Center
- Philippine Charity Sweepstakes Office
- Philippine Heart Center
- Metals Industry Research and Development Center
- National Post-Harvest Institute for Research and Extension
- Philippine Center for Economic Development
- Philippine Institute for Development Studies

LIST OF VARIABLES USED IN MONEY SUPPLY AND PRICE EQUATIONS

obs	RM	LRM	M1	LM1	M3	LM3
1976	7948.000	8.980676	12075.00	9.398892	35898.00	10.48844
1977	9814.000	9.191566	14939.00	9.611731	43932.00	10.69040
1978	12093.00	9.400382	16945.00	9.737728	51837.00	10.85586
1979	14629.00	9.590761	18844.00	9.843950	57360.00	10.95710
1980	16192.00	9.692272	22537.00	10.02291	67803.00	11.12436
1981	17798.00	9.786841	23523.00	10.06573	82090.00	11.31557
1982	18644.00	9.833280	23495.00	10.06454	95269.00	11.46446
1983	27958.00	10.23846	32571.00	10.39118	114225.0	11.64593
1984	33632.00	10.42323	33737.00	10.42635	122445.0	11.71542
1985	38447.00	10.55704	35893.00	10.48830	134532.0	11.80956
1986	51031.00	10.84019	42694.00	10.66181	144369.0	11.88013
1987	57738.00	10.96367	52416.00	10.86697	161868.0	11.99454
1988	67282.00	11.11665	59717.00	10.99737	198472.0	12.19840
1989	92876.00	11.43902	78527.00	11.27120	252998.0	12.44114

obs	NCPMA	NCPMB	LANCP2	NCPMS	LNCPMS
1976	2501.000	2.501000	10.16839	4915.000	8.500047
1977	3025.000	3.025000	10.18829	5881.000	8.679483
1978	3082.000	3.082000	10.19043	6358.000	8.757469
1979	2245.000	2.245000	10.15852	5374.000	8.589328
1980	3450.000	3.450000	10.20415	7709.000	8.950144
1981	6772.000	6.772000	10.32012	11605.00	9.359191
1982	10115.00	10.11500	10.42466	20983.00	9.951468
1983	23911.00	23.91100	10.76798	39372.00	10.58081
1984	22422.00	22.42200	10.73611	44252.00	10.69766
1985	29561.00	29.56100	10.88042	46558.00	10.74845
1986	46348.00	46.34800	11.15501	63706.00	11.06203
1987	7539.000	7.53900	10.34509	28965.00	10.27384
1988	-12254.00	-12.25400	9.333531	21076.00	9.955891
1989	-21559.00	-23.55900	1.791759	28010.00	10.24032

RM : Nominal reserve money, in pesos million
LRM : Log of nominal reserve money
M1 : Nominal narrow money supply, in pesos milliom
LM1 : Log of nominal M1
M3 : Nominal domestic liquidity/broad money (M1 + quasi - money + deposit substitutes), in pesos million
LM3 : Log of M3
NCPMA : Ner credits to the public sector by the monetary authorities, in pesos million
NCPMB : Net credits to the public sector by the monetary authorities, in pesos billion
LANCP2 : Log of adjusted net credits to the public sector by the monetary authorities (adjusted to remove negative values in 1988 and 1989)
NCPMS : Net credits to the public sector by the monetary system, in pesos million
LNCPMS : Log on NCPMS

Con't.

obs	NFAMA	NFAMB	LANFAM	NFAMS	LNFAMS
1976	2180.000	2.180000	11.81649	-714.0000	11.95333
1977	4452.000	4.452000	11.83312	-1289.000	11.94962
1978	6007.000	6.007000	11.84435	-4533.000	11.92843
1979	5650.000	5.650000	11.84178	-11109.00	11.88406
1980	3506.000	3.506000	11.82623	-17303.00	11.84039
1981	-4023.000	-4.023000	11.76962	-22835.00	11.79970
1982	-18070.00	-18.07000	11.65458	-41601.00	11.64786
1983	-61115.00	-61.11500	11.18682	-102689.0	10.88478
1984	-87658.00	-87.65800	10.72832	-138351.0	9.781094
1985	-118033.0	-118.0330	9.632663	-156046.0	0.000000
1986	-133287.0	-133.2870	0.000000	-145121.0	9.298901
1987	-132252.0	-132.2520	6.943122	-137890.0	9.806811
1988	-121581.0	-121.5810	9.367942	-122934.0	10.40768
1989	-108236.0	-108.2360	10.12871	-114547.0	10.63345

obs	RES	LRES	RESB	GCPRMA	NCPRMS	NOIMA
1976	3267.000	8.091627	3.267000	5050.000	38073.00	-1783.000
1977	2337.000	7.756623	2.337000	5458.000	44960.00	-3121.000
1978	3004.000	8.007700	3.004000	6733.000	55974.00	-3729.000
1979	6734.000	8.814924	6.734000	10245.00	72012.00	-3511.000
1980	9236.000	9.130864	9.236000	14886.00	86139.00	-5650.000
1981	15049.00	9.619067	15.04900	19201.00	103690.0	-4152.000
1982	26599.00	10.18863	26.59900	20835.00	118136.0	5764.000
1983	65162.00	11.08463	65.16200	37886.00	162587.0	27276.00
1984	98868.00	11.50154	98.86800	47376.00	164927.0	51492.00
1985	126919.0	11.75130	126.9190	55573.00	151532.0	71346.00
1986	137970.0	11.83479	137.9700	25292.00	107293.0	112678.0
1987	180451.0	12.10321	180.4510	27730.00	126479.0	152721.0
1988	201117.0	12.21164	201.1170	28726.00	145386.0	172391.0
1989	225551.0	12.32630	255.5510	32160.00	173960.0	193391.0

NFAMA : Net foreign assets of the monetary authorities, in pesos million
NFAMB : Net foreign assets of the monetary authorities, in pesos billion
LANFAM : Log of adjusted NFAMA (adjusted to remove negative figures)
NFAMS : Net foreign assets of the monetary system, in pesos million
LNFAMS : Log of NFAMS
RES : Residual item (sum of gross credits to the private sector by the monetary authorities and net other items of the monetary authorities), in pesos million
LRES : Log of RES
RESB : Residual item, in pesos billion
GCPRMA : Gross credits to the private sector by the monetary authorities, in pesos million
NCPRMS : Net credits to the private sector by the monetary system, in pesos million
NOIMA : Net other items of the monetary authorities, in pesos million

Con't.

obs	NOIMS	LARSMS	MUL1	MUL3
1976	-3630.000	11.22776	1.519250	4.516608
1977	-1695.000	11.30837	1.522213	4.476462
1978	-1556.000	11.39943	1.401224	4.286530
1979	-3047.000	11.50017	1.288126	3.920979
1980	-2409.000	11.57746	1.391860	4.187438
1981	-2417.000	11.68423	1.321665	4.612316
1982	5174.000	11.64715	1.260191	5.109901
1983	30473.00	11.48994	1.164997	4.085593
1984	68197.00	11.07296	1.003122	3.640729
1985	107214.0	10.41379	0.933571	3.499155
1986	123213.0	0.693147	0.836629	2.829045
1987	148645.0	10.18184	0.907825	2.803492
1988	159744.0	11.00679	0.887563	2.949853
1989	171724.0	11.48497	0.845504	2.724041

obs	CPI	LCPI	LNCPMA	GDPR	LGDPR
1976	84.90000	4.441474	7.824446	73922.00	11.21077
1977	93.20000	4.534748	8.014667	78467.00	11.27043
1978	100.0000	4.605170	8.033334	82784.00	11.32399
1979	117.5000	4.766439	7.716461	87962.00	11.38466
1980	138.9000	4.933754	8.146130	92567.00	11.43569
1981	157.1000	5.056882	8.820552	96207.00	11.47426
1982	173.2000	5.154447	9.221775	98999.00	11.50286
1983	190.5000	5.249652	10.08209	99920.00	11.51213
1984	286.4000	5.657390	10.01780	93927.00	11.45027
1985	352.6000	5.865335	10.29421	89904.00	11.40650
1986	355.3000	5.872963	10.74393	91180.00	11.42059
1987	368.7000	5.909983	8.927845	95481.00	11.46668
1988	401.0000	5.993961	n.a.	101398.0	11.52681
1989	443.5000	6.094698	n.a.	107466.0	11.58493

NOIMS : Net other items of the monetary system, in pesos million
LARSMS : Log of adjusted residual items of the monetary system (NCPRMS + NOIMS); adjusted by adding positive values to negative values
MUL1 : Narrow money multiplier (M1 over RM)
MUL3 : Broad money multiplier (M3 over RM)
CPI : Consumer Price Index of the Philippines (1978=100)
LCPI : Log of CPI
LNCPMA : Log of net credits to the public sector by the mon. authorities; observation period, end-1976 to 1978
GDPR : Real gross domestic products (1972=100), in pesos million
LGDPR : Log of GDPR

Con't.

obs	FXR	LFXR
1976	7.440300	2.006911
1977	7.402800	2.001858
1978	7.365800	1.996848
1979	7.377600	1.998448
1980	7.511400	2.016422
1981	7.899700	2.066825
1982	8.540000	2.144761
1983	11.11270	2.408089
1984	16.69870	2.815331
1985	18.60730	2.923554
1986	20.41570	3.016304
1987	20.61645	3.026089
1988	21.08986	3.048792
1989	21.74150	3.079223

FXR : Average of Peso-Dollar Exchange Rate
LFXR : Log of FXR

Chapter 9

PUBLIC SECTOR AND MONETARY POLICY IN SRI LANKA

by

P.B. Jayasundera

I. Introduction

Public sector role in economic activities has gained considerable importance in many developing countries. The Government directly through its usual budgetary operations influences the allocation of resources that affect consumption and production pattern. In many countries, the governments also provide administrative social and economic infrastructure for achieving high economic growth and development. In all these cases, government revenue and financing policies determine who pays for these activities. Apart from this widely known role of the government, there has also been a tendency in developing countries to create state-owned enterprises and institutions to carry out a wide range of economic activities. Furthermore, state influence in the economy also takes place in the form of its policies towards subsidies, taxes, incentives and a wide range of regulatory tools such as pricing and other administrative regulations and controls.

Meanwhile, the public sector financial operations has gained considerable attention in recent years due to a number of reasons.[1] The expanded role in the public sector and its financial operations have often contributed to escalating budget deficits which have become a major domestic policy issue. Part of the concern stems from the popular view that large budget deficits result in excessive money growth, inflation, high interest rates, crowding out of private investment, high current account deficits in the balance of payments, capital flight, depletion of external reserves and rapidly growing public debt, which ultimately hinder capital formation and economic growth. The concern has also been expressed due to the fact that the expanded role of public sector has a general tendency to displace possible private initiative in areas where public sector does not have a clear advantage.

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1. World Development Report - 1988, The World Bank, Oxford University Press.

Public sector policies and its activities could also create various expectations at home and abroad, which could have implications on private savings and investment, desired portfolio balances between domestic and foreign currency denominated financial assets and exchange rate and interest rate movements. This is particularly important when the growth of public sector and its deficits become persistent phenomena in an economy. The high budget deficits financed by debt can be perceived as unsustainable and therefore may be taken to signal future contraction in the deficit. However, whether these contractions will be effected through cuts in spending or increase in taxes and when these actions will be taken is generally unknown.

These concerns raise difficult problems in coordinating fiscal and monetary policies. The coordination of these policies is vital because these policy instruments have distinct effects on key economic variables in an economy. The monetary policy task is to look after the financing transactions in the economy in such a way that financing is neither too much nor too little. In general, the public sector financial operations have increasingly become a dominant influence on money flows within the economy as well as across economies. When public sector indulges in financial operations which are beyond resources at its command and rely on the banking system to finance resource gaps, the monetary policy is faced with no choice, but to take a restrictive stance that will curtail the availability and increase the cost of credit to the private sector.

In order to analyze the implications of the public sector in the economy, it is important to cover the public sector comprehensively. On the one hand, public sector dimensions in vertical direction include Central Government, provincial governments and local governments. The horizontal direction of the public sector on the other hand, reflects public enterprises and other public sector entities. Traditionally, a number of indicators had been applied to measure the size of the public sector. The contribution of the state to GDP can be measured by national account statistics. The public sector expenditure as a proportion of GDP is another indicator which reflects the role of the public sector to the extent that any action by the Government require some administrative arrangement that will be reflected in the expenditure of the Government. The investment being a crucial factor in economic growth, the contribution of the public sector to capital formation is also a useful indicator because it shows how contribution of the state through its investment alter the development process. However, due to the lack of statistical data on public enterprises, the above indicators will not provide a clear picture of public sector size and its influence on the economy. A thorough empirical analysis of public sector therefore raises difficult statistical problems mostly stemming from inadequacies in the data and lack of comparability.

The public sector financial variables can be another set of indicators, and perhaps the most important indicators in analyzing monetary policy issues when policy objectives are aimed primarily at maintaining financial stability in the economy. In such an analysis, direct concern would focus on short-run indicators of financial performance of public enterprises and their implications on financial market rather than on the performance of output and employment, etc.[2]

The economic consequences of public finance operations depend on the overall financial performance of the public sector. Hence, for analyzing macro economic implications of public sector, it is important to develop an appropriate indicator which measures the net claim on resources by the public sector as a whole. The conventional deficit which confined to central government budget deficit could give a misleading picture when other public sector entities are running large deficits or surpluses. Therefore, emphasis must be placed on consolidated deficits which reflect public sector borrowing requirements. The implications of fiscal deficits in this paper is analyzed using data compiled to derive public sector financial operations with the emphasis on their particular relevance to monetary policy in Sri Lanka. The study will cover the period 1976-1988 due to difficulties in compiling historical data series. Although public sector operations have a wide range of macroeconomic implications, as explained earlier, this study will attempt to examine only the following aspects: (a) review the components of public sector deficits and sources of financing; (b) investigate the factors that make public sector financing a source of excessive money creation; (c) analyze the contribution of public sector borrowings to domestic credit expansion; and, (d) study the implications of credit and monetary expansion on monetary policy objectives.

The paper is structured as follows. In Section II, general characteristics of public sector in Sri Lanka will be discussed. In Section III, methodology adopted in deriving public sector deficits will be explained. The public sector deficits and its financing components will also be examined in this section. A comparison of central government deficits

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2. Robert H. Floyde, "Some Topical Issues Concerning Public Enterprises".

with broad public sector deficits will also be made to identify the nature of deficits and financing components under two different indicators. In this section, causes of fiscal deficit will also be analyzed. Section IV will cover monetary policy during this period. The monetary policy development will also be examined in the context of the budgetary development observed during this period. The implications on monetary policy will be examined in Section V. In this section, an attempt will also be made to examine empirical evidence of the effects of financing public sector deficit through financial system. The summary and conclusions will be given in Section VI.

II. Public Sector in Sri Lanka

The public sector in Sri Lanka consists of several components. Vertically, it is structured as Central Government, provincial councils and local government while horizontally, it extends to public enterprises, government-owned business undertakings and a large number of public institutions. The vertical and horizontal structure is given in Table 9.1. Until 1988, Central Government consisted of Presidency (Chief Executive), Parliament, judiciary, 40 cabinet ministries, 4 project ministries and 25 district ministries. Since the new Government was elected in 1989, the number of cabinet ministries were reduced to 24 (under cabinet ministries, 50 state ministers have been appointed). The district ministry system was abandoned with the set up of 8 provincial councils in 1987. Under the Central Government, there are 130 government departments and 23 institutions and statutory boards. Of the 130 departments, 3 are departmental enterprises which have their own revenue sources. Statutory boards and institutions undertake research, development promotion and investment activities of the Government. The local government consists of 12 Municipal Councils, 39 Urban Councils and 24 District Development Councils. Of the local governments, municipal councils and urban councils have their own revenue sources but local government sector is largely supported by the central government grants.

Apart from the Central Government and local government, there is a large number of non-financial public enterprises (NFPEs) engaged in production, distribution and trading activities. There are three types of NFPEs. First, the public corporations are seen as the predominant form of commercial undertakings of the public sector. Second, there is a large number of government-owned business undertakings (GOBUs) which were acquired from the private sector under the Business Acquisition Act. Third, there are 3 departmental

Table 9.1

PUBLIC SECTOR IN SRI LANKA

Centre	Central Government	Public Enterprises
Districts		Statutory Boards
Sub-Districts		Government-Owned Business Undertakings
		Public Institutions
	Provincial Councils[1]	
	Local Governments	

1 Established in 1987 and will come to an effective operation in 1990.

enterprises operating directly under Central Government. The total number of these enterprises is about 100. Furthermore, there are 12 financial public enterprises in the country.

The Central Government itself shows a considerable expansion in Sri Lanka. The expansion in the Central Government took place due to a number of reasons. First, government services such as free education and health expanded considerably during post independent period as successive governments committed to provide these services to almost all parts of the country. In fact, successive governments in Sri Lanka made a considerable effort to decentralize and expand district level development and as a result, the general public services, particularly education, health and public administration expanded considerably. Second, Government established a large number of institutions to undertake research and development activities in almost every important field. Third and perhaps the most important one was the establishment of a large number of statutory boards to undertake government capital investment projects which were largely funded by external sources.

Strictly speaking, there is no clear dividing line between public and private sectors when a large number of state enterprises exist in various legal forms of organizations. For practical purposes, however, operations of a public enterprise may be defined as any industrial, commercial or other activity, in which Government or other government-controlled agencies have an ownership stake that is sufficient to ensure controls over the enterprise regardless of how the control is exercised. These enterprises may take variety of legal forms of organizations. In the context of Sri Lanka, public enterprises can be in the form of departmental enterprise, statutory or state corporation or in the form of state or mixed ownership companies.

The public enterprise sector growth has also been considerable in Sri Lanka's context. There are several factors which explain the growth of public enterprise sector in Sri Lanka. The increased participation of the public sector in Sri Lanka's socioeconomic activities occurred essentially after independence under successive governments.[3] At the time of independence, Government had virtual monopoly on rail-

3. A.S. Jayawardena, "Public Enterprises in Sri Lanka: Investment, Prices and Performance". H.N.S. Karunatilake, "The Economy of Sri Lanka".

ways, telecommunications, electricity, water supply, etc., which are generally owned or regulated by the Government in many countries due to basic economic reasons. However, these enterprises were organized directly by the Government in the form of government departments. As an attempt to industrialize the economy, several industries such as cement, steel, and trading activities like wholesale trade were also established by the Government in early 1950s.

There were several drawbacks of the organizational set-up of these enterprises to perform commercial activities. There were cumbersome and burdensome financial procedures of the Government. The government-owned industries had to follow government financial regulations. The government tender procedures were hardly amenable to commercial activities. In view of these deficiencies, Government introduced Corporation Act No. 19 of 1955 enabling government corporation to perform on commercial basis. This Act provided for the establishment of state industrial enterprises. The Government which came into power in 1956 stressed the need for public sector to play dominant role in industrial development. Accordingly, a further step in this direction was taken in 1957 when the Government introduced the Industrial Corporation Act No. 49. This step enabled Government to set-up or take over industrial activities to be carried under government-owned corporations established under the Corporation Act No. 19 of 1955. The government participation in economic activities expanded gradually as a large number of government-owned enterprises emerged as a consequence of these legislations. As a result of the subsequent government policies to nationalize certain private enterprises such as transports, port cargo, petroleum, state plantations also became state-owned enterprises. These enterprises were either established by special legislations, or under general legislation such as State Industrial Corporations Act.

Apart from industrial and trading activities, government ownership expanded progressively in other fields such as constructions and development activities. In the evolution of public enterprises, there are also instances where few companies registered under the Company Law, but owned by the Government. The other root of expanding public enterprises in Sri Lanka was the business nationalized under Business Acquisition Act which was passed in December 1970. The economic policy adopted by the Government which came into power in late 1977 did not encourage the growth of public enterprises. However, there was no significant change in the number of public enterprises after 1977.

Table 9.2 shows the growth of public enterprises during the last several decades. It can be seen that there has been a rapid increase in the number of public enterprises between 1965 and 1970. During this period, the number of service-oriented public enterprise as well as trading and manufacturing public enterprises showed considerable expansion. Despite the change in development strategy in late 1977 and recognition of market-oriented policies, the total number of public enterprises remain as high as it was in pre-1977 period.

The expanded size of the public sector in Sri Lanka can also be seen from several other indicators. The employment statistics given in Table 9.3 clearly indicate that the total number of public sector employees as a proportion of the labor force has increased from 10 percent in 1968 to nearly 15 percent in 1988. This does not include the work force of about 421000 employees in state-owned plantations and temporary and casual workers in the public sector. If this work force is also included, the total employment in the public sector can be estimated at 1.2 million or about 17 percent of the estimated labor force. Thus, public sector is by far the largest employer in the economy. The wages and salaries in the central government budget have typically absorbed between 20-25 percent of central government current expenditure or 4-5 percent of GDP. However, the wage cost in the budget does not include the wage cost of publicly owned corporations and some other public sector institutions. The crude estimates indicate that the wage cost of non-central government sector is about 2 percent of GDP. Hence, the total public sector wage bill could account for about 6-7 percent of GDP in the country.

Apart from the total number of public sector entities and employment statistics, increased involvement of the public sector can also be shown from the indicators given in Table 9.4.

As can be seen from Table 9.4, central government expenditure as well as public sector capital formation has remained considerably high over this period. The substantial increase in the public sector capital formation particularly during 1978-1984 was mainly due to increase in capital expenditure with heavy emphasis on long-gestation infrastructure projects such as Mahaweli Program, Urban Development Projects and implementation of ambitious public investment program supported largely by foreign capital. The rapid growth in central government expenditure accompanied by large budget deficit which peaked 20 percent of GDP in 1980 still remain around 12-15 percent of GDP. The Table also shows that government revenue although marginally

Table 9.2

PUBLIC ENTERPRISES: NUMBER OF ESTABLISHMENTS

Sector	1958	1965	1970	1977	1985
Manufacturing	12	20	24	29	27
Trading	1	2	2	13	13
Agriculture	1	1	1	4	4
Services & Other	14	22	35	61	59
Total:	28	45	62	107	103

Source: The Economy of Sri Lanka by H.N.S. Karunatilake (1987).

Table 9.3

EMPLOYMENT STATISTICS OF THE PUBLIC SECTOR

	Government 1	Public Corporations 2	Public Sector 3	Percentage of Total Labor Force 4
1968	303746	115355	419029	10.1
1972	323718	145810	469528	10.5
1980	476086	228531	704617	12.3
1985	502943	322617	825560	13.8
1988	494600	331500	826100	13.5

1 Government includes all employees in Ministries, Departments and Institutions which come under direct government administration.

2 Corporation includes all employees in state-owned corporations and other statutory bodies.

3 Exclude workers in the State Plantations.

4 Percentages were calculated from labor estimates given in various surveys carried out in respective years.

Source: *Census of Public Sector and Corporation Sector Employment, 1985, Department of Census and Statistics. Review of the Economy (various issues), Central Bank of Sri Lanka.*

Table 9.4

SELECTED INDICATORS OF PUBLIC SECTOR
(As Ratios of GDP)

	1977-78	1979-80	1981-82	1983-84	1985-86	1987-88
Domestics Capital Formation	17.6	29.8	29.3	27.4	23.8	23.2
Public Sector Capital Formation[1]	9.2	16.4	15.4	14.7	11.8	10.9
Private Sector Capital Formation	8.1	13.5	13.9	12.7	12.0	12.3
Central Government Revenue	21.8	21.7	16.8	20.7	21.5	21.1
Central Government Expenditure	31.8	40.2	33.4	31.9	33.5	32.5

1 Include Central Government, local government and publicly owned enterprises 1983-1988, Author's estimates.

Source: Review of the Economy (various issues), Central Bank of Sri Lanka.

changed, has been maintained at relatively high level given country's per capita income. The private sector capital formation although rose in 1979-1980 over the previous years to around 14 percent of GDP, it has declined to around 12-13 percent of GDP since 1984. Similarly, public sector capital formation which reached about 16 percent of GDP gradually declined to about 11 percent of GDP in 1987-1988 as fiscal adjustments were made largely through cuts in capital expenditure.

2.1 Role of the Public Sector in Sri Lanka

In the early years of independence, the Government placed major emphasis on agricultural development, improvements in traditional plantation, and the development of the infrastructure particularly for rural agriculture and establishment of basic industries under state ownership. The political thinking during 1956-1977 was that a transformation of Sri Lankan economy and achievement of high rate of economic development could not be attained by relying on private sector and that it is the task of the Government to take command over the development process. The general development strategy in 1960s and 1970s in Sri Lanka was thus based on the thinking that commanding heights of the economy should be in the hands of the public sector. Accordingly, private sector role was limited to clearly defined areas in order to prevent the concentration of economic power. Consequently, the state ownership was expanded not only to cover basic industries, but also to gain control over service sector activities such as banking, external and internal trade. It was felt that state-controlled and restricted external trade policies would be desirable to correct macro imbalances, and to achieve a high rate of growth through industrialization. Hence, this period is characterized by strict import substitutions, policies and state intervention in investment production and distribution activities. As a esult, government ownership was extended across whole range of industry, trade and finance as shown in Table 9.2. During this period, social welfare was also in the order of high priority.

The fundamental policy changes based on market-oriented and outward looking growth strategy was introduced in late 1977. The emphasis was placed on shifting resources from consumption-and welfare-oriented programs towards production and employment-oriented activity. Thus, administrative and fiscal controls in respect of exchange and import transactions were replaced by tariff and flexible exchange rate policies and the anti-private enterprise policy framework was reversed. Although no efforts were made to denationalize or privatize a very large number of publicly owned enterprises at the time of economic reforms, an attempt has been initiated in 1987 to broad base the ownership of public enterprises through privatization efforts. The broad-based ownership of public enterprises and commercialization of state enterprises remain in the order of priority in current economic policies.

It is clear that public sector expansion is partly a result of various development strategies adopted from time to time in Sri Lanka since independence because public enterprise was regarded as a means to promote faster economic growth. Policy strategies followed for a considerable length of time indicated that the state was entrusted with controlling the economy. In the wake of this policy strategy, regulations were introduced in varying degree from time to time for the purpose of control and manipulation of the economy. Ultimate result of this policy stance was the creation of a large public sector in the economy.

III. Public Sector Deficit: Methodological Issues

Traditionally, focus on public finance analysis in Sri Lanka have been confined to central government budgetary operations. Although central government data capture some of the financial transactions of the publicly owned enterprises, there is a general tendency to understate the total claim by and on the public sector as a whole, as the central government financial data do not fully reflect the financial operations of the overall public sector. The public sector enterprises and institutions which operate outside the budget, also undertake activities that are an integral part of the public sector total claim on the economy.

Furthermore, most of the public enterprises are commercial in nature. They earn revenue by selling goods and services, which are also produced by the private sector. These enterprises also rely on government financial supports, implicit subsidies, and protection from competition through various government policies. Varying degree of government influence and different legal status further underscore the diversity of operations in public enterprises.

Under these circumstances, the compilation of data on public sector financial operations are affected by significant variations in budgetary and accounting practices adopted by various organizations of public sector. The budgetary accounts of Central Government are compiled from annual balance sheets which provide actual budget out-turn on cash basis. Therefore, the derivation of deficits and its financing is straight forward in the case of Central Government. The accounting system in publicly owned enterprises are different. The accounts are prepared on accrual basis and derivation of revenue and expenditure is not straightforward. The profits and loss accounts and balance sheets cannot be directly translated into a cash basis. Moreover, such information are not available on a consistent basis for generating reasonable number of observations for time series analysis. As a result, it is difficult to compile revenue, expenditure and borrowings of these enterprises to produce an overall public sector budgetary out-turn for assessing full dimension of the public sector financial implications. However, it is essential to define the public sector inclusive of public enterprises and other public entities judged to be undertaking public sector activities. An essential step therefore, is to develop a meaningful measure of the public sector overall financial balance using alternative methodologies that can be adopted for empirical studies.

Conceptually, the deficit can be measured using one of the following two formulas:

(1) Deficit/Surplus = Revenue plus grants less total expenditure and lending minus repayments.

(2) Deficit/Surplus = Financing (net borrowings) from abroad, net borrowings from domestic bank and non-bank sources and change in government liquidity position.

The first formula can be applied if consolidated public sector revenue and expenditure data are available. The deficit/surplus obtained from this approach should be equal to Formula 2, by definition. On the other hand, using monetary balance of payments and government accounts, Formula 2 can be applied to identify financing components and develop consolidated public sector deficit/surplus accordingly. Total financing by definition is equal to the budget deficit/surplus. It reflects the change in government obligations for future repayments and its liquidity holding necessary to cover the difference between its payments for expenditure and lending and its receipts from revenue and grants. In fact, financing covers transactions involving government liabilities, government acquisition of claims on others for liquidity purposes and repayments or sales of such claims. It also includes net change in government holding of currency and deposits resulting from government transactions. This approach also has merit in its identification of financing components and of its impact; in most circumstances, upon expansionary impact of domestic demand and monetary policy.

3.1 Public Sector Deficit in Sri Lanka

Table 9.5 provides the public sector deficit derived from Formula 2 for 1976-1988 period. As shown in Table 9.5, public sector deficits in Sri Lanka are generally higher than the deficits recorded under Central Government. This indicates the fact that overall performance of the public enterprise sector had not contributed to moderate the central government deficits. Table 9.5 also indicates that deficits have not been transitory in nature, but a regular phenomenon in Sri Lanka. The central government average deficit in 1978-1988 period as a proportion of GDP was 11.4 percent while consolidated public sector recorded a deficit/GDP ratio of 12.6 percent. Chart 9.1 demonstrates the trends in both central government deficits and overall public sector deficit. It shows that the deficit/GDP ratio reached to a peak in 1982 and thereafter some reduction but still continued to be large in subsequent years.

As evident in Table 9.5 and Chart 9.2, which is drawn for the period as a whole, the foreign resources have played a large role particularly since 1978, in financing public sector deficits in Sri Lanka. On an average basis 43 percent of the deficit of the public sector during this period has been financed by foreign borrowings. An important feature of foreign finance used by Central Government during this period is that a good part of such resources was received on concessionary terms. Hence, the grant element of foreign loans has been about 30 percent of the total foreign borrowings. However, increased use of foreign resources in the overall public sector deficit financing is a result of high commercial borrowings by the public enterprise sector. For instance, net commercial borrowings of public enterprises rose from 1 percent of GDP in 1980 to 3 percent of GDP in 1982. The decision to restrict commercial borrowings enabled the Government to reduce the reliance of foreign financing of public enterprises in subsequent years. As a result, the overall public sector deficit growth was moderate since 1983.

As suggested by two-gap growth model, foreign finance could stimulate economic growth by easing foreign exchange problems and

Table 9.5

PUBLIC SECTOR DEFICIT AND ITS FINANCING
(GDP Ratios)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
CENTRAL GOVERNMENT													
Deficit Before Grants	9.75	7.42	10.87	15.59	20.33	15.65	19.01	13.02	8.72	13.02	11.82	11.39	15.39
Grants	1.22	1.38	1.55	2.65	3.94	3.20	3.40	2.86	2.14	2.04	2.09	2.38	2.95
Deficit After Grants	8.53	6.04	9.32	12.93	16.39	12.45	15.61	10.16	6.58	10.98	9.73	9.02	12.43
Domestic Borrowings	5.99	3.60	1.75	8.20	11.51	6.60	9.94	5.30	2.02	5.94	4.62	6.26	8.94
Non-Banks	4.48	4.36	4.39	6.18	2.42	2.11	5.55	4.98	3.96	2.38	3.40	3.97	4.90
Banks	1.51	-0.76	-2.64	2.02	9.10	4.49	4.39	0.31	-1.94	3.57	1.23	2.29	4.04
Foreign Borrowings	2.54	2.45	7.57	4.74	4.88	5.85	5.67	4.87	4.56	5.04	5.10	2.75	3.49
Disbusements	3.05	3.07	8.36	5.51	5.68	6.52	6.35	5.90	5.54	6.15	6.78	5.13	5.82
Repayments	-0.51	-0.62	-0.79	-0.78	-0.80	-0.67	-0.68	-1.04	-0.99	-1.11	-1.67	-2.37	-2.33
PUBLIC ENTERPRISES													
Deficit	0.14	1.69	1.62	1.97	2.1	1.99	3.31	1.62	0.09	-0.28	-0.43	0.49	0.87
Foreign Borrowings	0.00	0.00	0.00	0.09	0.93	1.56	3.12	1.87	0.24	-0.46	-0.60	-0.84	-0.66
Disbusements				0.11	0.95	1.59	3.24	2.04	0.71	0.38	0.18	0.27	0.13
Repayments				-0.02	-0.02	-0.02	-0.13	-0.18	-0.47	-0.84	-0.78	-1.12	-0.79
Domestic Banks	0.14	1.69	1.62	1.88	1.17	0.43	0.19	-0.24	-0.15	0.18	0.17	1.34	1.53
PUBLIC SECTOR													
Deficit Before Grants	9.89	9.11	12.50	17.56	22.42	17.64	22.32	14.65	8.81	12.74	11.38	11.88	16.26
Grants	1.22	1.38	1.55	2.65	3.94	3.20	3.40	2.86	2.14	2.04	2.09	2.38	2.95
Deficit After Grants	8.67	7.73	10.95	14.90	18.48	14.44	18.92	11.79	6.66	10.70	9.29	9.51	13.31
FINANCING													
Foreign	2.54	2.45	7.57	4.83	5.81	7.41	8.78	6.73	4.80	4.58	4.50	1.91	2.83
Domestic	6.13	5.28	3.38	10.08	12.68	7.03	10.14	5.06	1.87	6.12	4.79	7.60	10.48
Non-Banks	4.48	4.36	4.39	6.18	2.42	2.11	5.55	4.98	3.96	2.38	3.40	3.97	4.90
Banks	1.66	0.92	-1.01	3.90	10.26	4.92	4.59	0.07	-2.09	3.75	1.39	3.62	5.58
GDP at Current Market. Price:	30203	36407	42665	52387	66527	85005	99238	121601	153746	162375	179474	196723	223010

Source: Computed from Appendix 9.1.

Chart 9.1

TRENDS IN PUBLIC SECTOR DEFICITS

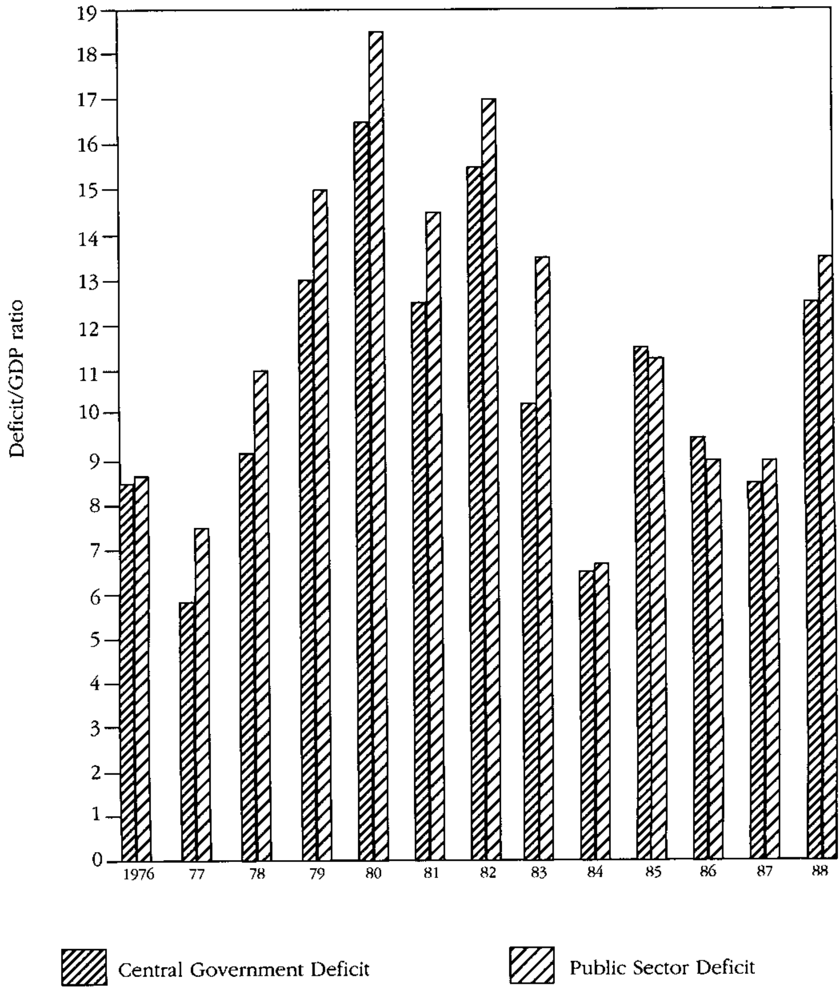
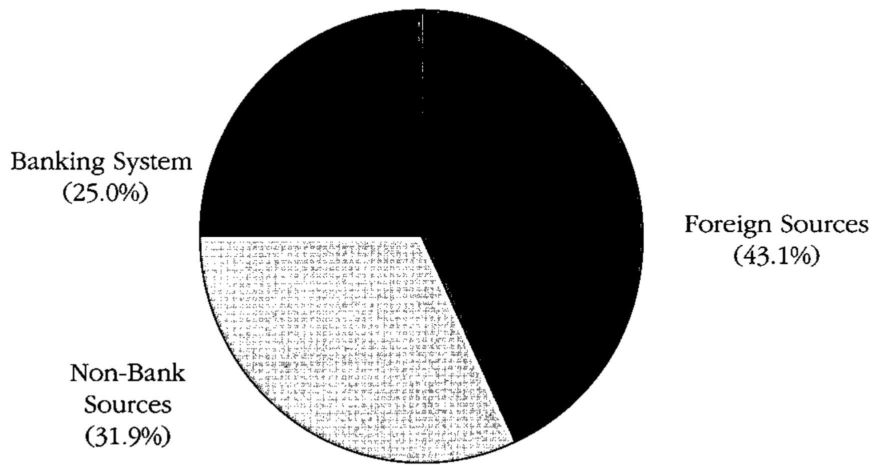


Chart 9.2

Public Sector Deficit Financing (1976-1988)



become complimentary to domestic savings. Although foreign capital could assist country's economic performance, experience in most countries show that it could also lead to debt service problem. It has been argued that those countries which ran into debt service difficulties in recent years are the ones that have not managed to adjust their spending policies according to changing domestic and external environment.[4] Whatever the merits of these arguments, debt service problems can be severe and retard economic growth and create problems in management of the budget if the use of foreign finance does not accompany a rapid economic growth. Although Sri Lanka's external debt service problem may not be as severe as in many developing countries, its rapid increase shown in Table 9.6 suggests the urgent need for adjustments such as less reliance on foreign finance in future or rapid export growth.

Although the gravity of the problem cannot be seen from these ratios since some countries had little difficulties in managing with high debt service ratio while some have had problems with very low debt services, the debt service can become a severe problems on the government budget and on the balance of payments, if the overall economy fails to generate adequate resources to meet imports and debt service commitment in the country.

As shown in Chart 9.2, domestic borrowings from non-bank sources have accounted for about 32 percent of the public sector deficit during this period. Most of these resources came from so-called "captive funds" which are being obliged to contribute to government securities. The Employees' Provident Fund and the National Savings Bank were the major institutions that contributed to non-bank resources for financing the deficit. The use of these non-bank resources was made entirely by the Central Government.

The advantage of using non-bank resources for deficit financing purposes is that it does not lead to a monetary expansion and therefore does not create inflationary potentials or balance of payment difficulties. However, in recent years, Treasury bill rate has risen to about 20 percent as Government has attempted to attract resources from private sector as well.

4. *World Development Report, 1985,* The World Bank, Oxford University Press.

Table 9.6

DEBT SERVICE RATIOS

(in Percent)

	1979	1981	1983	1985	1988
External Debt/GNP	32.0	37.6	41.6	46.7	63.4
Foreign Debt Service/ Exports of Goods and Services	13.0	16.8	21.6	21.0	28.8
Foreign Debt Service/ Exports of Goods and Services and Private Transfers	12.4	14.4	17.8	17.9	24.2

Source: Review of the Economy (various issues) Central Bank of Sri Lanka.

On the other hand, the use of resources from captive sources could certainly take away a considerable proportion of available resources from private sector activities. For instance, had there been no excessive increase in budget deficits and use of resources from the captive funds, the resources in these funds could have been channeled to the private sector for investment and production activity. In other words, freeing "captive funds" and encouraging them to invest in alternative activities would have resulted in a completely different interest rate structure and thereby a significant change in the overall resource allocation in the country during this period.

The financing from the banking system of which a large part is directly from the Central Bank, has also been a regular feature in Sri Lanka's fiscal performance. The public sector as a whole has borrowed resources accounting for an average of 3 percent of GDP from the banking system during 1978-1988 period. On an average basis, the banking system has contributed one-fourth of deficit financing in the public sector during the same period. Although the average borrowings of the public sector from the banking system seems relatively small, there has been heavy reliance on the use of resources by the public sector for financing its deficits on many occasions. For instance, in 1979, public sector borrowings from the banking system was about 4 percent of GDP while in 1980, it was about 10 percent of GDP or nearly 50 percent of the deficit. In subsequent two years, resources utilized by the public sector was around 5 percent of GDP. Once again in 1985 and 1987, public sector utilized nearly 4 percent of GDP from the banking system. In 1988, this ratio reached nearly 6 percent of GDP. Hence, it is clear that on many occasions, the banking system provided a considerable volume of resources for financing public sector deficit in the country. The popular hypothesis is that deficit financing through money and credit creation would create inflationary potentials in the economy and lead to balance of payments difficulties. This hypothesis can be justified because expansionary policies often result in demand pressure in small open economies like Sri Lanka where production of goods and services is largely constrained by supply factors rather than by aggregate demand. It may also be argued that inflationary financing could adversely affect the relative advantage in external trade and finance as uncertainties resulting from inflationary expectation could discourage domestic saving and lead to capital outflows. As evident in Chart 9.3, inflationary pressure in the economy was intensified between 1977-1988 (except in 1985) during which public sector deficit was expanded.

In analyzing the deficits and its financing components, it is also important to understand the link between budget deficit and public debt. The link between the budget deficit and the amount of public debt can be ignored provided that: (a) the deficit is a temporary phenomenon, so that public debt would not accumulate over time as one year deficit could offset by a surplus in another year; and, (b) if the rate of economic growth is rapid and at the same time deficit is small, so that share of public debt in GNP would not increase.

However, when the deficit is a permanent phenomena like in the case of Sri Lanka the deficit becomes cumulative over time leading to increase in the share of public debt in GNP. The total outstanding public debt in relation to GNP has increased from 60 percent in 1976 to 113 percent in 1988. The increase in debt/GNP ratio raise a number of questions for fiscal and monetary policy formulation. The immediate fiscal question is that as the relative size of the debt increase, the commitment on interest expenditure also continues to grow. Table 9.7 demonstrates the rapid growth in interest payments during 1976-1988 period.

As evident in Table 9.7, interest payments on government debt accounts for slightly over one-fourth of total current expenditure of the Government. If government revenue and non-interest expenditure items remained at the same level, fiscal deficits and financing requirements would continue to grow leading to further expansion in government debt. In this context, it is inevitable to raise government revenue and/or to reduce non-interest expenditures in the budget to achieve manageable fiscal balances. However, frequent ad-hoc revenue and expenditure measures could have adverse implications on overall socioeconomic performance of the public sector and create uncertainties among private sector.

3.2 Causes of Public Sector Deficits

High fiscal deficits that persisted throughout this period had many causes. The analysis of expenditure and revenue trends for overall public sector is not feasible due to lack of revenue and expenditure data on public enterprises. However, the central government revenue and expenditure data can be used to identify the main causes and that is reasonably adequate to highlight the main causes as central government deficit accounts for a considerable proportion of public sector deficits.

Chart 9.3

**Deficit Financing (Banking Sources)
And Inflation Relationship**

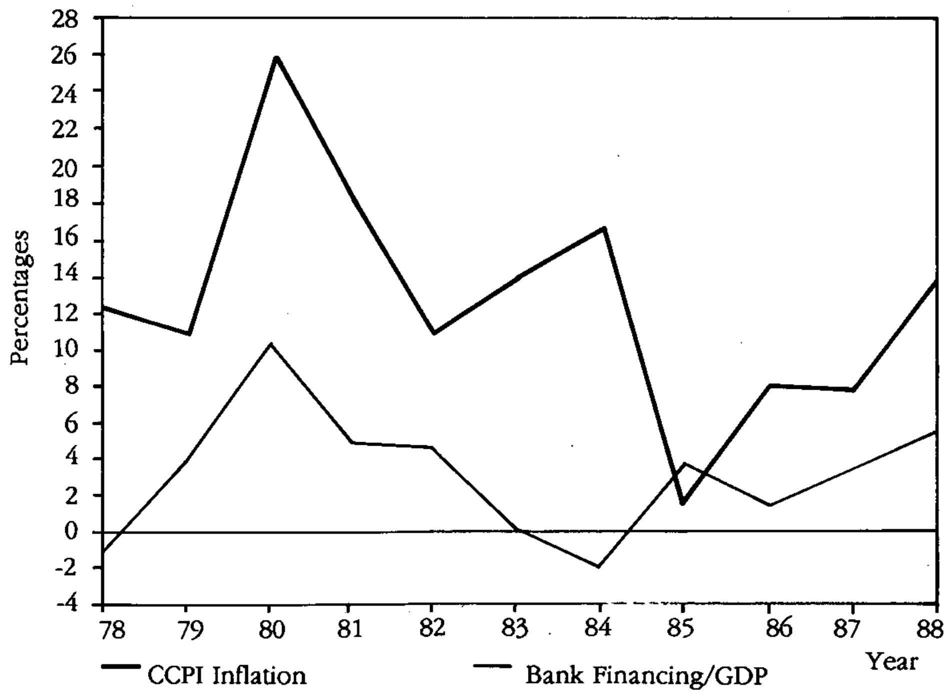


Table 9.7

INTEREST PAYMENTS
(in Rupees Million)

	1976	1978	1980	1982	1984	1986	1988
Interest on Domestic Debt	662	1055	1787	4189	5115	6553	9694
Interest on Foreign Debt	178	285	413	915	1623	2209	2896
Total Interest Payments	840	1340	2200	5104	6738	8762	12590
Interest Payments/ Current Expenditure (%)	16.3	13.6	17.9	27.8	27.4	25.8	27.3
Interest Payments/ Total Expenditure (%)	10.2	7.9	7.9	15.2	14.1	14.8	16.5
Outstanding Public Debt/GNP (%)	60.0	73.6	79.1	87.2	77.9	98.7	113.2

Source: Annual Report, Review of the Economy (various issues), Central Bank of Sri Lanka.

In examining central government revenue and expenditure data, it can be observed that the overall deficit is a permanent phenomenon in Sri Lanka. Although high budget deficit is generally a combined effect of both revenue and expenditure performance, the situation in Sri Lanka shows that it was largely a result of high government outlays. The trends in government revenue and expenditure are shown in Chart 9.4. Sri Lanka's overall revenue performance is generally satisfactory, given its per capita income. In fact, the revenue/GDP ratio of about 20 percent is attained only by a few countries in the SEACEN region and those countries also have much higher per capita income than Sri Lanka. Although the country has maintained high level of total revenue of which 85 percent is from tax revenue, the overall tax structure exhibit very low elasticity which reflect a lack of growth in adequate revenue. The available statistical evidence show that overall elasticity in tax revenue is 0.4 indicating that 10 percent increase in gross domestic product at market price result in only 4 percent growth in government revenue. This necessitated frequent ad-hoc adjustment in tax revenue to maintain targeted revenue of the Government. Thus Sri Lanka maintains its tax revenue around 17 percent of GDP through frequent ad-hoc changes which resulted in buoyancy coefficient close to 1.[5] However, overall revenue buoyancy was marginally lower than the estimated tax buoyancy for the period 1978-1988.

The dominance of external trade-based taxes, and domestic taxes on goods and services is an important feature of Sri Lanka's tax structure as evident in Table 9.8. These two sources alone account for about three-fourths of total tax revenue in the country. Historically, foreign trade has constituted the largest single source of tax revenue in the country although its relative importance in recent years has declined. Despite the diminishing relative importance of export taxes due to gradual reduction in taxes to maintain reasonable producer margins, external trade-based taxes have continued to remain significant owing to revenue from import duties having gained considerably in importance. For instance, the share of import duties in total tax revenue rose from about 17 percent in 1978-1979 to nearly 30 percent in 1988.

5. P.B. Jayasundera, "A Study on the Elasticity of the Tax System in Sri Lanka 1978-1988", unpublished paper.

Chart 9.4

TRENDS IN REVENUE AND EXPENDITURE (CENTRAL GOVERNMENT)

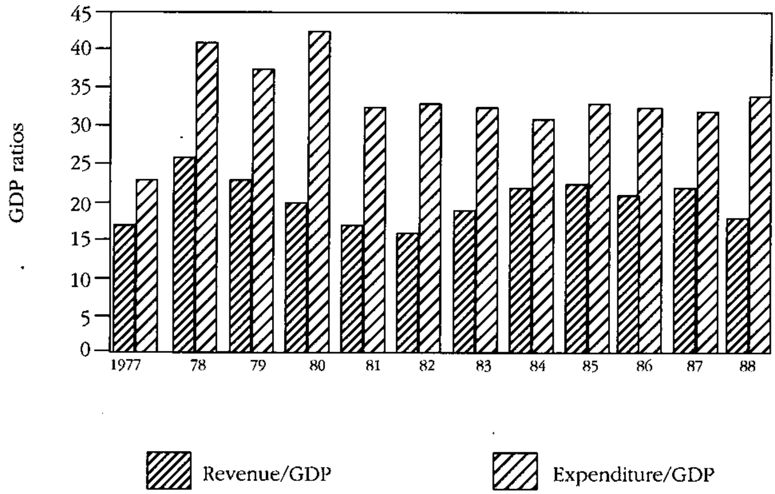


Table 9.8

RELATIVE COMPOSITION OF TAX STRUCTURE
(Percentage Tax)

	1978-79	1980-81	1982-83	1984-85	1986-87	1988-89
Tax on Income	11.5	16.0	18.4	18.3	14.6	12.9
	(2.6)	(2.8)	(2.8)	(3.5)	(2.6)	(2.2)
Taxes on External Trade	59.5	49.7	36.3	39.8	36.2	34.2
	(12.8)	(8.9)	(5.7)	(7.7)	(6.4)	(5.8)
Export Taxes	42.9	29.7	17.5	15.5	5.4	4.7
	(8.9)	(5.1)	(2.7)	(3.0)	(0.9)	(0.8)
Import Duties	16.6	20.5	18.8	24.5	30.8	29.5
Taxes on Domestic Goods	24.9	31.5	42.3	39.4	45.0	48.2
and Services	(6.5)	(5.6)	(6.8)	(7.7)	(8.1)	(8.0)
Excise Tax	14.3	14.4	13.0	9.2	13.6	13.7
	(4.0)	(2.6)	(2.0)	(1.7)	(2.4)	(2.4)
Turnover Tax	10.6	17.1	29.3	30.2	31.2	32.5
	(2.5)	(3.0)	(4.6)	(5.8)	(5.5)	(5.5)
Tax on Other Transactions	2.6	2.8	3.0	2.5	4.2	5.3
	(0.4)	(0.3)	(0.5)	(0.4)	(0.8)	(0.9)
Property Transfer Tax	1.8	2.1	2.1	2.0	3.3	4.5
	(0.2)	(0.2)	(0.3)	(0.3)	(0.6)	(0.6)
License Fee	0.8	0.7	0.9	0.5	0.9	0.8
	(0.2)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)
Others	1.5	-	-	-	-	-
	(-)	(-)	(-)	(-)	(-)	(0.1)
Total	100.0	100.0	100.0	100.0	100.0	100.0
	(22.6)	(17.6)	(15.6)	(19.1)	(17.7)	(17.0)
Total (Revenue/GDP)	(24.6)	(18.6)	(17.9)	(22.2)	(21.1)	(21.2)

GDP ratios are given in brackets.

Note: Tax structure refers here to the revenue importance of different taxes rather than to legal context of tax legislations. The classification of taxes in this Table is made on bases upon which taxes are imposed.

Source: Annual Report and Review of the Economy (various issues), Central Bank of Sri Lanka.

Paralleling the increased reliance on taxes on imported goods, taxes on domestically produced goods and services increased their share from 25 percent of tax revenue in 1978-1979 to 46 percent in 1988. The counterpart of the increased reliance on taxes on goods and services was the parallel fall in the share of taxes on income and profits on the one hand and export taxes on the other. While the share of export taxes fell drastically from 43 percent in 1978-1979 to 5 percent in 1988, the contribution from income taxes also began to fall from 18 percent in 1982-1983 to 13 percent in 1988. The structural shift in Sri Lanka's tax structure thus clearly shows a movement towards heavy reliance on import duties and taxes on domestic goods and services.

As explained earlier, ad-hoc revenue adjustments enabled the country to enhance buoyancy coefficient of tax revenue. Although revenue elasticity in the case of import duties and taxes on domestic goods and services was less than one, revenue buoyancy of these revenue sources exceeded one due to frequent revisions in tax rates and the base. However, it must be noted that even with frequent discretionary measures, Sri Lanka could not find a way to raise tax/GDP ratio progressively. This explained why the country's tax/GDP ratio at around 17 percent remained somewhat constant during this period.

In examining revenue growth as a cause for high deficit, it is important to see why revenue system is not growing reasonably at an adequate rate, at least to compensate a part of growth in government expenditure. The lack of adequate elasticity in revenue system is related to the nature of the rate structure adopted in taxation. Usually the revenue elasticity is high under advalorem tax structure as it has direct response to the change in tax base. However, in Sri Lanka, a large number of items have been taxed under specific rates. For instance, excise on liquor and tobacco, import duties on sugar, export duties on tea, import duties on petroleum to some extent are taxed by specific rates. Furthermore, as an effort to provide reliefs under different circumstances to various consumer and producer groups, taxes have been administratively waived.

Perhaps the most important reason for low revenue growth is the availability of a wide range of tax exemptions, incentives, relief, etc., provided in the tax system. In the case of income taxes, a variety of tax exemptions including tax holidays, exemption of public sector employees, interest income, dividend, etc., have been provided. Furthermore, tax holidays are granted to so-called non-traditional exports and import substitution industries. Meanwhile, subject to a *maximum*, a number of items are allowed to be claimed under "qualifying payments". In applying turnover taxes, business engaged in cultivation of export crops and manufacturing of industrial articles for export and selected domestic products are exempted. A variety of imported goods are also exempted. These concessions naturally result in narrowing the tax base. There is also a public perception that wide scale tax evasion takes place due to tax administration problems. Although overall revenue performance has been satisfactory in maintaining high revenue/GDP ratio, one can argue that had there been some effort to address these issues, Sri Lanka could have raised more revenue, particularly to meet at least a part of growing government expenditures. While this argument is subject to further debate, it can be argued that fiscal deficit in Sri Lanka is not largely due to revenue shortfall, but essentially due to escalation of expenditure of the Government.

The expenditure/GDP ratios increased considerably during 1978-1980 period, but since then it has been averaged around 33 percent. Accordingly, the overall expenditure buoyancy coefficient for the period as a whole was 0.87, a slightly lower than the overall revenue buoyancy coefficient of 0.92. This tendency in fact contributed to reduce budget deficit/GDP ratio (after grants) to about 11 percent in 1987 from about 20 percent in 1980. Nevertheless, the overall expenditure in Sri Lanka remained high during 1978-1988 period due to a number of factors. One of the general factors which explains growth of public expenditure in Sri Lanka is the existence of a large public sector in the economy. The current expenditure as a proportion of total expenditure has grown considerably and during 1978-1988 period on an average basis current expenditure accounted for 55 percent of the total expenditure. On many occasions, current expenditure exceeded government revenue leaving no government savings as shown in Chart 9.5.

By looking at various current expenditure items, more specific explanation can be given to explain expenditure growth The interest payments as a proportion of current expenditure and expenditure on other goods and services as a proportion of total current expenditure have gained considerably in importance in Sri Lanka's government expenditure. The interest expenditure which was only 14 percent of total current expenditure in 1978 have grown steadily over 1978-1988 period and reached 27 percent in 1988. The persistent high budget deficits and financing such deficits through both domestic and foreign sources have contributed for this development. The other major items

Chart 9.5

REVENUE EXPENDITURE TRENDS (1978 - 1988)

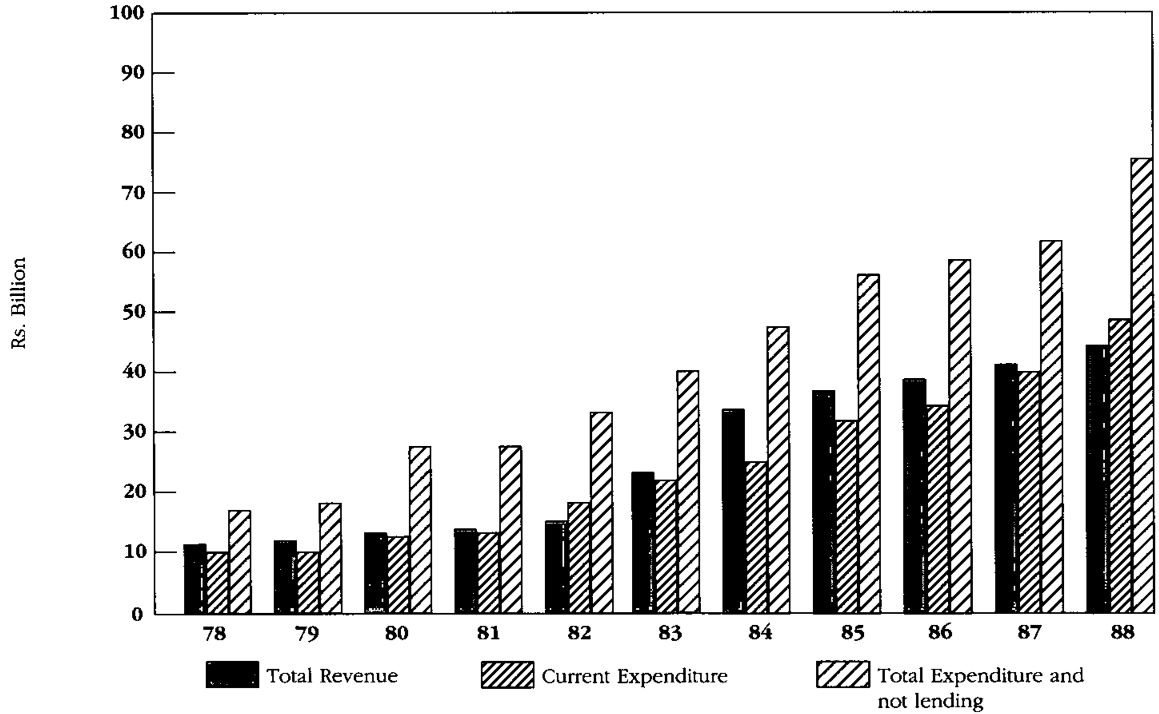


Table 9.9

COMPOSITION OF GOVERNMENT EXPENDITURE, 1978-1988

(In Rupee Million)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
1. Current Expenditure	9849	10825	12319	14649	18341	22002	24630	32645	33967	39560	46132
1.1 Salaries and Wages	2323	2909	3302	3579	4561	1811	5554	6878	8028	8006	10016
1.2 Other G and S	1088	1342	1479	1645	1940	3037	3642	9409	7127	10460	10637
1.3 Interest Payments	1368	1667	2241	3738	5104	6606	6738	7428	8762	10157	12590
1.3.1 Domestic	1083	1310	1828	3025	4189	5336	5115	5458	6553	7593	9694
1.3.2 Foreign	285	357	413	713	915	1270	1623	1970	2209	2564	2896
1.4 Current Transfers	5070	4907	5297	5684	6736	7548	8697	8929	10050	10937	12889
2. Advance A/C Out Payments	1831	1028	3240	1716	-879	1120	2917	314	-170	-1180	2732
3. Capital Expenditure	5381	7722	12237	11689	16050	16515	20290	22275	25397	25514	27667
4. Total Expenditure	17061	19575	27796	28054	33512	39637	47837	55234	59194	63894	76531
5. As Ratios of Current Exp.											
5.1 Salaries and Wages	23.59	26.87	26.80	24.43	24.87	21.87	22.55	21.07	23.63	20.24	21.71
5.2 Other G and S	11.05	12.40	12.01	11.23	10.58	13.80	14.79	28.82	20.98	26.44	23.06
5.3 Interest Payments	13.89	15.40	18.19	25.52	27.83	30.02	27.36	22.75	25.80	25.67	27.29
5.3.1 Domestic	11.00	12.10	14.84	20.65	22.84	24.25	20.77	16.72	19.29	19.19	21.01
5.3.2 Foreign	2.89	3.30	3.35	4.87	4.99	5.77	6.59	6.03	6.50	6.48	6.28
5.4 Current Transfers	51.48	45.33	43.00	38.80	36.73	34.31	35.31	27.35	29.59	27.65	27.94
6. As Ratios of Current Exp.											
6.1 Current Expenditure	57.73	55.30	44.32	52.22	54.73	55.51	51.49	59.10	57.38	61.92	60.28
6.2 Advance A/c	10.73	5.25	11.66	6.12	-2.62	2.83	6.10	0.57	-0.29	-1.85	3.57
6.3 Capital Exp.	31.54	39.45	44.02	41.67	47.89	41.67	42.41	40.33	42.90	39.93	36.15
7. As Ratios of GDP											
7.1 Current Expenditure	23.08	20.66	18.52	17.23	18.48	18.09	16.02	20.10	18.93	20.11	20.69
7.2 Advance A/c	4.29	1.96	4.87	2.02	-0.89	0.92	1.90	0.19	-0.09	-0.60	1.23
7.3 Capital Exp.	12.61	14.74	18.39	13.75	16.17	13.58	13.20	13.72	14.15	12.97	12.41
7.4 Total Expenditure	39.99	37.37	41.78	33.00	33.77	32.60	31.11	34.02	32.98	32.48	34.32

Source: Annual Report and Review of the Economy (various issues), Central Bank of Sri Lanka.

of relative importance in current expenditure is the outlays on other goods and services. These outlays which was only 11 percent of total current expenditure in 1978, also have grown steadily over this period and reached 23 percent of total current expenditure in 1988. The substantial increase in this category was largely due to escalation of defense expenditure since 1983. The defense expenditure as a proportion of total expenditure or as a proportion of GDP remained somewhat stable ratios during 1978-1983 period. However, there was a substantial growth in these expenditures thereafter. For instance, defense expenditure as a proportion of total expenditure rose from 3.2 percent in 1978 to 11 percent in 1988. Similarly, the defense expenditure in relation to GDP rose from 1.3 percent in 1978 to 4.8 percent in 1987 and 3.7 percent in 1988.

The central government transfers to commercially oriented public enterprises which ran at a loss was another contributory factor. Despite the reduction in the overall transfer payments, Government also had to provide a considerable volume of current and capital transfers to public corporations and institutions and resources through advance account activities to perform certain trading operations. Although there is no steady increase in the total volume of resources as a proportion of total expenditure, the ratio ranged between 15 percent and 33 percent during 1978-1988 period. These outlays have contributed to escalate government expenditure in many ways. Meanwhile, a large number of public enterprises and institutions also relied heavily on budgetary support for operational expenditures. The public transport system was one of the key areas which relied heavily on government support.

The substantial increase in public investment, both through direct government agencies and public enterprises, was a significant feature of 1978-1988 fiscal performance. The share of capital expenditure in total expenditure rose from 32 percent in 1978 to 48 percent in 1982 and then gradually declined to 36 percent in 1988. While most of these capital expenditure programs were supported by external resources largely on concessional terms, the initial years increase in capital expenditure was almost entirely due to the implementation of ambitious public sector investment programs. Although initial years' domestic cost of these investments was not very significant, in subsequent years the budgetary cost of these programs were felt through growing interest payments on external debt. On an average basis 25 percent of the interest payments are on foreign loans.

The wage increase in the wake of inflation has somewhat been a regular feature since 1978. Although government wage cost as a proportion of current expenditure has declined slightly, one-fifth of current expenditure in Sri Lanka is on account of salaries and wages. The wage increases that have been made in selected years, and given the large proportion of public sector employees, have been an added burden to the budget and also to the wage bill of publicly owned enterprises. A system of cost of living adjustment was also introduced, though it was not made on a regular basis. However, basic welfare expenditure such as food stamps and other household transfers have been not raised during 1978-1988 period except in some exceptional years.

While various expenditure components explain general area where expenditure trends reflect upward movements, overall deterioration in expenditure controls and monitoring has also contributed to expenditure growth in Sri Lanka during this period. Finalization of government accounts and furnishing of accounts by spending agencies were not prompt due to certain procedures and practices that have been adopted without due regard to the established financial regulations. This created difficulties in monitoring expenditure and maintaining needed checks and balances in public finance operations. These weaknesses had a cascading effect in progressively weakening Government's control of expenditure and monitoring of fiscal performance and cash management.

The advance account system which was adopted in 1930 to provide for rolling over government revenue and payments to undertake small commercial activities expanded considerably in recent years. The total number of these accounts has grown to as high as 250. Although there are limits imposed on these activities, very often such limits have been exceeded. Most of the commercial-oriented activities though expected to operate on no-profit/no-loss basis, have resulted in heavy budgetary burden. Except for a few years, the overall advance account operations have imposed heavy burden on the budget.

Another area which leads to fiscal deterioration was the approval of supplementary expenditure provisions over and above original or voted provisions. In the case of current expenditure, supplementary provisions was about 10 percent of the voted provisions. Except in 1982 and 1983, the supplementary provisions for capital expenditure ranged between 13 and 33 percent of voted expenditure. On an overall basis, supplementary capital provision was about 25 percent during 1976-1988 period, during which supplementary provisions were a regular feature of Sri Lanka's budgetary performance. Persistent nature of supplementary expenditure not only reflected some deterioration in expenditure management, but also led to the erosion of the credibility in the original budget. Furthermore, given the large number of public enterprises and lack of reliable data on their financial performance, the expenditure control and monitoring task has become almost impossible.

IV. Monetary Policy 1976-1988

Macroeconomic theory frequently holds that the stock of money determines its price level in the economy and therefore monetary policy can control the course of inflation. Based on this thinking, it has been recognized that price stability is a prime objective of monetary policy. Accordingly, the prime task of the Central Bank is to regulate the quantity of money in circulation and of the liquidity supplied to the economy with the aim of safeguarding the currency and of providing for the execution by banks of domestic and external payments. In addition to the primary objective of maintaining domestic price stability, Central Bank is also required to safeguard the external value of the currency as well. However, the concept of stability of the external value of currency is not clear particularly under a flexible exchange rate system. This difficulty of interpretation can be avoided if external stability of the currency is also defined as stability of purchasing power. On this basis, exchange rates movements should correspond to the standard of "purchasing power parity" of the domestic currency vis-a-vis other countries. In such an interpretation, domestic and external stability are only two different aspects of the same objective. Hence, monetary policy broadly aims at monetary stability in the economy. This should however not be taken to mean that monetary stability can be seen in complete isolation from general economic development and can serve as the only guideline for monetary policy formulation.

Fiscal policy in general influences total demand and output, but there are limits for such fiscal stimulus in any economy, because fiscal measures may also put upward pressure on costs and prices. It could also lead to a deterioration in the balance of payments position and depreciation in the exchange rates and thereby put indirect pressure on cost and prices. Hence, it is difficult to define the role of monetary policy without indicating fiscal monetary interactions and their relation to other policy instruments. It is also not possible to consider the role of a given policy stance without referring to specific problems which economic policy has to be dealt with. However, over the long run, monetary stability is a vital prerequisite for the smooth functioning of a market economy and hence for sustainable economic growth. Under these circumstances, monetary stability can be achieved only if money stock in the economy is kept firmly consistent with other economic targets.

Against this background, it is worth considering how the kind of monetary policy followed in Sri Lanka during the period under study, in order to identify specific policy objectives of monetary policy and circumstances under which such policy measures were adopted.

4.1 Monetary Policy Measures in Sri Lanka

Sri Lanka witnessed two successive years of extremely large monetary expansion in 1976 and 1977. The narrow money (M1) growth rates were around 35 and 29 percent annually and broad money (M2) growth rates were around 32 and 38 percent annually. The additional pressure on money supply came largely from the private sector during these two years. Against the background of widespread inflationary pressure in the economy, Sri Lanka adopted fundamental change in monetary policy through the changes in interest rate revisions in order to contain the rate of monetary expansion in the immediate succeeding period. The major changes were on upward revision in bank rates, from 8.5 percent to 10.0 percent, restriction on Central Bank accommodation to commercial banks at bank rate and imposition of penalty rate for accommodation in excess of the prescribed ceiling under bank rates. The interest rates were permitted to move in step with general economic conditions. There has also been a sharp increase in the interest rates on time and savings deposits, upward movements in Treasury bills rate and appreciable rise in the lending rates of commercial banks.

In late 1977, there was a fundamental change in economic policy. These policies envisaged a sweeping departure from a tightly controlled, inward looking welfare-oriented economy strategy to a more liberalized, outward looking growth-oriented approach. The new economic strategy which was supported by standby credit arrangement of the IMF adopted flexible exchange rate policies and trade liberalizations.

In 1979 and 1980, fiscal operations were characterized by emergence of high budget deficit due to substantial increase in capital expenditure. Despite the fact that domestic non-bank and foreign resources continued to remain at previous years' level, a disconcertingly high resource gap emerged, which had to be met by expansionary bank borrowings. This along with substantial external banking assets caused a growth in money supply, reversing the moderate trends observed in 1978.

In this context, monetary policy had to be tightened. Accordingly, overall ceiling on credit to public sector corporations had also been imposed at the behest of the Government. Central Bank also raised its penalty rates on commercial bank borrowings and the penalty rates were subject to a graduated scale ranging from 15 percent to 25 percent per annum. The sharp decline in external assets and a sharp increase in domestic credit, particularly public sector credit, were the main features of monetary development in 1980. Despite running down of external banking assets, broad money supply expanded at a rate of 32 percent. Thus, in 1980, Sri Lanka was subject to severe pressures in the task of aggregate demand management arising out of the government effort to accelerate the pace of investment and increased demand for credit from the private sector. Although it was recognized that cutback of credit to private sector would have adverse effects on the domestic economy, Central Bank adopted credit controls and change in bank rates to curtail monetary growth in 1980. Despite these measures, demand pressures developed causing strains on monetary management, on the level of external reserves and on the general level of prices. External banking assets declined by 47 percent, while domestic inflation rose to 26 percent. The experience in 1980 demonstrated that for policy measures to be effective, both monetary and fiscal policies have to have a common goal. The restrictive monetary policy can have little impact on the context of excessive expansion in fiscal deficits financed using resources from the banking system.

Both monetary and fiscal policy were aimed at price stability and demand management policies since 1981. Although the loss of external reserves exerts a contractionary impact on monetary aggregate, the linkages of excessive credit expansion through loss of external reserves has its own limits, given the need to maintain satisfactorily a level of import reserves in the country. Hence, monetary measures pursued in the past few years continued to be in force and were further intensified in 1981. While export refinance facility was raised to some extent in order to stimulate export production, the general accommodation facility to commercial banks granted at bank rate was reduced. Furthermore, Central Bank resorted to temporary direct credit restraints on commercial bank advances to private sector and public corporations, as traditional monetary policy instruments take a long period to bring about desired results. This restriction was withdrawn in the middle of the year, but Central Bank accommodation to commercial banks at bank rate was further reduced. This led to the containment of the expansion of reserve money as well as portfolio adjustments in commercial banks. In addition to these restrictions, effective from mid-June, Central bank also raised statutory reserve ratios with respect to demand and time and savings deposits. Accordingly, the reserve ratio on demand deposit was raised from 12 percent to 14 percent, while the ratio on time and savings deposits were raised from 5 percent to 6 percent. Towards the end of the year, bank rate was raised from 12 percent to 14 percent and the penalty rate on Central Bank accommodation to commercial bank credit was also raised from a range of 20-30 percent to a range of 21-30 percent per annum. Thus, increase in the bank rate and penalty rate structure reflected a less accommodative policy stance. It was also intended to further tighten the money market condition and raise the cost of funds in the economy.

In 1981, Central Bank also initiated open market operations into its policy package. The Central Bank initiated the resale of Treasury bills from its portfolio quoting discount rates between the range of 15.5-16.0 percent per annum. The open market operations conducted in the secondary bill market were able to mop up the excess liquidity in commercial banks generated through enhance mobilization of deposits in the past few years due to high deposit rates.

While monetary policy measures were tightened, fiscal adjustments were also pursued in 1981 in recognition of the fact that unduly expansionary fiscal policy would increase the inflationary pressure in the economy. Hence, at the time of formulation of the Budget for 1981, 25 percent expenditure cuts were enforced. In addition, a further reduction in current expenditure by 3 percent and capital expenditure by 10 percent was enforced during the course of the year. In 1981, budgetary situation improved considerably due to expenditure cuts and additional revenue measures. Accordingly, the borrowing from the banking system fell from 11 percent of GDP in 1980 to about 5 percent in 1981.

After three successive years of high rate of inflation, the rate of increase in the general price level dipped to around 11 percent in 1982 owing to conscious fiscal and monetary policy measures aimed at controlling inflation. Fiscal policy measures were to reduce the impact of budget deficit on aggregate demand and on price level. Meanwhile, tight monetary policies continued to be in force. However, domestic credit expansion continued during 1982, while external banking assets continued to decline. Hence, the expansionary impact of the increase in domestic credit was somewhat offset by the decline in external banking assets. Therefore, restrictive monetary policy measures that were introduced and intensified during previous years had to be continued. There were no changes in bank rate of 14 percent and penalty rates ranging from 21-30 percent which were applied to accommodate the amounts above the specified amount at bank rates. Statutory reserve requirements of 14 percent on demand deposits and 6 percent on time and savings deposits remained unchanged. These policies were continued with a view to maintaining a moderate growth in both domestic credit and monetary aggregates.

In 1983, government reliance on the banking system was further reduced due to improvement in government revenue, restrictions over expenditures, particularly capital expenditure and increased availability of non-bank resources for deficit financing. Public sector corporations credit requirements was also reduced due to tea price boom. Hence, in 1983, nearly 90 percent of the domestic credit expansion was accounted for by the private sector. Although overall credit expansion was lower in 1983, it was accompanied by a sharp increase in net external assets towards the last quarter of 1983.

Government operation in 1984 became a net contributor of deposit resources to the banking system and reversed the previous trends. Meanwhile, monetary policy continued to represent the conscious attempt towards achieving monetary stability in the economy. Against the background of an increased liquidity situation, measures had to be taken with a view to reducing the expansion in credit through Central Bank refinance scheme. Meanwhile, credit control measures were taken to restrict credit expansion for non-essential imports. The considerable reduction in government borrowing from the banking system also contributed to undue credit expansion in 1984.

Budgetary operations in 1985 resulted in high deficit due to shortfall in government revenue and expansion in government expenditure resulting from high defense outlays. Hence, monetary development was influenced by sharp growth in government borrowings from the banking system. However, due to restrictive monetary policy pursued in the previous years there was a deceleration in credit to private sector. There was also a decline in external banking assets. Accordingly, overall growth in monetary aggregates continued to decline. Meanwhile, inflation rate reflected a declining trend. In view of this, interest rates on government securities were reduced. However, credit ceiling imposed on private sector credit and high reserve ratios imposed on commercial bank in 1984, continued to be in force during 1985. The monetary policy actions in 1985, though, was still characterized by restrictive policy stance, selected measures were taken to facilitate economic activities.

In 1986, fiscal performance improved due to high revenue receipts and slow growth in current expenditure. Superimposed on a lower deficit were the increased resources available from non-bank sector. These favorable developments enabled Government to reduce its recourse to bank financing of the deficit. The bank financing as a proportion of GDP dropped from 2.9 percent in 1985 to 1.7 percent in 1986. In the monetary front, external banking assets as well as domestic credit declined during 1986. However, commercial banks remained highly liquid throughout the year. As a result, the reserve requirements were relaxed and there was a tendency for interest rates to decline. The quantitative restrictions imposed on 1984 were also relaxed to give greater market orientation to credit policies. Furthermore, Central Bank refinance facilities for exports were enhanced with a view to encouraging production in priority sectors. Meanwhile, demand management measures such as open market operations to absorb excess liquidity and restrictions on credit for non-priority sectors continued. These measures helped to contain the growth of monetary aggregate which helped to ease the pressure on prices.

Fiscal operations in 1987 reflected further improvements from the previous year. Although resources utilized from the banking sources in nominal terms registered an increase of 16 percent, as a proportion of GDP it remained at 1.8 percent as against 1.7 percent in 1986. Furthermore, commercial bank made the larger contribution to the expansion of government borrowings from the banking system by way of investing in Treasury bills. While public corporations and private sector borrowings increased during 1987, the operations of the external sector exerted a contractionary impact due to continuing weakness of the balance of payments position. The restrictive monetary policy stance in force since 1984 was relaxed to some extent in 1987, in view of the stable conditions with respect to prices prevailing during the first half of the year. This was made mainly through a downward revision in the statutory reserve requirements and a further augmentation in refinance facilities from the Central Bank. Another important step in monetary policy changes in 1987 was that market forces were allowed to play a key role in determination of interest rates. Accordingly, interest rates on Treasury bills were based on market forces. The continuation of weekly issue of Treasury bills helped to guarantee a regular supply of short-term instrument for investment of liquid funds.

Excessive growth in monetary aggregate in 1988 was primarily caused by public sector credit expansion. Hence, monetary policy had to be directed at siphoning off excess liquidity in the economy, particularly through active Treasury bills market operations. Furthermore, monetary policy has to be further contractionary to achieve price stability. Hence, statutory reserve requirements of commercial banks were raised to 13 percent in early 1988 and to 15 percent in September 1988. However, Central Bank accommodation of excessively large government borrowings had been one of the major factors responsible for the expansion in reserve money base. Public sector borrowings from the banking system rose to 6 percent of GDP owing to considerable deterioration in budgetary situation which was a combined effect of revenue shortfall and considerable increase in expenditure in the election year.

In overall analysis, it is clear that tight monetary policy has been followed in Sri Lanka during the period under study, in order to achieve domestic price stability and to maintain satisfactory level of import reserves in the country. However, these measures had little impact on the growth of domestic credit in selected years during which public sector borrowings from the banking system has been too excessive. The performance between 1981-1984, however, was satisfactory as tight monetary policy measures and fiscal adjustment to reduce reliance on bank borrowings for deficit financing purposes helped in moderating the pressures on prices. The M2 growth during this period clearly indicate that there was a deceleration of monetary expansion. The domestic credit to private sector as well as public sector also showed similar trends. The decline in external banking assets during 1985-1988 also exerted contractionary effect on monetary aggregates.

V. Implications on Monetary Policy

The extent to which any given public sector deficit can be reconciled with broad macroeconomic objectives depends largely on the way it is financed. It has been argued that over reliance on borrowing from the banking system for deficit financing may prompt inflation in the economy, because money and credit creation distort the relationship between nominal money supply and the amount of goods and services produced in the economy.

It is well known that excessive borrowings from the banking system for financing fiscal deficit would increase the high powered money in the economy if all other factors remain equal. The Aghevli and Khan hypothesis is based on the assumption that increase in fiscal deficit results in an equal change in the stock of high powered money to the extent that government deficit was financed from the banking system translating into changes in money supply. This implies that predominant domestic funding of the deficit is made from the banking system with very limited financing from domestic non-bank sources. It is therefore important to examine the extent to which each source of financing has contributed to deficit financing purpose. As explained earlier, despite high deficits whcih persisted in Sri Lanka, heavy reliance has been placed on foreign sources for deficit financing purpose. It was also shown that domestic non-bank sources has been the second major source of financing the public sector deficit. The resources utilized from the banking system accounted only for about one-fourth of the total public sector deficit.

5.1 Factors affecting Monetary Growth

The monetary aggregates in Sri Lanka during 1976-1988 period indicated a considerable growth in money supply. The annual average rate of growth of M_1 reflected an increase of 18.9 percent while movements in M_2 showed an annual average rate of 22.6 percent. The monetary growth from point to point (December to December) basis was equally high during this period. For instance, average growth in M_1 on point to point basis was 20.1 percent, while the average rate of growth in M_2 on the same basis of calculation recorded an increase of 23 percent. The growth in M_1 and M_2 is shown in the Table 9.10.

The contribution to growth in money and quasi-money (MQ/MQ_{t-1}) of changes in net claims on public sector (PSC), domestic credit to private sector (PRC), net foreign assets (NFA) and other items net (OIN) can be calculated from the following accounting identity:

$$\frac{MQ_t}{MQ_{t-1}} = \frac{PSC_t}{MQ_{t-1}} + \frac{PRC_t}{MQ_{t-1}} + \frac{NFA_t}{MQ_{t-1}} + \frac{OIN_t}{MQ_{t-1}} \quad \text{..........} \quad (1)$$

The annual contribution of each component into broad money growth is given in Table 9.10. Accordingly, the average growth rate of M_2 for 1976-1988 is explained as follows:

$$23.04 = 12.36 + 15.71 + 6.44 - 11.476 \quad \ldots\ldots\ldots \quad (2)$$

As evident in Equation (2) the considerable growth in money supply was mainly a result of a substantial expansion in both private and public sector credit during this period. When other items net component is distributed among domestic credit and net foreign assets on a prorata basis, the contribution from each component to monetary growth is clear as shown below:

$$23.04 = 8.25 + 10.49 + 4.3 \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (3)$$

According to Equation (3), public sector credit expansion accounted for 36 percent of the average M_2 growth of 23.04 percent. Meanwhile, the private sector credit expansion accounted for 46 percent of the average M_2 growth. According to this calculation, the contribution in external banking assets to monetary growth was only 19 percent. When examining the historical data for this period, the growth in external banking assets contributed to the growth of money supply during 1976-1979 period, but since 1980, it has exerted a contractionary impact on M_2 except in years 1983 and 1984 when country experienced a tea price boom. The growth of public sector credit has been positive except in the years 1978 and 1984. The contribution of private sector credit has been positive and ranged between 4.9-29.6 percent during this period largely because of restricted monetary policy followed to achieve monetary stability in the country.

The growth of public sector credit did not reflect a specific pattern. As can be seen from Table 9.5, public sector recourse for banking system for deficit financing continued to grow between 1979 and 1980. In 1980, public sector borrowings from the banking system (of which a substantial part was from Central Bank) was 10 percent of GDP and accounted for 55 percent of the total public sector deficit. During the period commencing from 1981, deficit/GDP ratio continued to decline owing to stabilization measures effected during this period. The situation improved considerably in 1984 when bank financing was negative owing to tea price boom. Thereafter, deficit/GDP ratio reached nearly 16 percent only in 1988. As shown in Chart 9.3, when public sector credit expansion was so excessive, for instance in 1978-1980, inflation rate reflected considerable acceleration. Similarly, when public sector credit expansion began to decline between 1980 and 1983, the rate of inflation also showed considerable deceleration. Once again similar behavior in the two variables is observed between 1986-1988. This shows that when public sector credit expansion become excessive there is a considerable pressure on inflation.

Table 9.10

GROWTH IN MONETARY AGGREGATES
(in Percent)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1976-1988
M1														
Monthly Average	22.4	32.2	19.8	17.5	22.2	12.8	18.8	16.1	17.5	13.6	14.9	13.9	23.5	18.9
Jun. - Jun.	23.2	32.7	18.5	14.1	23.7	9.1	19.7	16.4	17.3	17.4	15.1	10.7	25.9	18.8
Dec. - Dec.	34.9	28.8	10.6	29.2	22.9	6.3	17.3	25.4	14.1	11.5	12.9	18.4	29.1	20.1
M2														
Monthly Average	21.5	34.1	34.5	31.7	27.5	30.7	29.3	16.9	19.5	15.6	6.1	11.1	15.8	22.6
Jun. - Jun.	21.5	33.8	35.2	29.5	24.5	32.1	32.6	14.1	21.0	16.5	5.9	10.2	17.0	23.6
Dec. - Dec.	32.3	37.9	25.0	38.2	31.9	23.1	24.8	22.1	16.6	11.5	5.1	14.7	16.5	23.1

5.2 Effects of Monetization of Public Sector Deficits on Money Supply and Prices: Empirical Evidence

As explained earlier, financing of public sector deficits through borrowings from the banking system result in money and credit creation in the economy. This could have a monetary expansion and so cause inflationary pressure by increasing aggregate demand and prices. The impact of monetization of public sector deficits on money supply can be estimated by using the following equation which is a modified form of Aghevli and Khan equation.

$$\log (Mt) = b + b \log (PSC) + b \log (NFA)$$

where,

PSC = public sector borrowings from the banking system.

NFA = Net External Assets in the banking system.

The estimated results are given below:

$$\log (M_2) = \underset{(4.08)}{3.489} + \underset{(1.74)}{0.408} \log (PSC) + \underset{(3.5)}{0.358 \log (NFA)}$$

$R^2 = .94$ $\quad$ $F = 77.64$ $\quad$ $DW = 1.5$ $\quad$ $N = 12$

The estimated results indicate that public sector financing of the deficit is statistically significant in explaining broad money supply expansion in the country. According to the equation, 10 percent increase in the public sector borrowings from the banking system result in an increase of broad money supply by 4 percent. The equation also shows that an increase in net foreign assets also affects monetary growth, but the impact is slightly lower than that under public sector borrowings.

The price equation was also specified to examine the monetary effect on inflation. The equation was specified as follows:

$$\log P_t = c_o + c_1 \log (M/P)_t + c_2 \log (P)_{t-1} + e$$

where,

P = Consumer Price Index (CPI)

M = Money supply (M2)

t = time period

The estimated price equation is given below:

$$\underset{}{\text{Log (P)}} = \underset{(0.97)}{-0.329} + \underset{(2.43)}{0.554}\ \text{Log}(M_2/P)_t + \underset{(5.77)}{0.676}\ \text{Log}(P)_{t-1}$$

R^2 = .99 F = 618.3 DW = 2.2 N = 11

According to the estimated results, broad money in real terms is a statistically significant variable in explaining price movements in Sri Lanka. In addition to real money balance, price index lag by one year was also used in the equation as a proxy for an expected rate of inflation. The statistical evidence shows that lagged price effect also has a positive relationship with current prices. As expected, the coefficient value is less than 1 and thus estimated equation ensure stability condition.[6]

The statistical results can be used to argue that aggregate demand pressure resulting from the increase in real money balance in the economy and cost influence resulting from lag prices, affect the price level in the economy. However, regression results may not fully explain the price determination in the economy. Nevertheless, in the short run, monetary impact can be quite significant as it can create demand and supply imbalances in the economy leading to price escalation in the first instance which in turn cause adverse implications on balance of payments developments in subsequent periods. Based on the empirical results, it can be argued that public sector borrowings lead to monetary expansion which in turn result in inflationary pressure on the economy.

5.3 Pressure of Public Sector Borrowings on Credit Market

As explained earlier the public sector borrowings have a general tendency to displace possible private initiatives and investment in areas where public sector does not have clear advantages. The high public sector deficits which are perceived as unsustainable could affect private sector activity in the economy. Furthermore, public sector borrowings could compel monetary authorities to follow restrictive monetary policy which affect the available credit to the private sector. Under these

6. Import price index was included as an additional variable in the above equation in order to verify the impact of world price effect on Sri Lanka's inflation. It was found that there is a multicollinearity between import prices and real money balances.

Table 9.11

FACTORS AFFECTING MONETARY AGGREGATES

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
1. MQt/MQt-1	32.3	37.9	25.0	38.2	31.9	23.1	24.8	22.1	16.6	11.5	5.1	14.7	16.5
2. PSC/MQt-1	10.5	5.3	-5.0	18.7	45.3	21.1	18.6	0.3	-8.6	14.0	5.2	14.0	21.3
3. PRC/MQt-1	11.2	18.8	23.1	14.5	29.6	20.9	17.3	22.3	10.3	7.4	4.9	8.5	15.2
4. NFA/MQt-1	9.8	56.9	21.6	11.2	-21.1	-3.5	-2.3	2.7	18.2	-1.6	-0.9	-0.9	-6.5
5. OIN/MQt-1	0.8	-43.2	-14.8	-6.2	-22.0	-15.4	-8.8	-3.2	-3.3	-8.4	-4.2	-7.0	-13.6

Source: Calculated on the basis of Equation (1).

circumstances, adjustments in revenue and expenditure and when such actions are taken is not known to the private sector. In this context, it is useful to examine whether there is a growing pressure on the credit market from public sector financial transactions.

The public sector borrowing from the banking system will create some pressure on the credit market. This can be statistically measured using the following formula:

$$SPS = \frac{\dfrac{NC_t}{P_t} - \dfrac{NC_{t-1}}{P_{t-1}}}{\dfrac{TC_t}{P_t} - \dfrac{TC_{t-1}}{P_{t-1}}}$$

where,

SPS = Share of public sector real credit expansion

NC_t = Net credit to public sector in period t

P_t = Consumer price index in period t

TC_t = Total credit in period t

This equation will measure the real credit expansion in the public sector. On the other hand, proportional share of public sector credit (PSPS) to total credit can be computed as follows:

$$PSPS = \frac{NC_t}{TC_t}$$

The excess of public sector share in real credit expansion (SPS) over the proportional share of public sector credit to total credit (PSPS) may be an indicative of growing pressure on the credit market from public sector financial transactions. This will also show that public sector action would lead to large proportion of debt creation in the economy.

The computation of SPS and PSPS are given in Table 9.12.

It is evident that in general SPS exceeded PSPS, indicating enhanced pressure of public sector borrowing on banking system. As explained earlier, expansion of public sector credit was a salient feature in monetary development in the country. The public sector credit growth

Table 9.12

PRESSURE OF PUBLIC SECTOR BORROWINGS

	SPS	PSPS
1977	-0.35	0.22
1978	6.24	-0.27
1979	1.35	0.56
1980	0.63	0.60
1981	0.78	0.50
1982	0.17	0.52
1983	1.64	0.01
1984	0.45	-5.08
1985	1.08	0.65
1986	0.79	0.51
1987	0.72	0.62
1988	0.52	0.58

Source: Computed using above formula.

on an average basis accounted for 36 percent of the average M2 growth during 1976-1988 period.

The enhanced pressure of public sector borrowing is reflected in the movement of interest rates during this period. The bank rate, interest rates on various financial instruments and lending rates reflected substantial increase during 1978-1984 period during when SPS generally exceeded PSPS. Table 9.13 provides the movements in key interest rates during this period. As explained earlier while interest rates were raised, reserve requirements also continued to be raised to reduce the ability to create credit in the banking system. Meanwhile, selective credit restrictions have also been imposed on a number of occasions. The annual growth rate in private sector credit continued to reflect some deceleration particularly during 1981-1987 period during when monetary policy took a restrictive stance. As explained in Table 9.4, private sector capital formation during 1983-1988 also reflected some reduction.

5.4 Policy Issues

As explained earlier, monetary policy faces a dilemma when the public sector relies heavily on the banking system to finance its deficit. Under these circumstances, monetary policy is called upon to absorb the substantial liquidity created by the public sector. Hence, monetary policymakers will have no choice but to take a restrictive stance that will curtail the availability of credit to the private sector in order to achieve monetary stability in the economy. The accommodation of public sector deficit will have to be made at the cost of private sector credit. In other words, tight monetary policy coupled with high interest rate policies is essentially the price that the economy has to pay when public sector indulges in financial operations which are beyond resources at its command. The coordination of monetary and fiscal policy is vital because these policy instruments have a distinct effect on key economic variables in the economy. Therefore, the price stability needs to receive the order of high priority in both monetary and fiscal policy formulation.

Public sector reliance on banking system for financing its deficit has been a salient feature in Sri Lanka's public sector performance. As highlighted earlier, Sri Lanka was compelled to follow tight monetary policy in order to achieve domestic price stability and maintain satisfactory level of import reserves in the country during this period, as public sector borrowings from the banking system continued to

Table 9.13

BANK RATE: SHORT-TERM & MEDIUM-TERM INTEREST RATES, 1977-1988

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Bank Rate	10	10	10	12	14	14	13	13	11	11	10	10
12-Month Deposit Rates (Min.-Max.)	7-15	14-15	14-15	20	20-22	15-22	16-22	14-23	12-22	8.5-17	8.5-14	8.5-15
Lending Rates (Min.-Max.)	6.5-20	10-20	10-20	11-28	11-30	11-30	11-30	10-30	12-30	12-30	12-30	9-30
Interest Rates on Rupee Loans[1]	9.5	10	10	10	16	16	15	15	15	12	12	13
Interest Rates on Treasury Bill[2]	9	9	9	13	13	13.5	12	14	11-52	11	12	20
Reserve Ratios												
Demand Deposit	12	12	12	12	14	14	16	16	18	18	18-10	13-15
Time Deposit	5	5	5	5	6	6	8	8	10-14	14	14	13-15
Inflation Rate	1.3	12.1	10.8	26.1	18.0	10.8	14.0	16.6	1.5	8.0	7.7	14.10

1 3-month Treasury bills.
2 Medium-and long-term government securities.

Source: Review of the Economy (various issues), Central Bank of Sri Lanka.

remain high except in some exceptional years. However, monetary policies had little impact on the growth of domestic credit or on reserve targets, as monetary system had to accommodate public sector deficits.

The experience in Sri Lanka during 1981-1984 clearly suggest that inflationary pressure in the economy can be brought under control when monetary and fiscal policy measures aimed at price stability as a common objective. The rate of inflation which reached 26 percent in 1980 was brought down gradually to 1.5 percent in 1984, during which both fiscal and monetary policy made conscious effort to achieve price stability in the country. The monetary growth was reduced from 32 percent in 1980 to 17 percent in 1984. Meanwhile, current account deficit/GDP ratio dropped from 15 percent in 1980 to nearly 1 percent in 1984.

Tight monetary policy though necessary, particularly when public sector continues to allow high deficits through fiscal operations, has adverse implications on the economy particularly due to cutback of credit to private sector. As explained earlier, credit restrictions and high cost of credit could lead to curtailed private sector investment activities. In fact, in Sri Lanka, private sector capital formation gradually declined from 14 percent of GDP in 1981-1982 to around 12 percent in 1987-1988. In this context, it can be argued that reduction of liquidity could lead to reduced capital formation in the economy. This raises a fundamental issue, i.e., whether monetary stability is restored at the expense of growth objectives. The important point to note in this connection is the drop in private sector investment, particularly during post 1983 period, despite the fact that this sector was called upon to play an important role in economic development in the country. However, on the other hand, monetary policy has to address the problem that whether capital formation and growth can be sustained without restoring monetary stability and thereby price stability. This explains why public sector deficit financing from the banking system is a crucial issue in conducting monetary policy in the economy.

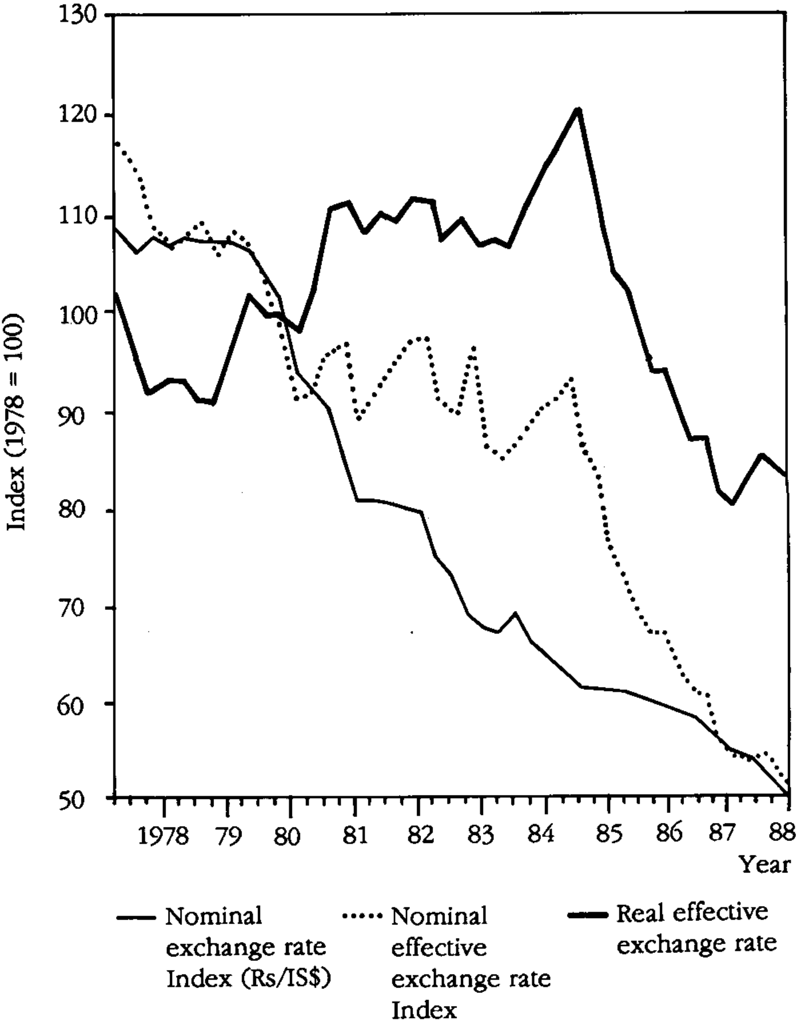
Monetary policy is also required to safeguard the external value of currency as well. The exchange rate movements should correspond to the standard of purchasing power parity of the domestic currency vis-a-vis trading partner countries. When monetary aggregate leads to domestic inflationary pressure in the economy, exchange rate has to depreciate to achieve external stability of the currency. The exchange rate movements in Sri Lanka is shown in Chart 9.6. As shown in the Chart, nominal exchange rate depreciation has been substantial. Although nominal effective exchange rate as well as real effective exchange rate appreciated during 1980-1985 period, there has been considerable depreciation thereafter when inflationary pressure began to develop. The depreciation of exchange rate could also put indirect pressure on cost and prices. Hence, to achieve external stability in the currency also need the control in monetary expansion and domestic prices.

Maintaining a satisfactory level of import reserve is equally important in conducting monetary policy in the country. The expansion in domestic credit, while having an immediate impact on domestic prices, will also affect the monetary outflow through imports. In the short run, there is a general tendency to have selective credit controls on non-essential imports. Despite these measures, the developments in the current account deficits in Sri Lanka suggest that expansion in the domestic credit has resulted in enhanced imports during this period. This again raises the question whether credit expansion in the private sector is possible when public sector utilizes considerable volume of resources from the banking system.

The other important issue is related to the problems of uncertainty created by fiscal and monetary policy actions. As explained earlier, when private sector perception is that public sector deficits are high and unsustainable, it gives a signal that contractionary measures will be adopted in future. In the fiscal front, such contractions can be taken either through increase in taxes, or through cuts in expenditures. However, when such actions will be taken is generally unknown. Similarly, this gives the signal that monetary policy will become tight and restrictive. Under these circumstances, both fiscal and monetary policies introduce uncertain economic environment. As explained earlier, frequent ad-hoc revisions have been made in taxation and expenditure policies of the public sector. Monetary policy has also introduced restrictive monetary measures and has been intensified when public sector borrowing was high. Thus, policy objectives have to be aimed at restoring conducive environment in the economy with high degree of certainty in order to stimulate economic activities in the private sector. Thus, it is clear that monetary and fiscal policy have to be coordinated with the aim of domestic price stability in the economy.

Chart 9.6

EXCHANGE RATE MOVEMENTS



VI. Summary and Conclusion

The public sector in Sri Lanka showed a considerable expansion under successive governments during the last few decades. Policy strategies followed for a considerable length of time, placed great emphasis on the public sector for economic development in the country. The common justification in favor of the public sector was to try public enterprises as a means to promote faster economic growth. This was largely because of the presumption that it would take a long time to develop an enterprising private sector in the economy. It has also been considered that public enterprises can be used to explore new possibilities to fill gaps in the structure of supply and put constructive pressure on the private sector. In the wake of this policy strategy, regulations were introduced in varying degrees from time to time for the purpose of control and manipulation of the economy. The ultimate result of this policy stance was the creation of a large public sector in the economy. The public sector size was of such magnitude that once established it became a permanent component in the economy irrespective of the change in development strategies.

The public sector is by far the largest employer in the economy. It employs approximately one-fifth of the country's labor force. The Central Government which is the largest component of the public sector spent 4-5 percent of GDP on account of salaries and wages. Meanwhile, overall public sector wage cost is in the range of 6-7 percent of GDP. The predominant role of the public sector is also explained through capital formation in the country. On the average, half of capital formation in Sri Lanka has been made by the public sector.

The public sector deficit in general remained as high as 13 percent of GDP during 1978-1988 period. Furthermore, high public sector deficit has been a regular phenomenon in Sri Lanka. As highlighted in this paper, overall public sector deficit has been higher than central government deficit by about 1 percentage of GDP. In financing the deficits, heavy reliance was placed on concessionary foreign loans. However, the public enterprise sector also resorted to commercial foreign borrowings, particularly during 1980-1982 period. While foreign financing was helpful in maintaining a high level of public sector investment programs during the post 1977 period, increase in debt services has created problems in management of the budget in recent years. Foreign debt service grew from 13 percent of exports of goods and services in 1979 to 29 percent in 1988. On an average basis, one-third of the public sector deficit was financed by non-bank domestic sources. Most of these resources came from so-called captive funds, which are being obliged to contribute to government securities. However, had there been low budget deficits and less reliance on captive resources, the interest structure would have taken a completely different direction.

The financing from the banking system bulk of which comes from the Central Bank, has also been a regular feature in Sri Lanka's fiscal performance. On many occasions, the public sector relied heavily on the banking system for deficit financing purpose. Between 1979-1982, public sector reliance on the banking system has been more than 5 percent of GDP.

The public sector deficit being a permanent phenomenon in Sri Lanka, resulted in a cumulative effect on public debt. The total outstanding public debt in relation to GNP rose from 60 percent in 1976 to 113 percent in 1988. Here too, several problems have been posed for fiscal and monetary policy formulation. The immediate fiscal problem is to cope with increased commitment on interest expenditure of the Government. Interest payments as a proportion of current expenditure have increased from 16 percent in 1976 to nearly 30 percent in 1988.

The high public sector deficit was largely a result of an increase in total expenditure and poor performance of the public enterprise sector as a whole. The increase in interest payments due to rapid accumulation of public debt and enhanced outlays on defense related expenditures contributed to a substantial growth in current expenditures. Meanwhile, current and capital transfers to public corporations continued to remain high as their performance was not satisfactory to generate adequate surplus. The public investment was maintained at a high level as Government was committed to ambitious public investment programs. The expenditure escalation also resulted from the overall deterioration in expenditure monitoring and controls. In contrast to expenditure, total revenue remained static at around 20 percent of GDP which is satisfactory given the per capita income of the country. However, the overall revenue system suffered from lack of income elasticity which necessitated frequent ad-hoc revenue measures undertaken by the Government to keep high revenue buoyancy. The fiscal policy in Sri Lanka also resulted in uncertainties in economic policies. To the extent that budget deficits perceived as unsustainable, it gave signals for future adjustments through revenue and expenditure policies or through monetary contractions.

Public Sector and Monetary Policy

The monetary policy objective has been aimed at broad monetary stability in the country to ensure domestic price stability and external value of domestic currency. In the presence of high public sector deficits and domestic inflation, monetary authorities were compelled to follow tight monetary policy in Sri Lanka during this period. However, these policies had little impact on the growth of domestic credit in selected years, during which public sector borrowings from the banking system were excessive. The performance between 1981-1984 was however satisfactory in bringing down the inflation as there was a conscious effort in both monetary and fiscal policy to make adjustments to reduce demand pressure on the economy.

In analyzing the factors affecting monetary growth, it was found that public sector credit expansion accounted for 36 percent of the M2 growth. The empirical evidence indicate that public sector borrowings from the banking system contributed to monetary growth significantly. The evidence also suggests that broad money (M2) growth has a significant impact on price level in the country. Based on empirical investigation, it can be argued that public sector borrowings contributed to monetary expansion which in turn resulted in inflationary pressure on the economy.

The pressure on public sector borrowings on money and credit market was examined by comparing real credit expansion in public sector with the proportional share in public sector credit to total credit. These evidences also suggested enhanced pressure of public sector borrowings on the banking system. The enhanced pressure of public sector borrowing is reflected in tight monetary policy which makes high interest rates and reduced ability to credit in the banking system through high reserve ratios and credit control measures.

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PUBLIC SECTOR DEFICIT AND ITS FINANCING (GDP RATIOS)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
CENTRAL GOVERNMENT													
Deficits Before Grants	2944	2701	4638	8166	13523	13301	18870	15833	13404	21139	21207	22412	34314
Grants	367	503	661	1390	2620	2721	3376	3473	3293	3307	3753	4677	6588
Deficit After Grants	2577	2200	3977	6776	10903	10580	15494	12360	10111	17832	17454	17735	27726
Domestic Borrowing	1809	1309	748	4294	7659	5607	9868	6442	3107	9651	8295	12317	19948
Non-Bank	1352	1587	1874	3237	1607	1790	5507	6059	6086	3858	6096	7815	10931
Bank	457	-278	-1126	1057	6052	3817	4361	383	-2979	5793	2199	4502	9017
Foreign Borrowings	768	891	3229	2482	3244	4973	5626	5918	7004	8131	9159	5418	7778
Disbusements	921	1118	3568	2889	3779	5540	6303	7178	8520	9986	12164	10088	12975
Repayments	-153	-227	-339	-407	-535	-567	-677	-1260	-1516	-1805	-3005	-4670	-5197
PUBLIC ENTERPRISES													
Deficit	43	614	693	1032	1394	1693	3282	1976	134	-458	-777	967	1950
Foreign Borrowings	0	0	0	48	618	1328	3092	2268	371	-748	-1078	-1660	-1471
Disbusements				58	629	1348	3217	2483	1094	611	317	540	295
Repayments				-10	-11	-20	-125	-215	-723	-1359	-1395	-2200	-1766
Domestic Banks	43	614	693	984	776	365	190	-292	-237	290	301	2627	3421
PUBLIC SECTOR													
Deficit Before Grants	2987	3315	5331	9198	14917	14994	22152	17809	13538	20681	20430	23379	36264
Grants	367	501	661	1390	2620	2721	3376	3473	3293	3307	3753	4677	6588
Deficit After Grants	2620	2814	4670	7808	12297	12273	18776	14336	10245	17374	16677	18702	29676
Financing: Foreign	768	891	3229	2530	3862	6301	8718	8186	7375	7433	8081	3758	6307
Domestic	1852	1923	1441	5278	8435	5972	10058	6150	2870	9941	8596	14944	23369
Non-Bank	1352	1587	1874	3237	1607	1790	5507	6059	6086	3858	6096	7815	10931
Bank	500	336	-433	2041	6828	4182	4551	91	-3216	6083	2500	7129	12438

Source: Computed using Formula 3.

SIZE OF THE PUBLIC SECTOR

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
					(Rupees Million)							
1. Domestic Capital Formation	5529	8554	13527	22465	23610	30527	35132	39708	38682	42463	45900	51461
2. Public Sector	2627	4725	6619	13370	12555	15902	18761	21400	19839	20435	22286	23383
3. Private Sector	2632	3829	6908	9095	11055	14625	16371	18308	18843	22028	23614	28078
4. Central Government Revenue	6277	11245	12158	13444	14775	16210	23317	34061	36249	37238	42144	41749
5. Central Government Expenditure	8448	17196	19848	28221	28014	33512	39637	47837	55234	59193	63894	76532
6. GDP Current Market Price	36407	42665	52387	66527	85005	99238	121601	153746	162375	179474	196723	223010
					(GDP Ratios)							
1. Domestic Capital Formation	15.2	20.0	25.8	33.8	27.8	30.8	28.9	25.8	23.8	23.7	23.3	23.1
2. Public Sector	7.2	11.1	12.6	20.1	14.8	16.0	15.4	13.9	12.2	11.4	11.3	10.5
3. Private Sector	7.2	9.0	13.2	13.7	13.0	14.7	13.5	11.9	11.6	12.3	12.0	12.6
4. Central Government Revenue	17.2	26.4	23.2	20.2	17.4	16.3	19.2	22.2	22.3	20.7	21.4	18.7
5. Central Government Expenditure	23.2	40.3	37.9	42.4	33.0	33.8	32.6	31.1	34.0	33.0	32.5	34.3

LIST OF VARIABLES USED IN REGRESSION ANALYSIS

	D. C.	N.C.P.	P=CPI	P1=1976	NCP/P1	NCP1-NPC2	DC/P1	DC1-DC2	SPS	PSPS
1976	1037	500	200.7	100.0	500.00	500.0	1037.00	1037.0	0.48	0.48
1977	1527	337	203.2	101.2	332.85	-167.1	1508.21	471.2	-0.35	0.22
1978	1582	-433	227.8	113.5	-381.49	-714.3	1393.80	-114.4	6.24	-0.27
1979	3625	2041	252.3	125.7	1623.58	2005.1	2883.62	1489.8	1.35	0.56
1980	11286	6827	318.2	158.5	4306.03	2682.5	7118.48	4234.9	0.63	0.60
1981	8381	4182	375.4	187.0	2235.82	-2070.2	4480.73	-2637.7	0.78	0.50
1982	8779	4551	416.1	207.3	2196.11	-40.7	4234.43	-246.3	0.17	0.52
1983	6895	91	474.2	236.3	38.51	-2156.6	2918.23	-1316.2	1.64	0.01
1984	633	-3216	553.1	275.6	-1166.97	-1205.5	229.69	-2688.5	0.45	-5.08
1985	9300	6083	561.2	279.6	2175.44	3342.4	3325.93	3096.2	1.08	0.65
1986	4883	2499	606.0	301.9	827.64	-1347.8	1617.19	-1708.7	0.79	0.51
1987	11457	7129	652.8	325.3	2191.77	1364.1	3522.40	1905.2	0.72	0.62
1988	21302	12438	744.1	370.8	3354.80	1163.0	5745.61	2223.2	0.52	0.58

D.C. - Domestic Credit
N.C.P. - Net Credit to Public Sector
NCP2 - Net Credit to Public Sector (one year lag)
DC2 - Domestic Credit (one year lag)
CP1 - Colombo Consumer Price Index

BASIC STATISTICS

(Rupees Million, except M.M. and C.P.1.)

	M1	M2	M.M. M2	M.M. M1	Hi.M.	P.S.C. Amount	Chge 1	N.F.A. Amount	Chge 2	C.P.1.	G.D.P.M.	G.D.P.C
1976	4166	6357	2.30	1.50	2769	4322	500	109	470	200.7	30303	15431
1977	5366	8808	2.19	1.33	4028	4659	337	3706	3597	203.2	36407	16078
1978	5936	10892	2.40	1.31	4535	4226	-433	5590	1884	227.8	42665	17401
1979	7669	15058	2.72	1.38	5538	6267	2041	6808	1218	252.3	52387	18501
1980	9428	19860	3.00	1.42	6629	13095	6828	3631	-3177	318.2	66527	19575
1981	10024	24447	3.13	1.28	7822	17277	4182	2940	-691	375.4	85005	20706
1982	11760	30510	3.15	1.22	9679	21828	4551	2372	-568	416.1	99238	21756
1983	14748	37257	3.04	1.20	12240	21918	90	3187	815	474.2	121601	22856
1984	16824	43427	3.04	1.18	14296	18703	-3215	9964	6777	553.1	153746	24010
1985	18761	48409	2.68	1.04	18084	24786	6083	9273	-691	561.2	162375	25177
1986	21179	50860	2.72	1.13	18690	27285	2499	8859	-414	606.0	179510	26256
1987	25083	58335	2.83	1.22	20627	34414	7129	8416	-443	652.8	196723	26662
1988	32379	67946	2.62	1.25	25952	46851	12437	4644	-3772	744.1	223000	27381

M1 - Narrow Money
M2 - Broad Money
M.M. - Money Multiplier
Hi.M. - High Powered Money
P.S.C. - Public Sector Credit
N.F.A. - Net Foreign Assets
C.P.1. - Colombo Consumer Price Index
G.D.P.M. - Gross Domestic at MP
G.D.P.C. - Gross Domestic Products at CP

Chapter 10

PUBLIC SECTOR AND MONETARY POLICY IN THAILAND

by

Yootaphol Singhaumpai and Suchart Sakkankosone

I. Overview of the Public Sector (PS)

1.1 Organizational Aspects

The public sector in Thailand consists of four major components, namely the Central Government, local governments, public sector enterprises (PSEs) and departmental agencies. Definitions and functions of each component can be summarized as follows:

1.1.1 Central Government

The central government comprises thirteen ministries, the Office of the Prime Minister and five independent public agencies (e.g., the Royal Institute, the Secretariat of the National Assembly). Each ministry consists of the Under-Secretary's Office, departments and divisions. The Central Government is responsible for the construction of infrastructure and delivery of various public services such as defense, police service, education, health, industrial and export promotion, etc. Besides those responsibilities, the central government has to support the local governments and PSEs activities and investment projects which are supposed to be carried out by the central government. These activities include education, irrigation and other infrastructure constructions. Thus, the local governments and PSEs are influenced, to a large extent, by the central government. In Thailand, the central government is primarily responsible for planning and directing national policy and management, while other components play only a minor role.

1.1.2 Local Governments

The administration of the local governments can be classified into two groups. The first group is composed of the representative officers of the central government agencies in the provinces which are called "Provincial Government" or "Local State Government". All of the representative officers are appointed by the central government and the budget of the provincial government is provided by the central government. To organize the provincial government's officers, the Minister of Interior (MOI) appoints the governor to be in charge of the administration. At present, there are 72 provinces excluding Bangkok Metropolis. Each province is divided into districts, tambons and villages. Chief administer of each level is also appointed by MOI except for tambon and village. The second group is composed of local government bodies outside the central government which consist of municipalities, sanitary districts, Provincial Administration Organizations (PAOs) and the special local government bodies, i.e., the Bangkok Metropolitan Administration, and the City of Pattaya. Local governments are currently comprised of 131 municipalities, 826 sanitary districts, 72 Provincial Administration Organizations (one for each province except Bangkok), the Bangkok Metropolitan Administration, and the City of Pattaya.

Municipalities are incorporated in the urban areas. The legislative body of a municipality is called the "municipal assembly" or "municipal council". Members of the council are normally elected by the residents of the municipalities every five years. Then a number of councilors — called councilor committees are selected from these members and appointed by MOI to represent the administrative bodies. The functions of the municipal government include the provision and maintenance of public utilities, hospitals, education, parks, zoos, public healthcare, welfare and municipal enterprises. The municipalities may be divided, according to the density of population in the area and the sources of revenue available for self-government, into three classes, namely city, town and tambon municipality.

Sanitary districts are established for the urban communities which are not yet ready to be municipalities. The legislative body is called "sanitation board" and is chaired by the district director. Other members are both appointed and elected from the local residents. Its functions are providing public utilities, markets, fire protection, healthcare, garbage disposal.

The "provincial council", the legislative body of PAOs, is composed of a number of elected members. The PAOs is a local government that is in charge of the area of the province which lies outside the municipalities and sanitary districts. PAOs' functions include the provision of clean water, markets, ports, ferries, crematoria, medical services and promotion of occupation for local inhabitants.

1.1.3 Public Sector Enterprises (PSEs)

(1) Definitions and characteristics

Public state enterprises in Thailand are defined under two acts, first, the National Economic and Social Development Act (1959) and, second, the Budgetary Procedure Act (1959). The former defines PSEs as "an activity in which the Government holds capital of more than 50 percent of the total equity" whereas the latter defines more specifically as:

(a) an organization or business owned entirely by the Government;
(b) a company or registered partnership of which more than 50 percent of the capital is contributed by the government agency; and,
(c) a company or registered partnership of which more than 50 percent of the capital is contributed by government agency or another state enterprise or both.

At present, the number of public state enterprises, based on the above definition, is 62. This represents a decrease of 39.2 percent from 102 in 1960. These PSEs can be classified, in accordance with their establishment, into five types as follows:

(a) Established by specific acts of parliament (22 enterprises). The PSEs in this group are mostly the enterprises of public utilities (5), public services (6), and banking (4). These PSEs are owned entirely by the Government.
(b) Established by royal decrees under the provision of the "State Organization Act of 1953" (17 enterprises). The capital of these PSEs is fully owned by the Government and whose legal status is a juristic person. The PSEs in this type include Bangkok Mass Transit Authority, Marketing Organization Rubber Estate Organization.
(c) Established by civil and commercial code (13 enterprises). Legal status of these PSEs are limited companies of which the Government holds more than 50 percent of the capital. These include the Thai Airways International Co., Ltd., Bang Chack Petroleum Co., Ltd., Krung Thai Bank.

(d) Established by Announcement of Revolutionary Party of 1972 (4 enterprises). The PSEs in this type are National Housing Authority, Express and Rapid Transit Authority of Thailand Industrial Estate Authority of Thailand, Institute for the Promotion of Teaching Science and Technology, 1972. The legal status of these PSEs is not different from those in the first type.

(e) Established by cabinet resolution (6 enterprises). The PSEs in this group, namely, Thailand Tobacco Monopoly, Sugar Factories Incorporation, Office of the Public Pawnshops, Playing Card Factory, Police Printing Press, Liquor Distillery Organization, are not juristic person. Their operations must be under the supervision of the ministry in charge. These enterprises do not enjoy the legal status and institutional independence of the above enterprises. Any legal commitment has to be made by the ministries concerned.

(2) Rationale behind PSEs

Before and during the second world war, the Government took most economic activities under its control. This was done to attain "economic nationalism" which was to remove the strong influence of the foreigners on the Thai economy. After the second world war, the Government adopted an economic policy based on PSEs. Twenty-one PSEs or 34 percent of 62 PSEs as of 1988, were established in the 1950s.

During that time, the PSEs of public utilities and services such as electricity, port, railway and telephone were set up to support industries while the PSEs' manufactures such as preserved food, glass, textile, battery, tanning, sugar, paper, and plywood were established for the purposes of national security and domestic consumption.

After the 1960s, the private sector's role in Thailand's economy expanded. This shift was led by the appearance of Sarit in 1958 and the World Bank's recommendation that emphasized the role of the private sector. The establishment of any new public sector enterprises or the expansion of existing ones was not allowed in the fields that were competing with private enterprises. In conclusion, the rationales and reasons behind the creation of PSEs in Thailand, as observed repeatedly in the statements of previous development plans, are as follows:

(a) To support monopolistic state enterprises in order to control product quality, stabilize prices, and generate government revenue.

(b) To support state enterprises which are strategically necessary.

(c) To consider establishment of new state enterprises which require: (i) large investment on infrastructure, (ii) large capital investment, (iii) complex technology, and (iv) national resource development in which private enterprises are reluctant or unable to undertake.

(3) Sectoral distribution

Majority of the 62 PSEs are engaged in transportation and communication. Fourteen PSEs belong to this sector, to name a few, State Railways of Thailand, Port Authority of Thailand, Bangkok Mass Transit Authority, Thai Airways International Co., Ltd., Telephone Organization of Thailand, etc.

The second largest sector is manufacturing with 12 PSEs. The PSEs in this sector were established for various reasons. The two most important ones are national security and government revenue generating purposes. The PSEs which were established for the former reason are Bang-Na Glass Organization, Textile Organization, Battery Organization, Tanning Organization and Preserved Food Organization and the PSEs established to fulfil the latter purpose are Thailand Tobacco Monopoly and Thai Playing Card Factory.

The banking and insurance and agriculture and fisheries sectors are each composed of seven enterprises. The next sector is the commerce and services sector which includes six PSEs, such as Marketing Organization, Provincial Corporations, Public Warehouse Organization, etc. The electricity and water supply sector includes five large-scale enterprises, such as Electricity Generating Authority, Metropolitan Electricity Authority, Metropolitan Waterworks Authority, etc. The petroleum and natural gas sector includes three new enterprises established after the second oil crisis. These PSEs are Petroleum Authority of Thailand, Bangchak Petroleum Co., Ltd., and PTT Exploration and Production Co., Ltd. At present, there is only one enterprise in mining sector, namely the Offshore Mining Organization. The remaining enterprises are collectively grouped into "Other Sectors". They were established for various objectives, such as promotion of public welfare, earning revenue and foreign exchange and promotion of science and technology. Table 10.1 summarizes the sectoral distribution of PSEs.

(4) Profitability

From 1968-1988, Non-Financial Public Sector Enterprises (NFPSEs) posted positive earnings. For the period 1968 to 1979, the net profit was on the uptrend except for 1969 and 1975. The drop of net profit in 1969 was only 9 percent. However, in 1975, the net profit dropped significantly by around 25 percent due to the irst oil shock which resulted in high costs of operation while the prices were not immediately adjusted. After that, the profit situation of NFPSEs, for a few years, improved. Net profits continuously increased until 1979 when the second oil shock unexpectedly took place. This time, profitability was more severely impaired compared to the first oil crisis, as profits dropped by around 36 percent in 1980. This prompted the PSEs to adjust the public utilities prices in 1981 so as to alleviate their financial problems and to reach their profit targets. However, the results were unsatisfactory. This was firstly because the new price adjustment rates were still low and PSEs could not increase the rates high enough to cover the costs without defeating the social purpose for which these PSEs were created, which is to produce goods and services primarily to serve the public needs. Secondly, there was the concurrent salary adjustment for NFPSEs employees which contributed to higher costs and hampered the improvement in the financial situation. In 1985, the net profit again dropped from Baht 17,107 million to Baht 12,629 million, or 26 percent. The drop in net profit in this year was caused by the baht devaluation. This development brought about not only the problem of profit reduction of the NFPSEs, but also the problem of debt-servicing difficulty. In order to overcome the problem of debt-servicing difficulty, NFPSEs were induced to be much more dependent on domestic financial source instead. Also, the NFPSEs' investments were confined to the important and necessary areas so as to address the problem of capital mobilization. The privatization and the improvement in working efficiency of NFPSEs became subtle strategies which would help NFPSEs and Government overcome such problematic structure of NFPSEs.

From Table 10.2, the ratios of NFPSEs net profit to total assets ranged around 2.9 percent to 8.6 percent. The low percentage of net profit in total assets in 1980 was caused by the drop of the net profit which has already been explained.

1.1.4 Departmental Agency

The entities in this category are parts of the departments of the Central Government. Their main function is the delivery of specific public

Table 10.1

THAI STATE ENTERPRISES BY ECONOMIC ACTIVITIES

(As of November 1988)

Manufacturing - 12	
Ministry of Industry	Sugar Factories Incorporation
	Industrial Estate Authority of Thailand
Ministry of Defense	Bang-Na Glass Organization
	Textile Organization
	Battery Organization
	Tanning Organization
	Preserved Food Organization
Ministry of Finance	Thailand Tobacco Monopoly
	Thai Playing Cards Factory
Ministry of Public Health	Liquor Distillery Organization
	Government Pharmaceutical Organization
Ministry of Agriculture and Cooperative	Thai Plywood Co., Ltd.
Mining - 1	
Ministry of Industry	Offshore mining Organization
Petroleum and Natural Gas - 3	
Ministry of Industry	Petroleum Authority of Thailand
	Bangchack Petroleum Co., Ltd.
	PTT Exploration and Production Co., Ltd.
Transportation and Communication - 14	
Ministry of Communication	Transport Co., Ltd.
	Thai Maritime Navigation Co., Ltd.
	Express Transport Organization
	Aeronautical Radio of Thailand
	State Railways of Thailand
	Port Authority of Thailand
	Thai Airways International Co. Ltd.
	Telephone Organization of Thailand
	Bangkok Mass Transit Authority
	Communication Authority of Thailand
	Airport Authority of Thailand
Ministry of Interior	Expressway and Rapid Transit Authority of Thailand
Ministry of Defense	Bangkok Dock Co., Ltd.
Office of Prime Minister	Mass Communication Organization of Thailand
Electricity and Water Supply - 5	
Ministry of Interior	Metropolitan Waterworks Authority
	Provincial Waterworks Authority
	Metropolitan Electricity Authority
	Provincial Electricity Authority
Office of Prime Minister	Electricity Generating Authority of Thailand

Table 10.1 (cont'd)

THAI STATE ENTERPRISES BY ECONOMIC ACTIVITIES

(As of November 1988)

Commerce and Services - 6	
Ministry of Interior	Marketing Organization Police Printing Press
Ministry of Commerce	Public Warehouse Organization Prajinburi Provincial Co., Ltd. Lumphoon Provincial Co., Ltd. Surintr Provincial Co., Ltd.
Banking and Insurance - 7	
Ministry of Finance	Bank of Thailand Government Savings Bank Government Housing Bank Krung Thai Bank Bank of Agriculture and Agricultural Cooperatives
Ministry of Interior	Office of Public Pawnshop
Agriculture and Fisheries - 7	
Ministry of Agriculture and Cooperative	Rubber Estate Organization Fish Marketing Organization of Thailand Forest Industry Organization Cold Storage Organization Office of Rubber Replanting Aid Fund Dairy Farming Promotion Organization of Thailand Marketing Organization for Farmers
Other - 7	
Office of Prime Ministry	The Zoological Park Organization of Thailand Sport Organization of Thailand Tourist Authority of Thailand
Ministry of Finance	Government Lottery Bureau of Thailand
Ministry of Interior	National Housing Authority
Ministry of Education	Institute for the Promotion of Teaching Science and Technology
Ministry of Science, Technology and Energy	Thailand Institute of Scientific and Technological Research

Source: Modified from the joint survey by the Social Research Institute, Chulalongkorn University, and Institute of Developing Economies, in 1986.

Table 10.2

NFPSEs: NET PROFIT AND TOTAL ASSETS

(Bahts Million)

Year	Net Profit (A)	Total Assets (B)	(A) / (B) (%)
1968	1949	27020	7.213
1969	1768	29114	6.073
1970	1891	31012	6.098
1971	2134	33533	6.364
1972	2539	35471	7.158
1973	3100	39129	7.923
1974	4353	50568	8.608
1975	3273	56975	5.745
1976	3778	60607	6.234
1977	4049	85128	4.756
1978	5092	86310	5.9
1979	6026	104004	5.794
1980	3842	130501	2.944
1981	6237	174060	3.583
1982	10423	173297	6.015
1983	12113	240999	5.026
1984	17107	275098	6.219
1985	12629	310582	4.066
1986	15173	352207	4.308
1987	22155	369237	6.000
1988	29885	417404	7.160

services in accordance to the central government policies. The services are mostly concerned with social services such as health care and education. These entities are not fully autonomous, as their operations and management are directed and supervised by the department in charge.

1.2 Financial Aspects

The main body of the public sector is the central government which plays the crucial roles in supplying the principal public services throughout the country. The central government financial transactions are comprised of budgetary ransactions, the national budget, and non-budgetary transactions. The national budget is divided into the receipt budget and the expenditure budget. The receipt budget contains the estimates of resources which are tax revenues (around 84.4 percent of the total estimated receipts, in 1990), sales of assets and services (around 2.6 percent of the total estimated receipts, in 1990), income from state enterprises (around 3.9 percent of the total estimated receipts, in 1990), income from other miscellaneous sources (e.g., stamp duties and fines which is around 1.6 percent of the total receipts, in 1990), and domestic borrowing (around 7.5 percent of the total estimated receipts, in 1990). Besides these components, the receipts budget in some years included the use of treasury cash balances. In addition to the budgetary resources, the Central Government obtains another financial inflow, called non-budgetary receipts which consist of foreign loans and grants, deposits of public agencies with the treasury and independent resources of departments, ministries and decentralized agencies.

On the expenditure side, the central government expenditures consist of firstly, budgetary expenditures which include repayments of domestic and foreign debts and the other is non-budgetary expenditures.

In general, the government budget is to be balanced, i.e., expenditures must equal receipts (revenue plus domestic borrowing) for each fiscal year. In other words, any imbalances between expenditures and revenues must be eliminated either by financing from domestic borrowing (from financial and non-financial institutions including households and from the Bank of Thailand (BOT) which is considered as the Government's last option since this method can affect the monetary base) or by use of treasury cash balances. Even though the Government has been posting cash surpluses since 1988, the Government still keeps on borrowing (i.e., issuing bonds) from the private sector not for the purpose of financing the deficit, but to strengthen the bond market and to supply bonds sufficiently to the financial institutions to fulfil their bond holding requirements.

The next body of the public sector is the local governments. Revenue of local public bodies can be divided, generally, into three categories: (1) their own revenues – local taxes, surcharges on central government taxes, share taxes and non-tax revenue; (2) transfers from the Central Government; and, (3) domestic and foreign loans. Of these revenues, surcharges on central government taxes represent the major part of the current revenue of local governments which cover around one-third of local government receipts whereas share taxes, local taxes and non-tax revenues cover almost one-half of local government receipts.

As the local government's current revenue is not large enough to finance their expenditure, for instance, their current revenues in 1988 could finance around 83 percent of their total expenditure, it is necessary for local governments to depend on the transfers or the apportionment of revenue from the central government. As the local government can finance around 83 percent of their total expenditure, the rest of the expenditure is financed by the apportionment from the Central Government, around 15 percent and by other sources, around 1 to 2 percent.

The other component of the public sector consists of the PSEs. PSEs generate some portion of the Government's revenue. The major part of the PSEs' investment funds is from their operating surpluses. But the public service state enterprises that face financial problems rely to some extent, on the central government's financing whether in terms of loans, grants and capital transfers, borrowings from domestic and foreign sources. With regard to the financial relations between the central government and NFPSEs, one finds that, in most of the study period, a good deal of money was remitted from PSEs to the central government much more than that transferred from the central government to NFPSEs.

The last component of the public sector consists of departmental agencies. At present, departmental agencies can be broken down into 14 categories. As mentioned earlier, the main function of these entities is to provide the social services and thereby contribute to the promotion of the welfare of the local residents. The expenditure of these entities are mostly financed from the national budget. Besides the huge financing from the central government, these entities can raise their revenue through fees and charges, and use those fund in their operations. Currently, such transactions are not included in the public sector financial accounts.

1.3 Size of the Public Sector

Considering the share of gross fixed investment of the public sector in gross capital formation (gross investment) in Table 10.3, one finds that the ratios ranged from the minimum of 13.99 percent in 1974 to the maximum of 37.68 percent in 1985 or an average of 28.3 percent during the past two decades. The huge drop of the ratio during 1973-1975 were due to the high inflation rate caused by the world oil crisis which led to the decrease in the disbursement of government expenditures especially the capital expenditure. In 1980-1986, the ratio increased significantly to 34.6 percent compared with 27.9 percent of 1979. The notice-able increase of this ratio could be explained by the rapid investment expansion of the PSEs. Nevertheless, the ratios dropped significantly to 24.3 percent in 1987 and 21 percent in 1988 according to the government austerity policy. Tables 10.4 to 10.7 show the consolidation of public sector, financial position of each sector and its ratios to GDP, respectively. In Table 10.7, the ratio of total public sector expenditure to GDP varied from 14.6 percent to 25.5 percent in the study period. In this period, the ratios fluctuated and registered decreases since 1986 even though both expenditure and GDP continuously increased. This could be explained by the same reasons as in the case of the fluctuation in public sector gross fixed investment.

On the revenue side, the ratio of the revenue in aggregate to GDP ranged from the minimum of 13.0 percent in 1973 to the maximum of 20.6 percent in 1988 or an average value of 16.24 percent during the past 20 years. It is noticeable that the share of revenue in GDP has increased significantly since 1984 (see Table 10.7). This was due mainly to the favorable economic conditions, in particular in 1987 and 1988, together with the introduction of the government measures especially tax measures such as the adjustment of tax structure, tax rates and strengthening of tax administration and audits, the adjustment of PSEs service charges and fees, etc.

From Table 10.7, the deficits of the public sector, in the study period, ranged from the maximum deficit of 7.7 percent to the maximum surplus of 1.0 percent of GDP. The deficits were very high during the

Table 10.3

SHARES OF PS & NFPSEs: FIXED INVESTMENT IN GROSS CAPITAL FORMATION & GDP
(Bahts Million)

Year	Gross Fixed Inv. of PS (A)	% Change of (A)	Gross Fixed Inv. of NFPSEs (B)	% Change of (B)	Gross Fixed Caltal Form. (C)	% Change of (C)	(A)/(C) (%)	(B)/(C) (%)	GDP (D)	(A)/(D) (%)	(B)/(D) (%)
1968	9119	n.a.	n.a.	n.a.	29435	n.a.	30.98	n.a.	116774	7.81	n.a.
1969	9872	8.26	n.a.	n.a.	33877	15.09	29.14	n.a.	128566	7.68	n.a.
1970	10429	5.64	2562	n.a.	37731	11.38	27.64	6.79	147385	7.08	1.74
1971	10305	-1.19	2425	-5.35	37136	-1.58	27.75	6.53	153417	6.72	1.58
1972	11415	10.77	3231	33.24	36872	-0.71	30.96	8.76	170076	6.71	1.90
1973	11411	-0.04	2905	-10.09	59958	62.61	19.03	4.85	222110	5.14	1.31
1974	10403	-8.83	3591	23.61	74365	24.03	13.99	4.83	279206	3.73	1.29
1975	15704	50.96	5056	40.80	81134	9.10	19.36	6.23	303319	5.18	1.67
1976	23519	49.76	6529	29.13	83109	2.43	28.30	7.86	346516	6.79	1.88
1977	29752	26.50	9848	50.83	108480	30.53	27.43	9.08	403529	7.37	2.44
1978	37358	25.56	13906	41.21	137496	26.75	27.17	10.11	488226	7.65	2.85
1979	42425	13.56	17443	25.44	152050	10.59	27.90	11.47	558861	7.59	3.12
1980	58611	38.15	26721	53.19	174081	14.49	33.67	15.35	658509	8.90	4.06
1981	67987	16.00	33913	26.92	199723	14.73	34.04	16.98	760195	8.94	4.46
1982	66402	-2.33	26630	-21.48	189577	-5.08	35.03	14.05	820002	8.10	3.25
1983	73646	10.91	35951	35.00	236090	24.54	31.19	15.23	910054	8.09	3.95
1984	82076	11.45	38720	7.70	242506	2.72	33.84	15.97	973412	8.43	3.98
1985	91920	11.99	44472	14.86	243949	0.60	37.68	18.23	1014399	9.06	4.38
1986	83578	-9.08	36174	-18.66	241280	-1.09	34.64	14.99	1094679	7.63	3.30
1987	77482	-7.29	39026	7.88	318455	31.99	24.33	12.25	1234030	6.28	3.16
1988	84349	8.86	n.a.	n.a.	403121	26.59	20.92	n.a.	1465736	5.75	n.a.

Note: SE = Denotes state enterprises.
PS = Denotes public sector (central and local governments and state enterprises).

Table 10.4

CONSOLIDATION OF PUBLIC SECTOR

(Bahts Million)

Fiscal Year	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
REVENUE & GRANTS	19841	22883	22896	23449	25255	29622	44493	44016	47348	60889	73064
Revenue	18567	21419	21874	22284	24363	28778	43730	43229	46567	60255	71966
Central government[1]	16443	18355	18903	19364	21144	25347	39380	38248	42222	51806	62137
Local govt. (excl. trans-fer from central govt.)	873	1065	1189	1339	1191	1459	2209	2809	3154	3806	4523
NFPSEs	1251	1999	1782	1581	2028	1972	2141	2172	1190	4643	5306
EXTERNAL GRANTS (CENTRAL GOVERNMENT)	1274	1464	1022	1165	892	845	763	787	781	635	1098
EXPENDITURE	22888	21686	27535	31048	34233	36835	40820	51163	62835	76816	98401
Current Expenditure[2]	14565	16636	18010	19926	22450	25198	29121	38688	41808	49783	62609
Central government	13830	15658	17040	18938	21457	24149	27714	36746	33153	41197	52454
Local government	735	978	970	988	993	1048	1407	1942	8655	8586	10155
Capital Expenditure	8322	9550	9525	11122	11783	11637	11699	12475	21027	27033	35792
Central government	5800	6159	6464	7906	7872	6983	6922	6592	10007	14190	15936
Local government	458	403	417	486	941	910	1006	1412	4959	3445	4708
NFPSEs	2064	2988	2644	2730	2971	3744	3771	4470	6061	9398	15148
TOTAL DEFICIT (-)	-3047	-3304	-4639	-7599	-8978	-7213	3673	-7147	-15487	-15926	-25338

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
REVENUE & GRANTS	87790	107570	129505	136660	162590	186580	195620	213500	245950	309530
Revenue	86363	105621	125800	134040	159610	182660	191820	208100	239050	301730
Central government[1]	75683	93726	110459	116818	137485	148330	160600	166600	193200	247180
Local govt. (excl. trans-fer from central govt.)	5035	5476	6697	7517	8256	9410	9900	10800	11840	13020
NFPSEs	5645	6418	8644	9705	13869	24920	21320	30700	34010	41530
EXTERNAL GRANTS (CENTRAL GOVERNMENT)	1427	1949	3705	2620	2980	3920	3800	5400	6900	7800
EXPENDITURE	112332	153701	175663	196941	210413	231982	258863	263920	265820	289520
Current Expenditure[2]	75732	93305	112159	128009	142404	155632	174384	184950	193390	201830
Central government	62986	77418	103855	119451	133455	146022	164384	174020	182850	189360
Local government	12746	15887	8304	8558	8949	9610	10000	10930	10540	12470
Capital Expenditure	36600	60396	63504	68932	68009	76350	84479	78970	72430	87690
Central government	16878	23949	28149	33077	32137	33439	37105	37220	34390	32450
Local government	4242	7404	4539	4977	5607	6140	5810	6310	5630	7060
NFPSEs	15479	29043	30816	30878	30265	36771	41564	35440	32410	48180
TOTAL DEFICIT (-)	-24542	-46131	-46158	-62760	-51230	-43980	-61990	-50370	-18020	14570

1 Includes residual to balance revenue and revenue of each sector.

2 Includes residual of the fine adjustment in expenditure.

Table 10.5

FINANCIAL POSITION OF LOCAL GOVERNMENT

(Bahts Million)

Fiscal Year	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
REVENUE[1]	873	1065	1189	1339	1191	1459	2209	2809	3154	3806	4523	5035	5476	6697	7517	8256	9410	9900	10800	11840	13020
EXPENDITURE[2]	1193	1381	1387	1474	1934	1958	2412	3354	13614	12031	14863	16988	23291	12843	13535	14556	15750	15810	17240	16170	19530
Current Expenditure	735	978	970	988	993	1048	1407	1942	8655	8586	10155	12746	15887	8304	8558	8949	9610	10000	10930	10540	12470
Capital Expenditure	458	403	417	486	941	910	1006	1412	4959	3445	4708	4242	7404	4539	4977	5607	6140	5810	6310	5630	7060
DEFICIT (-)	-320	-316	-198	-136	-743	-499	-203	-545	-10459	-8225	-10340	-11953	-17815	-6146	-6018	-6300	-6340	-5910	-6440	-4330	-6510

1 Excludes grants from central government.
2 Includes the uses of central government's grants.

Table 10.6

FINANCIAL POSITION OF NON-FINANCIAL PUBLIC SECTOR ENTERPRISES

(Bahts Million)

Fiscal Year	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
REVENUE[1]	1251	1999	1782	1581	2028	1972	2141	2172	1190	4643	5306	5645	6418	8644	9705	13865	24920	1320	30700	34010	41530
EXPENDITURE[2]	2064	2988	2644	2730	2971	3744	3771	4470	6061	9398	15148	15479	29043	30816	30878	30265	36771	41564	35440	32410	48180
Capital Expenditure	2064	2988	2644	2730	2971	3744	3771	4470	6061	9398	15148	15479	29043	30816	30878	30265	36771	41564	35440	32410	48180
DEFICIT (-)	-813	-989	-862	-1149	-942	-1772	-1630	-2298	-4872	-4756	-9842	-9835	-22625	-22172	-21173	-16396	-11851	-20244	-4740	1600	-6650

1 Excludes grants from central government.
2 Includes the uses of central government's grants.

Table 10.7

THE CONSOLIDATION OF PUBLIC BUDGET

(Percentage of GDP)

Fiscal Year	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
REVENUE & GRANTS	17.0	17.8	15.5	15.3	14.8	13.3	15.9	14.5	13.7	15.1	15.0
Revenue	15.9	16.7	14.8	14.5	14.3	13.0	15.7	14.3	13.4	14.9	14.7
Central government[1]	14.1	14.3	12.8	12.6	12.4	11.4	14.1	12.6	12.2	12.8	12.7
Local govt. (excl. transfer from central govt.)	0.7	0.8	0.8	0.9	0.7	0.7	0.8	0.9	0.9	0.9	0.9
NFPSEs	1.1	1.6	1.2	1.0	1.2	0.9	0.8	0.7	0.3	1.2	1.1
EXTERNAL GRANTS (CENTRAL GOVERNMENT)	1.1	1.1	0.7	0.8	0.5	0.4	0.3	0.3	0.2	0.2	0.2
EXPENDITURE	19.6	16.9	18.7	20.2	20.1	16.6	14.6	16.9	18.1	19.0	20.2
Current Expenditure[2]	12.5	12.9	12.2	13.0	13.2	11.3	10.4	12.8	12.1	12.3	12.8
Central government[2]	11.8	12.2	11.6	12.3	12.6	10.9	9.9	12.1	9.6	10.2	10.7
Local government	0.6	0.8	0.7	0.6	0.6	0.5	0.5	0.6	2.5	2.1	2.1
Capital Expenditure	7.1	7.4	6.5	7.2	6.9	5.2	4.2	4.1	6.1	6.7	7.3
Central government	5.0	4.8	4.4	5.2	4.6	3.1	2.5	2.2	2.9	3.5	3.3
Local government	0.4	0.3	0.3	0.3	0.6	0.4	0.4	0.5	1.4	0.9	1.0
NFPSEs	1.8	2.3	1.8	1.8	1.7	1.7	1.4	1.5	1.7	2.3	3.1
TOTAL DEFICIT (-)	-2.6	-2.6	-3.1	-5.0	-5.3	-3.2	1.3	-2.4	-4.5	-3.9	-5.2

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
REVENUE & GRANTS	15.7	16.3	17.0	16.7	17.9	19.2	19.3	19.5	19.9	21.1
Revenue	15.5	16.0	16.5	16.3	17.5	18.8	18.9	19.0	19.4	20.6
Central government[1]	13.5	14.2	14.5	14.2	15.1	15.2	15.8	15.2	15.7	16.9
Local govt. (excl. transfer from central govt.)	0.9	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9
NFPSEs	1.0	1.0	1.1	1.2	1.5	2.6	2.1	2.8	2.8	2.8
EXTERNAL GRANTS (CENTRAL GOVERNMENT)	0.3	0.3	0.5	0.3	0.3	0.4	0.4	0.5	0.6	0.5
EXPENDITURE	20.1	23.3	23.1	24.0	23.1	23.8	25.5	24.1	21.5	19.8
Current Expenditure[2]	13.6	14.2	14.8	15.6	15.6	16.0	17.2	16.9	15.7	13.8
Central government[2]	11.3	11.8	13.7	14.6	14.7	15.0	16.2	15.9	14.8	12.9
Local government	2.3	2.4	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.9
Capital Expenditure	6.5	9.2	8.4	8.4	7.5	7.8	8.3	7.2	5.9	6.0
Central government	3.0	3.6	3.7	4.0	3.5	3.4	3.7	3.4	2.8	2.2
Local government	0.8	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
NFPSEs	2.8	4.4	4.1	3.8	3.3	3.8	4.1	3.2	2.6	3.3
TOTAL DEFICIT (-)	-4.4	-7.0	-6.1	-7.7	-5.6	-4.5	-6.1	--4.6	1.5	1.0

1 Includes residual to balance revenue and revenue of each sector.

2 Includes residual of the fine adjustment in expenditure.

fiscal years (FYs) 1979/80 to 1981/82 due to the unfavorable economic condition. The deficit decreased significantly to 1.46 percent of GDP in the FY 1986/87 and the budget turned to surplus in FY 1987/88. The reduction in deficit and the occurrence of surpluses were explained by the exceptional increase in government revenue and PSEs profits at that time.

As for the PSEs, in the past two decades the role of PSEs in the Thai economy increased significantly. There are currently 62 PSEs employing almost 300,000 employees or around 1 percent of the total labor force. These PSEs hold the assets of about Baht 900 billion in 1987 compared with only Baht 40 to 50 billion in 1970.

From Table 10.8, it can be seen that both current and capital expenditure expanded noticeably from 10 percent of GDP in FY 1967/68 to the highest of 21.7 percent in FY 1984/85 and surpassed that of the central government since the FY 1979/80. The ratios of current and capital expenditure of NFPSEs to the central government expenditure increased from 70 and 35 percent in the FY 1967/68 to 115 and 149 percent in the FY 1987/88.

On the investment side, the share of gross fixed investment of NFPSEs in gross capital formation swung from 5-7 percent in 1970-1975 to 14-18 percent in 1981-1985 and dropped to 15 percent and 11-12 percent in 1986 and 1987-1988 respectively (see Table 10.3). This was mainly due to the economic downturn during the past few years, resulting in a large fall in energy sector's investment.

As compared to GDP, the gross fixed investment of NFPSEs in the study period ranged from 1.3 to 4.5 percent or an average of 2.8 percent, while the deficits accounted for 9 to 49 percent or an average of one-fourth of the total public sector deficit.

II. Public Sector Deficits

2.1 Causes of Deficits

As mentioned earlier, the public sector comprises four major components, i.e., the Central Government, public sector enterprises, local governments and departmental agencies. Among these components, the Central Government and PSEs are the major sources of the public sector deficits. As for the local governments, the imbalance between the revenue (including transfer to Central Government) and expenditure was minimal.

Table 10.8

REVENUE AND EXPENDITURE NON-FINANCIAL PUBLIC SECTOR ENTERPRISES (NFPSEs) AND THEIR SHARES IN GDP

(Bahts Million)

Year	Expenditure (A)	Revenue[1] (B)	GDP (C)	(A) / (C) (%)	(B)/ (C) (%)
1968	11763	11158	116774	10.07	9.56
1969	12780	12039	128566	9.94	9.36
1970	13911	13261	147385	9.44	9.00
1971	14965	14082	153417	9.75	9.18
1972	16706	15764	170076	9.82	9.27
1973	20667	18895	222110	9.31	8.51
1974	27018	25388	279206	9.68	9.09
1975	31844	29546	303319	10.50	9.74
1976	42050	37178	346516	12.13	10.73
1977	47870	43114	403529	11.86	10.68
1978	64024	54182	488226	13.11	11.10
1979	73111	63276	558861	13.08	11.32
1980	112966	90341	658509	17.15	13.72
1981	148905	126733	760195	19.59	16.67
1982	171410	151530	820002	20.90	18.48
1983	177560	161910	910054	19.51	17.79
1984	192260	184190	973412	19.75	18.92
1985	219960	205570	1014399	21.68	20.27
1986	226150	221410	1094679	20.66	20.23
1987	234120	235720	1234030	18.97	19.10
1988	272080	265430	1465736	18.56	18.11

1 Revenue refers to gross revenue before deducting operating cost.

This is because the local governments are not allowed to prepare the deficit budget according to the regulation issued by the Ministry of Interior. Considering the causes of the public sector deficit one has to scrutinize the operation of the Central Government and PSEs.

2.1.1 Central Government

The major source of the public sector deficit is the national budget deficit. The phenomenon of the deficit is a result of planned imbalance between government revenue and expenditure. This can be seen in the preparation of the national budgets during the past 20 years. During this period, the needs for government spending increased significantly especially the spending on infrastructure and various investment projects which were raised to support the national economic and social development plans. Insufficient savings due to poor revenue collection, prompted the Government to prepare deficit budgets in those fiscal years.

The actual cash deficits of the central government in many fiscal years were, however, greater than expected. This was due to the uncertainty about economic circumstances of both domestic and the world economies. The obvious evidence is the unfavorable effects of the first and second oil shocks together with the worldwide recessions which substantially slowed down the economic growth and raised the inflation rate. These phenomena caused the Government to adjust the government servants' pay scales and its own expenditures so as to catch up with prices. At the same time, the government revenue increased at a slower pace due to such economic recession. Thus, the Government had to put much effort to tackle the problem by cutting down unnecessary expenditures and introducing many tax measures in order to raise its revenue. But these measures did not help much in coping with such problems since most of the government expenditures were attributable to current expenditures, which were difficult to cut down.

2.1.2 Public Sector Enterprises

The important causes of the deficit in the public sector enterprises are the low revenues but high expenditures. The low revenue of PSEs is due to the underpricing policy. In general, the price of goods and services delivered by most of PSEs are under the Government's control and are usually set below their costs. This is because of the government policy to reduce burdens of high price on the poor. But the result is the low income of the PSEs. The large increases in PSEs' expenditure are the result of the increases in demand for PSEs goods and services such as energy, transportation, water supply, etc., which cause the PSEs to increase their investments in these areas. Owing to the low revenue of the PSEs and a subsidy constraint, the PSEs must rely heavily on borrowing especially from the external sources.

2.2 Financing Deficits

As mentioned earlier, public sector recorded a large deficit during the past two decades. The main sources of deficit financing of the public sector is the banking system which comprises BOT and commercial banks. The borrowing from the BOT increased substantially during the FYs 1980/81 to 1981/82, when the Government experienced large budget deficits as the revenue collection were far below the expectation due to the slump of the economy during that time. The share of borrowings from BOT in both total domestic borrowings in those fiscal years were as high as 70 and 47 percent respectively. Since FY 1984/85, the pace of domestic borrowings changed, i.e., a large part of financing turned to rely on non-bank sector — the Government Savings Bank, the finance companies and household. However, commercial banks still remained to be the major source of financing.

III. Impact of Public Sector Deficit on Money Supply

Tables 10.9 and 10.10 indicate that the expansion of money supply during the period of oil crisis was dominated by the expansion of credits extended by the banking system to the public sector. Public (Central Government and PSEs) debt outstanding expanded at an annual rate of around 22 percent during 1975 to 1984, compared with that of around 21 percent for private debts. The debts were mostly run up by the Central Government. PSEs' debts accounted for Baht 14.6 billion in 1988 or 10 percent of total debts. This was due to the external financing mentioned before.

Since 1983, the Government had tried to improve its debts situation by adopting restrictive fiscal policies. Two noteworthy measures were the adjustment in the collection of taxes and revenues, and the curtailment of government expenditures.

At first, the plan did not yield the result as the Government expected because of the sluggish economy in 1984 and 1985. Later between 1986 and 1988, the Government was able to improve the public debts situation by continuously cutting budgets and slowing down PSEs' investment. The growth rate of public debts had dropped

Table 10.9

MONETARY SURVEY

(Bahts Million)

	Money Supply (M2)	Net Foreign Assets	Component of Money Supply			
			Claims on Private Sec.	Net Claims on Govt.	Claims on State Entpr.	Others
1970	41822.8	17303.0	27425.4	9377.2	201.7	-12484.5
1971	48807.6	17455.2	30291.2	15499.5	321.0	-14759.3
1972	60363.0	21661.6	34473.2	21023.6	197.7	-16993.1
1973	73917.6	24506.3	49503.3	21401.3	157.7	-21651.0
1974	89630.6	34684.1	66751.0	16292.3	209.5	-28306.3
1975	104071.6	31907.3	82157.4	21324.8	183.1	-31501.0
1976	125917.6	32434.4	97012.3	30732.7	2131.9	-36393.7
1977	151070.9	26938.5	124272.4	39301.0	2878.1	-42319.1
1978	180323.3	27418.5	161168.7	48353.3	3914.8	-60532.0
1979	205547.3	33066.4	198069.2	54810.0	4639.5	-85037.8
1980	251801.2	42407.8	220736.3	74705.8	10408.1	-96456.8
1981	292905.1	34328.8	254281.4	92893.4	10142.7	-98741.2
1982	363819.9	38553.1	300106.7	124518.7	12874.0	-112232.6
1983	450500.4	16534.0	402431.7	135305.4	11958.8	-115729.5
1984	537884.9	28285.7	476466.9	154358.5	13027.4	-134253.6
1985	593494.7	37863.9	527353.2	156931.6	13585.8	-142239.8
1986	672773.8	80865.4	552677.5	173414.0	14601.5	-148784.6
1987	808584.4	107544.8	680838.9	175495.1	14889.8	-170184.2
1988	956126.1	145695.3	864692.8	128054.5	14641.9	-196958.4

Table 10.10

FACTORS AFFECTING MONEY SUPPLY

	Public		Others				
	Total	Government	PSE	Total	Domestic	Foreign	Others
1970	0.23	0.22	0.00	0.77	0.66	0.41	-0.30
1971	0.32	0.32	0.01	0.68	0.62	0.36	-0.30
1972	0.35	0.35	0.00	0.65	0.57	0.36	-0.28
1973	0.29	0.29	0.00	0.71	0.67	0.33	-0.29
1974	0.18	0.18	0.00	0.82	0.74	0.39	-0.32
1975	0.21	0.20	0.00	0.79	0.79	0.31	-0.30
1976	0.26	0.24	0.02	0.74	0.77	0.26	-0.29
1977	0.28	0.26	0.02	0.72	0.82	0.18	-0.28
1978	0.29	0.27	0.02	0.71	0.89	0.15	-0.34
1979	0.29	0.27	0.02	0.71	0.96	0.16	-0.41
1980	0.34	0.30	0.04	0.66	0.88	0.17	-0.38
1981	0.35	0.32	0.03	0.65	0.87	0.12	-0.34
1982	0.38	0.34	0.02	0.62	0.82	0.11	-0.31
1983	0.33	0.30	0.02	0.67	0.89	0.04	-0.26
1984	0.31	0.29	0.02	0.69	0.89	0.05	-0.25
1985	0.29	0.26	0.02	0.71	0.89	0.06	-0.24
1986	0.28	0.26	0.02	0.72	0.82	0.12	-0.22
1987	0.24	0.22	0.02	0.76	0.84	0.13	-0.21
1988	0.15	0.13	0.02	0.85	0.90	0.15	-0.21

from 12 percent in 1986 to 1.3 percent in 1987. The debt outstanding had been reduced from Baht 190.7 billion in 1987 to Baht 142.7 billion in 1988, a decrease of 34 percent.

The share of government debts in monetary base had also moved in the same direction as that of money supply. The government debt component had increased from Baht 7 billion in 1975 to Baht 98.9 billion in 1985 -- an annual growth rate of 30 percent. Such form of deficit financing was important in explaining high inflation and current account deficits during 1975 and 1985.

Outstanding claims on NFPSEs recorded in the banking system balance sheet (monetary survey table) were Baht 10.4 billion and Baht 14.6 billion in 1980 and 1987 respectively -- an annual increase of around 5.0 percent. Of these amounts, most debts were claims of commercial banks. The only PSE that had ever received funds from the BOT for financing is the Electricity Generating Authority of Thailand (EGAT). In the 1960s, the BOT had purchased EGAT bonds around Baht 0.2 billion. Since the bonds were redeemed in 1981, there had not been any NFPSEs debt instruments left in the BOT's portfolio.

In the case of foreign financing, the effect of debt financing of this method on money supply is rather vague; however, its effect is clearly on foreign components.

IV. Empirical Results of Money Supply and Price Determination

The Aghevli and Khan modified model is used for investigating the influence of money supply on domestic price. The relationship between money supply and high-powered money is also adopted to trace the transmission mechanism of public sector borrowing from the BOT through money supply and then inflation. The impact of public sector borrowing on money supply could be detected from Equation (1). The influence of money supply on price could be evaluated by Equation (2).

Time frame for the empirical study is from 1970-1988.

Money Supply

$$M_2 = m\ (NCGX + NFAP)$$
$$\text{or } \ln M_2 = \ln m + a_0 + a_1 \ln NCGX + a_2 \ln NFAP \quad \ldots\ldots\ldots \quad (1)$$

Price

$$\ln P_t = \ln M_2 + b_0 - b_1 \ln YR_t + b_2 \ln P_{t-1} - b_3 \ln(M_2/P)_{t-1} \quad \ldots\ldots\ldots\ldots \quad (2)$$

where,

M_2	=	Broad money supply
m	=	Money multiplier
NCGX	=	Net claims of BOT on public sector
NFAP	=	BOT's net foreign assets plus the Bank's claim on private sector[1]
YR	=	GDP at 1972 price
P	=	Consumer price index

The empirical results are shown in Table 10.11. In the case of money supply, the results of the equation with and without the multiplier are show in Equations 11.1 and 11.2 respectively. Both equations are rather satisfactory. They indicate that the public sector component of the monetary base influences the broad money substantially both in terms of magnitude of the coefficient and its statistical inference. However, the other components (which are claim on private sector plus net foreign assets) affect variation in the monetary aggregate only in a smaller extent. It might be observed that during the period under study (1970-1988) public sector recorded a large deficit, hence a remarkable increase in public debts. It should be noted as well that public sector expenditure is domestic goods oriented. Therefore, a strong influence of public debts on money supply is observed.

Considering the price equation, we find that the goodness of fit and its standard error of the regression (Table 10.12, Equation 12.1) are satisfactory. However, when considering on individual coefficient, some of the estimates give wrong signs and statistical insignificance. It was expected that increases in real income and real money stock would lower the price level. In addition, an increase in price level in recent year (which is used as a proxy for an expected rate of inflation) would have a positive relationship with the current price level. However, these empirical evidences do not confirm such relationships, i.e., real income has a positive relationship with the price level while lagged price has a negative one. This observation might result from

1. Net unclassified assets is an exogenous in the model. Therefore, it was excluded from NFAP.

Table 10.11

PERIOD: 1970-1988

Equation 11.1

$$\log M2_t = \log m_t + \underset{(3.47)}{1.1160} + \underset{(8.18)}{0.2103} \log NCGX_t + \underset{(16.3)}{0.6830} \log NFAP_t$$

$\bar{R}^2 = 0.9844$; SE $= 0.0818$; DW-stat. $= 0.7734$

Equation 11.2

$$\log M2_t = \underset{(-2.77)}{-1.9018} + \underset{(6.35)}{0.3486} \log NCGX_t + \underset{(10.81)}{0.9663} \log NFAP_t$$

$\bar{R}^2 = 0.9686$; SE $= 0.1746 = 0.1746$; DW-stat. $= 0.6132$

where,

M2 = Broad money supply
m = Money multiplier
NCGX = BOT's claim on Government
NFAP = BOT's net foreign asset plus BOT's claim on private sector

Table 10.12

PERIOD: 1971-1988

Equation 12.1

$$\log P_t = \log M2_t \underset{(-0.45)}{-2.0097} + \underset{(0.31)}{0.1723} \log YR \underset{(-0.68)}{-0.1472} \log P_{t-1} \underset{(-4.42)}{-1.0141} \log (M2/P)_{t-1}$$

$\bar{R}^2 = 0.9857$; SE = 0.0631; DW-stat. = 1.22

Equation 12.2

$$\log P_t = \log M2_t + \underset{(0.66)}{0.8854} \underset{(-0.60)}{-0.1566} \log YR_t \underset{(-5.23)}{-0.9153} \log (M2/P)_{t-1}$$

$\bar{R}^2 = 0.9862$; SE = 0.062; DW-stat. = 1.21

Equation 12.3

$$\log P_t = \underset{(-5.64)}{-1.4602} + \underset{(6.47)}{0.1437} \log M2_t + \underset{(6.10)}{0.3580} \log PIX2_t + \underset{(8.91)}{0.2225} \log RPPP_t$$

$\bar{R}^2 = 0.9974$; SE = 0.0229; DW-stat. = 1.25

where,

P	=	Consumer price index
M2	=	Broad money supply
YR	=	Gross Domestic Products at 1972 prices
PIX2	=	Weighted average of non oil price index and export price index
RPPP	=	Retail price of petroleum products

Table 10.13

CORRELATION MATRIX

Variable	$\log P_t$	$\log M2_t$	$\log YR_t$	$\log P_{t-1}$	$\log M2/P_t$	$\log(M2/P)_{t-1}$
$\log P_t$	1					
$\log M2_t$	0.9768	1				
$\log YR_t$	0.9734	0.9969	1			
$\log P_{t-1}$	0.9912	0.9835	0.9781	1		
$\log M2/P_t$	0.9259	0.9853	0.9826	0.9447	1	
$\log(M2/P)_{t-1}$	0.9361	0.9863	0.9859	0.9424	0.9937	1

a consequence of multicollinearity, the case in which estimated coefficients have shown wrong signs and low t-statistics whereas the overall R^2 is quite high. By dropping the lagged price variable which would be regarded as a redundant information (usually, it is reflected by high correlation between independent variables as shown in Table 10.13), all estimates turn to be correct as expected (see Equation 12.2). Nevertheless, the t-value of the real income is quite low. From the estimated coefficients in Equation 12.2, we could indicate that the long-run income elasticity of demand for money is quite high (around 1.85).[2] This reflects a rapid monetization of the Thai economy. As for the mean time lags, the price equation shows that it will take almost 11 years for the adjustment of the difference between the demand and the actual stock of money in the previous period.[3]

In fact, past experiences have indicated that the inflation rate in Thailand, is a matter of cost-determined as well as demand-pulled. Foreign factors tend to play a crucial role in determining changes in domestic prices since the Thai economy is regarded as small-open and adopting fixed exchange rate regime. The price equation is thus more appropriate to include such supply factors as indicated in previous section (Equation 12.3). Equation 12.3 in Table 10.12 shows the empirical results of the price equation. It is quite clear that the supply factors account for a relatively important role in explaining the price inflation. The respective elasticity of non-oil import price (PIX2) and retail prices of petroleum products are 0.358 and 0.2225. The strong influence of world prices confirms an evidence of high degree of openness of Thai economy. On the monetary impact, the estimated elasticity is highly significant around 0.1437. However, it is relatively low comparing to the size of other variables.

V. Public Sector Deficit and External Stability

Saving mobilization is necessary to sustain economic growth, alternatively, such growth is feasible by tapping funds from borrowing abroad. In Thailand, overall domestic saving capacity seems to be insufficient to serve the investment demand. What this means is that the financial resources for investment which have driven the growth rate in the country

2. The long-run income elasticity is derived by dividing the coefficient of income in the demand for money (a_1 = 0.1566) by the coefficient of adjustment (λ= 0.0847), the long-run income elasticity = 1.85.

3. The average lag = $(1 - \lambda)/\lambda$ = 10.8.

cannot be generated wholly from domestic savings, and a part of the investments has continually been financed by foreign borrowings. The size of S-I gap comparing to GDP (Table 10.14) varied in a range of 4 to 6 percent during 1970 and 1988.

It is observed as well that most of the S-I gap prevailing during 20 years were largely resulted from those of the public sector (both Central Government and public enterprises), especially in 1979 and 1986.

Nevertheless, the private sector seemed to be a net saver in most of the said periods even if its savings tended to fluctuate largely. In fact, savings of government and public enterprises are quite poor. The former was implied by its formulation of deficit budgeting to serve the development need. The latter is responsible for investment projects such as implementation of necessary public utilities. During the past 20 years, major fiscal policies had prepared for national budget deficit in order to sustain the targeted economic development. Unfortunately, actual deficit was more than what was expected due to a huge increase in expenditures and the sluggish collection of revenues. The unexpected deficits resulted in a rapid building-up of the country's debt burden both domestic and abroad.

The debt accumulation increased from around 10 to 13 percent of total expenditure appropriation during 1973 and 1980 to 24 percent in 1985. During the first and second oil shocks, unfavorable current account position coincided with the rapid expansion of government domestic and foreign debts. The current account deficit was as high as 7 percent of GDP in 1985, while the international reserves declined to only 3 months of imports. However, during the late 1980s, after a restriction on government foreign borrowings and recovery of the economy, either expenditure and revenue became more favorable. It seems that the national budget deficit has improved and its debt burden both domestic and foreign were also reduced. During 1988 and 1989, the government deficit turned to a large surplus of Baht 36.1 billion and 63.0 billion, respectively. Following the improvement of government fiscal position, the country's international reserves reached its maximum of US$ 11.5 billion or 5.5 months of imports in 1989. However, it is likely that public debts are still showing a potential for increase. This is expected to be reflected in a widening current account deficit. As a result, the S-I gap results in a larger national debt burden of the country, especially in terms of foreign borrowings. A worsening current account position is thus inevitable. More prudential expenditure policy should be a major concern in the future and can be achieved

Table 10.14

SAVINGS AND INVESTMENT GAP TO GDP

	I/GDP	S/GDP	S-I Gap	S - I Gap		
				Govt.	Pub. Entpr.	Private
1970	25.5	22.0	-3.5	-2.8	-0.3	-2.9
1971	24.2	21.9	-2.3	-3.1	-0.2	-0.2
1972	21.7	21.2	-0.5	-2.6	-0.3	1.6
1973	27.0	26.5	-0.5	-1.2	0.2	-1.9
1974	26.6	26.1	-0.5	2.4	0.1	-4.7
1975	26.8	22.7	-4.1	-0.3	-0.6	-5.3
1976	24.0	21.6	-2.4	-3.0	-0.9	0.4
1977	26.8	21.5	-5.3	-1.9	-1.3	-1.6
1978	28.1	23.4	-4.7	-2.2	-1.7	-0.4
1979	27.2	19.8	-7.4	-1.9	-2.1	-1.0
1980	26.4	20.1	-6.3	-2.4	-3.4	0.4
1981	26.3	19.0	-7.3	-2.6	-3.7	0.5
1982	23.1	20.4	-2.7	-4.6	-2.2	3.4
1983	26.0	18.7	-7.3	-2.2	-2.5	-0.1
1984	24.9	19.9	-5.0	-3.1	-1.9	0.7
1985	24.1	20.1	-4.0	-4.1	-2.0	1.5
1986	22.1	22.7	0.6	-3.0	-0.9	2.0
1987	25.8	24.9	-0.9	-0.4	-0.2	-2.3
1988	27.5	23.4	-4.1	2.5	0.0	-4.2
1989	29.4	27.2	-2.2	3.3	-0.7	-4.8

by either controlling public expenditure outlays or adopting the balance budget fiscal policy (see Figures 10.1 to 10.3).

VI. Public Sector and Crowding-Out Effect

As a consequence of the shortage of domestic saving in developing countries, borrowings of public sector and its crowding-out effect were widely discussed during the recent decade. Thailand had such experiences during the oil crisis (1975-1980) when public sector recorded a large budget deficit. Therefore, an attempt to investigate the crowding out by public sector has been done. A proportional share of credit extended to public sector to total credit (PSPS) and an increment of this proportion (SPS) are used as indicators in order to investigate the crowding out environment. If the proportion of SPS is larger than the proportion of PSPS, the public sector will account for a large portion of new credit creation. It is therefore concluded that credit expansion are computed as follows:

$$SPS = \frac{\Delta\ NCR}{\Delta\ TCR}$$

$$PSPS = \frac{NC}{TC}$$

where,

NCR	=	Net banks' credit extended to public sector deflated by consumer price index
TCR	=	Total banks' credit deflated by consumer price index
NC	=	Net bank credit extended to public sector
TC	=	Total bank credit

The ratio of credit extended to public sector and total domestic credit, either in terms of outstanding (PSPS) or marginal increase (SPS) are computed and presented in Table 10.15. The SPS ratio is commonly shown a smaller size comparing to those of PSPS. SPS is greater than PSPS only in the three years coinciding with the first oil crisis. The greater size of SPS in 1981-1982 is a consequence of large deficit in public sector. The incidence of economic recession in 1986 caused demand for credit from private sector to slow down markedly, meanwhile, public sector still needed more funds to finance their deficits. Hence, public sector deficits in Thailand are not seen to have produced undue pressures on the credit market.

Figure 10.1

Saving and Investment

Figure 10.2

Private Saving and Investment

Figure 10.3

Public Saving and Investment

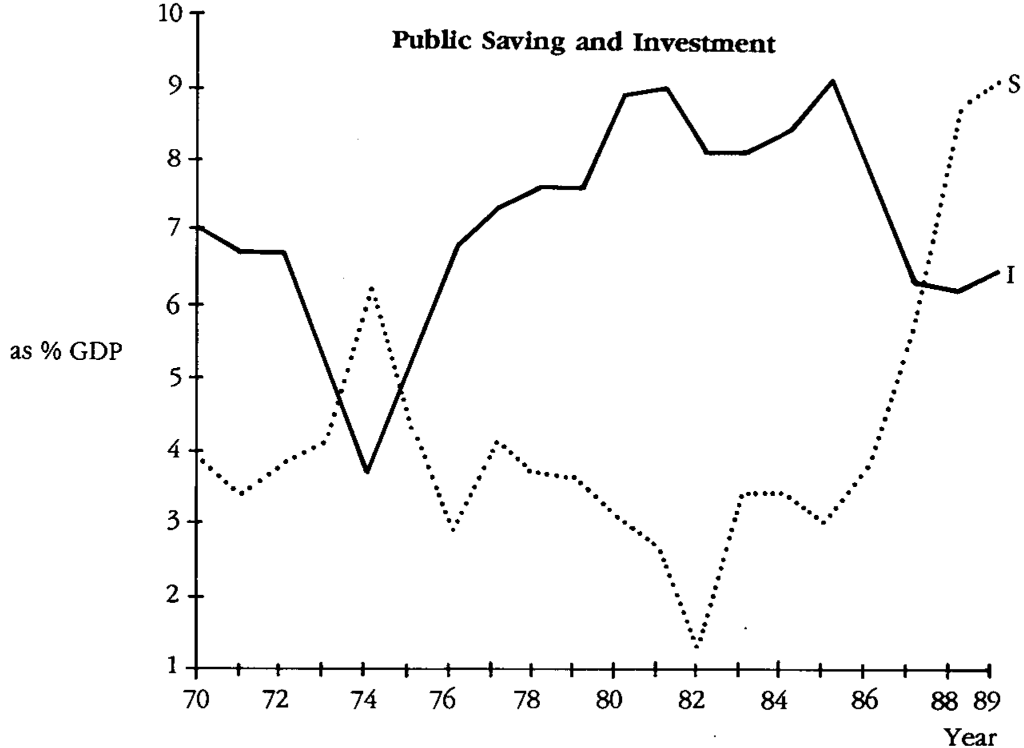

Table 10.15

CROWDING-OUT EFFECT INDICATORS

Year	SPS	PSPS	SPS-PSPS
1971	0.70	0.34	0.35
1972	0.63	0.38	0.25
1973	-0.43	0.30	-0.73
1974	2.04	0.20	1.84
1975	0.26	0.21	0.05
1976	0.48	0.25	0.22
1977	0.26	0.25	0.00
1978	0.20	0.24	-0.05
1979	0.09	0.23	-0.14
1980	-5.87	0.28	-6.15
1981	0.56	0.29	0.28
1982	0.47	0.31	0.16
1983	0.05	0.27	-0.22
1984	0.21	0.26	-0.05
1985	-0.02	0.24	-0.27
1986	0.48	0.25	0.22
1987	-0.02	0.22	-0.24
1988	-0.53	0.14	-0.67

With regard to crowding out, there appears to be no strong evidence of its existence, specially in view of the openness of the Thai economy.

VII. The Implication on Monetary Policy

Similar to the experiences of several other countries, unfavorable world economic environment induced various economic problems in Thailand throughout the second half of the 1970s and the first half of the 1980s. Since the mid-1970s, Thailand's development problems have been compounded by deteriorating terms of trade and other adverse external factors, including oil price increases, and an increase of inflation and slow growth in developed countries. The main problems encountered during this period were the threat of internal and external instability.

The problem of external imbalance became most serious in 1983 when the current account deficit reached 7 percent of GDP, the international reserves declined to only 3 months of imports and the external position appeared to have improved somewhat. But the situation proved to be short-lived and, in fact, even induced more serious deterioration in subsequent years. As for the causes of external imbalance during the first half of the 1980s apart from the impacts of unfavorable external factors, the domestic problem of overspending was also another contributing factor. Within the open economy framework that Thailand operates, whenever there exists excess demand in the country, the resulting pressure of imbalance will be manifested in unfavorable performance of the external sector than in higher domestic price level. As for the rate of domestic inflation, it is determined largely from cost factors rather than from the demand side. This can be readily seen from the fact that during 1982 to 1985, when oil prices began to stabilize and world commodity prices were depressed, inflation in Thailand averaged only 3 percent while its external account showed serious deterioration. The objective of the demand-management policy during this period was to reduce external imbalance toward a sustainable level which is obviously a part of the stability objective of economic management.

In implementing monetary policy, the BOT has focused traditionally on economic stabilization. In this sense, its role until the 1980s has been complementary to fiscal policy which was used mainly to stimulate economic growth. According to the cost-pushed inflation during the period of oil crisis, monetary policy has only a limited influence on the domestic inflation rate. Therefore, its main stabilization function has been to maintain external balance, particularly by keeping adequate foreign exchange reserves to allow for free convertibility of the baht. However, the role of monetary policy has expanded in the last decade in response to the fiscal restraint that has characterized the Government's structural adjustment efforts. As fiscal objectives have shifted since 1982 to controlling public expenditures and limiting external borrowing, fiscal policy has been unable to play its usual expansionary role. Monetary policy has therefore been used to induce economic expansion in addition to its traditional objective of maintaining external balance. This pursuit of multiple objectives has complicated the BOT's conduct of monetary policy. For instance, the need to stimulate economic activity has at times been inconsistent with the aims of maintaining exchange rate stability and adequate foreign reserves. However, in an attempt to reach these targets, the BOT conducted monetary policy via change in interest rate ceiling on deposits and loans, credit control and exchange rate adjustment.

7.1 Interest Rate Policy

The formulation of interest rate policy always involves consideration of three objectives: saving mobilization, appropriate credit expansion and stability of international capital movement. The use of high interest rate policy during the first half of the 1980s was largely consistent with the need to mobilize domestic saving, restrain credit expansion and keep domestic interest rate in line with high interest rate overseas. After the mid-1980s, low interest rate policy was adopted to encourage more credit expansion and realign domestic interest rate with declining trend overseas. However, saving mobilization objective has been maintained by keeping interest rate on deposit high enough to yield positive return after being adjusted for inflation. In terms of the mechanism of interest rate adjustment, the authorities have encouraged more flexibility of the system by reducing the degree of intervention and allowing the rates to adjust according to market forces. The authorities did reduce interest rate ceilings in the early part of 1986 to guide the low interest rate policy but allowed the rates to move downward further below the ceiling thereafter. As a consequence, interest rate in Thailand have declined by almost 6 percent between 1985 and 1987, thus serving as a factor to accommodate economic recovery. Furthermore, the ceiling of interest rates on deposits of more than one year maturity has been lifted since June 1986 to encourage more long-term mobilization.

7.2 Credit Policy

In terms of credit policy, the approach is to try to affect the rate of credit expansion which is consistent with stability and growth consideration. During the time of tight monetary regime in the first half of the 1980s, the authorities' objective was to prevent excessive credit expansion. This was achieved with the use of monetary instruments, such as high interest rate and control of commercial banks' access to central bank's money. In Thailand, direct credit control is rarely used, with the exception of the year 1984 when credit ceiling was imposed temporarily to arrest extremely rapid expansion of credit at that time. Rate of credit growth declined steadily from 1984 to early 1986. By that time, the attention of credit policy had become that of encouraging larger credit expansion to support the turnaround in economic activities. Since the mid-1980s, the authorities have also placed more emphasis on the pattern of credit allocation. To support the restructuring of key economic sectors, the authorities have been encouraging commercial banks to allocate more credit to priority sectors, namely exports, agriculture, manufacturing and housing for medium-income earners. This policy was implemented in a form of guideline with some incentives given. The only type of direct control on credit allocation involves rural credit policy whereby commercial banks are required to allocate up to 20 percent of their deposits to rural activities which consist of agriculture, agribusiness and medium-scale industries. This rural credit policy was initiated in early 1987 as a modification of the former policy enforced since 1975 which had set target only for agricultural credit. The rationale behind this modification is to support current rural development strategy which aims to expand the scope of activities of people in rural areas.

7.3 Exchange Rate Policy

Exchange rate policy has been an important instrument in correcting external disequilibrium problems in Thailand. Two major adjustments of exchange rate were implemented: a devaluation by 8.7 percent in 1981 and another devaluation by 15 percent in 1984. The adjustment in November 1984 also involved a switching of exchange rate regime from dollar-pegging to basket-pegging with the aim to allow exchange rates to move more flexibly in line with international foreign exchange market conditions, thus avoiding the need to make periodic large discrete adjustment of exchange rate. The main objectives of the current exchange rate policy aim at supporting the competitiveness of Thai exports while at the same time maintaining the confidence of market participants in the stability of the exchange rate regime.

Following the exchange rate adjustment policy incorporated with monetary and fiscal policy implemented during the first half of 1980s, Thailand's external economic stability has largely been restored. Current account deficit was reduced to around 4 percent of GDP in 1985 compared with 7 percent in 1983. Furthermore, supported by a sharp drop in oil prices, the current account exhibited a surplus in 1986 which was an exceptional performance in two decades. Correspondingly, the official reserves also rose to 4.8 months of imports by 1986; meanwhile, domestic inflation rate recorded a low level of 2 percent. In addition, exchange rate in Thailand, since 1984, exhibited movement consistent with the trend of overseas rate, while market participants have learned to adjust themselves by using various hedging instruments and gained more confidence in the new regime. Presently, exchange rate has been served as a stabilizer to cushion against the volatility in the international financial market. Nevertheless, the implementation of exchange rate policy has a number of limitations. Despite an improvement in the external balance, exchange rate devaluation will raise domestic price and cost of production, which may lead to a fall in aggregate supply. Therefore, a trade-off between various economic objectives has to be made.

VIII. Conclusion

During the period under study, the relative role of public sector has increasingly become more important as evidenced by a rise in the ratio of their expenditure to GDP. However, in the FY of 1987, the ratio tended to turn down due to the austerity policy which was introduced to alleviate the large budget deficit since the FY 1986.

Government budget deficit is normally financed by domestic borrowing. In the case of Thailand, the major sources are from commercial banks and the Government Savings Bank.

Empirical evidence indicates that the domestic price is determined by the world price. Money supply influences the price marginally according to the openness of the Thai economy. An increase in money supply will cause more deficit in the current account rather than pressure on domestic prices. Therefore, a marginal impact of public sector deficit on prices is concluded. Crowding out effect due to an increase in public determined by both internal and external factors. An increase in money supply will cause more deficit in the current account as well as pressure on domestic prices according to the openness of the Thai economy. The widening of public sector saving-investment gap is the main factor explaining the large deficit on current account during the period of oil crisis. Crowding-out effect due to an increase in public sector credit demand is also investigated. The result reveals a rather insignificant conclusion. Though a rise in public sector's demand for credit results in crowding-out domestic demand for credit of private sector, private enterprises could attenuate such a rise in domestic demand for credit by borrowing more from overseas. Therefore, the overall crowding-out effect does not exist.

Regarding monetary policies conducted during the past two decades, major policy stance focuses on external and internal stability. According to critical external imbalances in the early part of the 1980s, monetary and exchange rate policies were extensively used. The success of the policies could be evidenced by the decrease of current account deficit in 1984-1985. Fiscal measures implemented are also a supportive policy to cope with the problems. Expansionary fiscal policy by boosting expenditure is taken rather cautiously. In addition, restriction of external borrowing by the public sector in 1982 was adopted, aimed at alleviating current account deficit.

LIST OF VARIABLES USED IN REGRESSION ANALYSIS

obs	YR	P	M2	m	MBASE	NCGX	NFAP
1970	155694.0	0.948000	41822.80	2.722200	15363.60	5497.600	19092.20
1971	163420.0	0.953000	48807.60	2.862800	17049.10	9237.200	18894.80
1972	170076.0	1.000000	60363.00	3.006500	20077.30	9779.200	22667.50
1973	186845.0	1.154000	73917.60	3.116000	23722.30	9435.100	29230.80
1974	194979.0	1.434000	89630.60	3.342500	26815.50	3884.500	41778.40
1975	204428.0	1.509000	104071.6	3.495000	29777.70	6970.900	43560.10
1976	223594.0	1.572000	125917.6	3.735000	33712.60	14401.10	42997.80
1977	245727.0	1.692000	151070.9	4.099100	36855.10	21749.50	43237.20
1978	271378.0	1.825000	180323.3	4.183400	43104.90	29573.60	56905.00
1979	295808.0	2.006000	205547.3	4.088700	50271.60	38176.50	75951.80
1980	200482.0	2.401000	251801.0	4.392700	57323.00	53249.50	77205.50
1981	318439.0	2.706000	292905.1	4.794500	61091.60	65434.20	67595.10
1982	331380.0	2.847000	363819.9	5.319600	68392.10	79377.20	67489.00
1983	355408.0	2.954000	450500.4	5.962900	75550.30	95221.70	62743.60
1984	380738.0	2.980000	537884.9	6.743400	79764.80	90306.60	80571.60
1985	394113.0	3.052000	593494.7	6.858000	86540.10	98889.90	88425.20
1986	411814.0	3.108000	672773.8	6.984200	96328.00	89564.00	119529.4
1987	446361.0	3.186000	808584.4	6.931500	116653.0	83470.10	161790.8
1988	499800.0	3.307000	956126.1	7.135500	133995.0	32156.50	235163.0

obs	PIX2	RPPP	I	S	NC	TC
1970	0.570000	1.359000	34995.00	32525.00	9573.900	37004.30
1971	0.610000	1.359000	35787.00	33618.00	15820.60	46111.70
1972	0.620000	1.359000	38631.00	35881.00	21221.30	55694.50
1973	0.760000	1.431000	49937.00	58877.00	21559.00	71062.30
1974	1.030000	2.188000	65031.00	72711.00	16501.80	83252.80
1975	1.070000	2.261000	69380.00	68818.00	21507.90	103665.3
1976	1.080000	2.261000	79367.00	74430.00	32864.60	129876.9
1977	1.150000	2.497000	104622.0	86389.00	42179.10	166451.5
1978	1.250000	2.643000	123249.0	114526.0	52268.10	213436.8
1979	1.410000	3.849000	142859.0	110305.0	59449.50	257518.7
1980	1.590000	6.387000	165715.0	131943.0	85113.80	305850.0
1981	1.750000	7.722000	188046.0	144817.0	103036.1	357317.5
1982	1.700000	7.886000	192195.0	167580.0	137392.7	437499.4
1983	1.750000	7.534000	218454.0	170076.0	147264.2	549695.9
1984	1.760000	7.258000	238622.0	193859.0	167385.9	643852.8
1985	1.864000	7.258000	240283.0	203435.0	170517.4	697870.6
1986	1.902000	6.607000	237447.0	248147.0	188015.5	740693.0
1987	2.041000	6.271000	290492.0	307154.0	190384.9	871223.8
1988	2.320000	6.698000	394500.0	357900.0	142696.4	1007389.0

Appendix 10.2

DEFINITION OF VARIABLES

YR	=	Gross Domestic Products at 1972 Prices
P	=	Consumer Price Index (1972=100)
M2	=	Broad Money Supply
MBASE	=	Monetary Base
m	=	M2 Multiplier
NCGX	=	Net Claims of Bank of Thailand on Government
NFAP	=	BOT's Net Foreign Assets Plus BOT's Claim on Private Sector
PIX2	=	Weighted Average of Non Oil Import Price Index and Export Price Index
RPPP	=	Retail Price of Petroleum Products
I	=	Gross Fixed Investment
S	=	Gross National Savings (excluding Statistical Discrepancies)
NC	=	Monetary Sector's Credit Extended to Public Sector
TC	=	Total Credit of the Banking System